Accountability Report
2021-2022
Prairie Crossing Charter School

Accountability Plan 2021-2022

Exhibit G

Part 5 – Education Elements

A. Class Size..................................................................................................................1
B. Enrollment, Lottery and Outreach.................................................................3
C. Enrollment of Students with Disabilities......................................................30
D. Personnel Credentials..........................................................................................35
E. Best Instructional Practices ..............................................................................38
F. Updated Goals, Objectives, and Pupil Performance Standards..................274
G. Evaluation of Student Performance.................................................................278
H. Results of Corrective Action...........................................................................288
Section A: Class Size
## Section A: Class Size

### 2021-2022

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten, Parker</td>
<td>24</td>
</tr>
<tr>
<td>Kindergarten, McKee</td>
<td>24</td>
</tr>
<tr>
<td>1st, Jeffery</td>
<td>24</td>
</tr>
<tr>
<td>1st, Mui</td>
<td>24</td>
</tr>
<tr>
<td>2nd, Barnett</td>
<td>24</td>
</tr>
<tr>
<td>2nd, Smetters</td>
<td>24</td>
</tr>
<tr>
<td>3rd, McNally</td>
<td>24</td>
</tr>
<tr>
<td>3rd, Luckey</td>
<td>24</td>
</tr>
<tr>
<td>4th, Hahn</td>
<td>24</td>
</tr>
<tr>
<td>4th, Larson</td>
<td>24</td>
</tr>
<tr>
<td>5th, Neil</td>
<td>24</td>
</tr>
<tr>
<td>5th, Psimaras</td>
<td>24</td>
</tr>
<tr>
<td>6th, Ottaviani</td>
<td>24</td>
</tr>
<tr>
<td>6th, Turner</td>
<td>24</td>
</tr>
<tr>
<td>7th, Hershiser</td>
<td>24</td>
</tr>
<tr>
<td>7th, Stewart</td>
<td>23</td>
</tr>
<tr>
<td>8th, Flood</td>
<td>23</td>
</tr>
<tr>
<td>8th, Wright</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>428</strong></td>
</tr>
</tbody>
</table>
Section B: Enrollment
Admissions to Prairie Crossing Charter School

Prairie Crossing Charter School students are admitted in accordance with the state Charter Schools Law. The application process begins in January when parents are encouraged to fill out an application which they can get at the office or from the school website. After all applications have been submitted, returning students are given places as are their siblings if places are available. Thereafter, admission is determined by a public lottery. The lottery and admissions are on a non-discriminatory basis and open to all students regardless of race, ethnicity, gender, socioeconomic status, sexual orientation, religious preference or disability. All students are welcome to apply. Out-of-district students will only be admitted after all in-district student applications have been placed during the lottery process. After classes are filled, the lottery continues to create a waiting list for each grade. The application policy and procedures referred to below reflect Prairie Crossing Charter School’s intent to maintain integrity and clarity throughout the following admission process.

1. Any student living in District 50 or 79 (in-district) is eligible for free admission to Prairie Crossing Charter School (PCCS). Out of district students are eligible on a tuition fee basis.

2. The registration period runs from approximately January 1 to the last day of February each year. During the time, PCCS sends information in English and Spanish to local newspapers, community service organizations, and other sources advising the community of opening at the school for the coming school year.

3. During the registration period, families of current students are asked to inform the school as to whether the student(s) will return for the coming year. These families are also asked to submit applications for any siblings who wish to attend the school, since siblings are given priority where space allows.

4. Also during the registration period, applications are available online and at the school for any interested and qualified families. These applications must be submitted to the school prior to the deadline, usually March 1. Families with children on the current waiting list are contacted to determine whether they are interested in being in the lottery for the next school year. Except as provided for in item #6, the waiting list is not maintained from year to year; a new waiting list is drawn each year.

5. All new applicants to the school and families currently on the waiting list indicating their desire to have a child(ren) considered for admission will be given a receipt to document the school’s acknowledgement of their application or restatement of their desire for their child(ren)’s admission to the school.

6. At the end of the registration period, the school determines how many spaces are available at each grade level after returning students have been tabulated. Priority for registration at each grade level is as follows: returning students, siblings of returning students, in-district applicants and finally out-of-district applicants. If there are more siblings than can be accommodated at any given grade level that are on the current year’s waiting list, they will remain on the list in the current order. If there are new siblings to be added to the waiting list, their names will be drawn and added to the bottom of the current siblings’ waiting list.

7. Once places have been assigned to returning students and their siblings, students from the applicant pool are assigned to the various grade levels. If there are more students than can be accommodated at a given grade level, a lottery is held among new students seeking admission to the affected grade levels, beginning at the highest grade level and moving to the lowest. If
applicable, a final lottery is held in the same manner at each grade level for out-of-district applicants. They will be placed on the wait list immediately following the last in-district applicant previously drawn. If any student with siblings in the applicant pool is accepted, his or her siblings are automatically given priority as described above (i.e. the siblings are either accepted or added to the bottom of the waiting list of other siblings at the appropriate grade level).

8. All lotteries are held in public on a publicly disclosed date as soon as possible after the registration period has closed. Each lottery is held by grade level and priority as described above. Names from a pool of all applicants will be randomly selected to fill each grade level. Additional applicants are placed on a waiting list in the order selected, maintaining a priority status for siblings. Beginning with student enrollment for the 2015-2016 school year, the lottery must be administered and videotaped by the Executive Director, or designee. The authorizer or its designee must be allowed to be present or view the lottery in real time. The Executive Director or designee must maintain a videotaped record of the lottery, including a time/date stamp. The Executive Director or designee shall transmit copies of the videotape and all records relating to the lottery to its authorizer on or before September 1 of each year.

9. If during the lottery procedure a name was left out of the drawing for the appropriate grade level, one of five scenarios will result.

a. If the missing name is found before any other grades have been drawn, the lottery for that class is repeated with the name included.

b. If the missing name is found after other grades have been drawn and no siblings are impacted, the lottery for the class from which the name was missing is repeated with the name included.

c. If the missing name is found after other grades have been drawn and a student, Student A, was accepted into the class as a sibling because of the errant drawing, but is not a sibling based on the corrected drawing, the name of Student A and those of the students on the waiting list for that grade will be redrawn. The purpose for this redraw is solely to place Student A in the waiting list. Student A will be placed in the waiting list after the name of the student who is drawn immediately before he or she in the redraw. The order of the other students on the waiting list will not change. If Student A is drawn first, he or she will be accepted into the class unless the student at the top of the waiting list is a sibling of a student selected in the lottery. In that case, the sibling is accepted into the class. If not, the student whose name was first on the waiting list will be accepted into the class.

d. If the missing name is found after other grades have been drawn and a student, Student A, was placed above other students on the waiting list as a sibling because of the errant drawing, but is not a sibling based on the corrected drawing, the name of Student A and those of the students on the waiting list for that grade will be redrawn. The purpose for this redraw is solely to place Student A in the waiting list. Student A will be placed in the waiting list after the name of the student who is drawn immediately before he or she in the redraw. The order of the other students on the waiting list will not change. If Student A is drawn first, he or she will be placed first on the waiting list unless the student at the top of the waiting list is a sibling of a PCCS student or a student selected in the lottery. In that case, Student A will be placed on the waiting list immediately following any siblings of PCCS students or students selected in the lottery.

e. If the missing name is found after other grades have been drawn and a student, Student A, was not accepted as a sibling in the errant drawing, but is a sibling in the corrected drawing, Student A will be placed in the spot he or she would have been if his or her status as a sibling had been known. If student A is placed into the class, the last person placed in the class in the errant drawing will become the first person on the waiting list. No other changes in the waiting list will occur.

10. If after the lottery a student, Student A, was found to have been left out of the drawing, the name of Student A and those of the students on the waiting list for that grade will be redrawn. The purpose for this redraw is solely to place Student A in the waiting list. Student A will be placed...
in the waiting list after the name of the student after whom he or she is drawn. The order of the other students on the waiting list will not change. If Student A is drawn first, he or she will be placed first on the waiting unless the student at the top of the waiting list is a sibling of a PCCS student or a student selected in the lottery. In that case, Student A will be placed on the waiting list immediately following any siblings of PCCS students or students selected in the lottery. If Student A is a sibling, he or she will be placed in his or her appropriate spot based on his or her sibling status.

11. All affected families are advised of the results of the lottery as soon as possible in writing and on the website.

12. Students are moved up from the waiting lists as openings occur at their grade level. When a family on the wait list is eligible to be offered a space, the school will contact the family to determine their interest in having the child attend the school. The school will use three working days for contacting the family. The family will be given three working days to notify the school of their decision to enroll from the date they are contacted by the school. Those applicants who cannot be reached or who do not respond within this designated period of time will be removed from the wait list and will be required to reapply. The spot will then be offered to the next applicant on the wait list.

13. No priority is given to any applicant to Prairie Crossing Charter School, except returning students, their siblings, and siblings of accepted students, as noted above and provided for in the Illinois’ Charter Schools Law.

**Adoption Dates:**

Adopted: November 15, 2005
Revised: May 2015, January 2017
The Prairie Crossing Charter School transportation plan is closely aligned with the school’s size, environmental philosophy, dual district boundaries and finances. Door to door bus service for all students will not be offered, since the Charter Schools Law exempts Prairie Crossing from this requirement except for special needs students.

Prairie Crossing Charter School is situated at the far corner of each district. Its students may come from anywhere in a 63 square mile area. It simply cannot commit to door to door bus service. However, being committed to welcoming a diverse array of students from throughout the districts, Prairie Crossing Charter School will coordinate a car pool program designed to address the needs of families beyond walking or biking distance (which is greater than usual given a regional network of trails). The parents of children who are at risk or who are from low income families may be unable to take part in the car pool program. It is important to provide a means by which these children can attend Prairie Crossing Charter School. One of the principles on which the school is founded is the belief that children can learn to respect a diverse group of people by learning next to them and becoming friends with them. The following options will be provided for parents of at risk and low income children who wish to send their children to Prairie Crossing Charter School but cannot take part in the car pool program.

1. Parent volunteers will be sought to pick up and drop off the children whose parents cannot take part in the car pool program. In this way, these children will arrive at school in the same manner as other children and will not be singled out in any way that may make them feel different from other children attending the school.

2. If no parent volunteers can be found to pick up and drop off children and there are only a few children that need transportation, Prairie Crossing Charter School will hire a person to pick up and drop off these children using his or her car. In this case, Prairie Crossing Charter School would register with the Illinois Secretary of State as a School Bus Driver Employer. Prairie Crossing Charter School will insure that the person obtains and maintains a valid bus driver permit. This includes:
   A. an initial classroom course for school bus drivers;
   B. a minimum of two hours classroom training annually related to driving responsibilities;
   C. participation in a Federally required drug and alcohol testing program, possessing a valid and properly classified Commercial Driver’s License (CDL) with a Passenger Endorsement and properly classified school bus driver permit;
   D. completion and certification of a passed annual physical examination on a form prescribed by and available from the Secretary of State’s Office; and
   E. Criminal background check including fingerprinting through the Illinois State Police.

Prairie Crossing Charter School will further insure that any vehicle used to transport children by an employee meets the requirements for a Division I vehicle. Under no circumstances will a Division II vehicle be used to transport students to and from school. All vehicles will have proof of adequate insurance on file at PCCS and will complete a safety inspection every six months at an Official Testing Station regulated by the Illinois Department of Transportation.
3. If the number of children needing transportation is large enough, Prairie Crossing Charter School will lease a school bus to transport the children to and from school. The Director of Prairie Crossing Charter School or his/her designee will obtain documentation from the bus company insuring that the drivers used hold valid bus driver permits and that their buses are maintained and inspected as required. In this case the Director of PCCS or his/her designee will do the following to insure the safety of school bus-transported children:
   A. Supervise school bus emergency evacuation drills for all bus-riding students on school property twice annually and maintain documentation;
   B. Insure classroom instruction in safe bus-riding practices by classroom teachers for all bus-riding students twice annually including the dangers in the loading and unloading zone and maintain documentation; and
   C. Insure that all bus-riding students have copies of bus-riding rules which include the consequences for gross disobedience or misconduct.

**Adoption Dates:**

Adopted: December 2003
Prairie Crossing Charter School encourages the participation of the entire family in the education process and emphasizes the importance of a pledge to life-long learning. The parental role in achieving the Prairie Crossing vision is critical. This role can take many forms. All parents are encouraged to provide a home atmosphere in which their children are supported in their educational goals. Frequent two-way communication between school and home is a hallmark of PCCS. This serves to keep parents informed of their children's progress and any special help they may need. It also provides an opportunity for the parents to discuss any questions or concerns with school personnel. Parents of Students are welcome to volunteer for many school activities in the classroom;

- as chaperones and drivers for field trips;
- as helpers in the maintenance of the school;
- as coaches, as participants in Parent Staff Organization (PSO);
- as members of the school board or its committees, task forces, etc.;
- in contributing special talents and skills; or
- by providing financial contributions to the school.

However, no parent is required to volunteer at the school or provide financial contributions. Children will not be discriminated against in any way if parents are unable or choose not to volunteer or contribute financially. Volunteerism and financial contributions are not requirements for enrolling in or remaining at Prairie Crossing Charter School.

Adoption Dates:
Adopted: November 2003
Collection Student Instructional Fees

1. Instructional fees, including all tuition obligations for out of district students, for continuing students shall accompany a completed Enrollment Form. Both are due on or by June 30, of each year. Instructional fees are those fees charged to families because of their child’s admission to, and enrollment in, Prairie Crossing Charter School. These Instructional Fees are collected to support the general operating expenses of the School including, but not limited to, instructional materials, textbooks, and consumable supplies.

2. A lottery for open slots in each grade is held in accord with Board Policy# 500.6- admissions to Prairie Crossing Charter School.

3. Any continuing student who has not submitted a completed Enrollment Form accompanied by full payment of the instructional fee will be subject to having his/her slot filled by a waiting list student from the most recent lottery.

4. Instructional fees for new students (siblings of returning students and those who are selected in the lottery) are due on or by June 30 of each year. Failure to comply with this deadline will result in assignment of the student’s slot to a student on the waiting list.

5. The exclusionary provisions of this policy shall not pertain to those families who have requested and qualified for a Fee Waiver.

6. Any family unable to comply with the above deadlines must file a written request for an extension to a specified date, or for a payment plan. The PCCS Executive Director must receive this request no later than the applicable deadline for payment. Compliance with the agreed-upon extension or payment plan will be required in order for the student to begin school in the upcoming year. In no case will a student be allowed to begin attending school without payment of fees in full, or a valid payment plan, which was approved prior to June 30th, and a payment plan for which payments are current by the first day of attendance.

7. Should a family whose student is attending on the basis of a payment plan become delinquent in payments, that student’s seat will be filled by a student on the waiting list at the conclusion of the trimester during which the account became delinquent unless by the last day of the trimester the account has been paid in full or the family has filed a request for an appeal to the Board of Directors.

8. The Board of Directors charges the administration with the responsibility to develop Rules and Regulations, by which the covenants of this policy shall be administered. The rules and regulations shall provide to families the right to appeal to the Board of Directors the administration’s decision to replace an existing student as a result of a default on a payment plan or failure to make payment in full of Instructional Fees by June 30th should a payment plan have not been established.

9. Prior to any child being denied admission under this policy, the School Director shall send to the parent/guardian not less than two certified letters over a fourteen day period in an attempt to notify the parent/guardian that failure to comply with the instructional fees policy will result in the child’s non-admission to the school or the child’s forfeiture of the child’s current enrollment in the event of delinquency on a payment plan.
Cross Reference:
Policy # 500.6-Admissions to Prairie Crossing Charter School
Policy #800.3-Fee Waivers

Adoption Dates:
Adopted: February 2002
Revised and Adopted: July 2009
Prairie Crossing Charter School
Board of Director’s Policy

Policy: 800.3

Prairie Crossing Charter School
Fee Waiver Policy

Definition of Instructional Fees
Instructional fee or fees mean any monetary charge collected by Prairie Crossing Charter School (PCCS) from a student or the parents or guardian of a student as a prerequisite for the student’s participation in any instructional program of PCCS. It is not defined as a fee when PCCS requires that a student provide his or her own ordinary supplies or materials (e.g. pencils, paper, notebooks) that are necessary to participate in any curricular or extracurricular program.

Prairie Crossing Charter School has a yearly books, materials, and activity fee of $100 per child. PCCS also charges fees for involvement in extracurricular activities and field trips. School fees do not include library fines and other charges made for the loss, misuse, or destruction of school property; charges for the purchase of pictures; charges for optional travel undertaken by a school club or group of students outside of school hours; charges for admission to school dances, athletic events, or other social events; or charges for optional community service programs (e.g. before- and after-school child care and recreation programs).

Students Eligible for Waiver
Each child’s instructional fee is due by July 1st each year. For students that enroll in Prairie Crossing Charter School during the school year, this fee is due on their first day of attendance. The due dates for fees for extracurricular activities vary and are provided to students interested in those activities.

Fees may be waived for students whose family income falls within the United States Department of Agriculture guidelines for free or reduced price lunch and breakfast. Fees may also be waived for students whose families have suffered a significant loss of income due to death, severe illness, or injury in the family or unusual expenses incurred because of a natural catastrophe. The FY-12 Fee Waiver guidelines from the U.S. Department of Agriculture are not yet available and will be sent, to those making a request, as soon as we get them.

Any family unable to pay the books and materials, or needing extra time to pay the fee should submit the form below to Prairie Crossing Charter School’s Director by June 30th or the first day of attendance for students enrolling in PCCS during the school year. For fees for extracurricular activities, due dates will be provided with the information about each activity. The Director will process the request within thirty (30) calendar days and reply to the family with a payment plan, fee waiver statement, or denial of request. PCCS’ Director shall decide waivers on a case by case basis in a non-discriminatory fashion and shall rely upon documentation submitted by the applicant. The Director’s decision can be appealed to the School Board President.

Payment plans will be provided for students whose families do not qualify for fees to be waived but whose children would be prohibited from attending Prairie Crossing Charter School or taking part in extracurricular activities unless a payment plan is provided. Explanation for payment plan requests will be reviewed by the Director as provided above.
Notification to Parents/Guardian

PCCS’s policy for the waiver of instructional fees shall be communicated in writing to the parents or guardian of all students enrolled in the PCCS near the beginning of July with the first bill or fee notice sent and any other time a notice of fees (e.g. for extracurricular activities) is sent to parents. PCCS also will state in all of its notices sent to parents who owe instructional fees that PCCS waives fees for persons unable to afford them in accordance with its policy and the procedure for applying for a fee waiver. The Director’s name, address, phone number, and email address will be included. A fee waiver application form also may be included with this notice when it is sent to parents. The notification will be in English, Spanish, or the home language of the parents, if it is needed to ensure their understanding of the district's policy (if translation of the notice is not feasible, PCCS will use interpreters, e.g. other students or neighbors). The notice shall describe:

- PCCS’s policy, including the criteria and other circumstances under which PCCS will waive school instructional fees or provide a payment plan for these fees;
- the instructional fees subject to waiver under the district's policy;
- the procedure to be used by parents in applying for a waiver of instructional fees;
- the procedure to be used by parents in resolving disputes concerning the waiver of instructional fees.

If the fee waiver policy and/or procedures are substantively amended, then parents of students enrolled in PCCS shall be notified in writing within thirty (30) calendar days following the adoption of the amendments.

Resolution of Disputes

If PCCS denies a request for a fee waiver or payment plan, then it shall mail a copy of its decision to the parents within thirty (30) calendar days of receipt of the request. The decision shall state the reason for the denial and shall inform the parents of their right to appeal, including the process and timelines for that action. The denial notice shall also include a statement informing the parents that they may reapply for a waiver or payment plan at any time during the school year, if circumstances change.

An appeal shall be decided within thirty (30) calendar days of the receipt of the parents' request for an appeal. Parents shall have the right to meet with the President of the PCCS Board of Directors, who will decide the appeal, in order to explain why the fee waiver or payment plan should be granted. If the appeal is denied, then PCCS shall mail a copy of its decision to the parents. The decision shall state the reason for the denial.

No fee shall be collected from any parent who is seeking an instructional fee waiver in accordance with PCCS's policy until the district has acted on the initial request or appeal (if any is made), and the parents have been notified of its decision.

Confidentiality

School records that identify individual students as applicants for or recipients of instructional fee waivers are subject to the Illinois School Student Records Act (105 ILCS 10/1 et seq.). Information from such records is confidential and may be disclosed only as provided in the Act.

Prohibition Against Discrimination or Punishment

No discrimination or punishment of any kind, including the lowering of grades or exclusion from classes, will be exercised against a student whose parents or guardians are unable to purchase required textbooks or instructional materials or to pay required fees.

Adoption Dates: 20 April 2004
Amended: 22 May 2007
Revised and Adopted 1 September, 2009
Request for Fee Waiver or Fee Payment Plan
Please submit by June 30

Student’s Name: __________________________________________________

Student’s Grade: __________________________________________________

Parents’ Names: __________________________________________________

Address: __________________________________________________

__________________________________________________________________

Phone Number: __________________________________________________

Email: __________________________________________________

☐ I/We request a payment plan for our books and materials.

☐ I/We request a waiver of the books and materials.

Please provide a brief explanation of the reason you are requesting a payment plan or waiver of fees. The Director is the only person who will see the reason for which you are requesting a payment plan or waiver of fees. ________________________________________________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

Please mail to: Prairie Crossing Charter School
Atten: Executive Director
1531 Jones Point Road
Grayslake, IL  60030-3536
Section B: Lottery
## Prairie Crossing Charter School
### Lottery Results
#### 2004-2023

<table>
<thead>
<tr>
<th>Year</th>
<th>Total # of Applicants</th>
<th>Total # accepted</th>
<th># of siblings of returning students</th>
<th># of Out of District Applicants</th>
<th>Woodland Applicants</th>
<th>Fremont Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>188</td>
<td>43</td>
<td>22</td>
<td>4</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2005-06</td>
<td>211</td>
<td>42</td>
<td>37</td>
<td>10</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2006-07</td>
<td>229</td>
<td>44</td>
<td>36</td>
<td>4</td>
<td>185</td>
<td>40</td>
</tr>
<tr>
<td>2007-08</td>
<td>188</td>
<td>74</td>
<td>33</td>
<td>14</td>
<td>150</td>
<td>24</td>
</tr>
<tr>
<td>2008-09</td>
<td>185</td>
<td>52</td>
<td>29</td>
<td>20</td>
<td>151</td>
<td>26</td>
</tr>
<tr>
<td>2009-10</td>
<td>182</td>
<td>40</td>
<td>27</td>
<td>19</td>
<td>127</td>
<td>36</td>
</tr>
<tr>
<td>2010-11</td>
<td>198</td>
<td>39</td>
<td>29</td>
<td>27</td>
<td>137</td>
<td>31</td>
</tr>
<tr>
<td>2011-12</td>
<td>205</td>
<td>44</td>
<td>17</td>
<td>19</td>
<td>148</td>
<td>38</td>
</tr>
<tr>
<td>2012-13</td>
<td>238</td>
<td>44</td>
<td>19</td>
<td>31</td>
<td>173</td>
<td>34</td>
</tr>
<tr>
<td>2013-14</td>
<td>191</td>
<td>44</td>
<td>26</td>
<td>24</td>
<td>150</td>
<td>17</td>
</tr>
<tr>
<td>2014-15</td>
<td>165</td>
<td>51</td>
<td>29</td>
<td>20</td>
<td>133</td>
<td>12</td>
</tr>
<tr>
<td>2015-16</td>
<td>166</td>
<td>46</td>
<td>27</td>
<td>11</td>
<td>142</td>
<td>13</td>
</tr>
<tr>
<td>2016-17</td>
<td>156</td>
<td>48</td>
<td>30</td>
<td>6</td>
<td>131</td>
<td>19</td>
</tr>
<tr>
<td>2017-18</td>
<td>221</td>
<td>48</td>
<td>28</td>
<td>31</td>
<td>169</td>
<td>21</td>
</tr>
<tr>
<td>2018-19</td>
<td>263</td>
<td>49</td>
<td>29</td>
<td>49</td>
<td>187</td>
<td>27</td>
</tr>
<tr>
<td>2019-20</td>
<td>262</td>
<td>49</td>
<td>33</td>
<td>56</td>
<td>180</td>
<td>26</td>
</tr>
<tr>
<td>2020-2021</td>
<td>244</td>
<td>48</td>
<td>16</td>
<td>63</td>
<td>159</td>
<td>22</td>
</tr>
<tr>
<td>2021-2022</td>
<td>232</td>
<td>48</td>
<td>19</td>
<td>55</td>
<td>154</td>
<td>23</td>
</tr>
<tr>
<td><strong>2022-2023</strong></td>
<td><strong>231</strong></td>
<td><strong>49</strong></td>
<td><strong>18</strong></td>
<td><strong>48</strong></td>
<td><strong>159</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

**2022-23**
- Kindergarten: 93 applicants, 48 accepted, 17 siblings, 14 out of district, 69 Woodland, 10 Fremont
- 8th grade level: 1 applicant, 1 sibling, 1 out of district, 0 Woodland, 0 Fremont

**2021-22**
- Kindergarten: 83 applicants, 48 accepted, 14 siblings, 14 out of district, 47 Woodland, 8 Fremont

[Link](#) to the Website 2022-2023 school year wait list, this wait list is updated as changes happen.
Kindergarten Lottery Registration Form 2022-2023

1. Complete form only for new students applying for the lottery (Not for current students already attending PCCS).

2. Parents/Guardian must electronically complete/submit or come to the office for a paper form (forms can be mailed upon request). Forms must be submitted by 12:00 PM on February 28, 2022 in order to be included in the lottery on March 2, 2022.

3. You will receive a confirmation receipt of the registration by email. If you don't receive an email from the school within 3 days of submitting the form, please contact Janette Siegel @ 847-548-1938.

4. After the Lottery has been conducted you will receive a mailed letter confirming that your child has been drawn for an open seat or that your child has been placed on the wait list (the wait list will be posted on our Website).

5. When your child's name is drawn and you accept the open seat, PCCS will require:
   - Your signed confirmation letter that you have accepted the seat,
   - 3 items showing Proofs of Residency (E.g., Utility Bill, Rental Agreement, Tax Bill) and
   - Your child's birth certificate (your child must be 5 years of age on/before Sept 1st in order to enter Kindergarten).

Once these are received your child will be included in the 2022-2023 School Year Registration/Enrollment process.

Admission is on a non-discriminatory basis and open to all students regardless of race, ethnicity, gender, socioeconomic status, sexual orientation, religious preference or disability. Prairie Crossing Charter School provides a full complement of services for students with disabilities, students with Limited English Proficiency, and offers transportation assistance for all students via carpools and 3rd party services for those who qualify. Instructional fee waivers are available for families whose income level qualifies based upon federal standards provided by the U.S. Department of Agriculture. We are a free public school that provides a personalized Kindergarten through 8th Grade education for students that reside in the Woodland (50) and Fremont (79) Districts.

Applicant's Last Name *

Your answer
Applicant's First Name *
Your answer

Applicant's Middle Name
Your answer

Applicant's Date of Birth *
Your answer

Applicant's District of Residence *
- Woodland School District #50
- Fremont School District #79
- We live outside of both District #50 and District #79
- Other: _______________

I am confirming what school district I reside in. Please provide the district name and number.
Your answer

I am confirming that for the 2022-2023 school year my child will be entering: *
- Kindergarten
- 1st Grade
- 2nd Grade
- 3rd Grade
- 4th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade

Do you currently have a child/children attending Prairie Crossing Charter School? *
- Yes
- No
Do you have other children applying for the lottery? Please fill out a separate form for each child applying.

- Yes
- No

If you have other children applying for the lottery, please provide their name and grade level for the 2022-2023 school year.

Your answer

First Guardian's Name *
Your answer

First Guardian's Street Address *
Your answer

First Guardian's City *
Your answer

First Guardian's State *
Your answer

First Guardian's Zip Code *
Your answer

First Guardian's Cell Phone *
Your answer

First Guardian's Home Phone *
Your answer
Where did you hear about Prairie Crossing Charter School? *

- [ ] Friend
- [ ] Newspaper
- [ ] Schools
- [ ] Daycare
- [ ] Facebook
- [ ] Instagram
- [ ] Great Schools
- [ ] Niche
- [ ] Prairie Crossing Charter School Event

By checking this box, I confirm and agree that all of the information provided on this document is true and accurate.

- [ ] Yes, use this as my electronic signature
- [ ] No, I will come into the office to sign this form

A copy of your responses will be emailed to the address you provided.

Submit Clear form

Never submit passwords through Google Forms.

reCAPTCHA

Privacy Terms

This form was created inside of Prairie Crossing Charter School. Report Abuse

Google Forms
Formulario de Inscripción para la Lotería de Jardín de infancia 2022-2023

Email*

Inscripción para la Lotería 2022-2023 Instrucciones:

Registro del Jardín de infancia 2022-2023 Instrucciones de la Lotería:

1. Completa el formulario sólo para los nuevos estudiantes que solicitan la lotería (No para los estudiantes actuales que ya asisten al PCCS).

2. Los padres / guardianes deben completar / enviar electrónicamente o venir a la oficina para un formulario de papel (los formularios se pueden enviar por correo a petición). Los formularios deben enviarse antes del mediodía del 28 de febrero de 2022 para ser incluidos en la lotería el 2 de marzo de 2022.

3. Usted recibirá un recibo de confirmación de la inscripción por correo electrónico. Si no recibe un correo electrónico de la escuela dentro de los 3 días siguientes a la presentación del formulario, comuníquese con Janette Siegel al 847-548-1938.

4. Después de que se haya llevado a cabo la lotería, recibirá una carta enviada por correo confirmando que su hijo ha sido dibujado para un asiento abierto o que su hijo ha sido colocado en la lista de espera (la lista de espera será publicada en nuestro sitio web).

5. Cuando el nombre de su niño es dibujado y usted acepta el asiento abierto, PCCS requiere:
   - Su carta de confirmación firmada que usted ha aceptado el asiento,
   - 3 artículos que demuestren las pruebas de residencia (E.g. factura de servicios públicos, contrato de alquiler,
   - Certificado de nacimiento de su hijo (su hijo debe tener 5 años de edad el / antes del 1 de septiembre para ingresar al Kindergarten).
Una vez que se hayan recibido, su hijo (a) será incluido en el proceso de matrícula / inscripción del año escolar 2022-2023.

La admisión es sobre una base no discriminatoria y está abierta a todos los estudiantes independientemente de su raza, etnia, género, estatus socioeconómico, orientación sexual, preferencia religiosa o discapacidad. Prairie Crossing Charter School ofrece un complemento completo de servicios para estudiantes con discapacidades, estudiantes con dominio limitado del inglés y ofrece asistencia de transporte para todos los estudiantes a través de vehículos compartidos y servicios de terceros para aquellos que califiquen. Las exenciones de cuotas de instrucción están disponibles para familias cuyo nivel de ingresos califique según los estándares federales proporcionados por el Departamento de Agricultura de EE. UU. Somos una escuela pública gratuita que brinda educación personalizada desde el jardín de infantes hasta el octavo grado para los estudiantes que residen en los distritos de Woodland (50) y Fremont (79).

Apellido del Solicitante *

Your answer
Nombre del solicitante *

Segundo nombre del solicitante

Fecha de Nacimiento del Solicitante *

Distrito de Residencia del Solicitante *
- Distrito Escolar # 50 de Woodland
- Fremont Distrito Escolar # 79
- Vivimos fuera del Distrito # 50 y Distrito # 79

Estoy confirmando en qué distrito escolar resido. Por favor proporcione el nombre y número del distrito.

Estoy confirmando que para el año escolar 2022-2023 mi hijo entrará:
- Jardín de infancia (Kindergarten)
- Primero Grado (1st)
- Segundo Grado (2nd)
- Tercero Grado (3rd)
- Cuarto Grado (4th)
- Quinto Grado (5th)
- Sexto Grado (6th)
- Séptimo Grado (7th)
- Octavo Grado (8th)

¿Tiene actualmente un niño / niños que asisten a la escuela autónoma Prairie Crossing? *
- Sí
- No

¿Tiene otros niños solicitando la lotería? Por favor llene un formulario separado para cada niño que solicita.
- Sí
- No
Si tiene otros niños solicitando la lotería, por favor proporcione su nombre y grado para el año escolar 2022-2023

Padre / Guardianes Nombre *

Dirección del Padre / Guardianes *

Padre / Guardianes Ciudad de residencia *

Padre / Guardianes Estado de residencia *

Padre / Guardianes Código postal de residencia *

Padre / Guardianes Número de teléfono celular *

Padre / Guardianes Número de teléfono de la residencia *

Dirección de correo electrónico del Padre / Guardianes *

Nombre Madre / Guardianes *
Dirección de la calle Madre / Guardianes *
Your answer

Madre / Guardianes Ciudad de residencia *
Your answer

Madre / Guardianes Estado de residencia *
Your answer

Madre / Guardianes Código postal de residencia *
Your answer

Madre / Guardianes Número de teléfono celular *
Your answer

Madre / Guardianes Número de teléfono de la residencia *
Your answer

Dirección de correo electrónico de Madre / Guardianes *
Your answer

¿Dónde se enteró de Prairie Crossing Charter School? *
- Amigo
- Periódico
- Escuelas
- Guardería
- FaceBook
- Instagram
- Grandes escuelas
- Niche
- Prairie Crossing Charter School Evento

Al marcar esta casilla, confirme y acepto que toda la información proporcionada en este documento es verdadera y precisa.

☐ Sí, utilizar esto como mi firma electrónica
☐ No, entré ala oficina para firmar este formulario
Section B: Outreach
2021-2022 Outreach Outcomes for Accountability Report

Our outreach plan consisted of Organizational Initiatives, Evaluations of our Lottery, Assessment of our Transportation Plan, and Expanding our Outreach Methods.

PCCS convened a Lottery Taskforce to assess the feasibility of amending our lottery protocol to increase the opportunities for educationally disadvantaged individuals to attend PCCS. This taskforce explored whether weighted lotteries could be conducted at PCCS; the Commission stated that weighted lotteries were not permitted in Illinois Charter Schools at this time.

Lottery Evaluations & Recommendations

This marks our fourth year with the streamlined lottery application, with parents asked to complete a one-page form but not required to submit supporting documentation until after their child is selected through the lottery. This year, we received 231 lottery and wait list applications for the 2022/2023 school year.

17 of the 48 openings for the 2021-2022 school year were filled by sibling preference, with 31 seats eligible to the remaining applicants. Of the 231 applicants 48 are applying from outside of District 50 or District 79. We received applications from 21 different districts, 3 Out of state, and children that are Homeschooled.

Through these efforts, our Lottery numbers for Out of District have increased substantially, with 48 applications for our 2022 Lottery. The assumption here is that through creating more robust outreach efforts, we are getting noticed by many more families both in and out of our district boundaries.

To accommodate families requiring transportation our transportation plan implements a two-pronged approach for meeting those needs. A carpool system that continues to be the transportation plan for our students. PCCS has taken an active role in the process, working in close contact with new families to aid them in securing a carpool to mitigate their transportation needs. Additionally, PCCS has an annual budget which allocates $30,000 for alternate transportation needs through 3rd Party transport companies. In FY22 our transportation expense total doubled our annual budget allotment. Additionally, PCCS has waived or significantly reduced the cost of aftercare services to assist a few families who have benefitted from this support in order to pick up their children later in the day.

Regarding Organizational Initiatives, PCCS focused on ensuring that all written materials, both in marketing and outreach, were available in Spanish and English. Further, the school website, lottery forms, and all enrollment policies are available in English and Spanish. Additionally, PCCS has increased its visibility through our social media platforms, including Facebook, Instagram and Twitter; these forms of social media have made us more accessible to people in incalculable ways.

Typically, to expand our outreach, PCCS engages with several community and environmental-based organizations to increase our visibility and deepen our partnerships with the larger community. Some of our connections within Lake County and beyond have included:
Supporting the community through a number of annual events:

- School Supply Drives,
- Bus to Us program with Waukegan Public Library and Waukegan schools,
- One Earth Film Festival.
- College of Lake County and
- LEARN Charter School-North Chicago
- Green Schools National Network
- Illinois Network of Charter Schools

However, this past school year was impacted with the uncertainty of pandemic ebbs and flows, and related restrictions to our ability to offer our spaces on campus for the public events. Instead, we pivoted to offer virtual opportunities for prospective families. These included:

- Increased visibility in print ads and media,
- Virtual open houses,
- Zoom Town Hall meetings,
- Social media events via Facebook Live,
- “Adopted” children in need through the Holidays through a gift giving, and
- Held food drives.

During the year as vaccines and boosters allowed our community to attend social events, PCCS was able to hold a few in person events including:

- Three (3) American Red Cross blood drives,
- Hosted and presented at the Lake County Board Environmental Action Agenda,
- Hosted and presented - Green Schools National Networks Midwest Book Release Tour,
- Hosted and presented at Openlands Strategic Retreat and,
- Used the school as an Election Polling Place.

In FY23, we anticipate an emphasis on strengthening these partnerships and our continued involvement in the school, local and regional community. Additionally, we will continue to hold events through various committees and workgroups, all with a common goal to increase involvement, understanding and partnership within our school community and beyond to the broader community and to attract at-risk students to our school.
Section C: Enrollment of Students with Disabilities
<table>
<thead>
<tr>
<th>Primary Disability</th>
<th>Secondary Disability</th>
<th>Related Service(s)</th>
<th>Dismissed from Services 2020-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td></td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td></td>
<td>Speech/Language, Social Work</td>
<td></td>
</tr>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>Developmental Delay (N)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>Developmental Delay (N)</td>
<td></td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td>Emotional Disability (K)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td>Social Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>Occupational Therapy</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Autism (O)</td>
<td></td>
<td>Speech/Language, Occupational Therapy, Social Work</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Other Health Impairment (L)</td>
<td></td>
<td>Speech/Language, Occupational Therapy, Physical Therapy</td>
<td></td>
</tr>
<tr>
<td>Emotional Disability (K)</td>
<td></td>
<td>Occupational Therapy, Counseling Services, Transportation, Aide-Individual Student, Behavioral Intervention Plan</td>
<td></td>
</tr>
<tr>
<td>Developmental Delay (N)</td>
<td></td>
<td>Occupational Therapy, Behavioral Intervention Plan</td>
<td></td>
</tr>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>Specific Learning Disability (D)</td>
<td></td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Developmental Delay (N)</td>
<td>Speech and/or Language Impairment (I)</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>---------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>30</td>
<td>Occupational Therapy</td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech/Language</td>
<td>Audiology, Hearing Itinerant</td>
</tr>
<tr>
<td>33</td>
<td>Speech/Language, Social Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Developmental Delay (N)</td>
<td>Speech/Language, Occupational Therapy, Transportation</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language</td>
</tr>
<tr>
<td>38</td>
<td>Developmental Delay (N)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language</td>
</tr>
<tr>
<td>40</td>
<td>Speech and/or Language Impairment (I)</td>
<td>None</td>
<td>x</td>
</tr>
<tr>
<td>41</td>
<td>Other Health Impairment (L)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language, Social Work</td>
</tr>
<tr>
<td>43</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language, Social Work</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Speech and/or Language Impairment (I)</td>
<td>Speech/Language, Occupational Therapy</td>
</tr>
<tr>
<td>46</td>
<td>Other Health Impairment (L)</td>
<td>Occupational Therapy</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Other Health Impairment (L)</td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Emotional Disability (K)</td>
<td>Social Work</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>Occupational Therapy</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Orthopedic Impairment (C)</td>
<td>Occupational Therapy, Physical Therapy</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Emotional Disability (K)</td>
<td>Social Work, Occupational Therapy</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Hearing Impairment (F)</td>
<td>Specific Learning Disability (D)</td>
<td>Audiology, Hearing Itinerant, Social Work</td>
</tr>
<tr>
<td>53</td>
<td>Not Eligible</td>
<td>None</td>
<td>x</td>
</tr>
<tr>
<td>54</td>
<td>Emotional Disability (K)</td>
<td>Social Work, Transportation, Occupational Therapy</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Autism (O)</td>
<td>Speech/Language</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Emotional Disability (K)</td>
<td>Other Health Impairment (L)</td>
<td>Occupational Therapy</td>
</tr>
<tr>
<td>57</td>
<td>Specific Learning Disability Impairment (D)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Other Health Impairment (L)</td>
<td>Specific Learning Disability (D)</td>
<td>Physical Therapy, Occupational Therapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>504</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section D: Personnel Credentials
<table>
<thead>
<tr>
<th>Legal Last Name</th>
<th>First Name</th>
<th>Position Title/Grade Level</th>
<th>Degree</th>
<th>Certification</th>
<th>Years Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alvarado</td>
<td>Jesus</td>
<td>Custodian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anderson</td>
<td>Emily</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Barnett</td>
<td>Katherine</td>
<td>Teacher 2nd Grade</td>
<td>Masters</td>
<td>Yes</td>
<td>18</td>
</tr>
<tr>
<td>Batz</td>
<td>William</td>
<td>Maint. Super.</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Becker</td>
<td>Linda</td>
<td>Instructional Assistant</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Blietz</td>
<td>David</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Breum</td>
<td>Janet</td>
<td>School Secretary</td>
<td>Bachelors</td>
<td>Sub</td>
<td></td>
</tr>
<tr>
<td>Byrd</td>
<td>Elizabeth</td>
<td>Instructional Assistant/Enrich Me</td>
<td>Bachelors</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Canfield</td>
<td>Katelyn</td>
<td>K-8 Music Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>12</td>
</tr>
<tr>
<td>Coonan</td>
<td>James</td>
<td>Tech Support</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Coyle</td>
<td>Shanna</td>
<td>School Nurse</td>
<td>Bachelors</td>
<td>Nurse</td>
<td></td>
</tr>
<tr>
<td>Crothers</td>
<td>Sarah</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Deigan</td>
<td>Geoff</td>
<td>Executive Director</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Dietzel Hershiser</td>
<td>Naomi</td>
<td>Dean of Envir. Curric.</td>
<td>Masters</td>
<td>Yes</td>
<td>8</td>
</tr>
<tr>
<td>Dulmage</td>
<td>David</td>
<td>Sp. Ed. Teacher</td>
<td>Bachelors</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Fiorelli</td>
<td>Kyle</td>
<td>Sp. Ed. Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>Flood</td>
<td>Joshua</td>
<td>Teacher 7th/8th Gr Social Studies</td>
<td>Masters</td>
<td>Yes</td>
<td>9</td>
</tr>
<tr>
<td>Franzen</td>
<td>Audrey</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Freeman</td>
<td>Robert</td>
<td>Sp. Ed. Teacher EL</td>
<td>Bachelors</td>
<td>Yes</td>
<td>7.25</td>
</tr>
<tr>
<td>Geoghan</td>
<td>Rebecca</td>
<td>P. E. Teacher / Title I Aide</td>
<td>Bachelors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Gernady</td>
<td>Anne</td>
<td>School Psychologist</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Gozon</td>
<td>Fatima</td>
<td>AfterCare Assistant</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Hahn</td>
<td>Lynn</td>
<td>Teacher 4th Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>23</td>
</tr>
<tr>
<td>Hansis</td>
<td>Laura</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Harrison</td>
<td>Ingrid</td>
<td>Business Manager</td>
<td>Bachelors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hershiser</td>
<td>Michael</td>
<td>Teacher 5th/8th Grade Math</td>
<td>Masters</td>
<td>No</td>
<td>18.5</td>
</tr>
<tr>
<td>Hodapp</td>
<td>Christine</td>
<td>Capacity Builder</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Hodapp</td>
<td>Jack</td>
<td>AfterCare Assistant</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Hodapp</td>
<td>Rose</td>
<td>AfterCare Assistant</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Huska</td>
<td>Melinda</td>
<td>Sp. Ed. Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>10</td>
</tr>
<tr>
<td>Jeffery</td>
<td>Christine</td>
<td>Teacher 1st Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td>Jensen</td>
<td>Elle</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Johnson</td>
<td>Patricia</td>
<td>Reading Specialist</td>
<td>Bachelors</td>
<td>Yes</td>
<td>16</td>
</tr>
<tr>
<td>King</td>
<td>Megan</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Kohn</td>
<td>Ava</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Krueger</td>
<td>Lindsey</td>
<td>One-on-One Teacher Assst.</td>
<td>Bachelors</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Larson</td>
<td>September</td>
<td>Teacher 4th Grade</td>
<td>Masters</td>
<td>Yes</td>
<td>10</td>
</tr>
<tr>
<td>Leve-McClevey</td>
<td>Wendy</td>
<td>One-on-One Teacher Assst.</td>
<td>Bachelors</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Loustaunau</td>
<td>Christopher</td>
<td>P. E. Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>Loustaunau</td>
<td>Jessica</td>
<td>Dir. of Spec Ed</td>
<td>Masters</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>Luckey</td>
<td>Allison</td>
<td>3rd Grade Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Martinez</td>
<td>Ashley</td>
<td>Sp. Ed. Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>10</td>
</tr>
<tr>
<td>McGeever</td>
<td>Jana</td>
<td>Teacher 5th-8th Spanish</td>
<td>Bachelors</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td>McKeel</td>
<td>Marjorie</td>
<td>Teacher Kindergarten</td>
<td>Masters</td>
<td>Yes</td>
<td>8.45</td>
</tr>
<tr>
<td>McNally</td>
<td>Sydney</td>
<td>Teacher 3rd Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>Meyer</td>
<td>Caryn</td>
<td>Social Worker</td>
<td>Masters</td>
<td>Yes</td>
<td>21</td>
</tr>
<tr>
<td>Moriello</td>
<td>Nicholas</td>
<td>Custodian</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Mudge</td>
<td>Lisa</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Mui</td>
<td>Katherine</td>
<td>Teacher 1st Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>Neil</td>
<td>Susan</td>
<td>Teacher 5th Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>Ottaviani</td>
<td>Megan</td>
<td>Teacher 6th Grade</td>
<td>Bachelors</td>
<td>Sub/ParaPro</td>
<td>4</td>
</tr>
<tr>
<td>Parker</td>
<td>Julianna</td>
<td>Teacher Kindergarten</td>
<td>Masters</td>
<td>Yes</td>
<td>8.6</td>
</tr>
<tr>
<td>Peyton</td>
<td>Dylan</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Plucinski</td>
<td>Melissa</td>
<td>Sp. Ed. Teacher</td>
<td>Masters</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td>Pondelik</td>
<td>Elizabeth</td>
<td>Sp. Ed. Teacher</td>
<td>Bachelors</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>Legal Last Name</td>
<td>Legal First Name</td>
<td>Position</td>
<td>Degree</td>
<td>Certification</td>
<td>Years Teaching</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
<td>----------</td>
<td>--------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Psimaras</td>
<td>Laura</td>
<td>Teacher 5th Grade</td>
<td>Masters</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td>Recker</td>
<td>Susan</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Reeder</td>
<td>Brandon</td>
<td>AfterCare Supervisor</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reidy</td>
<td>Joseph</td>
<td>AfterCare Assistant</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reidy</td>
<td>Nancy</td>
<td>One-on-One Teacher Assist.</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Roman-Ahlgrim</td>
<td>Lisette</td>
<td>Teacher Kdg – 4th Spanish / Title I Aic</td>
<td>Bachelors</td>
<td>No</td>
<td>5.75</td>
</tr>
<tr>
<td>Shin</td>
<td>Kyung-Ihn</td>
<td>Teacher/Accelerated Math</td>
<td>Bachelors</td>
<td>Yes</td>
<td>2.64</td>
</tr>
<tr>
<td>Siegel</td>
<td>Forrest</td>
<td>One-on-One Teacher Assist.</td>
<td>Associates</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Siegel</td>
<td>Janette</td>
<td>Executive Admin. Assist.</td>
<td>Diploma</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Siegel</td>
<td>Quentin</td>
<td>Instructional Assistant</td>
<td>Associates</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Smetters</td>
<td>Felicia</td>
<td>Teacher 2nd Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>Steinbeck</td>
<td>Tammy</td>
<td>Instructional Assistant</td>
<td>Masters</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Stewart</td>
<td>Sarah</td>
<td>Teacher 7th &amp; 8th Grade LA</td>
<td>Masters</td>
<td>Yes</td>
<td>7.5</td>
</tr>
<tr>
<td>Stewart</td>
<td>Scott</td>
<td>Instructional Assistant</td>
<td>Associates</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Thomas</td>
<td>Andrew</td>
<td>Teacher Art</td>
<td>Bachelors</td>
<td>Yes/ Sub</td>
<td>8</td>
</tr>
<tr>
<td>Tomei</td>
<td>Susan</td>
<td>One-on-One Teacher Assist.</td>
<td>Bachelors</td>
<td>Sub/ParaPro</td>
<td></td>
</tr>
<tr>
<td>Trage</td>
<td>Helen</td>
<td>Instructional Assistant</td>
<td>Bachelors</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Turner</td>
<td>Roxanne</td>
<td>Teacher 6th Grade</td>
<td>Bachelors</td>
<td>Yes</td>
<td>7</td>
</tr>
<tr>
<td>Venegoni</td>
<td>Danielle</td>
<td>Culture Coach</td>
<td>Masters</td>
<td>Yes</td>
<td>6</td>
</tr>
<tr>
<td>Verenski</td>
<td>Frances</td>
<td>Administrative Assistant</td>
<td>Masters</td>
<td>Substitute</td>
<td></td>
</tr>
<tr>
<td>Wright</td>
<td>Theresa</td>
<td>7th &amp; 8th Gr. Science Teacher</td>
<td>Bachelors</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Zamiar</td>
<td>Robert</td>
<td>Dean of Staff and Students</td>
<td>Masters</td>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td>Zaragoza</td>
<td>Peter</td>
<td>Instructional Assistant</td>
<td>Diploma</td>
<td>ParaPro</td>
<td></td>
</tr>
<tr>
<td>Caruth</td>
<td>Laura</td>
<td>Speech Pathologist</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Jacobs</td>
<td>Jim</td>
<td>Band Instructor</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kruse</td>
<td>Norma</td>
<td>Hearing Itinerant</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Vanderbilt</td>
<td>Katie</td>
<td>Occupational therapist</td>
<td>Bachelors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Johnson</td>
<td>Renee</td>
<td>Physical Therapist</td>
<td>Masters</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
Section E: Best Instructional Practices
Kindergarten Unit of Study 2021 - 2022

Unit of Study: Animal Wants and Needs
Day1: What do people need to survive?
Let's listen to this funny story by Laura Numeroff!

If You Give a Mouse a Cookie

Written by Laura Numeroff
Illustrated by Felicia Bond
Boys and girls, when I was reading this book, I noticed something. This mouse sure wants a lot of things. Do you think the mouse needs everything that he wants?

Let’s think. Do we really NEED a cookie? Will we be able to survive without it?

How about when the mouse needs to take a nap? Is sleep something we need? Can we survive without it?

Let’s learn more about the things humans NEED to survive.
There are five basic needs. We all need *air, water, food, shelter* and *clothing*

Let's talk more about what we need. Humans need air to breathe. Without air, we cannot live. Sometimes the air that we breathe is dirty, or polluted. What do you think might happen if we breathe air that is dirty of polluted?
All animals need water. Water is needed for life. The structures in our body cannot function without water. We can only live for about 3 days without water. When we need a drink, we can go to the faucet and get some water. We are lucky to have clean, safe water. What do you think would happen if we drank water that was not clean?
Humans need clothing. Clothing helps us to stay warm in cold weather and protects us from the sun in hot weather. Clothing is a need that people have that other animals do not. Why is clothing not a need for other animals?
Humans need food. We can only live for about 3 weeks without food. Food is energy for our bodies. We need food to run, play and just do the things we do every day. We cannot grow without food. Our bodies tell us when we need to eat. Do you know what signs tell us our bodies want food?
Humans need shelter. Shelter protects us from weather like snow or rain. We even need shelter to protect us on very hot days. There are many different types of shelter. People live in houses, apartments, trailers, even huts.
Now it’s your turn to think about something you need and something you want.

Start by writing your name at the top of the page. Then we will fill in a need and a want and draw a picture of each. We will share at the end.
Day 2: what is the difference between a want and a need?
A want is something that we do not need to live. A want is something we would like to have. Often it is something that is entertaining.
Let's review!

Wants & Needs
A need is something you must have to live. They keep you healthy and safe.
A **want** is something you would like to have.
Drag a circle to each item that is a **want**.
Drag a circle to each item that is a need.
Needs
Something you must have to survive

Wants
Something you would like to have
Day 3: All animals have needs; Do all animals have wants?
We have learned how all animals have the basic needs of food, water, shelter, and air. Let’s review by watching this video: [https://www.youtube.com/watch?v=k4UDf3tF_Q4](https://www.youtube.com/watch?v=k4UDf3tF_Q4) And this video: [https://www.youtube.com/watch?v=Pe9kSlVeEIM](https://www.youtube.com/watch?v=Pe9kSlVeEIM)

We discussed how people also want things like footballs, a nice dress, a special toy, or a new video game to play.

Something to think about: Do other animals have wants? Turn and talk and tell your neighbor if you think other animals, like cats, birds, and bears, have wants.
If you have a pet at home or know someone with a pet, you may have noticed that cats, dogs, and other pets have favorite toys, places to sleep, people to spend time with. Are these things wants or needs?

What do you think are the wants of this dog and cat?
What does the rabbit and parrot want? Do they have a preferred person to be with?
Something to think about: Do wild animals have wants too? Does the bear have a preferred den? Does the fox want to find another fox to keep it company?
Other animals have wants too, but their wants are simpler and fewer than people’s wants. Draw a picture of something you think an animal would want.
Day 4: Some people don’t have everything they need
We have been talking about wants and needs and the difference between a want and a need. Let’s watch these two videos to review:

https://www.youtube.com/watch?v=hrbTJx3S34I -- good RAZ kids story on Needs and Wants (youtube)

https://www.youtube.com/watch?v=3UGqvBc3-xc -- another good video on wants and needs
Did you know that some people don’t have things that they need? They might not have warm clothing, shoes to wear, or enough food to eat. Some people don’t have a home to live in that protects them from the weather. Can you think of some ways that we can help people that don’t have things they need?
What did people do to help others in this picture?
How are the people helping this man?
What is this boy doing to help someone?
What is this person doing to help others?
Are these things that you could do to help others? When you help others you are being kind and caring.
Day 5: PBL: We can help others in need
For Day 5: Teacher will lead a discussion about different ways that our school can help others in need. One way to help is to have a Food Drive. Families can participate by sending in food items to school. Teacher will explain about what items are appropriate to bring for a food pantry (canned foods, boxed items, pasta, beans, unrefrigerated items, not fresh or frozen, etc. More ideas for lesson are on the linked email for families). Students will draw and write about an item they can bring in, and teachers will share the Food Drive email with families. Allow about ten days for families to send in items.

Food Drive drawing and commitment

Food Drive email for families
Section E: 1st/2nd Grade Band
Next Generation Science

Earth’s Place in the Universe
A complete unit for 1st grade
**Teacher Notes**

This unit is designed to do 2 things:

1) Meet Next Generation Science Standards for 1st Grade: Earth’s Place in the Universe, AND
2) Make your life EASIER!

Included is everything (well, almost everything) you need for this unit. The teaching of science requires some materials, but I have chosen simple, everyday tools you most likely already have in your classroom.

There are 11 lessons in this unit (including writing a “how-to” piece for informative writing), covering major standards under Next Generation Science Standards—Earth’s Place in the Universe, PLUS the cross-cutting concepts AND connections to ELA and Math Common Core.

Materials Needed:

Books about the movement of the sun, moon and stars

Whiteboard version of this unit (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit after you purchase!)

Globe, flashlight, small amount of clay, toothpick flag, large Judy clock (or just draw a clock on a dry-erase board), crayons, scissors, glue sticks

*Note: You do not capitalize “earth” if preceded by the word “the” (the sun, the moon, the stars, the earth). When not preceded by “the” and being referred to as a planet name, you do capitalize “Earth”.*

© 2014 Primarily Teaching p. 2
How this unit was developed: When developing a standards-based unit of study, I always start with the standards themselves and look for possible “I Can” statements on which to base the lessons. Next, I put the lessons into a logical sequence (see UNIT OVERVIEW).

1-ESS1 Earth’s Place in the Universe

Students who demonstrate understanding can:

I-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted. [Clarification Statement: Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky, and set, and stars other than our sun are visible at night but not during the day.] [Assessment Boundary: Assessment of star patterns is limited to stars being seen at night and not during the day]

I can use observations of the sun to describe patterns that can be predicted.
I can use observations of the moon to describe patterns that can be predicted.
I can use observations of the stars to describe patterns that can be predicted.

I-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year. [Clarification Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.] [Assessment Boundary: Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight]

I can make observations (or use observations from various media) at different times of the year to relate the amount of daylight to the time of year.

The performance expectations above were developed using the following elements from the NRC document A Framework for K-12 Science Education:
Science and Engineering Practices
Planning and Carrying Out Investigations
Planning and carrying out investigations to answer questions or test solutions to problems in K-2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions

I can make observations to collect data that can be used to make comparisons. (I-ESS1-2)

I can use observations to collect data that can be used to make comparisons.

Analyzing and Interpreting Data
Analyzing data in K-2 builds on prior experiences and progresses to collecting, recording, and sharing observations

I can use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions (I-ESS1-1)

I can use observations to describe patterns in the natural world in order to answer scientific questions.

Disciplinary Core Ideas
ESS1A: The Universe and its Stars
Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1)

ESS1.B: Earth and the Solar System

Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)

I can observe, describe and predict seasonal patterns of sunrise and sunset.

Crosscutting Concepts

Patterns

Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1),(1-ESS1-2)

I can identify patterns to describe phenomena and use data as evidence.

Connections to Nature of Science

Scientific Knowledge Assumes an Order and Consistency in Natural Systems

Science assumes natural events happen today as they happened in the past. (1-ESS1-1)

Many events are repeated. (1-ESS1-1)

Connections to other DCIs in first grade: N/A

Articulation of DCIs across grade-levels: 3.PS2.A (1-ESS1-1); 5.PS2.B (1-ESS1-1),(1-ESS1-2); 5-ESS1.B (1-ESS1-1),(1-ESS1-2)

Common Core State Standards Connections: ELA/Literacy –

W.1.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions). (1-ESS1-1),(1-ESS1-2)

I can participate in a shared research and writing project by reading information on a given topic in this unit and use this information to write a sequence of instructions.

W.1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (1-ESS1-1),(1-ESS1-2)

I can recall information from experiences or gather information from provided sources to answer a question.

Mathematics –

MP 2 Reason abstractly and quantitatively. (1-ESS1-2)

MP 4 Model with mathematics. (1-ESS1-2)

MP 5 Use appropriate tools strategically. (1-ESS1-2)

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem. (1-ESS1-2)

1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (1-ESS1-2)

Background info on hours of daylight per season and location:

http://geography.about.com/od/physicalgeography/a/fourseasons.htm (background info for teacher)

http://www.calendar-updates.com/sun.asp (sunrise/sunset times only)

http://www.timeanddate.com/worldclock/sunrise.html (sunrise/sunset/calculated hours of daylight)
Unit Overview

Lesson 1: I can use observations of the sun to describe patterns that can be predicted.
(The sun appears to rise in one part of the sky, move across the sky, and set.)

Lesson 2: I can recall information from experiences or gather information from provided sources to answer a question.
(Question: What time of the year do we have the most hours of sunlight?
What data will we need to collect to answer this question?—sunrise and sunset for summer, fall, winter and spring)

Lesson 3: I can observe, describe and predict seasonal patterns of sunrise and sunset.
(Begin with the current season's approximate equinox or solstice date—September 21, December 21, March 21 or June 21—for your location—look up time of sunrise and sunset. Do not calculate total time yet. Continue to the next season. On the third season, predict if the time will be earlier/later for sunrise and sunset. Do the same for the last season. Were students able to make reasonable predictions?)

Lesson 4: I can make observations (or use observations from various media) at different times of the year to relate the amount of daylight to the time of year.
(Using data collected from the previous lesson, calculate the amount of daylight for each season.—Since only relative comparison is required, you may round-off to the nearest half-hour. Use a number line to help students decide what to round-off to.)

Lesson 5: I can make observations to collect data that can be used to make comparisons.
1.MD.C.4 Organize, represent, and interpret data with up to three categories (sunrise, sunset, hours of light), ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (1-ESS1-2)

Lesson 6: I can use a globe and a flashlight to model how different locations on Earth receive different amounts of daylight each season.
MP.2 Reason abstractly and quantitatively. (1-ESS1-2)
MP.4 Model with mathematics. (1-ESS1-2)

Lesson 7: I can use observations of the moon to describe patterns that can be predicted.
(Use a lunar calendar to draw what the moon looks like during the course of a month—begin with the previous month up to the current date.)

Lesson 8: I can use observations to describe patterns in the natural world in order to answer scientific questions.
(1.OA.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem. (1-ESS1-2)

Lesson 9: I can use observations of the stars to describe patterns that can be predicted.
How can you observe the stars? At night with a telescope (Or with Google Earth in Sky mode).

Lesson 10: I can identify patterns to describe phenomena and use data as evidence.
Draw the big dipper and little dipper as they appear in the sky for each season. Why does the position change?
http://earthsky.org/favorite-star-patterns/big-and-little-dippers-highlight-northern-sky#how

© 2014 Primarily Teaching p. 5
Lesson 11: I can participate in a shared research and writing project by reading information on a given topic in this unit and use this information to write a sequence of instructions. (Ideas: how to model day and night with a flashlight and globe; determine the phase of the moon; locate the Big Dipper, make a bar graph, prove the moon does rotate, etc.) *This lesson may take multiple days to complete.

*SUPER-IMPORTANT! SL.1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. Covered in EVERY Lesson! ✅ Question Reward Tickets can be used to reward and document students asking and answering questions. If you pass out several of these, draw for a little prize at the end of class. If you only give out one or two, give a little treat to those students. Then, glue/tape the tickets to a sheet of paper and keep in a folder for each child to show documentation of SL.1.3. If you’d rather encourage intrinsic motivation, you could display these on a bulletin board for the duration of the unit, then file them away for documentation of this Common Core Language Standard!

Recommended Resources:
Discovering My World: The Sun by Melvin and Gilda Berger (available as a Storia ebook) or any book about the sun!
The Sun Is Not a Yellow Balloon: Fun With The Sun For Kids [NOOK Book--NOT Nook for Kids] by Josselin Budd ($2.99 at unit publication time)
The Moon: Exploring the Earth’s Night Light [Kindle Edition] by Jessie Thomas ($2.99 at unit publication time) or any book about the moon!
The Everything Kids' Astronomy Book: Blast into outer space with stellar facts, integalatic trivia, and out-of-this-world [Kindle Edition] by Kathi Wagner and Sheryl Racine ($5.96 at unit publication time)

A Note about eBooks: I love using eBooks that I can show on my whiteboard with my projector. These formats work on both desktop computers as well as tablets. Scholastic Storia has downloadable software for your teacher computer (they are going from a single purchase model to a streaming subscription model, however); Kindle books can be read online, regular Nook books can be read online, but titles that are available as Nook for Kids only cannot be read online, so I must use the technology trick below when I want to show something on my whiteboard that is only viewable on my iPad/tablet.

TECHNOLOGY TIP: If you use an iPad extensively as I do, and you have WiFi access in your school, you’ll LOVE Reflector! It’s a program you install on your teacher workstation that allows you to WIRELESSLY project your iPad (or Android device) screen onto your teacher computer (Mac or PC) via AirPlay—which is handy if your teacher workstation is connected to a projector/whiteboard. Before I discovered Reflector, I had to use a VGA cable (pricey) to connect my iPad to my computer. Now, I can walk around the room while sharing my iPad screen! It also sends the audio from any app you are using to your computer speakers. I would not recommend it if your teacher workstation is very old, as mine used to be. I recently got a new machine, though, and it works great! At the time of this publication, the price is $12.99 and the web address is http://www.airsquirrels.com/reflector/
(You can also do a search for "Reflector software.")
Here we go!
Lesson Plans and Related Printables
Next Generation Science 1st Grade

Earth's Place in the Universe

LESSON 1: I can use observations of the sun to describe patterns that can be predicted.

VOCABULARY
observations, sun, describe, patterns, predicted

MATERIALS
Suggested book: Discovering My World: The Sun by Melvin and Gilda Berger (available as a Storia ebook) or any book about the sun
Suggested resource: https://www.youtube.com/watch?v=Ys1w9A4Dr04 This video is 1:27 and shows sunrise to sunset, but it is facing south, so the east appears on the left. Today's worksheet has the directions labeled as if facing north (to reduce confusion in teaching the cardinal directions) but students will have to think about what this would look like if facing south. What we want them to learn is that no matter where you are on the earth, the sun rises in the east and sets in the west.

Lesson printables: I can, vocabulary words, Question Reward Tickets, "Predicting Sun Patterns" sheet and direction card

Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we'll begin our study of 'Earth's Place in the Universe.' We'll be learning about the earth, the sun, the moon and the stars. It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: I can use observations of the sun to describe patterns that can be predicted. Let's talk about the fancy words in that statement. Observations are times when you look at something very carefully to see what you can learn. The sun is the nearest star to earth. A star is not a planet, it's a big ball of burning gases—it's on fire! The sun looks really big to us, but compared to other stars, it's only medium-sized. It's just closer to the earth, so it seems bigger. Don't ever look straight at the sun—it can burn the inside of your eyes and make you lose your sense of seeing, or sight! Can someone describe today? {Accept a few descriptions.} So if I ask you to describe something, you observe it carefully and talk about what you notice. The next tricky word is patterns. You made patterns in kindergarten, but there are also patterns all around us. What is a pattern? {Accept a few answers.} So if I ask you to describe something, you observe it carefully and talk about what you notice. The next tricky word is predicted. I'll bet you have predicted things that might happen next in a story. What does it mean to predict? {Accept a few answers.} The weather-person tries to predict the weather, or tell us what might happen based on careful observations. But scientists can also predict other things in nature that will happen because of patterns they observe.
3. So today, we will use patterns scientists have observed about the sun. First, let's read a book about the sun. (Read a short book about the sun. See recommended book above.) Can you describe the sun? {Call on students for answers.}
4. Now let's watch a video that shows a pattern the sun follows each day. Watch https://www.youtube.com/watch?v=Ys1w9A4Dr04 (or any sunrise to sunset clip)
Imagine watching this over and over. What pattern would you see? (Lead students to noticing the sun always rises and sets in the same directions.) I will tell you that as we watched this video clip, the camera was facing south (if you used the recommended clip). So now we must figure out which direction the sun rises and in which direction it sets.

(Place the direction card on the floor. Ask a child to come up and face south. Instruct the child to stand where the word 'south' is not upside down. He/she should be able to put their feet on the card and still see the word 'south' right-side-up. (She/he will actually step on top of the word 'north.') Now ask the child to think about which direction the sun came up on in the video and return to his/her seat. Next, hold up the card to the class (or show that slide in the whiteboard version of this unit). Show the class where the model child was standing and that she/he was facing south. Ask students to raise their hands when they know the direction in which the sun rises. Call on a student. If necessary, lead the child through thinking about if the sun rose on the left side of the screen or the right. Then relate that to the direction card until the correct answer is discovered.

Say, "Now we know the sun rises in the east every morning and sets in the west. Usually on maps, we are used to seeing north at the top. So on our sheet today, that's what we'll stick with--we are pretending we are facing north. {Pass out the Predicting Sun Patterns sheet. Display it on your whiteboard and model as you go along, if possible.} Write your name neatly on your paper and touch the first picture. The label under this picture says, 'sunrise.' Think about what we just learned--BE CAREFUL! Put your finger on the picture where the sun comes up. (Check for correct placement.) Draw the sun peeking over the earth on the correct side. Now skip over to the last picture in the first row--it is labeled 'sunset.' Put your finger on the picture where the sun sets. (Check for correct placement.) Draw the sun as it sets behind the earth.

Now comes the fun part! Touch the middle picture. It is labeled 'mid-day' for the middle of the day, or 12:00 noon. Touch where you think the sun is in the middle of the day. (Check for correct placement.) Draw your noon-day sun high in the sky.

Last is the tricky prediction part! Just like mid-day is between sunrise and sunset, mid-morning is between sunrise and midday. Put your finger where you think the mid-morning sun should be. (Check for correct placement.) Draw your mid-morning sun. Now do the same for your mid-afternoon sun. (Let students do this on their own and check for correctness. Let students revise who need to.)

Awesome job today! We used our observations to predict the sun's patterns of positions in the sky!"

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

Teacher reminder--Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it's fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections--
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name __________________</td>
<td>Name __________________</td>
<td>Name __________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date _________________</td>
<td>Date _________________</td>
<td>Date _________________</td>
</tr>
<tr>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
</tr>
<tr>
<td>Name __________________</td>
<td>Name __________________</td>
<td>Name __________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date _________________</td>
<td>Date _________________</td>
<td>Date _________________</td>
</tr>
<tr>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
</tr>
<tr>
<td>Name __________________</td>
<td>Name __________________</td>
<td>Name __________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date _________________</td>
<td>Date _________________</td>
<td>Date _________________</td>
</tr>
<tr>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
<td>Question Reward Ticket</td>
</tr>
<tr>
<td>Name __________________</td>
<td>Name __________________</td>
<td>Name __________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
<td>(to get info) __________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date _________________</td>
<td>Date _________________</td>
<td>Date _________________</td>
</tr>
</tbody>
</table>
I can use observations of the sun to describe patterns that can be predicted.
Predicting Sun Patterns

Draw the position of the sun at sunrise, mid-day and sunset. W=west and E=east.

Draw the position of the sun at mid-morning and mid-afternoon based on what you know!
Next Generation Science 1st Grade
Earth's Place in the Universe

LESSON 2: I can recall information from experiences or gather information from provided sources to answer a question. (Question: What time of the year do we have the most hours of sunlight?)

VOCABULARY
recall, information, experiences, sources

MATERIALS
Suggested website: http://www.timeanddate.com/worldclock/sunrise.html *This handy resource lists sunrise, sunset and hours of daylight! After finding the current day's info, click 'See full month's sun.' Then, you can look up previous/future months from here. The table looks difficult, but if you focus only on what you need, your first graders can do it! Have them look at the headings and find the "Daylength" column. Time is given in hours minutes seconds of sunlight per day. Use the equinox/solstice date for each season (approx. March 21 (spring), June 21 (summer), September 21 (fall), December 21).

Lesson printables: I can, vocabulary words, Question Reward Tickets, "Recalling and Gathering Information" sheet.

Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we'll continue our study of 'Earth's Place in the Universe.' Remember, it's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: I can recall information from experiences or gather information from provided sources to answer a question. Let's talk about the fancy words in that statement. When you recall something, you remember it—or call it up in your memory where it's stored in your brain. Information is a fact or facts you need to learn something. We learn new information every day! Your experiences are things you participate in or observe. Sources include anything you get new information from. A source could be a book, a website, or even an app. So today, you're going to recall or remember information you already know and find out new information from a source to answer this question: What time of the year do we have the most hours of sunlight?"
3. (Pass out the Recalling and Gathering Information sheet. Show the sheet on your whiteboard if possible and model as students complete.) Say, "Write your name as neatly as you can at the top. Touch the word QUESTION under your name. Let’s read the question together. (Read the question as a class.) The next section says, 'Recalling Information.' Circle your answer. Listen carefully. ‘I recall playing outside the latest during the’—now here are your answer choices—'winter, spring, summer or fall.' Recall times when you’ve played outside late in the evening. Maybe you’ve even played outside until sunset! What season do you remember playing outside the latest? Circle that season.

© 2014 Primarily Teaching
Next Generation Science 1st Grade
Earth’s Place in the Universe

LESSON 2 Continued:

What season did you play outside the latest? (Call on a student—hopefully the child’s answer is summer. If not, keep asking until most students answer summer.)

4. The next part says, ‘I recall it getting dark outside very early during the—now here are your answer choices—’ winter, spring, summer or fall’. Recall times when you’ve not been able to play outside very late because it gets dark outside so early. Circle that season. What season do you remember it getting dark very early? (Call on a student—hopefully the child’s answer is winter. If not, keep asking until most students answer winter.)

5. Great job recalling your experiences. Now let’s use a source to find some more information. We need to know which season we get the most hours of sunlight. I found the answer using a website called timeanddate.com. Under the ‘Gathering Information’ section, we have to circle the type of resource and write the title. Let’s read the sentence: ‘I am using a—here are your answer choices—book, website, app—to gather information about hours of sunlight.’ What should we circle as our resource type? (website! Write the title: timeanddate.com) Write timeanddate.com as the title.

6. Now let’s look at the next section: Hours of sunlight for each season. It says we have to find the hours of sunlight for summer and winter first. So I’m going to bring up timeanddate.com to find this information.* (Bring up website. Then click Sun and Moon/Sun calculator. Input your location and click ‘See sunrise/sunset.’ The info that comes up is cool, but you need to scroll down and click the ‘See full month’s sun’ link. At this point, you can change the current month to any month/year. Since you are looking for summer first, go to June and look at the 21st, the longest day. Show students the Daylength/Length column and record the hours:minutes (we aren’t concerned with seconds). Next, do the same for December 21.)

7. Now we get to predict what the hours of sunlight for fall are. Remember, fall is between summer and winter. So pick a number between your summer and winter hours and write it in the fall section. Now let’s see how close our predictions are! (Look up September 21. Revise answers if needed)

8. All we have left is spring. Remember, spring is also an ‘in-between’ season—it’s between winter and summer. Write your prediction in the spring section. (hopefully, kids will figure out it’s VERY close to the fall time.) Now let’s see if we were closer in our predictions this time! (Look up March 21. Revise answers if needed)

9. Finally, we have the information we need to answer our big question at the bottom. It says, ‘We have the most hours of sunlight during the…’ Fill in your answer. Your answer should be spelled correctly since that word is on this page! What was your answer? (Call on a student. Hopefully it’s summer!) GREAT job recalling your experiences AND using a source to look up information today!*

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation. © 2014 Primarily Teaching p. 15
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________</td>
<td>Date___________________</td>
<td>Date___________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________</td>
<td>Date___________________</td>
<td>Date___________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________</td>
<td>Date___________________</td>
<td>Date___________________</td>
</tr>
</tbody>
</table>
I can recall information from experiences or gather information from provided sources to answer a question.
Lesson 2

Recalling & Gathering Information

Name

QUESTION: What time of the year do we have the most hours of sunlight?

Recalling Information: Circle your answer.
I recall playing outside the latest during the winter / spring / summer / fall.
I recall it getting dark outside very early during the winter / spring / summer / fall.

Gathering Information: Circle your resource type, then write the title of your resource or the web address.
I am using a book/web site/app to gather information about hours of sunlight.

Title of the resource: ________________________________

Hours of sunlight for each season: Find the hours of sunlight for summer and winter first. Then PREDICT spring and fall! Check your answer to see if your prediction was correct. Remember, spring and fall are BETWEEN winter and summer.

<table>
<thead>
<tr>
<th>Season</th>
<th>Hours of sunlight</th>
</tr>
</thead>
<tbody>
<tr>
<td>spring</td>
<td>_______</td>
</tr>
<tr>
<td>summer</td>
<td>_______</td>
</tr>
<tr>
<td>fall</td>
<td>_______</td>
</tr>
<tr>
<td>winter</td>
<td>_______</td>
</tr>
</tbody>
</table>

We have the most hours of sunlight during the ________________________________
Next Generation Science 1st Grade
Earth's Place in the Universe

LESSON 3: I can observe, describe and predict seasonal patterns of sunrise and sunset.

VOCABULARY
seasonal, sunrise, sunset

MATERIALS
Suggested book: The Everything Kids' Astronomy Book: Blast into outer space with stellar facts, intergalactic trivia, and out-of-this-world... [Kindle Edition] by Kathi Wagner and Sheryl Racine ($5.96 at unit publication time) "Long Nights, Short Days" section in chapter 2 (from the table of contents, tap "Are You Scared of the Dark" and it's 2 sections forward from there) and "What Time is it Anyway" section in chapter 3.
Lesson printables: I can, vocabulary words, Question Reward Tickets, *Predicting Seasonal Patterns* sheet
Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we'll do some more observing, describing and predicting! It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: I can observe, describe and predict seasonal patterns of sunrise and sunset. Let's talk about the fancy words in that statement. We already know observe, describe and predict. Seasonal has to do with our _____ {what everybody?} seasons! Raise your hand if you can describe what sunrise is. {Call on a student.} Yes— it's when we can first see the sun in the morning. Raise your hand if you can describe sunset. {Call on a student.} Yes—it's when we can no longer see the sun at the end of the day. So today we will look at, describe and predict sunrise and sunset times across our seasons!
3. First, let's read a little from a cool book that tells about sunrise and sunset times across the seasons. {See suggested book and specific sections.}
4. {Pass out the *Predicting Seasonal Patterns* sheet. Bring this up on your whiteboard to model as students complete, if possible.} Say, "Write your name as neatly as you can at the top. {Read the directions.} Raise your hand if you know the season we are in currently. {Call on a student.} Yes! Let's write _____ as our current season. Look at those dates listed. Which one is in our current season? {Call on a student.} Yes! Let's write _____ as our current season's (solstice/equinox) date. {Continue until all seasons and their related solstice or equinox dates are filled in.}
5. Now we need a source to help us find the sunrise and sunset dates. We are going to do the first two, then stop and make some predictions. The source we will be using is a website called calendar-updates.com. * {Bring up this website. Then click Sunrise/Sunset and enter your zip code. Scroll down to the Check Another Day box.}
LESSON 3 Continued:

6. (Model how to fill in the correct sunrise and sunset times. Continue with the next date’s sunrise and sunset times, then stop.) Ask students, “What is the next date on our list? (Call on a student and write the next date in the predictions box.) Think really hard. Look at the first two we did together. Will the next season’s day be longer or shorter? Make your first prediction—circle earlier or later as we read the statement. For the _____ date, I predict the sunrise will be earlier or later and sunset to be earlier or later than last season. Now let’s check our predictions. (Find the actual answers and model writing them in the chart.) Were you correct?

7. Let’s make one last prediction. (Continue in this manner until you’ve checked the last prediction.)

8. You did a great job today of observing and describing information and predicting sunrise and sunset patterns! We learned that the sun does not rise and set at the same time every day. It depends on the season!*

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Name</th>
<th>I asked for help.</th>
<th>I asked a thoughtful question.</th>
<th>(to get info)</th>
<th>I answered someone else's question. (to clarify)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I can observe, describe and predict seasonal patterns of sunrise and sunset. Lesson 3
Lesson 3

Predicting Seasonal Patterns

Start by filling in the current season and its equinox or solstice date (September 21, December 21, March 21 or June 21). Then continue to fill in for each season that follows.

Fill in time of sunrise and sunset for the first two dates, then stop. Make predictions for the last two seasons. Remember which season has the most sunlight, which has the least sunlight and which two seasons are in-between as you make your predictions.

<table>
<thead>
<tr>
<th>CURRENT Season</th>
<th>THIS season's equinox / solstice date:</th>
<th>ACTUAL Time of SUNRISE / Time of SUNSET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>: am / : p.m.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEXT Season</th>
<th>NEXT season's equinox / solstice date:</th>
<th>ACTUAL Time of SUNRISE / Time of SUNSET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>: am / : p.m.</td>
</tr>
</tbody>
</table>

STOP

Make your predictions in the box at the bottom of this page, then find the actual answers.

<table>
<thead>
<tr>
<th>NEXT Season</th>
<th>NEXT season's equinox / solstice date:</th>
<th>ACTUAL Time of SUNRISE / Time of SUNSET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>: am / : p.m.</td>
</tr>
</tbody>
</table>

STOP

Make your predictions in the box at the bottom of this page, then find the actual answers.

<table>
<thead>
<tr>
<th>LAST Season</th>
<th>LAST season's equinox / solstice date:</th>
<th>ACTUAL Time of SUNRISE / Time of SUNSET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>: am / : p.m.</td>
</tr>
</tbody>
</table>

PREDICTIONS BOX

For the __________________________ date, I predict sunrise to be earlier / later and sunset to be earlier / later than last season.

For the __________________________ date, I predict sunrise to be earlier / later and sunset to be earlier / later than last season.
Earth's Place in the Universe

LESSON 4: I can make observations (or use observations from various media) at different times of the year to relate the amount of daylight to the time of year.

In the United States, there are only about 9½ hours of daylight on the first day of winter and about 14½ hours of daylight on the first day of summer. Given this information, can students predict what the average will be for fall and spring? You'll use a number line to take equal jumps toward the middle to find the average.

VOCABULARY
various, media, relate, daylight

MATERIALS
Suggested app: Solar Walk (available for iPad and Android)—movie within this app—Earth's Cycles 1:57 *If you use Reflector (as mentioned on page 6-Technology Tip), you can project this app onto your whiteboard! Lesson printables: I can, vocabulary words, Question Reward Tickets, "Observing Seasonal Daylight Data" sheet, a Judy clock or clock drawn on the whiteboard, students will need a red, blue and green crayon Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we'll actually see what the earth looks like at different times of the year from space! You'll be able to tell why summer days are longer in the northern hemisphere and why winter days are shorter. It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: I can make observations (or use observations from various media) at different times of the year to relate the amount of daylight to the time of year. Let's talk about the fancy words in that statement. We already know what observations are. (You can always review here!) The word various just means different kinds. The word media comes from the word medium, which means middle. Media is how information is communicated. Think of information-media (in the middle)—then it gets to us! So, how are some ways we've gotten information in this unit so far? (Hopefully, kids will say books, ebooks, and websites.) Today, we'll add another type of source, or media—we are going to use an app! (—if you are using the recommended source. If not, that's okay!) The last new word is daylight, and that's just light from the sun.
3. First, let's watch a cool little video clip that shows how much sunlight the earth gets each season. Back in lesson 2, we looked up how much daylight we get each season, but now you get to see what that looks like! (Play the clip. Each time the earth stops to show a season, pause the movie and have the kids count the arrows from the sun to the earth. Note which has more arrows, or rays—the northern hemisphere or the southern hemisphere—each time. It's also neat to point out how Alaska/Antarctica get 24 hours of daylight/darkness at times.)
Earth's Place in the Universe

LESSON 4 Continued:

4. (Next, pass out the 'Observing Seasonal Daylight Data' sheet.) Say, "Write your name as neatly as you can at the top. It says we need to use our data from yesterday to complete the sunrise and sunset times, so I'm going to show yesterday's sheet and you may fill in the information on your new sheet. Only fill in sunrise and sunset times." (Allow students to copy information into the right places. Next, bring up the NEW sheet on the board and fill yours in as students check theirs.)

5. "Now we are ready to figure out the hours of daylight for summer and winter. We get to round off the time to the nearest half hour and I've got a trick to show you." (As you say the sunrise time, make a fist. Add on a whole hour and put up a finger until you come as close to the sunset time as possible without going over. Go ahead and record the full hours. On a Judy clock or on a dry erase board, place the clock hands on the time you ended with. Next, show students how far the hands need to travel to get to the sunset time—is it enough time to round off to half of an hour (past 15 minutes)? If so, add 30 minutes to the daylight hours. Do this for summer and winter. Next, follow the instructions on the sheet for making a red dot for the summer daylight hours and a blue dot for winter daylight hours. Remember to model this on your whiteboard, if possible.)

6. "Next, make a prediction for how many hours of daylight we get in the fall and spring and write your predictions next to the stop signs.

7. Now, we get to use the number line to check how many hours of daylight there would be for our in-between seasons." (Follow the instructions for taking equal hops to the middle and circle the number that is halfway between the two dots. Mark it with a green dot.)

8. "Now let's use our timeanddate.com website to check the actual hours of daylight for fall and spring and see how close our estimates were!" (http://www.timeanddate.com/worldclock/sunrise.html)

9. Were we pretty close? You bet! You are becoming great at making observations and predictions!

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it's fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name____________________</td>
<td>Name____________________</td>
<td>Name____________________</td>
</tr>
<tr>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
</tr>
<tr>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
<td>(to get info)____________</td>
</tr>
<tr>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date____________________</td>
<td>Date____________________</td>
<td>Date____________________</td>
</tr>
</tbody>
</table>

100
I can make observations (or use observations from various media) at different times of the year to relate the amount of daylight to the time of year.

Keywords: various, media, relate, daylight
Lesson 4

Observing Seasonal Daylight Data

Use the data you collected in the last lesson to fill in sunrise and sunset times for each season. Next, figure out the amount of hours of daylight for summer and winter with your teacher's help. Place a red dot on the number line to show hours of sunlight for summer. Use a blue dot to show winter daylight hours. Then stop and predict the amount of sunlight for fall and spring. Remember, fall and spring are the "in-between" seasons. Place one finger on your red dot and one on your blue dot. Take jumps toward the middle until you meet and place a green dot on the number line. This shows you the hours of daylight for fall and spring! Were you close in your prediction?

<table>
<thead>
<tr>
<th>Season</th>
<th>Sunrise</th>
<th>Sunset</th>
<th>Hours of Daylight</th>
</tr>
</thead>
<tbody>
<tr>
<td>summer</td>
<td>____<strong>:</strong>__: a.m.</td>
<td>____<strong>:</strong>__: p.m.</td>
<td>Actual:_________</td>
</tr>
<tr>
<td>fall</td>
<td>____<strong>:</strong>__: a.m.</td>
<td>____<strong>:</strong>__: p.m.</td>
<td>STOP &amp; Predict:_________</td>
</tr>
<tr>
<td>winter</td>
<td>____<strong>:</strong>__: a.m.</td>
<td>____<strong>:</strong>__: p.m.</td>
<td>Actual:_________</td>
</tr>
<tr>
<td>spring</td>
<td>____<strong>:</strong>__: a.m.</td>
<td>____<strong>:</strong>__: p.m.</td>
<td>STOP &amp; Predict:_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual:_________</td>
</tr>
</tbody>
</table>
Next Generation Science 1st Grade
Earth's Place in the Universe

LESSON 5: I can make observations to collect data that can be used to make comparisons.

1.MD.C.4 Organize, represent, and interpret data with up to three categories (hours of light across seasons), ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (1-ESS1-2)

VOCABULARY
collect, data, comparisons

MATERIALS
Suggested video: Brainpop Jr. FREE video—math section—“Tally Charts and Bar Graphs” OR any resource about making bar graphs
Lesson printables: I can, vocabulary words, Question Reward Tickets, “Collecting Data for Comparisons” sheet
Whiteboard version of this lesson with the “I can,” vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, “Today we’ll be using data to make comparisons about seasonal daylight. Remember, it’s GREAT to raise your hand to ask questions about something you don’t understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!”
2. Our ‘I can’ statement today is: I can make observations to collect data that can be used to make comparisons. Let’s talk about the fancy words in that statement. We already know what observations are. I’ll bet you already know what collect means. Raise your hand if you do. {Call on a student} Collecting is gathering. We have already collected what we need for today, and that’s data. Data is information. We’ve been collecting information, or data, about the hours of daylight we have each season. Now that we have all of this great data, we can make comparisons. When you make a comparison, you look at two or more things to see how they are alike and different in some way. We will be making comparisons of the amounts of daylight across the seasons.
3. First, we will watch part of a video {or use a different resource} that will show you how to make a bar graph. {Begin the “Tally Charts and Bar Graphs” video at 2:08.}
4. {Pass out the “Collecting Data for Comparisons” sheet.} Say, “Write your name as neatly as you can at the top. The instructions say...(read instructions). I will bring up our data from yesterday. You will use it to create your bar graph. Remember to use the actual hours of daylight, not your predictions. Start by numbering the hours of daylight on the graph. Then color in the amount for each season. If a season had half an hour, how would you color that? {Call on a student} Yes—just color in half of a rectangle.” {Give students time to complete the graph. Circulate and check for correctness.}
LESSON 5 Continued:

5. "Now that we have our graph, we can answer the questions. I will read the question. Look at your graph and write the answer. You should spell the seasons correctly since they are on your graph. Raise your hand after you write the answer. (Proceed to read each question, give time for students to write, then call on students to check. Let students correct mistakes. When you get to number 4, remind students they will be comparing to see the DIFFERENCE between seasons.) Tell students, "It's like counting how many rectangles you'd need to make the shortest bar as tall as the one you're comparing to—just like Annie counted the difference in her graph by counting missing rectangles in the Brainpop Jr. video."

6. (When you get to number 6, require a complete sentence answer, with a capital letter at the beginning and end punctuation. Also, tell students they should not misspell any word that is in the original question. Ask students to share their answers and praise for thoughtful insights into which season is the best for growing a garden—beyond hours of daylight.)

7. Say, "You did a great job of making your bar graphs today and comparing sunlight across the seasons!"

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
</tr>
<tr>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
</tr>
<tr>
<td>______________________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
<tr>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date__________________</td>
<td>Date__________________</td>
<td>Date__________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
</tr>
<tr>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
</tr>
<tr>
<td>______________________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
<tr>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date__________________</td>
<td>Date__________________</td>
<td>Date__________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________</td>
<td>Name__________________</td>
<td>Name__________________</td>
</tr>
<tr>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
<td>____ I asked for help.</td>
</tr>
<tr>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
<td>____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
<td>(to get info)___________</td>
</tr>
<tr>
<td>______________________</td>
<td>______________________</td>
<td>______________________</td>
</tr>
<tr>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
<td>____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date__________________</td>
<td>Date__________________</td>
<td>Date__________________</td>
</tr>
</tbody>
</table>
I can make observations to collect data that can be used to make comparisons. Lesson 3

collect
data

comparisons
Lesson 5

Collecting Data for Comparisons

Name

Using your data from the last lesson, make a bar graph to show hours of daylight per season. Use red for summer, orange for fall, blue for winter and green for spring. Then answer the comparison questions.

**Comparison Questions:**

1. Which season has the most sunlight?

2. Which season has the least sunlight?

3. Which two seasons have about the same amount of sunlight?

4. How many **more** hours of sunlight does summer have than fall? winter? spring?

5. How many **fewer** hours of sunlight does winter have than summer? fall? spring?

6. Which season would be the best to grow a garden and why?

© 2014 Primarily Teaching p. 33
Next Generation Science 1st Grade
Earth’s Place in the Universe

LESSON 6: I can use a globe and a flashlight to model how different locations on Earth receive different amounts of daylight each season. MP.2 Reason abstractly and quantitatively. (1-ESS1-2) MP.4 Model with mathematics. (1-ESS1-2)

VOCABULARY
- globe, model, locations

MATERIALS
- toothpick flag (home-made), small amount of clay, globe, flashlight (darken the room as much as possible during the demonstration)
- Lesson printables: I can, vocabulary words, Question Reward Tickets, “Modeling Seasonal Daylight” sheet, Whiteboard version of this lesson with the “I can,” vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we will actually model what we’ve learned about seasonal daylight! It’s GREAT to raise your hand to ask questions about something you don’t understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!"
2. Our 'I can' statement today is: I can use a globe and a flashlight to model how different locations on Earth receive different amounts of daylight each season. Let’s talk about the fancy words in that statement. A globe is a model of the earth. A model is a representation of something and is smaller than the actual object. Locations are specific places. We’ll be marking our location on the earth by using this little flag.
3. First, we have to find our continent. Raise your hand if you know what continent we live on. (Call on a student. Narrow down your location by country and so on.) I’m going to stick a flag to the globe to mark our location using this little piece of clay. Who can tell us where the equator is? (Call on a student to point out the equator.) People who live north of the equator live in the northern hemisphere and people who live south of the equator live in the southern hemisphere. Hemisphere is a cool word. The first part, hemi, means half. And sphere is a math word. Does anyone know what a sphere is? (Call on a student.) Yes—it’s a ball. Earth is shaped like a ball. The equator divides the earth into two equal parts. That’s why equator kind of sounds like equal. So hemisphere means half of a sphere. The top half of the earth is the northern hemisphere and the bottom half is the southern hemisphere. Where do we live? (Say, “Everybody?” so all will answer.)
4. Now that we’ve marked our location, we are ready to model daylight. I need a volunteer to hold the sun. (Give a child the flashlight.) I need another volunteer to hold the earth.* (Give another child the globe. Turn out the lights. Direct the model students how to hold the sun and earth. Begin with summer. When students are in the correct position for summer, you are ready.)
LESSON 6 Continued:

5. Say, "Look at how the sunlight hits the earth. It is daytime for the people in the sunlight. It is night for the people not in the sunlight. Now notice which half of the earth is more covered in sunlight. (Ask the globe holder to rotate the globe slowly.) As you see our flag move into the light, say, 'DAY!' and as it moves out of the sunlight, say 'NIGHT!' (Do this a few times. Also be sure to point out if the north (Alaska) or south pole (Antarctica) is in the light or the dark.)

6. (Next, ask the earth holder to move to the fall position. Show how daylight hits equal parts of the northern and southern hemispheres at this time.)

7. (Ask the earth holder to move to the winter position. Ask students which hemisphere is more covered by daylight. It is summer for that location, but it's the OPPOSITE for us—it's winter! Again, be sure to point out if the north (Alaska) or south pole (Antarctica) is in the light or the dark.)

8. (Finally, ask the earth holder to move to the last position—spring. Ask if this is like another season... hopefully they will notice it's the same as fall.)

9. (Thank the volunteers and pass out the "Modeling Seasonal Daylight" sheets. First direct students to write their names neatly. Next, they are to draw a tiny flag on each globe to represent their location. If your location isn't visible, placing on the correct hemisphere is sufficient. Next, they are to trace the dotted lines that represent the sun's rays. Ask them to notice that fall and spring are hitting the equator strongly—this represents sunlight hitting about the same amount of the northern and southern hemispheres during those seasons. Guide students through the questions in the bottom box, circling correct answers and labeling when asked to do so.)

10. Say, "I think you all are truly experts on seasonal daylight! Great job!" You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it's fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections

© 2014 Primarily Teaching p. 35
I can make observations to collect data that can be used to make comparisons. Lesson 6
Lesson 6

Modeling Seasonal Daylight

Name __________________________

Draw the flag where your teacher placed it on each globe. Trace the line from the middle of the flashlight to each globe. Then answer the questions.

For A, more sunlight is hitting the northern hemisphere / southern hemisphere. Label the season for A.

For C, more sunlight is hitting the northern hemisphere / southern hemisphere. Label the season for C.

For A, people who live in Alaska would have all light / all dark for a season.

For A, penguins who live in Antarctica would have all light / all dark for a season.

For C, people in Alaska would have all light / all dark for a season.

For C, penguins in Antarctica would have all light / all dark for a season.

B and D are "in-between" seasons and both hemispheres get about the same amount of sunlight. Follow the arrows and label the seasons for B and D.
Next Generation Science 1st Grade

Earth’s Place in the Universe

LESSON 7: I can use observations of the moon to describe patterns that can be predicted.

VOCABULARY
moon

MATERIALS
Suggested app: Solar Walk--movie within app, "The Moon Phases" 2:45 or any movie clip about the moon phases
Lesson printables: I can, vocabulary words, Question Reward Tickets, "Moon Pattern Predictions" sheet
Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we’ll continue our study of 'Earth’s Place in the Universe' by observing patterns made by the moon! It’s GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: **I can use observations of the moon to describe patterns that can be predicted.**
   Let’s talk about the fancy words in that statement. We already know what observations are, how to describe things, that patterns repeat and that you can predict things that will happen in nature! Moon is our new word. The moon is a satellite of Earth. Satellites are objects that orbit the earth's atmosphere. But the moon is a natural satellite. That means it wasn’t sent into space by mankind. Earth has one moon, but other planets have many moons or no moons at all! The moon is a very special helper to the earth.
4. Now we are ready to see what the phases of the moon look like in action! {Show movie, "The Moon Phases" from within the Solar Walk app, OR other movie clip showing the phases of the moon}
5. {Pass out the Moon Pattern Predictions sheet.} Write your name as neatly as you can at the top. {Read the instructions} In order to shade in the phases correctly, we will re-watch the movie and I’ll pause it for each phase and let you draw what you see.
6. {Play the clip again, pausing at each phase and drawing the shading on each moon. If at all possible, go back and forth between the paused movie and a copy of the sheet on the whiteboard to model each step with the students—or you can draw the phases on a dry-erase board}
7. (This is the most important step!) Now that you are finished with your drawings, study the pictures. See if you notice a pattern to the phases. (If no one notices that each step on the bottom is the exact opposite of what's on top, guide students to look at picture 1 and then 5, 2 and then 6, 3 and then 7, and 4 and then 8.) For the moon’s first half of the orbit, it is between the earth and the sun. For the second half of the trip, the moon is on the outside and the earth is in the middle, between the sun and the moon.

8. Great job finding patterns in the phases of the moon!

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name____________________</strong></td>
<td><strong>Name____________________</strong></td>
<td><strong>Name____________________</strong></td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)______________</td>
<td>(to get info)______________</td>
<td>(to get info)______________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date______________________</td>
<td>Date______________________</td>
<td>Date______________________</td>
</tr>
</tbody>
</table>

**Question Reward Ticket**

**Name____________________**

_____ I asked for help.

_____ I asked a thoughtful question.

(to get info)______________

_____ I answered someone else's question. (to clarify)

Date______________________

**Question Reward Ticket**

**Name____________________**

_____ I asked for help.

_____ I asked a thoughtful question.

(to get info)______________

_____ I answered someone else's question. (to clarify)

Date______________________

**Question Reward Ticket**

**Name____________________**

_____ I asked for help.

_____ I asked a thoughtful question.

(to get info)______________

_____ I answered someone else's question. (to clarify)

Date______________________
I can use observations of the moon to describe patterns that can be predicted. 

Lesson 7

moon
Lesson 7

Moon Pattern Predictions

The picture below is a spaceship-view of the earth, the sun and the moon. But this is not what the moon would look like from your view of it on the earth! Imagine standing on the earth and looking up into the night sky at each location of the moon. With your teacher’s help, shade what each position of the moon would look like as it makes its 28-day trip around the earth.
LESSON 8: I can use observations to describe patterns in the natural world in order to answer scientific questions. 1.OA.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem. (1-ESS1-2)

VOCABULARY
natural, scientific, questions

MATERIALS
Lesson printables: I can, vocabulary words, Question Reward Tickets, "Using Patterns to Answer Questions" sheet
Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today we are going to use what we’ve learned about moon patterns to answer scientific questions! It’s GREAT to raise your hand to ask questions about something you don’t understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!

2. Our 'I can' statement today is: I can use observations to describe patterns in the natural world in order to answer scientific questions. Let’s talk about the fancy words in that statement. We already know what observations are, how to describe things and what patterns are. The next word we will learn is natural. Since we’ve already talked about how the moon is a natural satellite of the earth, who remembers what natural means? {Call on a student.} Natural is something in nature, NOT something made by humans. So today we will use the observations we’ve made about the moon to answer some questions that are scientific, or things that scientists may ask to find out information. Remember, when you ask a question, you expect an answer.

3. {Pass out the "Using Patterns to Answer Questions" sheet.} Write your name as neatly as you can at the top of your paper. We are going to ask two big questions today. The first one is, "How many days are in a lunar month?" A lunar month is not the same as a calendar month. A lunar month is how many days it takes the moon to go around the earth one time. We have to do some math to figure out this question.

4. Look at the diagram of the moon orbiting the earth. Put your finger on the moon labeled number one. How many days does it take the moon to move from position number one to position number three? {Call on a student.} Yes—7 days. How about from position 3 to position 5? {Call on a student.} You’ve got it—another 7 days! How many days from position 5 to position 7, everyone? 7 days. What about from position 7 back to position 1? Yep, 7 more. So we can add up all of those sets of 7 days. Look at the box that says 7 plus 7 plus 7 plus 7. That’s a lot of 7s! What if we add two of them at a time?
Earth's Place in the Universe

LESSON 8 Continued:

That's a doubles fact! 7 + 7 = What, everyone? 14! If we do that to the next 7 + 7, we have 14 again. Now we have an easier problem. Look at the second box. It says 14 plus 14. Start with the ones column. What small problem do we have here? It's another doubles fact! (Call on a student.) Yes, 4 + 4 and that equals what, everyone? 8! Write that under the ones column. Now the tens column is easy as can be—1 + 1 = 2. Write the 2 beneath the tens column. Now we have our final answer! How many days are in a lunar month, everyone? 28! Write that in the blank next to question number one.

5. Now look at question number two. It says, 'How many times does the moon orbit the earth in one year?' First answer this. How many calendar months are in a year? What is a calendar month? (Call on a student.) Let's name the calendar months. (Recite the months beginning with January.) Raise your hand if you know how many calendar months we have in a year. (Call on a student.) Yes—12. Write that down.

6. But we have a problem here. How many days did we say were in a lunar month, everyone? Yes, 28. Why is this a problem? (Call on a student. Guide them to the fact that calendar months have more days than lunar months.)

7. There's a rhyme that can help us. Repeat after me: Thirty days hath September (let students echo) April, June and November (students echo). That's really all you have to learn, because the rest of the months have 31 days except for February. February is a special month. It usually has 28 days—just like a lunar month. But every 4 years, February gets an extra day, and when that happens, that year is called a Leap Year. We say that a day is 24 hours, but it is actually 23 hours and 56 minutes and 4.1 seconds—just a bit less than 24 hours. Every 4 years, that little bit each day adds up to be enough to add a day onto February.

8. The next task asks us to write how many more days beyond 28 each month has. If a month has 30 days, how many more is that beyond 28? (I like to show a fist at 28, then put up fingers as I count to show a difference of 2. You can also use a number line to show it's two hops from 28 to 30.) It's 2 more days. So for every month with 30 days, we'll write a 2 in the blank. But what if a month has 31 days? (Call on a student.) Yes, we will write a 3. Let's use the rhyme to help us fill in how many more days each month has compared to a lunar month. (Continue until each month is complete.) Now we need to count up those extra days. (Use the trick mentioned on the sheet (count by 2s, even on the 3s, then go back and add on 1 for every 3 you wrote), then write the total number of extra days.)

9. Is 29 days enough for the moon to go around the earth one more time? Yes! So the moon doesn't go around the earth 12 times a year; it goes one more than that! Fill in your final answer for question 2—What will it be? 13 times!

10. Great job answering scientific questions today!

You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder—Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it's fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
<td><strong>Name</strong> ____________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
<td><strong>Date</strong>___________________________</td>
</tr>
</tbody>
</table>
I can use observations to describe patterns in the natural world in order to answer scientific questions. 

natural scientific questions
Lesson 8 Using Patterns to Answer Questions

Name

QUESTION 1: How many days are in a lunar month? (This is the time it takes the moon to orbit the earth one time) ___________ days

Do you see a pattern in the diagram of the moon's orbit around the earth?

| 7 days | > 14 days |
| 7 days | > 14 days |
| + 7 days | = 1 lunar month |

days

QUESTION 2: How many times does the moon orbit the earth in one year?

______________ times (Fill in your final answer after working through the steps below!)

First answer this:

How many calendar months are in a year? _________

Problem—most calendar months have more days than a lunar month! Remember this rhyme?

Thirty days hath September, April June and November

All the rest have 31, except for February alone, and it has 28—unless it's a leap year, then it has 29!

Write the number of extra days (beyond 28) for each month, example:

January ___ July ___
February ___ (NOT leap year) August ___
March ___ September ___
April ___ October ___
May ___ November ___
June ___ December ___

Now count up the extra days. Hint: count by 2s even on the 3s, then go back and count one extra for each 3.

Total amount of extra days: _______

Is this enough for the moon to make another trip around earth? _________
Earth's Place in the Universe

LESSON 9: I can use observations of the stars to describe patterns that can be predicted.

VOCABULARY:

stars

MATERIALS

Suggested book: The Everything Kids' Astronomy Book: Blast into outer space with stellar facts, intergalactic trivia, and out-of-this-world... [Kindle Edition] by Kathi Wagner and Sheryl Racine ($5.96 at unit publication time) "Connecting the Dots" and "How the Constellations Got Their Names" sections in chapter 8, Starry, Starry Night.

Suggested resource: http://www.universetoday.com/108735/simply-breathtaking-night-sky-timelapse-huelux-by-randy-halverson/ At 3:52 into this video, you can brilliantly see the big dipper! Pause the movie and let the kids find it!

Suggested resource: http://www.youtube.com/watch?v=FKGrR9bLtsk Night sky rotation during winter. Before it begins, locate the big dipper in the top half, upper-left third of the screen. Then play and watch it rotate through the night. :) 

Lesson printables: I can, vocabulary words, Question Reward Tickets, "Star Movement Patterns" sheet, Big Dipper printout (tape this on the ceiling), sun and season labels card (put this on the floor for the kids to stand around with spring matching the picture on the Star Movement Patterns sheet—your feet facing spring, when you look up at the Big Dipper card, it should look like it does on the worksheet), scissors, glue sticks.

Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS

1. Say, "Today we'll start with this question: How can you observe the stars? At night with a telescope! It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!

2. Our "I can" statement today is: I can use observations of the stars to describe patterns that can be predicted.

Let's talk about the fancy words in that statement. We already know what observations and patterns are and how to use information to make predictions. Our new word is stars. Stars are different from planets. Our sun is a star. Stars are spheres made of burning gases, mainly hydrogen and helium. Have you ever heard the word helium? How about helium balloons? Helium is one of the main gases in stars!

3. When you look into the sky on a clear, unclouded night, you can see stars. Think very carefully: We know that the earth is revolving around the sun and the moon is revolving around the earth. Do you think the stars move? (Call on a student.) Yes, they sure do! They seem to move in the night sky just as the sun and moon seem to rise and set in the sky.

4. One of the most famous groups of stars is the Big Dipper. It's part of a bigger group of stars—a constellation—Ursa Major, the Great Bear. Long ago, people watched stars and saw shapes that groups of stars made. They named these groups after stories they told. Let's read a couple of sections from The Everything Kids' Astronomy Book."
Earth's Place in the Universe

LESSON 9 Continued:

(Read from Chapter 8, Starry, Starry, Night: "Connecting the Dots" and "How the Constellations Got Their Names.")

5. Have you ever gotten a drink outside at a well from a dipper? Long ago, many people had. And they saw that shape in the sky. The Big Dipper is made of 7 stars. There’s also a Little Dipper, which is also made of 7 stars, but it’s a bit harder to find. You have to find the Big Dipper first. See if you can find the Big Dipper in this video. Raise your hand when you see it!

6. (Play [http://www.universetoday.com/108735/simply-breathtaking-night-sky-timelapse-huelux-by-randy-halversen/] At 3:52 into this video, you can brilliantly see the big dipper! Pause the movie and let the kids find it!

Now I’m going to show you how it appears in the night sky during different seasons. I’ve put it on our ceiling! We will start with spring. And this is where it would be in the sky at midnight if you are facing north. I’m going to let you take turns standing on the name of each season and look up at the Big Dipper. Remember, if you did this for real, you’d have to do it at midnight each time and you’d have to be facing north!

7. (Allow one student to come up and begin at spring. Say, "Rotate seasons, Stargazers" and have the first student move to summer and a new student stand on spring. Continue saying, "Rotate seasons, Stargazers" until all students have viewed each season's Big Dipper position.) Say, "Now let’s see what that REALLY looks like. This is a time-lapse video that speeds up time: [Play [http://www.youtube.com/watch?v=FKGrr9bLtsk] This is the night sky rotation during winter. (Before it begins, locate the big dipper in the top half, upper-left third of the screen. Then play and watch it rotate through the night.)

8. (Pass out the Star Movement Patterns sheet.) Say, "Write your name as neatly as you can at the top then put your pencils down to listen. You will cut out the three pictures of the Big Dipper on the side of your sheet and place them where you think they go for each season. When you have them in the correct position, I will give you some glue to use." (Pass out scissors. As students place the pictures of the Big Dipper in the correct positions, give them glue and take their scissors.)

9. When students are finished, say, "Think for a moment about why the Big Dipper is in a different position each season. Raise your hand when you have an idea. (Call on students. Praise answers that are related to the earth’s revolving around the sun as we have our seasons.)

10. Awesome job! You observed the stars in the Big Dipper and remembered their pattern of movement across the seasons! You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit book.

*Teacher reminder--Did you award Question Reward Tickets for asking for help, asking a question or answering a question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
<td>(to get info)_____________________</td>
</tr>
<tr>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
<td>_____ I answered someone else’s question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>
I can use observations of the stars to describe patterns that can be predicted.

Lesson 9

stars
Lesson 9
If you were to view the Big Dipper at midnight, facing north and from the Northern Hemisphere, this is where it would be located at each season.

Star Movement Patterns: The Big Dipper at Midnight

Name

Spring

Polaris (the North Star)

Summer

Fall

Winter

© 2014 Primarily Teaching p. 55
Teacher answer sheet for lesson 9: Notice how Polaris (the North Star), which moves very little in the sky, can be connected to the Big Dipper by a straight line.

Star Movement Patterns: The Big Dipper at Midnight

Name

© 2014 Primarily Teaching p. 56
Earth's Place in the Universe

LESSON 10: I can identify patterns to describe phenomena and use data as evidence.

VOCABULARY
phenomena, evidence

MATERIALS
Suggested resource: http://www.youtube.com/watch?v=vC7odtQHoPc "Moon Wobble" video is also available from the NASA Viz app.

Lesson printables: I can, vocabulary words, Question Reward Tickets, "Patterns as Evidence" sheet

Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or ActivInspire version for this unit!)

STEPS
1. Say, "Today we will be reviewing what we've learned about patterns of the sun, moon and stars. It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!

2. Our 'I can' statement today is: I can identify patterns to describe phenomena and use data as evidence. Let's talk about the fancy words in that statement. We know how to identify things. We know that patterns repeat. We can describe things. We know data is information you can record, or write down. Our first new word is phenomena. That word means more than one phenomenon. A phenomenon is something that is observed to exist or happen, but may be difficult to explain. All of the patterns we've observed in this unit are phenomena. We know they happen, but explaining them is a bit tough. But we have data that people have written down over years and years of observations that can help us explain why these phenomena happen. That data is our evidence for explaining why each of these things happen. Evidence supports what you are explaining.

3. First, we are going to watch a time-lapse video clip that shows what the moon looks like as it orbits the earth. We know the earth rotates, or spins, around its axis. Try to notice how the moon moves. (Play the "Moon Wobble" video clip.)

4. What did you notice? (Call on students. Lead them to the observation that we always see the same side of the moon. Also help them notice that it rocks back and forth, or wobbles.)

5. The moon actually does spin around one time in its trip around earth. To show you how, I need one volunteer to come and be the moon. (Place the earth card on the floor. Ask the moon to face the earth. Now ask the moon to go around the earth, but always face the earth. Now take the earth card away and ask the moon to keep moving the same way, except make the circle smaller.) Ask the class, "Is the moon rotating, everyone? Yes!" (Now ask the moon to stop. Have a student come up and be the earth. Ask the earth to rotate and ask the moon to slowly move in its orbit around the earth. After one full rotation of the moon, ask the students to stop rotating.) Ask the earth student, "Did it look like the moon was rotating?"
Next Generation Science 1st Grade
Earth’s Place in the Universe

LESSON 10 Continued:

{Hopefully, the student will say no. Explain to the class that this is why it seems to us on earth as if the moon is not rotating.
But is it actually rotating? Yes.}

6. {Pass out the ‘Patterns as Evidence’ sheet and bring up a copy on your whiteboard, if possible, to complete along with
your students.) Say, "Write your name as neatly as you can at the top. We are going to look at the patterns we’ve
discovered in this unit and see what they show evidence of. Look at the word bank at the bottom on the page. The
instructions say that you may not have to use all of the words, but some words you may have to use more than once." (Have
the students touch the words as you read them together.)

7. Say, "Now we are ready to fill in the first pattern." (Read the item, stopping after the first part. If necessary, re-read it
and substitute words from the word bank until it makes sense. Continue, finishing the first sentence. Then move to the
Evidence side and complete.)

8. Say, "The rest of the patterns are from our previous lessons in this unit. So put on your thinking caps to remember
them!" (Complete the rest of the patterns and evidence sections together.)

9. Say, "Great job today, scientists! The patterns we notice in nature can be our evidence to explain phenomena, like the
moon wobble, the rising and setting of the sun, the moon phases and the movement of stars in the sky!"
You can immediately send home completed sheets, display excellent work and/or file away to make an end-of-unit
book.

*Teacher reminder--Did you award Question Reward Tickets for asking for help, asking a question or answering a
question? If not, try to do that now while it’s fresh on your mind. You can do immediate treats for few students, have
a drawing for a prize if you awarded lots of tickets and/or display for the duration of the unit to encourage intrinsic
motivation.

Notes & Reflections
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
</tbody>
</table>
| _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ |
| _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ |
| Name__________________________ | Name__________________________ | Name__________________________ |
| _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ |
| _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ |
| Name__________________________ | Name__________________________ | Name__________________________ |
| _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ | _____ I asked for help.  
____ I asked a thoughtful question.  
(to get info)____________________ |
| _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ | _____ I answered someone else's question. (to clarify)  
Date___________________________ |
I can identify patterns to describe phenomena and use data as evidence.  

Lesson 10

phenomena

evidence
# Patterns as Evidence

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Evidence (proves)</th>
</tr>
</thead>
<tbody>
<tr>
<td>We always see the ___________ side of the moon and it seems to ___________.</td>
<td>The moon ___________ back and forth and rotates one time every 27.5 days, but we don't notice it because its rotation exactly matches its ___________ around the earth.</td>
</tr>
<tr>
<td>The sun rises in the ___________ and sets in the ___________.</td>
<td>From space, looking down at the north pole, the earth ___________ rotates ___________.</td>
</tr>
<tr>
<td>The moon goes through ___________.</td>
<td>The moon ___________ around the earth.</td>
</tr>
<tr>
<td>___________ move in the night sky from season to season.</td>
<td>The earth ___________ around the sun.</td>
</tr>
</tbody>
</table>

**Word Bank**—You may not need to use every word, but some you may use more than once. Be careful!
clockwise, counterclockwise, different, same, north, south, east, orbit, west, top, bottom, phases, stars, rocks, rotate, revolves, wobble
Lesson 10

Patterns as Evidence ANSWER KEY

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Evidence (proves)</th>
</tr>
</thead>
<tbody>
<tr>
<td>We always see the <strong>same</strong> side of the moon and it seems to <strong>wobble</strong>.</td>
<td>The moon <strong>rocks</strong> back and forth and rotates one time every 27.5 days, but we don't notice it because its rotation exactly matches its <strong>orbit</strong> around the earth.</td>
</tr>
<tr>
<td>The sun rises in the <strong>east</strong> and sets in the <strong>west</strong>.</td>
<td>From space, looking down at the north pole, the earth rotates <strong>counterclockwise</strong>.</td>
</tr>
<tr>
<td>The moon goes through <strong>phases</strong>.</td>
<td>The moon <strong>revolves</strong> around the earth.</td>
</tr>
<tr>
<td>The <strong>stars</strong> move in the night sky from season to season.</td>
<td>The earth <strong>revolves</strong> around the sun.</td>
</tr>
</tbody>
</table>

**WORD BANK**—You may not need to use every word, but some you may use more than once. Be careful! clockwise, counterclockwise, different, same, north, south, east, orbit, west, top, bottom, phases, stars, rocks, rotate, revolves, wobble.
Earth's Place in the Universe

LESSON 11: I can participate in a shared research and writing project by reading information on a given topic in this unit and use this information to write a sequence of instructions. (Ideas: how to model day and night with a flashlight and globe; determine the phase of the moon; locate the big dipper; make a bar graph, prove the moon does rotate, etc.) *This lesson may take multiple days to complete.

VOCABULARY
research, topic, sequence, instructions

MATERIALS
Suggested video/book:
Lesson printables: I can, vocabulary words, Question Reward Tickets, 2 separate Student Packets with Steps 1-4 stapled and Final Copy paper stapled, various books, apps and websites about the sun, moon and stars, etc.

Whiteboard version of this lesson with the "I can," vocabulary words and lesson printable. (Email primarilyteaching@gmail.com to request the SmartBoard version or Activinspire version for this unit!)

STEPS
1. Say, "Today you get to show what you've learned throughout this unit. It's GREAT to raise your hand to ask questions about something you don't understand. I have Question Reward Tickets for boys and girls who ask or answer good questions, so pay close attention!
2. Our 'I can' statement today is: I can participate in a shared research and writing project by reading information on a given topic in this unit and use this information to write a sequence of instructions. Let's talk about the fancy words in that statement. The first tricky word is research. When people do research, they are trying to find out information. How could you find information? (Relate this back to media: books, apps, websites, videos.) Those are all types of media for research. The next word is topic. You will choose a topic to research. A topic is something to write or talk about. We are going to try to share what we've learned by writing how to do something. When you teach someone to do something, you have to put the steps in order, or in sequence. The last word is instructions. The people we share your writing with will read your instructions and learn to do something. What will happen if your instructions are out of sequence or you leave out a step? (Call on a student.) So it's very important to write your instructions in the right sequence.
3. (Pass out the Student Packets. Bring up a copy on the whiteboard, if possible.) Say, "Write your name neatly at the top. In our first step, we will brainstorm together. That means we will work together to remember what we've learned in this unit that you could possibly teach to someone else. We have studied the sun, the moon and the stars. Let's think first about the sun. What have you learned how to do? (Guide students to writing things they can actually do now. Do not accept facts. Write these for the class. Idea for the sun: how to tell directions in the morning or at sunset based on where the sun is in the sky.) What is something you have learned to do that involves the moon? (Again, stick to something you can do! Write the ideas down for the class. Idea for the moon: how to identify the phase of the moon.)"
Finally, what’s something you’ve learned to do related to the stars? (Guide students to write what they can actually do. Model these on the board. Idea for stars: how to find the Big Dipper/how to look at the stars at night.)

4. “Now think hard about what you know the most about. Write that at the bottom of your paper.” (At this point, you may want to survey the class about their chosen topics. This is a great place to stop the lesson.)

5. (You can ask your librarian to gather some resources before you visit the library, or you may do research in stations in your class. Research can take one class period with rotating among resources.)

6. “Now that you’ve done some research and looked at different media about your topic, you are ready to write your introduction. Open your packet to Step 2: Hooking Your Reader. Write your name neatly at the top. Think about your topic. The beginning of your writing piece needs to be super-exciting! (Go over the different ways they can start. Each word starter corresponds with the type opposite of it.)

*If ‘how to set up a tent’ was my topic, I could start with describing a scene—Imagine going on your first camping trip. You arrive at night and begin to unload your car. You did not read the instructions on how to set up your new tent. Since it’s so dark, you can’t even read the instructions with a flashlight, so you can’t put your tent together. That’s no fun! (Here’s where step 2 starts.) I’m going to teach you how to set up a tent so well that you can even do it in the dark!*

*I could start by describing some action—Have you ever noticed how hard it is to set up a tent in the dark, especially if you don’t know how? You open the instructions, but it’s too dark to read. You get out all of the pieces, but they don’t fit together. You end up tangled in your tent on the ground! (Here’s where step 2 starts.) I’m going to teach you how to set up a sturdy tent so that this disaster doesn’t happen to you!*

*I could start by giving a cool fact—Can you believe that over 3 million people camp at national parks each year? You could become a camping-lover yourself. (Here’s where step 2 starts.) I’m going to teach you how to set up your tent so you can be prepared for your next camping adventure!*

*I could start by giving the meaning of a tricky word—Do you know the meaning of season tent? It’s a tent that’s designed to be used all year, even in harsh weather. (Here’s where step 2 starts.) I’m going to teach you how to set up a sturdy tent so you can be prepared for your next camping adventure!*

Think about how you want to start your writing. Put a check beside the trick you want to use. (It helps here to have students circle the sentence starter that goes with their chosen trick. Teach your kiddos how to place two fingers at the beginning to indent and tell them to only do this on the first line.) Copy the starter that goes with your trick then finish the sentence. Remember how to use a period, question mark or exclamation mark at the end of your sentence. You may write more sentences if you need to. (Allow volunteers to share their introductions and tell them you’ll continue next time.)

This is a great place to stop the lesson.
Next Generation Science 1st Grade
Earth's Place in the Universe

LESSON 11 Continued:

7. Say, "The first thing you'll do today is copy the beginning of your writing piece onto the final copy." (Pass out final copy papers and allow students to copy their beginnings from step 2 onto the lined paper. Take these up when finished.)

8. "Next, we are ready to write our steps in sequence. Open your packet to Step 3: Steps in a Process. Think about what you are teaching your reader how to do. You can use the sentence starters to help you, but you do not have to use all of them. Only use the ones that fit with what you're trying to say. Write your steps and begin a new line with each step." (After checking for correct sequence of steps, you may allow students to add these onto the final copy papers. This is a great place to stop—don't be alarmed if this step takes a couple of class periods.)

9. "The last step is easy! Open your packets to Step 4: Creating Closure. In a closing, you kind of wrap up what you're saying and leave your reader with something to think about. It relates back to the beginning. The simplest way is to write, 'Now you know how to set up a sturdy tent.' But an even better way would add, ... 'so you are prepared for your next camping adventure—even if you have to put up your tent in the dark!" Think about which starter you want to use and write your conclusion." (Give students time to write conclusions. Allow them to copy onto final papers after you have approved them. If students seem stuck, have a few students share their conclusions to give others ideas. This is a great place to stop.)

10. Sharing Day! (Pass out final papers to students and ask them to read them to themselves. Next, let students come up and sit in a special chair or stand in a special place to read their pieces aloud. You may even want to record them. I love to use VoiceThread.com to upload recordings. Then we go back and add compliments to each other's work. I've had parents say their child re-watches the presentations over and over again! They love the positive feedback from their peers!)

After Sharing Day, you are ready to review. I usually take a day to go over the test and the answers and an additional day for the unit test.

*Teacher reminder—Try to remember to award Question Reward Tickets after each break in this series of lessons.

Notes & Reflections

© 2014 Primarily Teaching p. 66
<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_________________________________</td>
<td>_________________________________</td>
<td>_________________________________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_________________________________</td>
<td>_________________________________</td>
<td>_________________________________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
<th>Question Reward Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name__________________________</td>
<td>Name__________________________</td>
<td>Name__________________________</td>
</tr>
<tr>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
<td>_____ I asked for help.</td>
</tr>
<tr>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
<td>_____ I asked a thoughtful question.</td>
</tr>
<tr>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
<td>(to get info)_______________________</td>
</tr>
<tr>
<td>_________________________________</td>
<td>_________________________________</td>
<td>_________________________________</td>
</tr>
<tr>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
<td>_____ I answered someone else's question. (to clarify)</td>
</tr>
<tr>
<td>Date___________________________</td>
<td>Date___________________________</td>
<td>Date___________________________</td>
</tr>
</tbody>
</table>
I can participate in a shared research and writing project by reading information on a given topic in this unit and use this information to write a sequence of instructions.

research  sequence  topic  instructions
Lesson 11

Step 1: How-to Brainstorming

Name ____________________________

I remember how to:

I know most about how to ____________________________.
Step 2: Hooking Your Reader!

Name ____________________________

The beginning of your piece needs to be so exciting, the reader just can’t stop reading! Try one of the following writing tricks:

___ Describe a scene.
___ Describe some action.
___ Give a cool fact.
___ Give the meaning of a tricky word related to your topic.

Imagine...
Have you ever noticed...
Can you believe...
Do you know what ______ means?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Step 3: Steps in a Process

Name

I am going to teach you how to

Below, list the steps in your process.
Start a new line with each point or step.

First,
Second,
Third,
Next,
Then,
Finally,
Step 4: Creating Closure

Name______________________________

A good conclusion is one that refers back to your beginning in some creative way. You can also use one of these "conclusion starters."

- In conclusion.
- Now you know...
- In summary.
- Remember...
- Maybe...

- With this in mind.
- Indeed...
- Given these facts.
- Will you...
- Overall...

© 2014 Primarily Teaching p. 72
Putting it all together: Sharing My Information With The World!
Title of My Informative Piece:
## Informative/Explanatory Writing Scoring Guide

<table>
<thead>
<tr>
<th></th>
<th>Self-Score</th>
<th>Peer Score</th>
<th>Teacher Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Topic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear Facts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Created Closure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neatness and Spacing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Words</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct Capitalization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct End Punctuation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published Digitally (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published by Hand (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draft was scored (0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Teacher (Final) Score:**

- **11-14** = NICE JOB!
- **8-10** = you can improve
- **below 7** = MUCH improvement needed

**Plan for Improvement**

Look for any areas you scored a 0 or a 1. Next time, I need to do a better job of:

- [ ]
- [ ]
- [ ]

© 2014 Primarily Teaching
Earth’s Place in the Universe Unit Test

Circle the correct word to make the sentence true. Use pdf of test on whiteboard if possible.

1. A pattern is something that happens (over and over / only once).
2. To predict is to (take a wild guess / estimate) that something will happen.
3. The sun is a (star / planet).
4. To look at something very carefully is to (reduce / observe).
5. Information is (a web site / knowledge).
6. A source is (what you get information from / a planet).
7. An experience is something (a friend / you) did.
8. A (sunrise / sunset) is when the sun comes up in the morning.
9. Information you write down is (collect / data).
10. (T / F) The amount of daylight we get in each season stays the same.
11. A globe is a model of the (earth / solar system).
12. The earth revolves around the (sun / moon).
13. The moon revolves around the (sun / earth).
14. Evidence is (proof / a guess) that something happened.
15. An orbit is (a map / a path) a planet or moon follows.
16. The moon goes through (seasons / phases).
17. (T / F) The Big Dipper stays in the same place all through the night.
18. The Northern Hemisphere gets more sunlight in the (winter / summer).

© 2014 Primarily Teaching p. 76
Earth's Place in the Universe  Answer Key

Circle the correct word to make the sentence true. Use pen of text on whiteboard if possible.

1. A pattern is something that happens (over and over / only once).
2. To predict is to (take a wild guess / estimate) that something will happen.
3. The sun is a (star / planet).
4. To look at something very carefully is to (reduce / observe).
5. Information is (a website / knowledge).
6. A source is (what you get information from / a planet).
7. An experience is something (a friend / you) did.
8. A (sunrise / sunset) is when the sun comes up in the morning.
9. Information you write down is (collect / data).
10. (T / F) The amount of daylight we get in each season stays the same.
11. A globe is a model of the (earth / solar system).
12. The earth revolves around the (sun / moon).
13. The moon revolves around the (sun / earth).
14. Evidence is (proof / a guess) that something happened.
15. An orbit is (a map / a path) a planet or moon follows.
16. The moon goes through (seasons / phases).
17. (T / F) The Big Dipper stays in the same place all through the night.
18. The Northern Hemisphere gets more sunlight in the (winter / summer).
Gracious Acknowledgements
Due to remote learning, we had to digitize several of our activities. Students needed to be able to access them via Seesaw. 1st and 2nd graders benefit from seeing what the teacher does and we wanted to be able to share the documents so students could keep up with the worksheets. We also were able to assess students' understanding with the digital work.

Sun, Moon, Stars Journal

Constellation Story

Oreo Cookie Moon Phases
### Helpful Acronyms:
- **TW** - Teacher will
- **SW** - Students will
- **Obj** - objective
- **EFS** - education for sustainability standards
- **EE** - Environmental Education

### Lesson 1-2

<table>
<thead>
<tr>
<th>Materials</th>
</tr>
</thead>
</table>
| - Computer  
| - Projector  
| - Scissors  
| - Glue  
| - 25 pieces of Construction Paper 18X24  
| - Continents foldable  
| - Map of the Month Continents  
| - Student Computers (optional) |

**Objective**

- SW identify the 7 continents of the world, SW learn fun facts about each continent

**Mini-Lesson:**

1. TW explain definition of a continent.
   a. A **continent** is defined as a large, continuous, mass of land, ideally separated by an expanse of water.
2. TW play video of [Continent song by Mr. DeMaio](http://www.softschools.com/social_studies/continents/map.jsp).
3. SW make the **continent foldable** with the teacher’s directions.
   a. Teacher can decide if kids get the copy with the words or take notes.
4. Optional game on the computer
   a. [http://www.softschools.com/social_studies/continents/map.jsp](http://www.softschools.com/social_studies/continents/map.jsp)
5. Optional- Use a map of the month to label Continents.

### Lesson 3-4

<table>
<thead>
<tr>
<th>Materials</th>
</tr>
</thead>
</table>
| - Computer  
| - Projector  
| - 25 pieces of construction paper 18 X24  
| - Scissors |

SS Obj.-SS.G.1.3. Locate major landforms and bodies of water on a map or other representation.
Objective- Sw identify the 5 oceans of the world

SS Obj.-Locate major landforms and bodies of water on a map or other representation.

Mini-Lesson:

1. **TW define an ocean.**
      i. An ocean is a huge body of saltwater. Oceans cover nearly 71 percent of Earth’s surface. They contain almost 98 percent of all the water on Earth.
      ii. There is one world ocean, but it is divided into five main areas: the Pacific, the Atlantic, the Indian, the Arctic, and the Southern, or Antarctic. Together, they can be seen as one world ocean because they have no real borders, and water flows freely between them.

2. **SW listen to a youtube video about oceans** [https://www.youtube.com/watch?v=X6BE4VcYngQ](https://www.youtube.com/watch?v=X6BE4VcYngQ)

3. **SW make oceans foldable.**
   a. The teacher can decide to give the page with the words or have the kids take notes.

4. **Label Oceans on Map of the Month Continents**

5. **Optional computer games on oceans and continents**

6. **Test on Ocean and Continents**
   a. The teacher will send home a study guide and give the test after the kids have time to study.

---

Lesson 5 A and B (2 Days)

Range Map lesson/materials [Link](#)

**Materials**

- Colored pencils
- Map of the World
- USA Map
- Instruction page for the invasive species card game
- Invasive Species Cards- One set per group
- Invasive Species Slideshow

Objective- SW learn the definition of invasive species. SW learn about different invasive species and possible sources of the invasive species.

SS Obj.-SS.G.1.3.

EFS Obj.-Healthy Commons (EfS p. 21, CI E)
Mini-Lesson:

Day 1

1. Using the slideshow above the students will learn about the range of a variety of animals and plants.
2. Following the directions on the slideshow. Students will color in the area of these plants and animals on the USA map and continent map.
3. Teacher will review how different animals and plants live in different areas of the world. This will lead to the invasive species lesson tomorrow.

Day 2

Preparation:
- Print out a set of the Invasive Species Cards one for each group (groups of 2-4)
- Whiteout the numbers on the cards and the names of the animals/plants on the picture cards.

1. Teacher will introduce Invasive Species using the Invasive species PDF.
2. Students will be in groups of 2 to 4. Each group will get on the set of cards.
3. Groups cut out the cards and shuffle them together.
4. Students will work together to determine which 3 cards go together.
   a. There should be a plant/animal, a description, and a source card for each
5. The PDF should be made available to students so they can reference the information.
6. If students finish early, they can mix them up and try again.
7. Wrap up: What did you learn about invasive species? Are invasive species bad or good? Why?

Lesson 6

<table>
<thead>
<tr>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map of the USA divided into 5 regions,</td>
</tr>
<tr>
<td>Midwest map without labels- 25 copies</td>
</tr>
<tr>
<td>one answer key for midwest region</td>
</tr>
<tr>
<td>colored pencils</td>
</tr>
<tr>
<td>Pencils</td>
</tr>
<tr>
<td>Projector</td>
</tr>
<tr>
<td>4th Grade Map Essentials books or other geography textbook</td>
</tr>
<tr>
<td>Midwest reading packet</td>
</tr>
</tbody>
</table>
**Mini-Lesson:**

1. The teacher will play the video of the drawing of the 50 states and capitals.
2. The teacher will introduce a map of the USA that is divided into 5 regions using the 4th-grade map essentials book page 8-9.
3. Students will get a blank map of the USA midwest region. Using page 10 in map essentials students will label the states.
4. Using page 67 students will label capitals and important cities. Possibly have students use a different color for cities and capitals.
   a. Example- Black for states, red for capitals, green for important cities.
5. To review the lesson, using a blank map on the overhead, the teacher will point to a state. Students will identify the state and capital.
6. Here are some video links your class may enjoy
   a. [https://www.youtube.com/watch?v=a_Pl8yNxFl4](https://www.youtube.com/watch?v=a_Pl8yNxFl4)
   b. [https://www.youtube.com/watch?v=-dgiR-WjQjA](https://www.youtube.com/watch?v=-dgiR-WjQjA)
   c. [https://youtu.be/2-gjicDfixU](https://youtu.be/2-gjicDfixU) (This one is a great mnemonic device to remember the order of the states)
7. This is where you can do the Midwest region reading packet. This can be done by the whole class, partners, or small group.

**Lesson 7**

**Objective-** Students will identify water sources and landforms in the midwest. Students will identify and describe the climate in the midwest.

**Materials**

- Map of midwest region students labeled yesterday
- map of midwest regions labeled
- 4th-grade map essentials book
- colored pencils
- landform map key from Station 2 printed in color for the teacher
- Pencils
- Projector
- Station 3 Sorting cards- 12 sets cut apart and printed on different colors

**SS Obj.-SS.G.1.4. Construct and interpret maps of Illinois and the United States using various media.**

**SS.G.1.3. Locate major landforms and bodies of water on a map or other representation.**

**EFS Obj.-Sense of Place Students are personally connected to the place(s) where**
they live and understand how the land has shaped them and the community.

Mini-Lesson:

1. The teacher will review states, capitals, and cities from yesterday.
2. Using the Map students made yesterday, they will label the Great Lakes. Use pages 66-67 in the 4th-grade social studies book.
3. Students will receive another map of the midwest region that has states, capitals, and lakes labeled.
4. Students will color in the Great Lakes using a light blue colored pencil.
5. Using page 66 in the 4th-grade social studies book, students will draw and label the Mississippi River and the Ohio River.
6. Students will trace and label the Arkansas River.
7. Students will list the major water sources in the midwest on the back of their papers.
8. Students will then use this same paper to color different landforms in the midwest.
9. The teacher will describe the difference between climate and weather.
   a. Climate is what you expect
   b. The weather is what you get daily.
10. In partners, students will sort the Station #3 sorting cards into two categories: weather and climate.
11. On the back of the landform map, students will write a few facts about the weather in the midwest.
   a. 4 seasons with large changes in weather
   b. High and low temperatures are based on seasons, not oceans
   c. The good growing season is spring and summer
12. The teacher will summarize what the students learned today about water sources, landforms, and climate.

Lesson 8

This may take two days. One inside and one outside. Good to do during your EE day.

Materials

- Science Journals
- Nature Journals
- Computer
- Projector
- Slide Show
**Objective-** Students will identify habitats of the midwest. Students will learn about the adaptations of plants and animals to live in the midwest.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EFS Obj.-EFS Obj.-Sense of Place Students are personally connected to the place(s) where they live and understand how the land has shaped them and the community.</td>
</tr>
<tr>
<td>Healthy Commons- Students will be able to recognize and value the importance of the Commons (shared resources). Students will also take responsibility for the Commons so that it is around for future generations.</td>
</tr>
</tbody>
</table>

**Mini-Lesson:**

1. Students will review/identify the 3 major habitats of Illinois (as a representative state of the midwest and prairie-wetland-woodland, plus agricultural and urban, which pretty much are the major habitats for all the midwest); and note a few important conditions/defining features of each.
   a. Prairie- A large open grassland, Sunny, few trees, deep roots
   b. Wetland- Water saturated lands, Roots of the plants are wet most of the time
   c. Woodland- Land covered with trees, many layers that have different characteristics and plants/animals, Trees that lose their leaves- Deciduous, some evergreen
   d. Agricultural- Land that was cleared for planting crops. Prairie or Woodland, Few trees except maybe around the edges, sunny
   e. Urban- Land cleared for houses, buildings, factories, and roads. A lot of concrete covers the land.

2. Students will discuss (review?) the idea of an adaptation -- a characteristic (physical or behavioral) that helps an organism survive in its specific habitat. Provide some examples of adaptations for plants that make them ideally suited for each habitat. This is where you show the slide show. You may have kids draw some pictures of each habitat and plant. The kids could write some facts.
   a. Woodland- Burr oak tree, Mushrooms
      i. Burr Oak Tree- Strong to withstand storms, wind; lots of seeds to reproduce; Large to smoother other trees; squirrels help the tree to spread and produce in other locations
      ii. Mushrooms- Use fallen trees for food; Need a cool place to grow (prairie too hot, sunny)
   b. wetland- lilypad, cattail
      i. Llyypad- Tall plant to survive out of the water; Floats; The air pores through which the leaf breathes are located on the upper surface, rather than the lower surface (unlike the leaves of most plants).
      ii. Cattail- Long stem to float on the water; Seeds above the water; Seeds
disperse by air and water; Shallow roots

c. Prairie- Big Bluestem, Prairie Doc
   i. big bluestem- Deep roots; Drought tolerant:
   ii. prairie doc- Deep roots, Tall; Like the related compass plant, the leaves of prairie dock tend to orient in a north-south direction. That is, the broad part of the blade faces east and west, to maximize sunlight for photosynthesis.

d. Agricultural- corn, soybeans
   i. Corn- Deep roots; Tall prevents other plants from growing
   ii. Soybeans- Does not need extreme heat like oranges; grows in a short season

3. Visit each habitat (sense of place -- this is the one region we can visit, let’s do it!!!). Discuss the conditions to which plants and animals need to be adapted.
   a. Have students bring nature journals.
   b. Students will label a page with the habitat that they visit.
      i. Each place you stop, write down the characteristics of the habitat.
      ii. Write/draw plants and animals that we observe.

4. Extension- Have students create/draw a plant or animal that lives in each habitat. Students will need to describe that plant or animal. They will need to include why it is adapted to that habitat.

5. Conclusion- Review the habitats of the midwest.

---

Lesson 9- This will probably be a two-day lesson because you are introducing invasive species.
Day 1- Learn about invasive species. 1-5, skip the rest and switch to the trunk
Day 2- Midwest invasive species (Trunk)

Objective- Students will define invasive species and natural resources. Students will identify a few invasive species in the midwest. Students will understand the problems with invasive species in the midwest.

Materials
- Computers
- Blank USA map
- Projector
- Colored pencils
- Large paper for posters
- Invasive species of midwest document
- Green Invaders article
- Invasive Species Trunk Checked out From Illinois DNR


EFS Obj.-Sense of Place; Students are personally connected to the place(s) where they live and understand how the land has shaped them and the community.

EFS Obj.- Healthy Commons; Students will be able to recognize and value the importance of the Commons (shared resources). Students will also take responsibility for the
Mini-Lesson:

1. Teacher will have a discussion about the vocabulary invasive.
   a. Ask students what it means to invade someplace?
   b. Does it have to be people that invade, or could plants and animals invade -- what might that mean?

2. Read the article “Green Invaders”. Green Invaders
   a. Teacher could show the article, print it out, or have students pull it up on their computers.

3. Play the first part of the game Invasion. Brainpop Invasion Game
   a. This can be played in front of the class first to read all the signs. Then students can play the game. The second part of the game is aimed at high school students.
      i. Be sure to discuss how the carp jump and hit people in real life.
      ii. Show how the other fish don’t have food, are eaten, and die.

4. Have students discuss why invasive species are introduced to new areas.
   a. accidentally moving them; for example, through transportation or trade, or by moving firewood from one location to another
   b. purposely introducing them to help control a native species that is considered a pest; for example, to control pests that destroy crops
   c. importing ornamental plants to buy or sell
   d. importing animals as pets

5. Explore this website with the class and watch the videos on how to stop invasive species. Invasive Species Game

6. This is a good time to use the Invasive Species trunk if you have not used it yet. Depending on time, you can do steps 7-9 or just Invasive Species Trunk.

7. Students will work with a partner or a small group to learn more about an invasive species in the midwest. They will then report to the class about what they learned. They will use the website - Midwest Invasive Species Website and the document Invasive Species in the midwest.
   a. Students will need a blank USA map.
   b. Invasive Species of Midwest
   c. You can have the student make a poster or possibly a slide show about the species. They could also be creative and teach the class another way.

8. Students will then share about the invasive species they learned about with the rest of the class. Try to keep the presentations to be about 1 minute long.

9. End the class with a discussion on the importance of knowing about invasive species and how they can stop the spread of invasive species.
**Introduction to Unit P3BL**

1-hour Lesson, Include Naomi, environmental educator, if available.

**Materials**
- Invasive Species Kit from Forest Preserve/Botanical Gardens
- Science Notebooks

**Objective**

Students will learn what an invasive species is, study examples, and be able to explain other characteristics of invasive species to others.

Students will use this information to research a specific invasive species.

**SS Obj.** Construct and interpret maps of Illinois and the United States using various media.

**EFS Obj.** Students will be able to recognize and value the importance of the Commons. Students will also take responsibility for the Commons so that it is around for future generations.

**Mini-Lesson:**

Introduce the term Invasive Species and ask students what they know about an invasive species. Next, describe the characteristics of an invasive species to students. Have them record this information in their notebooks.

*An invasive species* is an organism that is not indigenous, or native, to a particular area. Invasive species can cause great economic and environmental harm to the new area.

**Characteristics of Invasive Species**

- Competitors
- Few natural enemies-predators
- Parasites and diseases
- High reproductive rate
- Long-lived
- Good dispersal
- Generalists
- Pioneer species

Next, place students in groups of 3 and place the corresponding species in the bag with the binder picture and informational card at several different stations throughout the class. Students will rotate through either all stations or 4 stations and record the following information: Species Name: Origin: Important Facts: Picture:

Then, students can share their information with the class.

End the lesson with regrouping and discussing how students will have the opportunity to research a species of their own in this Geography unit as we learn about different locations in the world.

**End of The Unit Project**
Invasive Species Trifold Brochure directions

1. TW review range maps and invasive species.
2. TW pass out directions to students
3. SW research about a specific invasive species.
4. SW create a trifold brochure about the invasive species based on the directions.
5. SW brainstorm where to pass out brochures and how to get them to the correct person or organization
   a. Churches, scouts, Facebook, Youtube, Newsletter, Other school events, Earth Week....
6. TW will help facilitate brochure distribution.

Invasive Species Tri-Fold Brochure Project

Name (Biologist):____________________________________________________
Due Date ___________________________________

Your Mission!
To educate (teach) people about the invasive species that are threatening the Great Lakes Ecosystem, and let them know how they can help!

Please choose 1 of the invasive species from the list below. If you would like to do an invasive that is not on this list please check with me.

UNWANTED INVADERS!
Sea Lamprey Purple Loosestrife Eurasian Ruffe
Silver(Asian) Carp Watermilfoil Zebra Mussel
Rusty Crawfish Fishhook Flea Round Goby
Brazilian Eldoea

5 points:______ Describe the habitat where your invasive came from before it got to the Great Lakes.
5 points:______ Current range map of the invasive species.
5 points:______ List some of the adaptations your invasive species has that allows it to survive so well in the Great Lakes Ecosystem.
5 points:______ Describe some of the behavioral characteristics that allow it to survive.
5 points:______ Drawing or picture of the invasive you chose.
5 points:______ Identification chart (physical characteristics).
5 points:______ How this invasive is impacting the Great Lakes Ecosystem.
5 points:_______ A solution (it can be a solution you think of or one that you researched) to how people can help stop or slow the spread of this invasive species.
10 points:_______ Use full color, correct spelling, punctuation, and grade level quality work!
Total Points (50):____________________

Websites for research

Great Lakes Invasive Species

Aquatic Invasive Species
Research Project- US Regions Unit Overview

Unit Title: Travel the US Regions

Grade level: 5th  Time Frame: 15 days

Essential Questions:

- How do landforms, climate, economy, history, and landmarks of a region collectively define that area of our country?
- How can we, as geographers, create an amusement park that explains and describes the geographic, social, and economic structures of a United States region?
- How does our knowledge of the world around us create a human connection to a specific place?

Knowledge and skills:

Students will be able to...

- Locate and record geographic information on a United States map
  - USA, Canada, and Mexico
  - Rocky, Appalachian, Sierra Nevada, and Cascade Mountains
  - Mississippi, Missouri, Ohio, Rio Grande, Colorado, and St. Lawrence Rivers
  - Great Lakes
  - Great Plains, Central Plains, Gulf Coastal Plains, Atlantic Coastal Plains
- Use mapping skills to understand the major physical characteristics of the United States
- Use relevant sources to expand their knowledge of a specific region
- Read informational text to understand details and draw inferences
- Take notes as they read to develop a greater understanding of the landforms, climate, economy, history, and landmarks of a region
- Make connections between the characteristics of a region and how these characteristics affect and support the geographic, social, and economic structures of a United States region
- Present information by creating a poster sized map of an amusement park
- Use effective presentation methods to convey the information to the class in a manner that is concise, audible, and demonstrates a solid understanding of material
Essential Vocabulary:
Physical Map
Mountains
Rivers
Lakes
Plains
Ocean
Landforms
Climate
History
Landmarks
Economy

Illinois Standards (Social Studies):
SS.G.2.5. Describe how humans have utilized natural resources in the United States.
SS.G.4.5: Compare the environmental characteristics of the United States to other world regions.

Illinois Standards (ELA):
CC.5.W.7 Research to Build and Present Knowledge: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
CC.K-12.SL.1 Comprehension and Collaboration: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.
CC.K-12.SL.6 Presentation of Knowledge and Ideas: Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.
CC.5.R.I.9 Integration of Knowledge and Ideas: Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
CC.5.W.2 Text Types and Purposes: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
CC.5.W.2.b Text Types and Purposes: Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
CC.5.SL.4 Presentation of Knowledge and Ideas: Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
CC.5.W.7 Research to Build and Present Knowledge: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
CC.5.SL.1 Comprehension and Collaboration: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
Sequence of Lessons:

**Day One**
1. Present an outline of the United States.
2. Create a physical map and a color coded key to highlight major landforms of our country.
3. Discuss how each region is defined by a unique combination of physical characteristics.

---

**Mountains**
- Rocky Mountains
- Appalachian Mountains
- Cascade Mountains
- Sierra Nevada Mountains
- Great Plains
- Central Plains
- Gulf Coastal Plains
- Atlantic Coastal Plains
- Great Basin
- Desert
- Grand Canyon

**Water**

<table>
<thead>
<tr>
<th>Lakes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Lake Superior</td>
</tr>
<tr>
<td>B</td>
<td>Lake Michigan</td>
</tr>
<tr>
<td>C</td>
<td>Lake Huron</td>
</tr>
<tr>
<td>D</td>
<td>Lake Erie</td>
</tr>
<tr>
<td>E</td>
<td>Lake Ontario</td>
</tr>
<tr>
<td>F</td>
<td>Great Salt Lake</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rivers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>St. Lawrence River</td>
</tr>
<tr>
<td>2</td>
<td>Ohio River</td>
</tr>
<tr>
<td>3</td>
<td>Mississippi River</td>
</tr>
<tr>
<td>4</td>
<td>Missouri River</td>
</tr>
<tr>
<td>5</td>
<td>Rio Grande River</td>
</tr>
<tr>
<td>6</td>
<td>Colorado River</td>
</tr>
</tbody>
</table>
Day Two
1. Follow directions to complete a region specific map, including state abbreviations, capital and major cities, rivers, mountains and other important landforms.
2. Understand how each specific region relates to the rest of the United States.

Day Three
1. Use the questions on the following pages to begin the research of a United States region.
Region Research Outline

1. Geography - Location, Size, and Climate

Where in the United States is it located - (what section is it in)

Explain terrain (mountains, plains, tropical, etc.)

Have there been any natural disasters recently? (floods, hurricanes, tornados, fires, earthquakes, etc.)

List all of the states that are in your region along with any large bodies of water.

Provide average high and low temperatures.

What types of plants and animals are there in your region?
2. Region's History

Historical Event — What kind of event was important in your region's history?

Current Event — What is happening in your region right now?

Who were the first settlers? What cultures lived and settled there?

How did the region develop? Why did people decide to come to this region?

3. Economy/Money

Name some important early industries that helped the economy of the region.

How do the citizens of your region make a living?
What are your region's natural resources?

What do they manufacture?

4. Population
Actual population (How many people live in your region?)

5. Famous sites/Attractions
Places to see and go (Name 3 major landmarks, events, or cities that would be neat to experience and why they would be a place you would want to go.)

Does the climate and geography affect the tourism in your region? If so, is it in a negative or positive way?

If you were a tourist explain how you would spend your time, what fun things would make your trip special?

Copyright © 2019 Sally Hansen
http://purposetheplaces.com
7. Additional Information (You can use this information in the conclusion)
What do you like about it? What don’t you like?

Have you ever visited the location? If so, what was it like?

How was it alike and different from where you live now?

*Works Cited - list all of the sources that you used to find information. Students must include a "Works Cited" at the end of their report on a separate page with at least two credible sources. If there is no author, begin with the title. (Examples of the MLA format are below.)

Citing a Book:
Author’s Lastname, Firstname. M. Title of Book. City of Publication: Publisher, Year of Publication.

Citing a Website:
Editor, author, or compiler name (Lastname, Firstname, M.). "Article Title." Website Title. Website Sponsor. Date created. Date of access. <URL>.

(Try to find as much information as you can - some elements will be unavailable. Do not use Wikipedia. Use .gov, .org, and .edu sites)

1. ________________________________________________________________

2. ________________________________________________________________

Copyright © 2019 Sally Hansen
http://purposefulplaces.com
Day Four

1. Working in a group of 4 to 5 students, compare notes from the guided research questions to highlight important information related to that region.

2. Use a planning document to begin creating an amusement park. Student Example:

Planning Document: US Region Amusement Park

Name of Park: Northeast Nation
Location:

Rides OR Games

<table>
<thead>
<tr>
<th>Name of ride OR game</th>
<th>What does this ride or game represent (landform, climate, history, economy, landmark)? List all five.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing simulator</td>
<td>This game represents how important fishing is to the economy of the northeast region.</td>
</tr>
<tr>
<td>The climate of the region</td>
<td>A game where it's a tube that as it says you go up higher the colder it gets. It represents the climate of the northeast region.</td>
</tr>
<tr>
<td>See the mountains!</td>
<td>This ride represents a landform of the northeast called the Appalachian Mountains.</td>
</tr>
<tr>
<td>Mayflower rock</td>
<td>This ride represents the history of America and how the British people made it there with a boat called Mayflower and how much it rocked.</td>
</tr>
<tr>
<td>Niagara Fun</td>
<td>This ride represents the landmark the northeast region called niagara Falls and it shows how very steep it is.</td>
</tr>
</tbody>
</table>

Food Stand OR Restaurant

<table>
<thead>
<tr>
<th>Name of food</th>
<th>Type of food (finger food, main course, side dish)</th>
<th>Cost of Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>classic eggs ben-addiction</td>
<td>Main course</td>
<td>$2.00</td>
</tr>
<tr>
<td>Birch beer soda</td>
<td>Drink</td>
<td>$1.00</td>
</tr>
<tr>
<td>Clam chowder</td>
<td>Main course</td>
<td>$7.09</td>
</tr>
<tr>
<td>Oyster crackers</td>
<td>snacks</td>
<td>$1.50</td>
</tr>
<tr>
<td>Crab</td>
<td>Main course</td>
<td>$34.00</td>
</tr>
</tbody>
</table>

Mascots (must have three), Show, or Gift Shop
<table>
<thead>
<tr>
<th>Name of mascots, show, or gift shop</th>
<th>Description or item prices (if choosing gift shop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberty mascot</td>
<td>The Liberty Mascot will be a model of the Statue of Liberty. The flames will be individually wrapped cotton candy.</td>
</tr>
<tr>
<td>Lobster</td>
<td>A talking lobster who looks pretty cool, plushies of the lobster</td>
</tr>
<tr>
<td>The great Northeast</td>
<td>A gift shop that sells plushies, shirts, cups, toys, candy, and other merchandise</td>
</tr>
</tbody>
</table>

Food stand items:
- Scrapple
- Reuben sandwiches
- Maple creemee
- Apple cider
- Faygo
- Shoofly pie
- Saltwater taffy
Day Five
1. Introduce the map presentation and explain the expectations for each area of the park.
2. Provide a checklist for students to ensure each step of the project is completed.

Day Six-Ten
1. Using the planning document, students should begin compiling their information and effectively presenting it in the chosen format.
2. Students should create a menu for the restaurant and a price list if they choose to do a gift shop.

Day Eleven
1. Discuss the skills utilized in an effective presentation including volume, pacing, eye contact with the audience.
2. Allow time for students to collaboratively decide who is responsible for presenting each part of the park and provide an opportunity for groups to rehearse.

Day Twelve-Fifteen
1. Students present their work to the class. Upon completion, the presenters will field questions from their classmates about their amusement park.

ASSESSMENT:

Amusement Park Map Rubric
Examples of Student Work:
Section E: 6th Grade
Unit 1: "Dig" Culture & Archaeology

3 Curriculum Developers

LEARNING EXPERIENCE OVERVIEW

Anchor Phenomenon
(LOCAL PERSON, PLACE, THING OR EVENT) – KICK-OFF IMMERSION FIELD EXPERIENCE – HOOK

- American/midwestern culture: discuss as a class, factors of the culture we live in

Guiding Questions

- How does geography influence a civilization?
- What are the 8 traits that define a culture?

Enduring Understandings

- How to look at evidence to understand the basics of a culture
- What characteristics shape a culture
- Reading comprehension strategies

Long-Term Learning Targets (I Can Statements)

Students can:

1. come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
2. follow agreed-upon rules for (collegial) discussions and carry out assigned roles. (Set specific goals and deadlines and define roles as needed)
3. pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks/ comments of others. (comments contribute to the topic, text or issue under discussion)
4. review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions (demonstrate understanding of multiple perspectives through reflection and paraphrasing)

CONTENT OVERVIEW

In-Depth Content (including project/problem)

Project / Problem
Archaeological dig simulation
- Identifying patterns in the shaping of a civilization
- Inferencing and analysis skills

Artifacts for Dig Simulation
- Artifact sample 1
- Artifact sample 2
- Artifact sample 3
- Artifact sample 4
- Artifact sample 5
- Artifact sample 6
- Artifact sample 7
- Artifact sample 8
- Artifact sample 9

Standards

IL: Literacy in History/Social Studies, Science, & Technical Subjects 6-12

II: Grades 6-8

Capabilities of the Literate Individual

Students Who are College and Career Ready in Reading, Writing, Speaking, Listening, & Language
- They demonstrate independence.
- They build strong content knowledge.
- They respond to the varying demands of audience, task, purpose, and discipline.
- They value evidence.
- They use technology and digital media strategically and capably.
- They come to understand other perspectives and cultures.

Reading: History/Social Studies

Key Ideas and Details
1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
   - RH.6-8.1. Cite specific textual evidence to support analysis of primary and secondary sources.
2. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
   - RH.6-8.B. Distinguish among fact, opinion, and reasoned judgment in a text.
3. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
   - RH.6-8.9. Analyze the relationship between a primary and secondary source on the same topic.

Writing

2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
   - WHST.6-8.2. Write informative/explanatory texts, including the narration of historical events, scientific procedures, technical processes, or explanations of scientific concepts.
   - WHST.6-8.2d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
   - WHST.6-8.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
   - WHST.6-8.5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
   - WHST.6-8.7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

C: Education for Sustainability (2018)

C: All Grades

Big Ideas

LIVING ON PLANET EARTH
- A healthy and sustainable future for human and other life is possible
- Adaptability helps all living things (including humans) survive (even thrive) over time
- Creativity (the generation of new forms) is a key property of all living systems and contributes to nature's ability to sustain life
- All systems have limits. Healthy systems live within their limits. Tap the power of limits
- Change is inevitable. Life is dynamic and living systems develop or they die
- We are all in this together: We are interdependent on each other and on the natural systems
- Nature sustains life by creating and nurturing communities

MAKING CHANGE
- A small shift in one thing can produce big changes in everything

- The changes to the Earth's surface environments made by human activity are causing unintended consequences on the health and well-being of human and other life on Earth (proposed Anthropocene Epoch)
- There is no beginning or end in a system. Intervene where there are favorable conditions, i.e., where and when possible
TAKING RESPONSIBILITY FOR THE DIFFERENCE WE MAKE

- Fairness applies to all. To us, to them and to the “we” that binds us all together
- Sustain-ability requires individual and social learning and community practice
- We are all responsible for the difference we make. Everything we do and everything we don’t do makes a difference

Higher Order Thinking Skills

ANTICIPATORY Futures Thinking
- discussing how people in the past affected our options today, and how we now affect the options of people in the future.

EMERGENT Lateral & Creative Thinking
- generate new ideas
- change attitude and approach; look in a different way at things which have always been looked at in the same way.

COMPLEX Critical Thinking
- improve the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it.

MINDFUL Metacognition
- know when and how to use particular strategies for learning or for problem solving.

MINDFUL Reflective Thinking
- take time to contemplate on our experience and knowledge, and on how things are going.

Hands on Skills
- Building, Making, Tinkering, Crafting
- Cartography (mapping, geo spatial, geographic)
- Design/Drawing

Applied Knowledge- Content Standards

INVENTING THE FUTURE
The Standard: Vision, imagination, motivation and sense of self, combined with intentional design combine to create preferred futures for ourselves and our communities.
- Students will anticipate and construct plausible futures, do scenario planning, design, implement and assess themselves and their actions in the service of their individual and collective visions.

STRONG SENSE OF PLACE
The Standard: The strong and inspired connection to the places in which we live, work and study.
- Students will recognize and value the interrelationships between the social, economic, ecological, geological, and architectural history and current condition of the place in which they live and contribute to its regenerative capacity and continuous health.

SYSTEM DYNAMICS AND CHANGE
The Standard: A system is made up of two or more parts in a dynamic relationship that form a whole whose elements “hang together” and change, because they affect each other over time. Living systems are open and self-organizing and are maintained by flows of information, energy and matter.
- Students will know and understand the dynamic nature of complex living systems and predict and monitor change over time.
- They will be able to apply the tools and concepts of system dynamics and systems thinking in their present lives, and to inform the choices that will affect our future.

MULTIPLE PERSPECTIVES
The Standard: The perspectives, life experiences and cultures of others, as well as our own. This includes perspective consciousness (an understanding that everyone sees the world from their own point of view) and an appreciation for diversity.
- Students will know, understand, draw from, and recognize the value of multiple perspectives to co-create with diverse stakeholders shared, evolving visions and actions that contribute to a sustainable future locally as well as globally.

Applications and Actions

BUILD CAPACITY
- Engage in Dialogue
- Engage in Role-Playing, Learning Journeys, Simulations & Games
- Honor the specific knowledge and skills that each person and culture brings
- Learn from children and nature
- Plan Scenarios

DESIGN AND CREATE
- Accept responsibility for the consequences of design

LEAD/GOVERN
- Ask different questions and actively listen for the answer
- Empower people and groups
- Envision, strategize and plan
- Govern from the bottom up
- Lead by example
- Take responsibility for the difference you make

BE JUST, BE FAIR
- Be inclusive
- Treat others with respect and dignity

PARTICIPATE AND COLLABORATE
- Listen to one another

Dispositions

BEING
- Curious
- Imaginative

RELATING
- Caring
- Collaborative
- Place/Community Conscious

Community Connections

Schools Serve as Resources to the Community
- Students and teachers make authentic contributions to sustainable community development through service learning opportunities, project-based and place based learning opportunities for students that are laterally and vertically embedded in the core curriculum

Schools and Communities Celebrate and Reflect Together
- Make time to reflect on where we are, how we got here, how far we have come, how close we are to where we are going, and what we are going to do next.
- Celebrate the learning that comes from worthy failures
EMBEDDED AND RELATED LITERACY

Reading

- Literacy Practices (e.g. book clubs, anchor texts, thinking strategy studies/series of workshops)
  - Close reading
  - text-marking/highlighting
- Non-fiction Resources
  - Archaeology website
- Fiction Resources
  - “Nacerima” article
  - Clip from “Moana”

Writing

- Literacy Practices (e.g. writing trait studies/series of workshops, use of models & critique)
  - Imaginative narration/design of an imaginary culture
- Formats (e.g. business letter, short story)
  - short story
  - slideshow report of artifact analysis

INTEGRATION POTENTIAL

Integration Potential

- Systems thinking: science/ELA/SS and potential math integration

CARES connections
How will this unit foster and teach Collaborate, Aware, Respect, Empowerment and Sustainability?
Collaborate: students work in committee groups, dig site stations, and as a whole class to achieve our goals in the simulation.
Awareness: students build cultural awareness and tools for studying ancient civilizations over the course of the coming year.
Respect: students show respect for peers’ creativity in designing artifacts for the simulation, and respectfully use school equipment during our dig site days.
Empowered: students guide the simulation’s “imaginary culture” design process, are encouraged to have constructive dialogue and support each other’s learning.
Sustainable: the unit as a whole serves as the foundation to our studies of ancient cultures this year, which is used as a model for systems thinking, and allows students to compare and contrast varying cultures throughout the year.

### PLACE BASED CONNECTIONS - OVERVIEW

<table>
<thead>
<tr>
<th>Place Based Connections – Overview</th>
<th>Resources and Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIELDWORK:</strong> students simulate a dig site using the raised garden beds behind one of the sixth grade classrooms (2 bed), using tools similar to an archaeologist such as shovels, stakes, trowels, etc.</td>
<td>Field trip to Milwaukee Public Museum for “Crossroads of Civilization” tour</td>
</tr>
</tbody>
</table>

- Dig Self-reflection: student sample
- MPM Crossroads of Civ Teachers Guide.pdf
- Digital Tour of Exhibit
The Life of Trees

Linear Equation Poster Project
OBJECTIVE

You will analyze systems of equations in the real world by performing the following:

• Research the growth of a tree and write an equation to represent the growth
• Determine when two trees will be the same height (algebraically & graphically)
• Analyze the results
• Solve linear equations in one variable.

• Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

• Analyze and solve pairs of simultaneous linear equations.
Directions

1. Write an equation for Tree problem A.
2. Solve tree problem A
3. Create a table for the first five years after the tree has been planted.
4. Research one of the given trees
5. Write an equation for your chosen tree.
7. Create a table for the first five years after the tree has been planted.
8. Graph the two equations on a coordinate grid.
9. Explain the linear equations and their parts.
10. Explain the meaning of where the two lines intersect.
<table>
<thead>
<tr>
<th>Points</th>
<th>Poster must include...</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>correct equations in $y = mx + b$ form for the two trees</td>
</tr>
<tr>
<td>20</td>
<td>a table with the five years accurately stated.</td>
</tr>
<tr>
<td>5</td>
<td>Chosen tree researched accurately</td>
</tr>
<tr>
<td>20</td>
<td>a graph showing both lines and their intersection.</td>
</tr>
<tr>
<td>20</td>
<td>Explanation for the intersection of the two lines</td>
</tr>
<tr>
<td>20</td>
<td>a summary statement (example: Archie and Shirley will both weigh 14 pounds in 20 weeks)</td>
</tr>
<tr>
<td>5</td>
<td>quality craftsmanship: sensible layout, neat, colorful, but no clutter</td>
</tr>
</tbody>
</table>
PART A: Tree Research

Five years ago, Mrs. Turner planted a tree seed and has tracked its growth. You decided you want to plant a tree sapling this year. When will both trees will be the same height. Below is the information about Mrs. Turner's tree:
**Hickory**

<table>
<thead>
<tr>
<th>Type of Tree</th>
<th>Hickory (<em>Carya laciniosa</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth Rate</td>
<td>10 inches per year, slow rate</td>
</tr>
<tr>
<td>Mature size</td>
<td>Estimate 80 feet</td>
</tr>
</tbody>
</table>
Part A How Tall After 5 Years

Solve for the height of Mrs. Turner’s tree after five years of growth

Identify your variables:

\[ b = \text{________} \]
\[ m = \text{________} \]
\[ x = \text{__________} \]
\[ y = \text{__________} \]

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Now, it’s your turn to do some research! Use the following site to find a tree you want to plant: 

ARBORDAY.ORG

You decide to plant a sapling that has a height of 15 inches tall.

Choose one Tree from the following list:

Red Maple, Catalpa, River Birch, Red Oak, American Beech,

“The designation slow means the plant grows 12” or less per year; medium refers to 13 to 24” of growth per year; and fast to 25” or greater.”
Complete the table with information about your tree.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Tree</td>
<td></td>
</tr>
<tr>
<td>Growth Rate</td>
<td></td>
</tr>
<tr>
<td>Mature size</td>
<td></td>
</tr>
</tbody>
</table>
Part B Write a Linear Equation

Write a linear equation for each tree to represent its growth each year. Fill in the following information to help.

Identify your variables:

\begin{align*}
b &= \underline{\hspace{2cm}} \\
m &= \underline{\hspace{2cm}} \\
x &= \underline{\hspace{2cm}} \\
y &= \underline{\hspace{2cm}}
\end{align*}

Remember Mrs. Turner planted her tree seed in Year -5 and you are planting your sapling in Year 0. Use point-slope formula to find your equation. Show your work.
### Fill in the missing Data

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turner’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tree 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mrs. Turner’s Tree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tree 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Your Tree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>y-intercept</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slope</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equation y = mx + b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part C Graph

The following should be included on the graph:

- label on x-axis
- label on y-axis
- an appropriate scale
- label each line (Tree 1 and Tree 2) or use color coding
- label or mark where the two trees will be the same height
Part D

- What is the height of the trees (in feet) when they reach the same height?
- Based on your knowledge of the mature size of each tree, is your solution realistic? Why or why not?
- How is it possible that a tree planted today can reach and/or surpass a tree planted 5 years earlier?
- Use your equations to determine what year each tree will reach their approximate mature size. *Remember to convert the mature size from feet to inches.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mature Size (Feet)</th>
<th>Mature Size (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part E: Tree Poster 25 pts

When presenting data, it is also helpful to have clear visuals of the resource. Use information found on the [ARBORDAY.ORG](http://ARBORDAY.ORG) site to create a visual poster that includes the following items labeled:

- Picture of tree (drawn or photo)
- Sun preference
- Type of soil
- Wildlife value
- History
SHELLBARK HICKORY

I have tough, shock-resistant wood that was used to make gunstocks, ramrods and tool handles. It also provided food on the frontier and dozens of useful products and medicines.

I need at least 6 hours of full sun each day!

My leaves are eaten by deer. The nuts are consumed by deer, bears, foxes, rabbits, squirrels, chipmunks, wild turkey and other animals. I provide nutrition for bees in early to late spring.

I grow in acidic, alkaline, loamy, moist, rich, sandy, wet and clay soils. I am drought-tolerant.

Example: Tree Poster
Part E: Tree Poster 25 pts

When presenting data, it is also helpful to have clear visuals of the resource. Use information found on the ARBORDAY.ORG site to create a visual poster that includes the following items labeled:

- 5 pts Picture of tree (drawn or photo)
- 5 pts Sun preference
- 5 pts Type of soil
- 5 pts Wildlife value
- 5 pts History
Chemistry - Building Blocks and Interactions Unit

Grade level: 8th  Time Frame: Approximately 15 Weeks

Summary:
In this exciting unit, students will begin to understand the basics of chemistry. Students will understand what atoms are made of, what molecules are, how chemicals can bond with each other, and more. Learning will be done in fun and interactive ways, including hands-on lab experiences, simulations, and projects.

Standards Addressed:

NGSS:

- **MS-PS1-1**: I can make models to describe the atomic composition of simple molecules and extended structures.
- **MS-PS1-2**: I can analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
- **MS-PS1-4**: I can develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.
- **MS-PS1-5**: I can develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.
- **MS-PS1-6**: I can design a project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.
- **MS-PS3-3**: I can apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
- **MS-PS3-4**: I can plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

Essential Questions:

- How is matter characterized?
- How is the periodic table a template of organization for the material world?
- How does a study of valence electrons help to explain most chemical phenomena?
- How is matter quantified?
- How do mathematical relationships and experimental data relate to chemical formulas?
- What role does chemistry play in the world around us?
- How are acids and bases important in living things?

Knowledge and Skills:

- I can describe a group based on its properties.
- I can relate the properties of a period to the electron configuration.
- I can classify elements based on their electron configuration.
- I can identify the sources and uses of selected elements.
- I can relate the movement of molecules to phase change.
- I can explain and model how energy is transferred in different phase changes.
- I can conduct an experiment and list chemical or physical changes seen.
- I can balance basic chemical equations.
- I can model chemical bonds.
- I can determine the difference between a substance, compound, and mixture.
- I can explain the difference between an ionic and covalent bond.

Introductory Concepts:
### Essential Vocabulary:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>matter</td>
<td>Chemistry substance</td>
</tr>
<tr>
<td>chemical property</td>
<td>Element</td>
</tr>
<tr>
<td>molecule</td>
<td>Compound</td>
</tr>
<tr>
<td>heterogeneous</td>
<td>Homogeneous solution</td>
</tr>
<tr>
<td>chemical change</td>
<td>Law of conservation of mass energy</td>
</tr>
<tr>
<td>exothermic</td>
<td>Solid</td>
</tr>
<tr>
<td>melting</td>
<td>Melting point</td>
</tr>
<tr>
<td>evaporation</td>
<td>Boiling point</td>
</tr>
<tr>
<td>sublimation</td>
<td>Element</td>
</tr>
<tr>
<td>protons</td>
<td>Energy level</td>
</tr>
<tr>
<td>chemical bond</td>
<td>Symbol</td>
</tr>
<tr>
<td>group</td>
<td>Family</td>
</tr>
<tr>
<td>subscript</td>
<td>Covalent bond</td>
</tr>
<tr>
<td>product</td>
<td>Coefficient</td>
</tr>
<tr>
<td>solubility</td>
<td>Acid</td>
</tr>
<tr>
<td>indicator</td>
<td>Neutralization</td>
</tr>
<tr>
<td>chemical property</td>
<td>Atom</td>
</tr>
<tr>
<td>molecule</td>
<td>Chemical formula</td>
</tr>
<tr>
<td>heterogeneous</td>
<td>Solution</td>
</tr>
<tr>
<td>chemical change</td>
<td>Law of conservation of mass energy</td>
</tr>
<tr>
<td>exothermic</td>
<td>Liquid</td>
</tr>
<tr>
<td>melting</td>
<td>Freezing</td>
</tr>
<tr>
<td>evaporation</td>
<td>Boiling point</td>
</tr>
<tr>
<td>sublimation</td>
<td>Electron</td>
</tr>
<tr>
<td>protons</td>
<td>Neutrons</td>
</tr>
<tr>
<td>chemical bond</td>
<td>Atomic number</td>
</tr>
<tr>
<td>group</td>
<td>Ion</td>
</tr>
<tr>
<td>subscript</td>
<td>Valence electron</td>
</tr>
<tr>
<td>product</td>
<td>Ionic bond</td>
</tr>
<tr>
<td>solubility</td>
<td>Period</td>
</tr>
<tr>
<td>indicator</td>
<td>Solvent</td>
</tr>
<tr>
<td>chemical property</td>
<td>Physical property</td>
</tr>
<tr>
<td>molecule</td>
<td>Chemical bond</td>
</tr>
<tr>
<td>heterogeneous</td>
<td>Physical change</td>
</tr>
<tr>
<td>chemical change</td>
<td>Chemical change</td>
</tr>
<tr>
<td>exothermic</td>
<td>Endothermic</td>
</tr>
<tr>
<td>melting</td>
<td>Vaporization</td>
</tr>
<tr>
<td>evaporation</td>
<td>Condensation</td>
</tr>
<tr>
<td>sublimation</td>
<td>Nucleus</td>
</tr>
<tr>
<td>protons</td>
<td>Chemical formula</td>
</tr>
<tr>
<td>chemical bond</td>
<td>Chemical equation</td>
</tr>
<tr>
<td>group</td>
<td>Reactant</td>
</tr>
<tr>
<td>subscript</td>
<td>Solvent</td>
</tr>
<tr>
<td>product</td>
<td>pH scale</td>
</tr>
</tbody>
</table>

### Lessons (In Order by Topic)

#### Composition of Matter

- **Notes**: Students will take notes on the different types of matter. Students will break substance and mixture down into smaller parts.
- **Mini Quiz**: Mini quiz has several different examples of everyday items that students will classify as an element, compound, heterogeneous or heterogeneous.
- **Homework**: Students will classify different objects first as a substance or mixture. Then, they will further classify the item as an element, compound, heterogeneous or homogeneous.

#### Physical vs. Chemical Changes and Properties

- **Reading and Foldable**: Students will describe matter by breaking up what they are seeing into four different categories: Physical Change, Chemical Change, Physical Property, and Chemical Property.
  - **Reading**
  - **Foldable**
- **Lab Stations**: Students will do a series of four labs where they will describe how what they are seeing reflects a chemical or physical change or property. Students will break their ISN page into four sections. They will record their lab questions and then draw a picture of the lab in color.
  - **Lab Directions and Follow up Questions**
- **Homework**: Students will complete a worksheet that has them looking at several different examples and scenarios to determine if it was a physical change, chemical change, physical property or chemical property.
  - **Physical and Chemical Changes and Properties Homework**

#### States of Matter

- **Notes**: Students will take notes on the different states of matter, what characteristic that state has, and
what the particles look like. Students also look at the role that thermal energy plays in the different states of matter. Students will watch a video to take notes. They will then use those notes to create a visual for each one of the states of matter.

- **States of Matter Note Requirements**
  - **Reading**- Changes in State Reading- Students will read the paragraphs and use the reading to answer questions periodically throughout the reading. Students should highlight where they found their answers.
  - **Model**- Students will create a visual to demonstrate the different areas of phase change. Students will draw and label arrows as well as note if the arrow are gaining thermal energy or losing thermal energy.
  - **States of Matter Review Stations**- Students will travel through a series of 22 stations that have several examples of changes in state of matter. Students will need to identify, draw, or describe the state of matter being described in the situation.
  - **State of Matter Comic**- Students will create three mini cartoons that outline the process of phase change. Students will create 3-5 panel cartoons that are colored, creative, and explain how thermal energy is used in these reactions.

**Atomic Structure**

- **Webquest**- Students will describe and label the different parts of an atom.
- **Famous Chemist Research Project**- Students will research different scientists that have made major contributions to the atom and atomic models. Students will create a famous scientist baseball card.
- **Gallery Walk**- Students will do a gallery walk where they look at the different baseball cards and determine the name, time period, and major findings related to the atom.
- **Atomic Structure Notes**- Masses of atoms. Students will look at how we can calculate the number of protons, neutrons, and electrons by knowing the atomic number and atomic mass.
- **Homework**- Students will take a blank periodic table and use the formulas to determine the number of protons, neutrons, and electrons.

**Periodic Table**

- **Top Secret**- Students will look at a set of "secret agents" and determine the look of the missing agent by looking at the characteristics. Students by the end of it will create the periodic table.
- **Periodic Table Notes**- Students introduction to the periodic table and how it is and was arranged. They will create thier own notes based upon the information they find in the classroom textbooks.
  - **Note Directions**
- **Periodic Table Labeling**- Students will color in the periodic table provided to them by creating a color coded system. Student will have a list of different element families. Remind the students that some of the elements receive multiple colors. Students will use the chemical building block books to figure out what needs to be colored.
- **Types of Elements Notes**- Metals, Non-Metals, and Metalloids. After coloring we will talk about the different types of elements, where they are located, and why they are important.
  - **Note Directions**
- **Electron Shell and Valence Electron Notes**- Students will go through a powerpoint and discover how the elements are arranged via electrons. Additionally, they will use that information to being looking at how we can model this information.
  - **Powerpoint**
- **Electron Diagram Activity**- Students will fill in information from the periodic table on the sheet provided. They will then use that information to determine the bohr model. Students will practice their
skills reading the periodic table, creating bohr and lewis models, and use this information to answer questions about trends they see in valence electrons.

- **Element Research Project** - Students will create a three part project about one specific element of their interest. They will create an atomic model, write a short story, and then create an advertisement, superhero, or information ball.
  - [Project Directions](#)

**Chemical Bonding**

- **Ionic Bonding Notes and Practice** - Students will watch a video and write the steps to ionic bonding and draw examples in their notes. Video will explain the definition, an atomic example and characteristics. Teacher will go over the steps and have the students practice. Students will use their knowledge of chemical bonding and the different types of bonding and will practice drawing them out. Have students use colored chips to help with moving then draw more permanently with pencil once they have it correct.
  - [Video](#)
  - [Note Directions](#)

- **Covalent Bonding Notes and Practice** - Students will watch a video and write the steps to ionic bonding and draw examples in their notes. Video will explain the definition, an atomic example and characteristics. Teacher will go over the steps and have students practice. Students will use their knowledge of chemical bonding and the different types of bonding and will practice drawing them out. Have students use colored chips to help with moving then draw more permanently with pencil once they have it correct.
  - See Video and Note Directions above

- **Chemical Bonding Gummy Bear Lab** - Students will model different types of chemical bonds with gummy bears and toothpicks. They will then draw out their chemical bonds with electron dot models. Students will be given a chemical formula, model it, then determine if the bond is ionic or covalent, then draw the corresponding bonding diagram.

**Writing and Naming Chemical Compounds**

- **Writing Chemical Compounds Foldable** - This foldable will show the three steps to naming compounds. Students will complete 8 practice problems.

- **Naming Chemical Compounds Formula** - This foldable will show the three steps to writing chemical formulas, including the criss cross method. Students will complete 8 practice questions.

- **Homework** - Students will work on two different practice worksheets "Naming Molecular Compounds" and "Ionic Formulas Worksheet" in order to practice their skills.

**Chemical Formulas and Equations**

- **Parts of a Chemical Equation Reading** - students will read 'Parts of a Chemical Equation' and highlight the information and words that they deem important. As they read, they should complete the questions presented to them. All of the basic parts of a chemical reaction are covered by this worksheet. Students will identify the reactants, products, subscripts, and coefficients. Included is information on the state of matter notation that indicates whether each substance is a solid, liquid, gas, or aqueous solution.

- **Homework** - Students will label the parts of a chemical equation and then use the information they have just gathered to read a chemical equation and answer questions.

- **Balancing Chemical Equation Notes** - Students will be given notes on the steps to balancing a chemical question. Students will go over these notes while working on the first few practice problems of the homework.
- **Balancing Chemical Equations Practice** - Using the information they gained the previous day, students will work on a set of practice problems. Students will be given the opportunity to use manipulatives and/or whiteboards in order to better help them visualize how to balance the equations.

- **Homework** - Students will complete practice titled ‘Balancing Act’ to prove that they understand the concept of balancing chemical equations.

- **Balancing Chemical Equations Game** - “Run Around” Game-
  - (1) If you pick it, you solve it! Teams are not allowed to put a card back if they don’t like the problem on that card. Teams are also not allowed to peek at the problem before choosing to take a card!
  - (2) Your team can only work on one card at a time! Teams must finish a card and get the answer approved by the teacher before getting for another card.
  - (3) Teams must stay together and solve the problems together! Only one team member is allowed to bring the card up.
  - Directions for students:
    - Pick a card and balance the equation! Write the number, equation, and answer in a box below and have your teacher check it. If the answer is correct you will get a new card, if you do not get the correct answer, keep trying until you get it right!
    - I keep the cards at my desk. Once they have been checked I give them a new card. It is up to the team to see if they have done that one already BEFORE they start heading back to their seat. If they realize they have done the problem already and have left, they must go to the back of the line.
  - During the game, I sit at a counter in the front of my classroom and have the teams come to me to have answers checked. I’m able to see everyone working and I don’t have to try to run all over checking answers. They must bring me the card in order for me to check it.
  - Limit the teams to a total of 2 people. If I have an odd number of students, I ask for a volunteer to work alone.

- **Chemical Reactions**
  - **Types of Reactions Notes** - Students will take notes on the different types of chemical reactions (synthesis, decomposition, single displacement, double displacement, combustion)
    - Note Directions
  - **Identifying Activity** - Students will label a set of 10 different types of reactions posted around the room with the appropriate reaction type.
  - **Review** - Students will review the different types of chemical equations by playing kahoot.
  - **Endothermic and Exothermic Reactions Notes** - Students will watch a video and create their own notes on what exothermic and endothermic reactions are.
    - Note Directions
  - **Why Type of Reaction? Lab** - Students look at two different examples of endothermic and exothermic reactions. Students will use data collected to determine what type of reaction has taken place.
  - **Shark Tank Project** - Using their knowledge of endothermic and exothermic reactions, students will create their own endothermic or exothermic product. Students need to make sure that the product is new, inventive, and has not been created before. Usually students work in pairs or alone.
    - Project Directions

- **Solutions and Mixtures**
  - **Solution and Mixture Notes** - Students will take notes on the differences between solutions, colloids,
and mixtures, solution, solubility and concentration

- **Graphing**
  - Students will use data provided to create a graph. Students will answer questions about solutions, solubility, and concentration and use a solubility graph to answer questions about solubility
  - Students will use data provided to create a solubility graph. They will then use this data to answer questions about saturated, supersaturated, or unsaturated.

**Acids and Bases**
- **Acids and Bases Notes** - Students will take notes on the difference between acids and bases, and what properties acids and bases have. They will also look at the strength of different acids and bases. Students will take a look at the pH scale and how this is used to model the strength of an acid or base.
- **Creating Natural Indicator (Red Cabbage) Lab** - Students will create their own red cabbage indicator to determine if an item is an acid or a base. Students will use their knowledge of acids and bases to figure out how to neutralize a solution.
- **Reverse Thinking - How are pH strips made?** - Students will be testing with litmus paper and pH strips and various pH level chemicals to determine how the pH strips are made, and what pH certain substances are based upon how they change.
- **Review Activity** - Students will sort a set of 8 items on the pH scale. They will label their scale with acid and base, sort the items by strong acid and base, then add 5 new items of their own.

**Assessment**
- **Quiz 1** - Composition of Matter, Properties and Changes, and States of Matter
- Quiz 2 - Parts of an atom and location, how to calculate protons, neutrons, and electrons
- **Quiz 3** - Parts of the Periodic Table and Chemical Bonding
- Quiz 4 - Naming Chemical Compounds
- Quiz 5 - Balancing Chemical Equations
- **Test Study Guide**
- **Test Review**
- **Test** - Cumulative

**Resources**
- *Chemical Interactions* Prentice Hall Science Explorer (Blue)
- *Chemical Building Blocks* Prentice Hall Science Explorer (Blue)
- Chemistry Binder - Copies of Homework Assignments and ISN reproducibles that are not linked via Google Docs
- Classroom ISN Master - Model ISN for the 8th Grade (With Keys)
**7th grade ELA:** Reading and Writing Arguments (Unit 2A)

**Overview:** In this unit, students will read arguments to identify an author's point of view or purpose, the central claim, counterclaims, and rebuttals; and to analyze the use of persuasive appeals, the effectiveness of the argument for a particular audience, and the quality of the reasoning and evidence. They will apply their understanding of these ideas in the creation of an advertisement for a particular target audience, and by defending one side of an argument in a written debate presented to classmates.

<table>
<thead>
<tr>
<th>Unit Focus/Essential Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the best way to convince someone?</td>
</tr>
<tr>
<td>How do people try to persuade us to think or to do something?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary topics and skills addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating claims and evidence</td>
</tr>
<tr>
<td>Persuasive appeals</td>
</tr>
<tr>
<td>Writing for an audience</td>
</tr>
<tr>
<td>Research and note-taking</td>
</tr>
<tr>
<td>Citing sources and academic honesty</td>
</tr>
<tr>
<td>Counterclaims and rebuttals</td>
</tr>
<tr>
<td>Introductions and conclusions</td>
</tr>
</tbody>
</table>

**Reading**
- Determining author's point of view and purpose
- Analyzing the impact of word choice
- Analyzing arguments and citing textual evidence
- Tracing and evaluating the argument and claims
- Evaluating evidence
- Comparing how authors writing about the same topic use different evidence or different interpretations or facts.

**Reading Informational Text:** 7.1, 7.2, 7.4, 7.5, 7.6, 7.8, 7.9

<table>
<thead>
<tr>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong verbs, words (review connotation)</td>
</tr>
<tr>
<td>Sentence variety</td>
</tr>
<tr>
<td>Transition words</td>
</tr>
<tr>
<td>Concise language</td>
</tr>
</tbody>
</table>

**Language:** 7.1, 7.2, 7.3

<table>
<thead>
<tr>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductions and conclusions</td>
</tr>
<tr>
<td>Using logic, credibility and emotion to appeal to an audience</td>
</tr>
<tr>
<td>Keeping the audience in mind when writing.</td>
</tr>
<tr>
<td>Formal style</td>
</tr>
<tr>
<td>Citing sources (in-text and Works Cited)</td>
</tr>
</tbody>
</table>

**Writing:** 7.1 (A-E), 7.4, 7.5, 7.6, 7.7, 7.8, 7.10
### Research and note-taking techniques

- Speaking and Listening
  - Collaborative problem-solving
  - Present claims with pertinent descriptions, facts, details
  - Volume, pace, eye contact

### Speaking and Listening

**Speaking and Listening: 7.1, 7.4, 7.5, 7.6**

- Present claims with pertinent descriptions, facts, details
- Volume, pace, eye contact

### Assessment

- Creating targeted commercial
- Writing Pro/Con debate paper

### Texts

- “Persuasive Techniques in Advertising” infographic
- “Art of Rhetoric” video
- Debate Scavenger Hunt articles from *Scholastic Scope*, including
  - “Should You Get Paid to Recycle?”
  - “Is It Ever OK to Share Passwords?”
  - “Should Instagram Get Rid of Likes?” (Claim, supporting points, counterclaim, rebuttal)
- Other debate articles, including: “Should Halloween Be on a Saturday?” and “Is It Wrong to Cancel Plans?” (Persuasive appeals, claims and evidence)
- “If I Were the Wind” *Sand County Almanac*, “November” (active verbs)
- Texts used for research

### Differentiation:

- Audio and lower-Lexile versions of *Scope* articles available
- Advanced readers: NewsELA Pro/Con articles at higher Lexile

### Teaching sequence

1. **Introduce persuasive appeals** by having students brainstorm arguments they might use to convince parents they should be able to go to Six Flags alone (or other student-friendly topic).
   - Introduce vocabulary: **Appeals to logic, emotions, credibility/pathos, logos, ethos.**
   - Write definitions in notebook. Students will sort their reasons into those categories. Watch video about persuasive techniques in writing and advertising.

2. **Review terms** with warm-up: Identifying Persuasive Appeals.

---

*Read, Write, Think: Persuasive Techniques in Advertising* lesson. Video: *The Art of Rhetoric* Guided notes available
<table>
<thead>
<tr>
<th>Introduce vocabulary: <strong>target audience</strong>. Discuss commercials from video. Identify target audience, elements that appeal to that audience. In pairs, students will find a commercial and use Commercial Analysis worksheet to analyze it. Will present their commercial and identify its appeals, target audience.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. Read:</strong> an article that uses persuasive appeals. Fill out worksheet/graphic organizer. Possible texts: “Should Halloween Be on a Saturday?” or “Is It Wrong to Cancel Plans?”</td>
</tr>
<tr>
<td><strong>4. Introduce commercial video project. In groups of about 4, students will invent a new product that appeals to their assigned target audience and create a commercial that uses two types of appeals and will interest the target audience. Students will draw slips to determine their group’s target audience</strong></td>
</tr>
<tr>
<td><strong>5. Work days/Present videos and self-evaluate</strong></td>
</tr>
<tr>
<td><strong>6. Outside lesson. Go outside, sit by themselves, record observations. After walk, students will write a paragraph about their observations, including imagery. Read <em>Sand County Almanac</em> essay “If I Were the Wind.” With partner, highlight active verbs. Discuss how verb choice contributes to feeling of movement and restlessness in the essay. Model, then work as a class to revise sample sentences with weak verbs. Have students revise their paragraph to include more active verbs.</strong></td>
</tr>
<tr>
<td><strong>7. Introduce vocabulary: <strong>central claim,</strong> supporting points,</strong> counterclaim,** rebuttal. Students (alone or with a partner) will create a cartoon on Google Slides showing a conversation between two characters with a claim, supporting points, counterclaim, and rebuttal. Have students share their cartoons.**</td>
</tr>
<tr>
<td><strong>8. Read articles and identify central claim, supporting points, counterclaim, and rebuttal on graphic organizer. Discuss if evidence is sufficient/strong/reliable. Scope articles, NewsELA for extra challenge.</strong></td>
</tr>
<tr>
<td><strong>9. Academic honesty, paraphrasing, plagiarism EdPuzzle (if not done earlier in the year). Discuss the importance of citing sources, etc., as a class. Two EdPuzzles</strong></td>
</tr>
<tr>
<td><strong>10. Introduce pro/con debate. Read through Post instructions, rubric, supporting docs</strong></td>
</tr>
<tr>
<td>Instructions, rubric. Choose partners/topics.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>11. Note-taking practice. Teacher think-aloud, emphasize paraphrasing, recording source, evaluating sources.</td>
</tr>
<tr>
<td>12. Look at sample graphic organizer, connect to sample paper. Work on notes, graphic organizer.</td>
</tr>
<tr>
<td>14. Look at body paragraphs, counterclaim. Writing body paragraphs.</td>
</tr>
<tr>
<td>15. Writing. Mini-lesson on in-text citations and Works cited. Note: With 7th grade, we just use the shortened website address for the in-text citation.</td>
</tr>
<tr>
<td>17. Peer edit/self-edit.</td>
</tr>
<tr>
<td>18. Gallery walk. Students will post their paper next to their partner’s on the walls of the room. Students will do a gallery walk, leaving positive comments on post-its for each and voting for the stronger argument. Afterwards, discuss papers where they noticed strong introductions, solid research, strong supporting points, etc.</td>
</tr>
</tbody>
</table>

(Sample activities below)
Pro/Con Debate Overview

**Step 1:** Choose a topic with your partner. One of you will write a persuasive essay supporting one side of the debate. The other person will write the opposing side.

**Step 2:** Research your topic. Record your sources as you go. You will need to create a Works Cited page for your paper, and you will need to cite sources in your essay.

**Step 3:** Write a paper arguing for your position on the issue. It should be about 3/4 - 1 page long, single-spaced. You should:
- Start with a hook that will appeal to your audience.
- State your claim in your first paragraph.
- Have 3-5 reasons supporting your claim.
- Provide sufficient and relevant evidence to back up your reasons. Cite the source of your evidence.
- Include a counterclaim (usually at the beginning or end) and a rebuttal.
- Have a conclusion that sums up & supports your claim.
- Have a Works Cited section at the end of your paper.

**Step 4:** We will post arguments around the room. We will read both sides and compare the arguments.

**Due:** Rough draft is due Tuesday, Dec. 17. Final draft is due Wednesday, Dec. 18. Bring a printed final copy. Write your name on the back of your paper, not the front.
<table>
<thead>
<tr>
<th></th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong></td>
<td>Claim clearly stated. No hook.</td>
<td>Claim is unclear.</td>
<td>First paragraph does not state your claim.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clearly states your claim.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strength of argument:</strong></td>
<td>You have 3 points/ reasons, but some are weak.</td>
<td>You have 1-2 compelling reasons to support your claim.</td>
<td>You have 1-2 weak reasons to support your claim.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All reasons are supported by evidence; most evidence is relevant and credible.</td>
<td>Only some reasons are supported by evidence.</td>
<td>Only some reasons are supported by evidence; evidence is frequently irrelevant or incorrect.</td>
<td></td>
</tr>
<tr>
<td><strong>Counterargument:</strong></td>
<td>Counterargument does not address a likely objection. OR the rebuttal is weak, or just restates an earlier point.</td>
<td>You have a counterargument but no rebuttal.</td>
<td>No counterargument.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conclusion follows from the argument and maintains the reader's attention.</td>
<td>One-sentence conclusion that summarizes argument.</td>
<td>No conclusion.</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion:</strong></td>
<td>Two of these are present</td>
<td>One of these is present</td>
<td>Writing is very bland.</td>
<td></td>
</tr>
<tr>
<td><strong>Word choice:</strong></td>
<td>All evidence is cited, but with clear formatting problems.</td>
<td>Missing several in-text citations or no Works Cited page.</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td><strong>Sources:</strong></td>
<td>Great</td>
<td>A number of errors.</td>
<td>Seems unedited</td>
<td>Complete</td>
</tr>
<tr>
<td><strong>Mechanics:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Graphic organizer:</strong></td>
<td>Complete</td>
<td>Mostly complete</td>
<td>Not done</td>
<td></td>
</tr>
</tbody>
</table>
Driving age: Should it be raised?

The car in front of you is honking, you just passed the exit you were supposed to get off. A sixteen year old in the car trying to find a new way off the road. They’re scarly close to the car in front of them, they turned left but a car was already turning that way. In the rush of trying to make it to the exit on the crowded highway, that sixteen year old crashed into the other car. Had it been an older kid in that car, maybe nothing would have gone wrong, no one would have been injured. Driving at sixteen there would be irresponsible driving, it is unhealthy, and teenagers are too young to be driving at that age. The driving age should be raised.

Teenagers often drive irresponsibly while driving. Often, teenagers are on their devices while driving. If a person is looking down and texting, the situation becomes dangerous for the people in and around the car. Thirty five percent of teens admitted to texting while driving, even though they knew the danger risk. (Edgarsnyder.com) Teens are more likely to look down at their phones and start texting a friend than adults are. Driver’s take their eyes off the road every time they snack, use their cell phone, or search for something in their car. That puts anyone in or near that vehicle in danger. Teenagers know they’re supposed to avoid distractions — yet don’t. (www.sciencenewsforstudents.org)

Raising the driving age to eighteen would be better for people’s health. Without being able to drive at sixteen, teens would be forced to exercise. If teenagers are taken off the road, there would be less people driving around and the environment would be safer with less cars driving. Teenagers would be more active riding bikes and get more exercise with the driving age being raised, considering they would need to bike, walk, or run to get around. Taking teenagers off the road also affects their mental health. Being outside improves the teenagers’ state of mind and gets them in a better mood. Being outside reduces symptoms of anxiety and depression and just the exposure to nature can lower stress levels and symptoms of ADHD. You can improve your mental health by just spending twenty to thirty minutes outside. Spending some quality time outdoors can help relieve their mental illness symptoms. (lifeworkscc.com)

Drivers are too young to drive and don’t wear seat belts. Teenagers have a harder time identifying danger than adults do, they don’t realize when a situation could be unsafe, while adults have an easier time doing so. Adults are more mature than teenagers. In 2019, about forty three percent of teenagers weren’t driving with their seatbelts on, putting them in danger. Compared with other age groups, teenagers and young adults often have the lowest seat belt use rate. In 2019, sixty percent of drivers aged fifteen to twenty who were killed in motor vehicle crashes after drinking and driving, were not wearing a seat belt. (www.cdc.gov)

It’s true that sixteen year olds would learn to be independent if they drove at sixteen. However, raising the driving age would lower the rate of fatal crashes. Nighttime driving is already dangerous for anyone on the road, but is especially dangerous for teenagers. Data from the 2016 to 2017 National Household Travel Survey indicates that teenaged drivers aged sixteen to nineteen years were almost three times as likely to be involved in fatal nighttime crashes than adult drivers aged thirty to fifty nine years per mile driven. (www.cdc.gov)

With the driving age being raised to eighteen, there were less crashes on the road, people have become healthier, older people were on the road, and people driving were more responsible. Can teenagers become more responsible?
Works Cited


### Scavenger Hunt

**Directions:** Fill in the boxes below to explore how the writers of the essays in "Should You Get Paid to Recycle?" develop their arguments. We filled in some information for you.

<table>
<thead>
<tr>
<th>Michelle Greene</th>
<th>Jack Burman</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>line(s) that expresses the central idea, or central claim</strong></td>
<td>&quot;Bottle bills are a great idea, and more states should have them.&quot;</td>
</tr>
<tr>
<td><strong>two pieces of evidence that support the central idea, or central claim</strong></td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td><strong>line(s) that expresses the counterargument</strong></td>
<td>&quot;It's true that states with bottle bills have higher recycling rates for bottles and cans...&quot;</td>
</tr>
<tr>
<td><strong>line(s) that contains the rebuttal to the counterargument</strong></td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
</tbody>
</table>
Ethos, Pathos, Logos

Directions: Use the graphic organizer below to take notes on an author’s use of ethos, pathos, and logos. (See Scope’s “Ethos, Pathos, Logos: What to Know” to learn more about these three appeals.)

Write one sentence that states the author’s argument:

Ethos

Does the author come off as trustworthy and believable? Why or why not?

Pathos

Does the author create an emotional connection between readers and the topic? If so, how?

Logos

Does the author try to convince you with reason and logic? With evidence such as facts and figures? Give examples.
Directions: Answer the questions below. Use the notes you took on page 1 to help you.

1. Which appeals did the author use? If the author used more than one appeal, did he or she use them equally? Explain.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Which part of the author’s argument did you find most persuasive? Why?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. Which part of the author’s argument did you find least persuasive? Why?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4. Place a star on the line below to indicate how persuasive you found the author’s argument overall.

not very persuasive | .......................................................... | very persuasive

Sum up your reasoning in one or two sentences.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

PAGE 2 OF 2
Analyzing Commercials

Watch your chosen commercial carefully and answer the following questions. This paper has two sides!

1. Name of the product:

2. Describe the commercial.
   
   Visuals:
   
   Sounds:
   
   What happens in the commercial?

3. Who is the target audience for this commercial? (male/female, age, current customers or new customers, etc.)

4. What elements of the commercial make you think that?

5. What is the “hook” that would grab these consumers’ attention?
6. How does this commercial try to appeal to its audience? Check all that apply.

- Trust/personal appeal (It tries to make the audience believe the seller or product is honest, fair, reliable, etc.)
  How does it use this appeal?

- Emotional appeal (It tries to make the audience feel something, like excitement, fear, love, hunger, patriotism, or that they are cool or manly, etc.)
  How does it use this appeal?

- Logical appeal (It uses numbers, facts, and reasons to convince the audience)
  How does it use this appeal?

7. Evaluate the advertiser’s strategy. What choices do you think were smart? What would you do differently? (Write at least four sentences)
Assigning a target audience for student-produced commercial
Cut out the individual audiences and traits and put in two separate hats. Students draw one slip from column A and one from column B to determine the target audience for their product and commercial

<table>
<thead>
<tr>
<th>1 Seniors 65+</th>
<th>1 who are into fitness</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Boys ages 7-10</td>
<td>2 who have a cold/allergies</td>
</tr>
<tr>
<td>3 Girls ages 15-18</td>
<td>3 who love to eat and/or cook</td>
</tr>
<tr>
<td>4 Dads</td>
<td>4 who like to be in style</td>
</tr>
<tr>
<td>5 Moms</td>
<td>5 who are in a hurry</td>
</tr>
<tr>
<td>6 Kids ages 4-8</td>
<td>6 who love animals</td>
</tr>
<tr>
<td>7 People in rural areas</td>
<td>7 who like coffee and hot drinks</td>
</tr>
<tr>
<td>8 Young adults 23-30</td>
<td>8 who are interested in travel</td>
</tr>
<tr>
<td>9 Career-focused adults</td>
<td>9 who love music</td>
</tr>
<tr>
<td>10 College students</td>
<td>10 who don’t like to leave the house</td>
</tr>
</tbody>
</table>
**Commercial Planner**

**A. Product:**
Name:
Description:

**B. Marketing Plan:**
Who is your target audience (two characteristics):
What elements in your commercial will appeal to your target audience?

Which appeals (emotion, logic, credibility) will you use to convince your customer?

**C. Script:**

*Cast*

<table>
<thead>
<tr>
<th>Name</th>
<th>Played by</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ex: Angry neighbor)</td>
<td></td>
</tr>
</tbody>
</table>

*Location:* (be specific)

*Props/Costumes needed:* list

*Script:*

<table>
<thead>
<tr>
<th>What we hear (ex: Elephants trumpeting, piano music, crowd noise) or lines of dialogue</th>
<th>What we see (Herd of elephants running, close-up of product, two business people talking in an office)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7th Grade Social Studies US Federal Constitution Unit

**Essential questions**
- What is the basic structure of the Constitution?
- What are the roles and functions of the three branches of government?
- How do separation of powers and checks and balances affect the U.S. Government?
- What are the rights, liberties, and responsibilities of U.S. citizens?
- How is the Constitution a living document?

**Primary skills taught:**
- Primary source analysis
- Secondary source analysis
- Argumentation
- CCSS Speech and language discussion skills
- Political system comparisons

**Standards covered (6-8)**
- SS.IS.1, 2, 3
- SS.IS.4
- SS.IS.5
- SS.IS.8
- SS.CV.1
- SS.CV.2

**Assessment**
- Constitution Checkpoint quizzes 1-3
- [How a Bill Becomes a Law project](#)
- Parent Constitution Quiz

**Intended learning outcomes**
- Students will understand the basic structure of the Constitution.
- Students will understand the roles and functions of the three branches of government.
- Students will understand how the separation of powers and checks and balances affect the U.S. Government.
- Students will understand the rights, liberties, and responsibilities of U.S. citizens.
- Students will understand how the U.S. Constitution is a living document.

**Texts & Resources**

**Anchor:**
- AJS Publications “Our Federal and State Constitutions”
- Prentice Hall, “America: History of Our Nation”

**Videos:**
1. [How a Bill Becomes a law](#)
2. [Does your vote count? The Electoral College Explained](#)
3. [Principles of the United States Constitution](#)
<table>
<thead>
<tr>
<th>Teaching sequence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Introduction to the Constitution Webquest</strong></td>
<td>Students give an initial exploration and assessment of various parts of the Constitution, becoming familiar with the structure and terms.</td>
</tr>
</tbody>
</table>
| 2. **The Six Big Ideas of the Constitution**  
3. **Six Big Ideas Notes**  
4. **Quiz** | While learning about the Constitutional Convention, students learn about the Six main ideas of the constitution. They create a visual depiction of each big idea and are given examples of how these concepts function in the government. |
| 5. **The Four Compromises Worksheet** and **reading** | Students gain an understanding of the concept of “compromise” and how it is an extension of the practice of democracy. They learn about the major compromises made to ratify the constitution and how those compromises still impact citizens today. |
| 6. **Federalists VS Anti Federalists Worksheet** and **Reading** | As part of understanding the process of compromise, students analyze the main ideas of Federalists and Anti-Federalists and apply them to current ideologies in American politics. |
| 7. **How a bill becomes a law** | Students learn the basic process of a bill becoming a law through both houses of Congress. It is designed to teach them the challenges and steps a bill goes through to be passed. |
| 8. **Making School a better place**  
9. **Graphic Organizer** | Students are given an extra credit opportunity to change something at school. They can create their own policies, submit them to “committees”, engage in debate and revision of their bills, and work through a democratic process of pursuing legislative change. |
| 10. **The Executive Branch**  
11. **Executive Branch extra practice**  
12. **Executive Branch Roles** | Students gain a stronger understanding of the executive branch and the various functions of the entire branch, including the various roles a president takes on. Students also explore the process of a presidential election. |
| 13. **Do I have rights?** | In order to start connecting the rights established in the Bill of Rights, students prioritize a list of rights based on their preferences and compare it to the list of rights |
protected in the bill of rights. They also have the opportunity to debate what they feel is a “right” or “privilege”.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Judicial Branch Background</td>
<td>Students gain background on the Judicial Branch and how it is organized by Congress. Judicial Review is also focused upon as a major power of the Supreme Court. Students work to correct potential errors in legal information and explore essential court cases in American history to apply their knowledge of Judicial Review.</td>
</tr>
<tr>
<td>15. Legal Office Simulation</td>
<td></td>
</tr>
<tr>
<td>16. Supreme Court Cases Webquest</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Bill of Rights Notes</td>
<td>Students explore the history of the 27 Amendments, learning about their background and purpose. Students focus on learning amendments that directly impact voting and individual rights, and learn about how the Constitution is a living document by adding amendments as times change.</td>
</tr>
<tr>
<td>18. Amendments 11-15</td>
<td></td>
</tr>
<tr>
<td>19. Amendments 16-21</td>
<td></td>
</tr>
<tr>
<td>20. Amendments 22-27</td>
<td></td>
</tr>
</tbody>
</table>
Section E: Art
Unit: Observational Drawing  
Lesson: Shoe Drawing in Ink  
Class: 6th Grade Art Class  
Time: 5-6 Class Sessions

<table>
<thead>
<tr>
<th>Title of Lesson</th>
<th>Shoe Drawing with Ink</th>
</tr>
</thead>
</table>
| Standards             | -25.A.1d Visual Arts: Identify the elements of line, shape, space, color and texture; the principles of repetition and pattern; and the expressive qualities of mood, emotion and pictorial representation.  
                        | -26.B.2d Visual Arts: Demonstrate knowledge and skills to create works of visual art using problem solving, observing, designing, sketching and constructing. |
| Objectives            | Students will learn how to use markers and ink to create value scales. Students will use these 4 techniques to create a drawing of their shoe that demonstrates an understanding of value, contour line and observational drawing. |
| Materials             | Permanent Markers  
                        | Pencil |
| Concepts              | Contour Line  
                        | Shading techniques with ink: Stippling, scribbling, hatching and cross-hatching.  
                        | Observational Drawing  
                        | Value |
| Procedure             | The teacher will begin by showing the class several examples of line drawing and will explain Contour line drawing. Students will expand on their prior understanding of value as an element of art and will be asked how an artist can use ink to illustrate value and shading in an art piece. Students will be taught four techniques for using markers to create value scales. They will learn about stippling, scribbling, hatching and cross-hatching. Teacher will explain and demonstrates the different types of shading techniques. Students will work to complete the worksheet of the worksheet to demonstrate their knowledge of value.  
                        | After completing the worksheet students will learn about 3 dimensional forms and will work on creating a drawing of their shoe from observation. Students will use pencil to start and focus on creating a contour line (outline). Students will use rulers to divide their drawing into different sections and then use permanent markers to shade their drawing in a manner that demonstrates 3 dimensional rendering utilizing the 4 different marker techniques. |
| Assessment(s) | Students will be assessed informally by the teacher based on their ability to use the learned techniques to demonstrate value. |

**Worksheet:**

<table>
<thead>
<tr>
<th>Extra LIGHT</th>
<th>LIGHT</th>
<th>MEDIUM</th>
<th>DARK</th>
<th>Extra DARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrubbing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stippling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engraving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Hatching</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Examples of student work:**

![Student Work 1](image1)

![Student Work 2](image2)
Section E: Music
## Music Unit of Study

### Musical Eras Unit

**Grades 7-8**

<table>
<thead>
<tr>
<th><strong>Topic/Theme:</strong></th>
<th>Three musical eras: Baroque, Classical, &amp; Romantic</th>
</tr>
</thead>
</table>
| **Cross-Curricular Differentiation:** | ELA Connections: Students will take notes from discussions and will read important passages about individual composers and/or descriptions of each musical era  
Geographical Connections: Students will be able to connect countries of origin of individual composers to their locations in the world  
Historical Connections: Students will make connections to other events that were occurring in the world during the times of each musical era  
SEL Connections: Students will be able to form their own opinions on the music from each historical era |
| **Essential Questions:** | During which years did each musical era take place?  
Who were the important composers from each musical era?  
How did music from each musical era differ?  
What are the qualities of music from each era?  
What were the common instruments used during each era? |
| **Standards:** | MU:Pr5.1.8a. Apply teacher provided criteria to critique individual performances of a varied repertoire of music selected for performance, identify practice strategies to address performance challenges, and refine the performances  
MU:Re7.1.8c. Identify and compare the context of programs of music from a variety of genres, cultures, and historical periods.  
MU: Re8.1.8a. Identify and support the meaning of musical works, citing as evidence the musical elements and context.  
MU:Re9.1.8. Explain the influence of experiences, analysis, and context on interest in and evaluation of music. |
| **Student Learning Objectives:** | Students will be able to describe the characteristics of music from each musical era  
Students will be able to identify key composers from each musical era  
Students will be able to identify the musical era in which pieces were composed through listening |
| **Procedure:** | Throughout the course of 2-3 class periods per musical era, students will be guided through a study guide and will watch examples of performances of music from each musical era. Students will use writing skills to describe characteristics of performances using music terminology, explain characteristics of music from each time period, and characterize facts about composers from each time period. |
| **Assessments:** | At the conclusion of the study of each musical era, students will be given a written assessment to test their knowledge of each one. |

Documents used during lessons:
Musical Time Periods: Baroque (1600-1750)

What does the word “Baroque” mean?
- comes from the languages of Greek and Portuguese
- essentially means “heavily decorated”

Characteristics of Baroque music:
- mainly sacred (music from the church)
- very clean and precise
- may sound mathematical and exact
- may sound improvisatory
- commonly contains ornaments
- polyphony commonly used (multiple melodies performed at the same time)
- dynamic contrasts are important (crescendos and diminuendos seldom used)

A few significant Baroque composers:
- Johann Sebastian Bach (1685-1750)
  - Born into a musical family
  - Was an accomplished organist
  - Was the father of 20 children
  - Classical period began with his death in 1750
  - Bach - Toccata and Fugue in D minor
- George Frideric Handel (1685-1789)
  - Was a celebrity during his time
  - Nicknamed “The Great Bear” because of his size and the way he walked
  - Never married
  - Died a very wealthy man
  - Handel - Hallelujah Chorus
- Claudio Monteverdi (1567-1643)
  - His music was transitional between the Renaissance and Baroque periods
  - Mainly a composer of opera music
  - Was only 15 when his first book of music was published
  - Monteverdi - Magnificat
- Henry Purcell (1659-1695)
  - English composer
  - Organist for Westminster Abbey at age 20 and is buried there
  - Purcell - Come Ye Sons of Art
- Domenico Scarlatti (1685-1757)
  - His father, Alessandro, was also a famous composer
  - Worked for Spanish royalty most his life
  - He and Handel competed in a “trial of skill” - each won part
  - Scarlatti - Sonata in A minor
- Antonio Vivaldi (1678-1741)
  - Was a famous master violinist
  - Died very poor and could not even afford music at his own funeral
  - Vivaldi - "Spring" from Four Seasons
Musical Time Periods: Classical (1750-1820)

What does the word “Classical” mean?
- Refers to the admiration people had for classical artistic and literary history of Greece and Rome
- Applies to classical art and literature as well as music

Characteristics of Classical music:
- Lighter texture
- Generally non legato phrasing
- Lifts at the ends of phrases
- Less complex than Baroque music
- Generally homophonic (one melody line over chordal accompaniment)
- “Light elegance”

Influential Classical Composers:

Franz Joseph Haydn (1732-1809)
- Born in Austria
- Left home at age five to study music with a relative of his father
- Was a member of what is now the Vienna Boys Choir at age eight (now known as the Vienna Boy’s Choir)
- Worked most of his life as a kappellmeister (the person in charge of the music) for a prince’s estate
- Known as the “father of the symphony” (composed 104 total)
- Met Mozart and called him “the greatest composer he had ever heard”
- Surprise Symphony
- Trumpet Concerto in E-flat

Wolfgang Amadeus Mozart (1756-1791)
- Showed musical genius at age three
- Father was a well-known violinist and composer
- Went on tour with his father at age seven as a harpsichord prodigy
- By age 12 he had composed an opera, a Mass, an oratorio, and several sonatas
- Had a job but unable to make ends meet throughout most of his life
- Music is organized through K numbers (in order of composition)
- Symphony 40
- Symphony 40 remastered
- Eine Kleine Nachtmusik
- Rondo Alla turca

Ludwig van Beethoven (1770-1827)
- Began studying violin, piano, and composition at age four
- Published his first three piano sonatas at age 11
- Took lessons from Haydn but they did not get along
- Began to grow deaf around age 30 and was totally deaf by age 50
- Some of his greatest compositions were composed when he was completely deaf
- Several works reflect his temperament
- Bridged the gap between the classical and romantic periods
- Haydn once said this of him: “Beethoven will one day be considered one of Europe’s greatest composers, and I shall be proud to be called his teacher.”
- Symphony 9
- Moonlight Sonata
- Moonlight Sonata 2
- Appassionata Sonata
- Für Elise
Musical Time Periods: Romantic(1820-1910)

Why the term “Romantic”?
- People had an “optimistic” view of the future
- Focuses on personal expression, emotions, individuality, freedom, and experimentation with form

Characteristics of Romantic music:
- Composers did not always stick to traditional “rules and regulations” that were followed during Baroque and Classical periods
- Much more expressive and emotional
- More contrasts in dynamics
- Rich and unusual harmonies more common
- Complex and contrasting rhythms
- Increased use of the pedal as the piano was further developed
- Concertos became more dramatic
- Titles of compositions often represented moods rather than forms (waltz, intermezzo, mazurka, impromptu, ballade, nocturne, etude)

Influential Romantic Composers:

**Frédéric Chopin (1810-1849)**
- Polish composer
- Composed almost entirely for the piano
  - Fantasie-Impromptu
  - Nocturne Op. 55
  - 'Revolutionary' Etude

**Franz Liszt (1811-1886)**
- Hungarian composer
- Began to tour when he was eight years old
- Called “the world’s first rock star”
- Was a showman on stage
  - Liebestraum
  - La Campanella

**Giuseppe Verdi (1813-1901)**
- Italian composer
- “King of Italian Opera”
- Known for his passionate and emotional opera scenes
  - Rigoletto excerpt

**Richard Wagner (1813-1883)**
- German composer
- Was not interested in music as a child
- Known for his operas
- Established the leitmotif
- Most famous work is “The Ring Cycle” which consists of four separate operas and takes 15 hours to perform!
  - Ride of the Valkyries

**Johannes Brahms (1833-1897)**
- German composer
- One of the “three Bs”
- Was forced to play piano in dance halls because his family was so poor
  - Hungarian Dance No. 5

**Pyotr Ilyich Tchaikovsky (1840-1893)**
- Russian composer
- Wrote his first composition when he was four
- Was Russia’s leading composer during his time
  - 1812 Overture
  - Piano Concerto No. 1
  - Dance of the Sugar Plum Fairy

**Giacomo Puccini (1858-1924)**
- Italian composer
- Known mainly for his operas
- Came from a family of five generations of church organists
- Composer of “La bohème” and “Madama Butterfly”
  - Nessun Dorma

Other important composers:
- Franz Schubert (1797-1828)
- Hector Berlioz (1803-1869)
- Felix Mendelssohn (1809-1847)
- Robert Schumann (1810-1856)
- Clara Schumann (1819-1896)
- Gustav Mahler (1860-1911)
Musical Time Periods: Baroque

Circle the correct answer:

1. What type of music does the term “baroque” describe?
   a. Heavily complicated
   b. Heavily decorated
   c. Heavily old
   d. Heavily sophisticated

2. Much of Baroque music was sacred. What is sacred music?
   a. Music from the church
   b. Music written by a Baroque composer
   c. Music that is non-religious
   d. Music composed for the organ

3. Baroque music in general was very disorganized.
   a. True
   b. False

4. Baroque music sometimes sounds like the performer is making it up on the spot.
   a. True
   b. False

5. Homophonic music describes music with more than one melody performing at the same time.
   a. True
   b. False

6. Which type of music is similar to singing or playing in a round?
   a. Homophonic
   b. Polyphonic

7. Dynamics in Baroque music were performed in a gradual manner with several crescendos and diminuendos.
   a. True
   b. False

8. What are “ornaments” in music?
   a. Decorations hung on an instrument
   b. Decorations written in the music to make it look nicer
   c. Symbols written in music that are meant to “decorate” or “embellish” certain notes
   d. Decorations placed on the stage

9. Which of the following composers was prolific during the Baroque period of music?
   a. Wolfgang Amadeus Mozart
   b. Joseph Haydn
   c. Johann Sebastian Bach
   d. Ludwig van Beethoven

10. Which one of the following was not a prolific composer within the Baroque period of music?
    a. Joseph Haydn
    b. George Frideric Handel
    c. Henry Purcell
    d. Domenico Scarlatti
    e.
11. What is the name of the instrument for which most keyboard music was composed during the Baroque period?
   a. Celesta
   b. Keyboard
   c. Piano
   d. Harpsichord

12. Which of the following three composers were masters at playing the organ?
   a. Bach, Handel, & Monteverdi
   b. Handel, Purcell, & Vivaldi
   c. Purcell, Scarlatti, & Vivaldi
   d. Bach, Handel, & Purcell

13. Which of the following composers mainly wrote opera music?
   a. Bach
   b. Monteverdi
   c. Purcell
   d. Vivaldi

14. The popular theory as to why it is tradition to stand during Handel’s “Hallelujah” Chorus is because a certain individual stood up during one of its performances. Who was this person?
   a. Handel
   b. The vocal soloist on stage
   c. King George II
   d. The Queen

15. Which of the following composers was a wealthy celebrity during his time?
   a. Handel
   b. Bach
   c. Scarlatti
   d. Purcell

16. Which of the following composers is buried in Westminster Abbey?
   a. Bach
   b. Handel
   c. Purcell
   d. Vivaldi

17. Which of the following composer's music is the oldest?
   a. Bach
   b. Monteverdi
   c. Purcell
   d. Scarlatti

18. Which two composers competed in a “trial of skill”?
   a. Bach & Handel
   b. Monteverdi & Vivaldi
   c. Handel & Scarlatti
   d. Purcell & Vivaldi

19. Which of the following composers did not even have any music at his own funeral?
   a. Monteverdi
   b. Purcell
   c. Scarlatti
   d. Vivaldi

20. The Classical period of music began around the time of the death of which composer?
   a. Bach
   b. Handel
   c. Monteverdi
Musical Time Periods: Classical

Circle the correct answer:

1. The Classical period of music began around the time of the death of which composer?
   a. J.S. Bach
   b. Haydn
   c. Mozart
   d. Beethoven

2. The term “classical” refers to music as well as art and literature.
   a. True
   b. False

3. Music from the classical period should generally be played “non legato”. What does this mean?
   a. Played smoothly
   b. Played roughly
   c. Played detached
   d. Played quietly

4. Unlike during the Baroque period, the piano for which music was composed during the Classical period was the same as the modern day piano we play today.
   a. True
   b. False

5. Classical music commonly contains ornamentation.
   a. True
   b. False

6. Much of Classical keyboard music is homophonic (a melody over accompaniment) rather than polyphonic (multiple melodies performed simultaneously).
   a. True
   b. False

7. “Light elegance” may be used to describe Classical music.
   a. True
   b. False

8. Which one of the following composers was prolific during the Classical period of music?
   a. J.S. Bach
   b. Haydn
   c. Purcell
   d. Telemann

9. Which one of the following composers was not prolific during the Classical period of music?
   a. Mozart
   b. Haydn
   c. Monteverdi
   d. Beethoven

10. Which composer’s music is organized by K numbers?
    a. Beethoven
    b. J.S. Bach
    c. Mozart
    d. Czerny
11. Which composer was one of Beethoven’s teachers?
   a. Mozart
   b. Scarlatti
   c. J.S. Bach
   d. Haydn

12. Which composer grew deaf over the course of several years?
   a. Haydn
   b. Handel
   c. Beethoven
   d. Mozart

13. Which composer was known for playing practical jokes even through his musical compositions?
   a. Mozart
   b. Haydn
   c. Scarlatti
   d. Beethoven

14. Which composer is known as the “father of the symphony”?
   a. Beethoven
   b. Mozart
   c. Vivaldi
   d. Haydn

15. Which composer’s music often reflected how he was feeling at the moment?
   a. Beethoven
   b. Monteverdi
   c. Haydn
   d. Mozart

16. Which composer was considered a prodigy on the harpsichord when he was very young?
   a. Mozart
   b. Haydn
   c. Scarlatti
   d. Beethoven

17. Which composer was a member of what is now known as the Vienna Boys Choir?
   a. Beethoven
   b. Monteverdi
   c. Haydn
   d. Beethoven

18. Which composer called Mozart “the greatest composer he’d ever heard”?
   a. Haydn
   b. Beethoven
   c. Vivaldi
   d. J.S. Bach

19. Which composer wrote variations based upon the “Twinkle, Twinkle Little Star” melody?
   a. Beethoven
   b. Purcell
   c. Haydn
   d. Mozart

20. Which composer’s music bridged the gap between the Classical and Romantic periods?
   a. Haydn
   b. Mozart
   c. Beethoven
   d. J.S. Bach
Circle the correct answer:

1. Which composer’s music bridged the gap between the Classical and Romantic periods?
   a. J.S. Bach
   b. Haydn
   c. Mozart
   d. Beethoven

2. The term “romantic” means all music during this era was about love.
   a. True
   b. False

3. During the Romantic era, many people felt a sense of __________ regarding the future.
   a. Negativity
   b. Doubt
   c. Optimism
   d. Organization

4. Much of music from the Romantic period was meant to create a sense of emotion amongst its listeners.
   a. True
   b. False

5. Music from the Romantic era followed the same “rules and regulations” as music during the Baroque and Classical eras.
   a. True
   b. False

6. The harpsichord was still the most popular keyboard instrument during the Romantic period.
   a. True
   b. False

7. What is a concerto?
   a. A piece of music for orchestra that features a soloist on one instrument
   b. A piece of music for piano with several movements
   c. A piece of music for harpsichord
   d. A piece of music for two trumpets

8. Which one of the following composers is known as the “king of Italian opera”?
   a. Puccini
   b. Wagner
   c. Verdi
   d. Liszt

9. Which one of the following composers was Russia’s leading composer during his time?
   a. Chopin
   b. Puccini
   c. Liszt
   d. Tchaikovsky

10. Which one of the following composers was NOT one of the “three Bs”?
    a. Beethoven
    b. Brahms
    c. Berlioz
    d. Bach
11. Which one of the following composers established the leitmotif?
   a. Wagner  
   b. Puccini  
   c. Verdi  
   d. Brahms

12. What is a leitmotif?
   a. A theme meant to trick the audience  
   b. A theme meant for the conductor only  
   c. A theme meant for a specific character  
   d. A theme meant to remind the audience of the composer

13. Which one of the following composers is considered the world’s first rock star?
   a. Liszt  
   b. Tchaikovsky  
   c. Chopin  
   d. Puccini

14. Which composer wrote the Nutcracker ballet?
   a. Puccini  
   b. Verdi  
   c. Tchaikovsky  
   d. Wagner

15. Which one of the following composers was able to play his difficult piano compositions because of his large hands?
   a. Brahms  
   b. Liszt  
   c. Chopin  
   d. Tchaikovsky

16. Which one of the following composers came from a long line of church organists?
   a. Liszt  
   b. Chopin  
   c. Puccini  
   d. Brahms

17. Match the following definitions to their titles:
   a. A Polish dance  
   b. Night music  
   c. A dance in 3  
   d. A piece meant to sound improvisatory  
   e. An exercise - a piece meant to improve a certain skill  
   f. A piece that is usually slow and lyrical  
   g. A piece that fits in between two larger pieces of music

   _________ Waltz  
   _________ Intermezzo  
   _________ Mazurka  
   _________ Impromptu  
   _________ Ballade  
   _________ Nocturne  
   _________ Etude

18. Which one of the following composers wrote almost all of the types of compositions listed above?
   a. Chopin  
   b. Verdi  
   c. Tchaikovsky  
   d. Puccini
19. Which one of the following composers was not really interested in music as a child?
   a. Liszt
   b. Verdi
   c. Wagner
   d. Brahms

20. Which two composers were famous for their Italian operas?
   a. Brahms and Wagner
   b. Verdi and Puccini
   c. Chopin and Verdi
   d. Wagner and Puccini

21. Which of the musical eras we have discussed so far have you liked the most (“none of them” is not an option!)?
Section E: Physical Education
Badminton Unit 2021-2022 - Physical Education

Teacher: Mr. Christopher Loustaunau
Grade Level: 5
# of Students: 24
Facilities Available: Half of the gymnasium (divided by curtain) or full gym.
Equipment for Badminton Unit: Birdies, badminton rackets, volleyball nets, badminton nets, speaker, ipod, HDMI cord, speaker cord, power strip, extension cord, poly spots, clipboard, checklist, pencil, dry erase board and markers

Common Core State Standards (or National Content Standards)

NASPE Goals Addressed:
Standard 1. The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.
Standard 2. The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance.
Standard 4. The physically literate individual exhibits responsible personal and social behavior that respects self and others.
Standard 5. The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

National Outcomes:

<table>
<thead>
<tr>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combines jumping and landing patterns with locomotor and manipulative skills in dance, gymnastics and small-sided practice tasks in games environments (S1.E3.5)</td>
</tr>
<tr>
<td>Applies the concepts of direction and force to strike an object with a long-handled implement. (S2.E3.5b)</td>
</tr>
<tr>
<td>Exhibits responsible behavior in independent group situations. (S4.E1.4)</td>
</tr>
<tr>
<td>Listens respectfully to corrective feedback from others (e.g., peers, adults). (S4.E3.4)</td>
</tr>
<tr>
<td>Describes and compares the positive social interactions when engaged in partner, small-group and large-group physical activities. (S5.E4.4)</td>
</tr>
</tbody>
</table>
Illinois Content Standards Addressed:
STATE GOAL 19: Acquire movement and motor skills and understand concepts necessary to engage in moderate to vigorous physical activity
STATE GOAL 21: Develop skills necessary to become a successful member of a team by working with others during physical activity.
STATE GOAL 24: Promote and enhance health and well-being through the use of effective communication and decision-making skills.

Illinois Standards:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.A.2a</td>
<td>Demonstrate control when performing combinations and sequences in locomotor, non-locomotor, and manipulative motor patterns.</td>
</tr>
<tr>
<td>19.C.2a</td>
<td>Apply rules and safety procedures in physical activities.</td>
</tr>
<tr>
<td>21.B.2a</td>
<td>Work cooperatively with a partner or small group to reach a shared goal during physical activity.</td>
</tr>
<tr>
<td>24.A.2b</td>
<td>Demonstrate positive verbal and nonverbal communication skills (e.g., polite conversation, attentive listening, body language).</td>
</tr>
</tbody>
</table>
Unit Objectives:

1. **Psychomotor**: SWBAT use their own balance and coordination to help better develop locomotor, non-locomotor, hand-eye coordination, eye tracking, and spatial awareness during class.

2. **Cognitive**: SWBAT apply new skills during each class by practicing and repeating sport skills in rally or game play. SWBAT show correct racket grip and form while executing each return during competition.

3. **Affective**: SWBAT demonstrate a positive attitude, stay on task, and participate in lessons 100% of the time. SWBAT communicate, ask teacher for modifications if needed, and demonstrate leadership during each sport skill learned.

### Domains:

<table>
<thead>
<tr>
<th>Psychomotor Domain:</th>
<th>Assessment Tools:</th>
</tr>
</thead>
</table>
| -perform badminton skills with repetition and practice with a partner.  
  -correctly perform each skill and build muscle memory.  
  -practice skills in a 1v1 or 2v2 setting with music. | Informal teacher observation |  

<table>
<thead>
<tr>
<th>Cognitive Domain:</th>
<th>Teacher’s Questions, Closing Questions, Summative Badminton Quiz</th>
</tr>
</thead>
</table>
| -ask for student volunteers to demonstrate badminton skills throughout class.  
  -students will be able to assess their own sport performance abilities as they rally and game play vs. their peers.  
  -Student observation of others is important.  
  -students will take a summative badminton quiz to show growth in their racket skills | |

<table>
<thead>
<tr>
<th>Affective Domain:</th>
<th>Informal Self Reflection</th>
</tr>
</thead>
</table>
| -listen attentively to instructions when being given.  
  -Show respect for other students that are learning how to serve, hit shots, and keep score. | |

### Unit Block Plan

Block plan explanation: Students have PE 3 times a week. There is an A day (first day they have PE), B day (second day) and a C day (third day).

<table>
<thead>
<tr>
<th>Unit</th>
<th>A day</th>
<th>B day</th>
<th>C day</th>
</tr>
</thead>
</table>
| Week 1 | **Basic Grips:**  
  **forehand/backhand Lesson 1** | **Clear Shots, Drop Shots, and Drives Lesson 2** | **Serve, Smash, Rally Game Play Lesson 3** |
## Teacher Observation Checklist (Example)

<table>
<thead>
<tr>
<th>Name</th>
<th>Activity Day A:</th>
<th>Activity Day B:</th>
<th>Activity Day C:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Focus:</td>
<td>Focus:</td>
<td>Focus:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:**  
+ : Performed the activities main focus with great success and was respectful, responsible and safe.  
/ : Performed the activities main focus with partial success and was respectful, responsible and safe.  
- : Performed the activities main focus with limited success but was respectful, responsible and safe.
LESSON 1 (Grade 5)

<table>
<thead>
<tr>
<th>Central Focus</th>
<th>Basic grips (Forehand/Backhand)</th>
</tr>
</thead>
</table>
| Goal          | By the end of the lesson the students will be able to:  
- describe what badminton is like  
- demonstrate two grips used in badminton  
- demonstrate a relaxed reach when striking the shuttle (or soft ball / balloon) |
| Warmup        | 4 leaders from each row will lead the entire class in stretches.  
Each leader gets 2 stretch cards, instructs, and chooses the amount of times they’d like for everyone to perform the stretch  
Jog 3 Laps along the perimeter of the gym and stay outside of the cones.  
Cones placed in 4 different corners of the gym |
| Equipment     | 12 Balloons, 12 Racquets, 12 Shuttles, 2 Laptops |
| Introduction  | “Badminton is a racket sport played by either two opposing players (singles) or two opposing pairs (doubles), who take positions on opposite halves of a rectangular court that is divided by a net. Players score points by striking a shuttlecock with their racquet so that it passes over the net and lands in their opponents half of the court. Badminton match consists of the best of 3 games of 21 points. Every Time there is a serve, a point is scored (rally point scoring).” |
| Transition    | Split Class into two groups. One group will be watching badminton videos, other group will be learning how to use their grip and practicing. |
| Station 1     | Thumb grip with balloon:  
Teacher demonstrates the thumb grip.  
Working with a balloon and a racket, children asked to keep balloon up in the air with back of hand and thumb grip moving up and away from the body. |
<p>| Station 2     | Basic grip with balloon: |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4min</td>
<td>Teacher demonstrates the basic (&quot;V&quot;) grip. Working with a balloon and a racket, children asked to keep balloon up in the air with basic grip.</td>
</tr>
<tr>
<td></td>
<td><strong>Station 3</strong> 4min Grip change with balloon: Teacher demonstrates the change between the grips. Working with a balloon and a racket children asked to keep balloon in the air three times with thumb grip and then three times with basic grip.</td>
</tr>
<tr>
<td></td>
<td><strong>Station 4</strong> 4min Singles Match Video</td>
</tr>
<tr>
<td></td>
<td><strong>Station 5</strong> 4min Doubles Match Video</td>
</tr>
</tbody>
</table>

**LESSON 2 (Grade 5)**

<table>
<thead>
<tr>
<th>Focus</th>
<th>Clear Shots, Drives, and Dropshot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>- By the end of the lesson, students will be able to perform backhand/forehand clear shots, fast drop shot, and backhand/forehand drives.</td>
</tr>
<tr>
<td>Warmup 10min</td>
<td>4 leaders from each row will lead the entire class in stretches. Each leader gets 2 stretch cards, instructs, and chooses the amount of times they'd like for everyone to perform the stretch.</td>
</tr>
<tr>
<td></td>
<td>Jog 3 Laps along the perimeter of the gym and stay outside of the cones. Cones placed in 4 different corners of the gym</td>
</tr>
</tbody>
</table>

**Unit:** Badminton  
**Lesson:** 2  
**Grade:** 5  
**# of students:** about 24  
**Length of lesson:** 40min  
**Times per week class meets:** 3x/week
<table>
<thead>
<tr>
<th>Equipment</th>
<th>White dry erase board and dry erase markers, 2 volleyball nets, 1 badminton net, 8 rackets, 8 birdies, poly spots for dividing courts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Forehand Overhead Clear: It’s a defensive shot hit from your baseline to your opponent’s baseline. The Overhead Clear is also known as the Lob in some countries. You’ll find yourself using this shot very often in a singles game. If you perform the right technique, Clearing or Lobbing should be effortless. If you find yourself putting a whole lot of effort in your Clears, you may be performing the wrong technique. Teach Students How to forehand overhead clear: 1. Move into position and get behind the shuttle. Adopt the Forehand Grip. 2. Raise your Racket Arm and Non-Racket Arm. 3. Your body should face sideways with your feet pointing slightly sideways. Important Tip: Bend your knees slightly 4. Commence your Forehand Stroke. Stretch your Racket Arm to as far back as possible. Stretch out your Non-Racket Arm. Inhale. Then Exhale as you swing your racket forward. Tip: Bend your Racket Foot lower than your Non-Racket Foot. As you swing your Racket forward, use your Racket foot to push your body weight forward. 5. Take the shuttle at the Highest Point possible. Contact Point: In step 1, you should place yourself right below the shuttle. So when you hit the shuttle, your swing will naturally direct the shuttle upwards. Knees: Straighten your knees as you reach out to take the shuttle at the highest point. 6. Complete a Full Arm Swing. Follow through with your swing even after you hit the shuttle. 7. Shuffle your Racket Foot forward as you swing your racket forward. After hitting your stroke, your body should face forward. Your Racket Foot should be in front of your Non-Racket Foot. Both feet should point forward.</td>
</tr>
<tr>
<td>Transition</td>
<td>Make Groups of 3</td>
</tr>
<tr>
<td>Task 2</td>
<td>With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other two players will be on the other half. 1 of the two players will be practicing their forehand overhead clear with the racket in hand, and the other will be tossing the birdy in the air for the person practicing. Students will rotate positions after 1 minute when teacher blows the whistle.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Transition</td>
<td>Have students sit, and teacher will demonstrate Backhand Clear.</td>
</tr>
</tbody>
</table>
| Task 3 | How to perform Backhand Clear  
1. Quickly switch to the Backhand Grip. Keep your grip loose and relaxed for maximum wrist action.  
2. Turn your body to face the rear court. Slightly bend your knees.  
3. The picture on the left explains the Backhand Stroke. You raise your elbow as high as possible so that you'll take the shuttle at a high point.  
4. Take the shuttle at the highest point possible.  
5. As you hit the shuttle, stomp your Racket Foot on the ground. Place your body weight on your Racket Foot. This creates more power. |
| Task 4 | With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other two players will be on the other half. 1 of the two players will be practicing their backhand overhead clear with the racket in hand, and the other will be tossing the birdy in the air for the person practicing. Students will rotate positions after 1 minute when teacher blows the whistle. |
| Task 5 | Forehand Drive  
Drives are fast badminton shots exchanged horizontally right across the net. Therefore the KEY in performing the drive is to use your wrist action.  
How to Forehand Drive: |
Bend slightly forward until the height where your eyes are approximately level with the top of the net. Adopt the defensive stance.

Hit the shuttle when it’s IN FRONT of you. The movement is similar to tossing an object forward. *Imagine yourself tossing an object into a bin in front of you.*

Extend your non-racket arm for better body balance.

In order to generate even more power and to perform the shot ‘smoothly’, allow your bodyweight to follow the momentum of your swing.

However, avoid throwing your whole body to the front or you’ll lose balance. Make sure as your body moves forward, your feet should stay firmly in position. You might lose some degree of body balance as you do this. That’s why you should use your non-racket arm to help you maintain balance.

Notice that the wrist points downwards after hitting the drive. You’ll only be able to generate a fast return if you make use of your wrist.

<table>
<thead>
<tr>
<th>Task 6</th>
<th>With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other two players will be on the other half. 1 of the two players will be practicing their backhand forehand drive with the racket in hand, and the other will be tossing the birdy in the air for the person practicing. Students will rotate positions after 1 minute when teacher blows the whistle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3min</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task 7</th>
<th>Backhand Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1min</td>
<td>The technique to perform a drive using your backhand is similar to the technique using the forehand. However, quickly switch from a forehand grip to a backhand grip</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task 8</th>
<th>With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other two players will be on the other half. 1 of the two players will be practicing their backhand backhand drive with the racket in hand, and the other will be tossing the birdy in the air for the person practicing. Students will rotate positions after 1 minute when teacher blows the whistle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3min</td>
<td></td>
</tr>
</tbody>
</table>

| Task 9 | Fast Forehand Drop Shot |
1. Get into position and adopt the Forehand Grip. Your body should face sideways.

2. Raise your Non-Racket Arm and Racket Arm.

3. Commence your Swing. Stretch out your Non-Racket Arm at the same time.

4. Complete a Full Arm Swing. Follow through with your racket even after you hit the shuttle.

5. Shuffle your Racket Foot forward as you swing your racket forward. Your body should now face the front.

Task 10

With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other two players will be on the other half. 1 of the two players will be practicing their fast forehand drop shot with the racket in hand, and the other will be tossing the birdy in the air for the person practicing. Students will rotate positions after 1 minute when teacher blows the whistle.

<table>
<thead>
<tr>
<th>Unit: Badminton</th>
<th>Lesson: 3</th>
<th>Grade: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td># of students: about 24</td>
<td>Length of lesson: 40min</td>
<td>Times per week class meets: 3x/week</td>
</tr>
</tbody>
</table>

LESSON 3 (Grade 5)

<table>
<thead>
<tr>
<th>Central Focus</th>
<th>Serve, Smash, Rally Game Play</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>-By the end of the lesson, students will be able to serve, smash, and rally the birdy back and forth 2v2.</td>
</tr>
<tr>
<td>Warmup</td>
<td>4 leaders from each row will lead the entire class in stretches. Each leader gets 2 stretch cards, instructs, and chooses the amount of times they’d like for everyone to perform the stretch</td>
</tr>
<tr>
<td><strong>10min</strong></td>
<td>Jog 3 Laps along the perimeter of the gym and stay outside of the cones. Cones placed in 4 different corners of the gym</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>White dry erase board and dry erase markers, 2 volleyball nets, 1 badminton net, 24 rackets, 12 birdies, poly spots for dividing courts.</td>
</tr>
</tbody>
</table>
| **Task 1 3min** | High Serve  
This type of serve is usually executed when you want the shuttle to land at the back end of the court. A *good* high serve must have the shuttle dropping steeply downwards at the back end of the court. A high serve will prevent your opponent from executing a strong smash. Instead, a lob or a drop is more expected from your opponent (unless they can do a jump smash).  
How to High Serve:  
- Hold the head of the shuttlecock with its head facing downwards so that the shuttlecock will drop straight down.  
- Stand sideways (the side of your body facing the net) and relax your racquet arm (arm that is holding the racquet).  
- Let go of the shuttlecock and swing your racquet arm upwards. As you do this, twist your waist to the extent that your body faces the net. Flick your wrist towards the direction you want the shuttle to land (Flick your wrist *upwards*, so that the shuttlecock will fly high).  
- Your back leg should lift up naturally (with your toes touching the ground) |
<p>| <strong>Transition 2min</strong> | Pair up students. 2 pairs for each court. 4 students per court. |
| <strong>Task 2 3min</strong> | With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other player will be on the other half. 1 of the two players will be practicing their serve with the racket in hand, and the other will be catching the birdy, and serving the birdy right back. Students will practice serving until time is called. |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>3min</th>
<th>3min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition</td>
<td>Have students sit, and teacher will demonstrate low serve.</td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td>The low serve is used when you want the shuttlecock to land in front of the court (in front of your opponent). A GOOD low serve will have the shuttlecock flying JUST ABOVE THE NET. If not, your opponent will have the chance to dash forward and smash the shuttle down to you. A low serve, when executed beautifully, prevents your opponent from making an offensive shot. How to low serve:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hold the feather of the shuttlecock with the head of the shuttlecock facing downwards.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Position the racquet behind the shuttlecock.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Step slightly forward with your right (left) leg if you are right handed (left handed).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• As you let go of the shuttlecock, flick your racquet lightly while pushing your thumb forward towards the direction you want the shuttle to land. The power comes mainly from the push of your thumb and the slight flick of your wrist.</td>
<td></td>
</tr>
<tr>
<td>Task 4</td>
<td>With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other player will be on the other half. 1 of the two players will be practicing their serve with the racket in hand, and the other will be catching the birdy, and serving the birdy right back. Students will practice serving until time is called.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students will gather around a court, and learn the smash.</td>
<td></td>
</tr>
</tbody>
</table>
### Task 5

**3min**

**How to Smash**

1. Get into position and adopt the Forehand Grip.

2. Stand on a firm position.

   If you’re not on good balance, your smash won’t be strong because your body will concentrate on balancing first rather than doing a strong swing.

3. Raise your Racket Arm and Non-Racket Arm.

   Make sure you stretch your racket arm as far back as possible. This will help ensure you perform a full arm swing.

4. Take the shuttle at the highest point possible.

   This creates a steep angle for your smash.

5. Hit the Shuttle with a Full Arm Swing.

   Take a deep breath. Stretch out your chest to the widest extend possible. Stretch out your Non-Racket Arm.

### Transition

Students will return to their court and practice their smash.

### Task 6

**3min**

With 2 groups per court, the groups will share a court by splitting it directly in half vertically. This way, each group will have some court and net. One player from each group will be on one half of the court catching the birdie, and the other player will be on the other half. 1 of the two players will be practicing their serve with the racket in hand, and the other will be smashing the serve back to the server. Players will switch roles when teacher blows whistle.

### Task 7

**5min**

Rallying at the net 2v2 using skills they’ve learned.
Badminton Sub Day-Mr. Loustaunau

**Grade level:** 5  
**Objective:** Students are to select a partner for 2v2 rally game play. Students should be a positive teammate through communication: verbal and nonverbal. Students should focus on a correct serve to improve rally game play.  
**Equipment:** Rackets short, rackets long, birdies, poly spots, badminton nets, volleyball nets, steps, low net, music player, table  
**Setup:** Full gym to setup 6 courts = 24 participants actively participating  
**Setup:** ½ gym to setup 3 courts = 12 participants on and 12 participants sitting out  

**Partner Selections:** Allow students to choose a partner for rally game play. If a student does not have a partner, student can partner with a teacher or another student during each rotation.

**Rotation:** Teacher can play a 3-4 minute song, pause the music, and then rotate the teams to play new teams. This gives students an opportunity to play against many students and their skill sets. It also allows students to learn new skills through observation, practice, repetition, and sportsmanship skills.

**Basic Rules:** Students will enter the class and sit down in a circle area. Teacher will remind students about safety of racket use and to be mindful to only swing the racket on their court. Instruct students that they can do an underhand serve, side serve, overhead serve, and a birdie resting on the racket serve. Students should serve again when they win the point. Focus on good serves that are safe and beneficial for rally game play. If students are not being safe or misusing the racket, ask student to get a drink of water to take a quick break and to have them give you a thumbs up to come back in when they are ready to follow safety instructions.
BADMINTON
DOUBLES TOURNAMENT

5th Grade Classes

Day 1: Lunch Time in the Gym at 11:30am-12:20pm
Day 2: Lunch Time in the Gym at 11:30am-12:20pm
Lunch and recess in the Gym for tournament players

Badminton Tournament Rules:
1. Doubles Teams
2. 3 minute games (highest score wins)
3. (Rock, paper, scissors) best of 3 to start match as serving team
4. Rally point scoring
5. You must say your score before you serve
6. Sportsmanship hand shake - good game at end of each match
7. All game scores must be recorded with Mrs. Wright or Mr. L.

Badminton Tournament Win, Tie, Loss Scoring:
- 3 points for a win
- 1 point for a tie
- 0 points for a loss

Badminton Tournament Playoffs:
Top 4 teams
- **Half-Court** Semi-Final (single elimination-first team to score 8 points wins)
- Both Semi-Final games will be played at the same time

Championship Game
- **Full Court** Championship Match (first team to score 12 points wins)
**Signups during lunch/recess time.**

If you have questions, please ask Mr. Loustaunau

**BADMINTON DOUBLES TOURNAMENT**

**5th Grade Classes:**

<table>
<thead>
<tr>
<th>#</th>
<th>Doubles Team Name</th>
<th>Student Name</th>
<th>Student Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Signups during lunch/recess time

If you have questions, please ask Mr. Loustaunau

BADMINTON Quiz

Name:___________________________

Teacher:_________________________

Directions: Circle the correct answer in the parenthesis.

1. Forehand and Backhand are the two grips we learned in the Badminton unit?
   A. True
   B. False

2. It’s a defensive shot hit from your baseline to your opponent’s baseline?
   A. Drop Shot
   B. Smash
   C. Serve
   D. Forehand Overhead Clear

3. A High Serve is usually executed when you want the shuttle to land at the back end of the court?
   C. True
   D. False

4. A Low Serve is used when you want the shuttlecock to land in front of the court (in front of your opponent)?
   A. True
   B. False

5. To Smash the shuttlecock, you need to make contact at the lowest point possible?
   A. True
   B. False
Section E: Kindergarten-4th Grade Spanish
I can explain the customs of “cascarones” in Central America.

Standards
30.A.2d - Participate in games from other cultures.
29.B.1A -- Identify one or more art form.

Objective
Students will learn the history of “cascarones” and how they are used in both Mexico and Guatemala.
Students will create their own version of “cascarones” and substitute confetti with something more “earth friendly”.

Materials
Computer
Egg shells
Bird seed
Video/Google slides
Colored pencils/crayons
Glue
Small tissue

1. Discuss the various customs from around the world.
2. Allow students to share their favorite customs.
3. Talk about Fat Tuesday and how it is celebrated in New Orleans and other areas such as Mexico and Guatemala.
4. Explain history of “cascarones”.
5. Copy words from the board into their notebooks.
6. Show video on various ways to empty an eggshell.
Vocabulary list:

Cascarones  
papel picado - confetti  
cáscara de huevo - egg shell  
papel de seda - tissue paper  
el pigamento - glue  
la suerte - luck  
la tradición - tradition

Activities:

1. Have students collect eggshells from home. Advised students to gather eggshells as eggs were being used in their households. Each student encouraged to bring at least three eggshells in case they crack.

2. Third graders decorate their eggs with colored pencils, crayons and markers.

3. Once they are done decorating they were to fill the eggshells halfway with birdseed. Once it was filled up they glue the opening of the shell with a small tissue paper square.

4. Go outside and have our own Fat Tuesday celebration.

5. When the celebration is over we will pick-up tissue and big pieces of eggshell from the ground.

6. Once we return to class students will be asked to write a reflection about the lesson.
I had a lesson with third graders about Easter and various ways it is celebrated in Latin America. Most of the traditions were all religious-based except the “cascarones.” We talked about New Orleans and Fat Tuesday. We viewed slides of parades, parties and celebrations. I then mentioned that Fat Tuesday is also celebrated in Mexico, Guatemala and El Salvador. I told the class about the history of “cascarones”. Included in the lesson was the fact that cascarones were brought to Mexico via Asia. In the beginning they used to be filled with powdered perfume and were given as expensive gifts to the upper class. As time progressed they were no longer filled with powdered perfume and replaced with confetti known as “pica pica.” Basically, “pica pica” is confetti made out of tissue paper. They can also be filled with glitter, candy or anything else that is festive.

On Fat Tuesday they crack the eggs on top of people’s head (not with the pointed side) for good luck. In some towns they will have a parade and play music. People will line up on both sides of the street and when the music stops they throw the confetti filled eggs at each other. Also some people would use this as an opportunity to be a bit flirtatious.

To make cascarones a person would take an egg and shake it. Next they would have to poke two holes on the egg one on each end. Then blow into one of the ends and the yolk will come out the other. The egg can be used as normal Then the eggshell would need to be rinsed out and dried. Once dried the eggshell then can be filled with confetti.

I told the children that we were going to reenact this tradition but I had some concerns. I didn’t have enough “pica pica” and was wondering what we could use? At first they started shouting things like candy, glitter, slime, etc... Then I said if this is going to be done outdoors do you think glitter would be a good idea? Almost instantly they started to see the connection and realized that glitter and confetti wasn’t environmentally friendly. We also discussed that candy isn’t healthy and there are many different food allergies so it isn’t a really smart idea. I asked for some environmentally friendly ideas and wrote them on the board as they called them off. Some of their ideas included:

- flower bombs
- grass
- grass seeds
- seeds
- carrot seeds
- bird seeds
- popcorn kernels
The children were assigned to bring three empty eggshells to school and were given two weeks to do it. We ended up using bird seed as filling for the eggs.

A contract was signed by each student participating in our “celebration” to encourage some safety precautions.

I will follow instructions in order to participate in today’s Cascarones festivities.

1. I will not throw, slam/nor hit someone with an egg.
2. I will crush the egg in my hand.
3. I will start and end when the teacher tells me to.
4. In order to participate I must also allow other students to get me and vice-versa.
5. HAVE FUN!!

Nombre ___________________ Maestra_________________ Date ____________________
Section E: 5th-8th Grade Spanish
Lesson Plan: food vocabulary and the verb GUSTAR

Grade Level: 6th grade

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>My objectives for this lesson are for the students to be able to talk about what foods they like/dislike.</td>
</tr>
<tr>
<td>Concepts</td>
<td>Food vocabulary, the Spanish verb “gustar”</td>
</tr>
<tr>
<td>Materials</td>
<td>- whiteboard/markers</td>
</tr>
</tbody>
</table>
<pre><code>                  | - flashcards                                                        |
                  | - poster                                                            |
                  | - book                                                             |
                  | - worksheet                                                        |
                  | - construction paper or plain paper                                 |
                  | - chromebook                                                        |
</code></pre>
| Procedure          | Day 1 - I will introduce the lesson by showing pictures of foods in a slideshow and giving the Spanish words for the food items.  
                      | - Students will repeat the words and take notes.                    |
                      | - We will play some games of saying the food vocabulary with some of the pictures of the food items from the slideshow.  
                      | - The students will have a vocabulary homework worksheet to practice the words.  
                      | Day 2 - I will model sentences about what foods I like and help the students to do the same. Once we have practiced, I will show the class our notes on “Gustar” and explain how it works. The students will do some practice sentences.  
<pre><code>                  | Day 3 - The students will make posters about the foods they like and make |
</code></pre>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sentences to tell about them. Day 4 - We will continue with the grammar part of the lesson. Day 5 - The students will make skits that take place in a restaurant as they talk about food.</td>
</tr>
<tr>
<td>Assessment</td>
<td>-Oral assessment will be the primary assessment of this lesson. I will also be checking for the students’ success in being able to write sentences on their own about what foods they like. Check the homework assignment. There will be a worksheet and a quiz at the end of the lesson as well.</td>
</tr>
</tbody>
</table>
Did You Get It?

Goal: Talk about things you and other people like.

GUSTA VS. GUSTAN

- When someone likes to do something, gustar + infinitive is used. For example, me gusta correr. (I like to run.) Read the following sentences. They illustrate another way to use the verb gustar.

<table>
<thead>
<tr>
<th>Singular subject</th>
<th>Plural subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A mi)</td>
<td>(A mi)</td>
</tr>
<tr>
<td>Me gusta el yogur. (I like yogurt.)</td>
<td>Me gustan los huevos. (I like eggs.)</td>
</tr>
<tr>
<td>(A ti)</td>
<td>(A ti)</td>
</tr>
<tr>
<td>Te gusta el yogur. (You like yogurt.)</td>
<td>Te gustan los huevos. (You like eggs.)</td>
</tr>
<tr>
<td>(A usted / él / ella)</td>
<td>(A usted / él / ella)</td>
</tr>
<tr>
<td>Le gusta el yogur. (You / he / she likes yogurt.)</td>
<td>Le gustan los huevos. (You / he / she likes eggs.)</td>
</tr>
<tr>
<td>(A nosotros/as)</td>
<td>(A nosotros/as)</td>
</tr>
<tr>
<td>Nos gusta el yogur. (We like yogurt.)</td>
<td>Nos gustan los huevos. (We like eggs.)</td>
</tr>
<tr>
<td>(A vosotros/as)</td>
<td>(A vosotros/as)</td>
</tr>
<tr>
<td>Os gusta el yogur. (You like yogurt.)</td>
<td>Os gustan los huevos. (You like eggs.)</td>
</tr>
<tr>
<td>(A ustedes / ellos / ellas)</td>
<td>(A ustedes / ellos / ellas)</td>
</tr>
<tr>
<td>Les gusta el yogur. (You / they like yogurt.)</td>
<td>Les gustan los huevos. (You / they like eggs.)</td>
</tr>
</tbody>
</table>

EXPLANATION: The verb gustar means to like. However, its literal meaning is to please or to be pleasing to. In the above sentences, the subjects are el yogur and los huevos. (Yogurt pleases me / Yogurt is pleasing to me) and Eggos please me / Eggs are pleasing to me.) The me, te, le, nos, os, and les describe to whom something is pleasing. In other words, the singular and plural forms of gustar match what is liked, not the person who likes it.

Read the dialogue to see how gustar is used in conversation.

—¿Alicia, ¿te gusta la leche? (Alice, do you like milk?)
—Sí, me gusta mucho. (Yes, I like it a lot.)
—¿Y los jugos? ¿Te gustan los jugos? (And juices? Do you like juices?)
—También me gustan. El jugo de naranja es muy nutriutivo. (I like them, too. Orange juice is very nutritious.)
—¿A tus amigos les gusta la leche? (Do your friends like milk?)
—No, no les gusta la leche pero les gustan los jugos. (No, they don’t like milk, but they like juices.)
—A mí y a mis amigos nos gusta la leche y los jugos. ¡A nosotros nos gusta todo! (My friends and I like milk and juices. We like everything!)
## Desayuno

- Panqueques: 6.99
- Gofres: 3.75
- Tostada de aguacate: 8.62
- Huevos y tocino: 4.95
- Huevos: 2.99
- Tocino: 2.99

## Almuerzo

- Nuggets de pollo: 8.50
- Queso asado: 4.99
- Emparedado: 5.99
- Ensalada: 2.99

## Bebidas

- Coca: 2.99
- Agua: 1.00
- Leche: 2.00
- Jugo de naranja: 3.00

## Cena

- Pollo: 3.99
- Hamburguesa: 6.99
- Pancho: 5.75
- Pollo ala parrilla: 5.75

## Postres

- Helado: 2.99
- Chocolate: 10.99
- Pastel: 3.99
- Pastelitos: 3.99
- Rochi: 3.99
- Macarrones: 10.99
- Mantequilla: 3.99
- Brownies: 6.00
- Galletas de buta: 3.99
- Galletas: 3.88
<table>
<thead>
<tr>
<th>Desayuno</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>huevos y pan</td>
<td>$4.00</td>
</tr>
<tr>
<td>huevos y chorizo tacos</td>
<td>$6.00</td>
</tr>
<tr>
<td>Quesadilla (12 cm. C)</td>
<td>$3.00</td>
</tr>
<tr>
<td>Chilaquiles</td>
<td>$5.00</td>
</tr>
<tr>
<td>huevos revueltos</td>
<td>$3.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Almuerzo</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chorizo, queso, lechuga, y salsa burrito</td>
<td>$8.00</td>
</tr>
<tr>
<td>Sandwich de queso fundido</td>
<td>$5.00</td>
</tr>
<tr>
<td>Enchiladas</td>
<td>$6.00</td>
</tr>
<tr>
<td>Eiete</td>
<td>$5.00</td>
</tr>
<tr>
<td>Pecalla</td>
<td>$7.00</td>
</tr>
<tr>
<td>Cera</td>
<td></td>
</tr>
<tr>
<td>tacos pescado</td>
<td></td>
</tr>
<tr>
<td>burrito de filete y lechuga</td>
<td></td>
</tr>
<tr>
<td>salb, guacamole y frijoles de maiz</td>
<td></td>
</tr>
<tr>
<td>tacos al pastor</td>
<td></td>
</tr>
<tr>
<td>tacos de carne</td>
<td></td>
</tr>
<tr>
<td>Bebidas</td>
<td></td>
</tr>
<tr>
<td>Horchata</td>
<td>$3.00</td>
</tr>
<tr>
<td>Agua</td>
<td>$1.00</td>
</tr>
<tr>
<td>Jugo de naranja</td>
<td>$2.00</td>
</tr>
<tr>
<td>Leche</td>
<td>$1.50</td>
</tr>
</tbody>
</table>
• yogur de vainilla - $2.75
• yogur de arándanos - $3.00

Pan:
• tostada con mantequilla - $3.00
• pan de canela - $3.50
• pan de pasas - $3.25
• pan de bananitos - $3.00
• pan de chocolate - $4.00
• tostada francesa - $4.75
• panecillo de canela - $4.00

El Almuerzo

Sandwiches:
• sandwich de jamón y queso - $4.00
• sandwich de queso fundido - $4.90
• sandwich de mantequilla de maní y mermelada - $4.00

Pasta / Fideos - $5.00
Hamburguesas - $5.80
Ensalada - $3.90
Burrito - $5.00

La Cena

Sopa - $4.50
Pizzas:
• pequeño - $5.50
• mediano - $8.00
• grande - $15.00

Chile con frijoles - $10.20
Espaguetis y albóndigas - $7.30
Arroz con frijoles - $6.00

Lados

Frutas - $2.50
Vegetales - $2.00
Arroz - $3.30
Papas fritas - $4.00
Pollo (cinco pedazos) - $3.70
Section F: Updated Goals, Objectives, and Pupil Performance Standards
Education & Curriculum

The 2021-2022 Prairie Crossing Charter School (PCCS) school year was a year of challenges and success stories. With the Covid -19 protocols again changing, we happily and cautiously began our year with nearly 100% of students and staff on campus, learning together in person. As PCCS relies on the school campus/environment for content and pedagogy, the staff was confident that moving back into our more traditional surroundings would help begin closing the academic learning gap experienced during the remote learning months. Overall, the staff was able to move into their more familiar surroundings and academic strategies, however, we quickly found ourselves adjusting to the distinct differences in our students’ learning readiness and non-academic behaviors. It was a year of rebuilding stamina and strengthening our in-person culture of CARES (Collaborative, Aware, Respect, Empowered and Sustainable).

Although many argue the validity of data collected during the Covid - 19 months, PCCS continues to use what we have in order to help innovate, improve, and drive future instruction. Our staff spent several inservice hours creating and evaluating assessment tools and data which could help us understand the impact we were making on student, class, grade, and school learning.

Kindergarten through 2nd grade continued the use of the new ELA materials. These materials, which are more closely aligned with current assessment and benchmarking tools and practices, are expected to help teachers broaden their approach in early literacy and bring a more research based, and balanced literacy strategies into the classrooms in our primary and now intermediate grades. In addition, the 3rd /4th grade team began to research this program for standards and pedagogical alignment. Beginning the 2022 - 2023 school year, K-4 will be using the same, consistent Literacy program. Our most current Fall to Spring ELA data indicates the need for continued intervention at school, class, and individual levels.

In the 3rd through 8th grades, teachers continued to work on integrating writing strategies into the current curriculum and looking to solidify and provide continuity throughout the upper grades. This work will continue into the 2022 -2023 school year.

The staff is now in its fifth year using the new Bridges Math materials. Our current data indicates much greater success with meeting our Fall to Spring growth goals for learning in mathematics. Of the 45 students graduating in 2022, 58% completed Algebra or above, and 18% completed Geometry.

Overall, according to our end of year NWEA data, PCCS students exceeded expectations for the school year in Mathematics at every grade level.

For those students who have not yet met their growth expectations, the PCCS’ Student Services intervention team continued its success by providing intervention. These intervention groups included more than 35% of the school’s total population. The intervention staff built upon a structured MTSS plan along with developing strategies for responding to these changes in our
student population with increased intervention identification and delivery for grades K-8. The team was able to provide dedicated ELA Tier 2 & 3 interventions in all grade bands and continued to strengthen our home-school partnership by providing “Parent University” classes throughout the year.

Social Emotional: Positive Behavior Intervention and Supports (PBIS), CARES, & Restorative Practices

PCCS continues to build upon the previous successes of the multi-award PBIS team while incorporating our CARES components into classroom and school practices. This year found our staff blending the CARES framework into the practices learned from the EL Education book, We Are Crew: A Teamwork Approach to School Culture, into their daily routines. Staff were educated on vision and concrete strategies and practices during August 2021 inservice week and again during an October 2021 inservice day. Class communities across the school incorporated a regular class or “crew” meeting into their weekly or even daily routines. Restorative practices in response to disciplinary incidents increased opportunities for learning, growth, and increased connection versus punishment. Our students and staff have, and will continue to benefit from our focus on a culture that prioritizes their social-emotional support and well-being.

Staffing and Professional Development

Prairie Crossing Charter School had once again achieved a 94% retention rate for certified teachers. This high level of continuity with certified staff allowed us to continue building on past training and learning. Thus, the faculty continued with our unique four legged approach to Professional Development (PD). The first level of PD has all 1st and 2nd year teachers working closely with their mentors to build basic skills and assimilate into the PCCS culture and practice. This included weekly meetings, attending individualized PD together, as well as non-evaluative teacher mentor observations. All teachers are afforded opportunities to attend PD on a group or individual basis depending on their educational goals and needs. Finally, our most experienced Career teachers developed personal and student growth goals and attended PD which most accurately prepares and supports these efforts.

From these goals, these teachers identified, with school leadership, specific individual PD goals to best meet their individual needs. These ranged from attending national conferences, local instructional seminars, formal courses of instruction, grade level and content area articulation with surrounding schools and organizations. The following are examples of the many detailed PD opportunities created by and for the PCCS staff this year:

- It’s Not Just Bathrooms: Supporting Students’ Gender Identity and Expression
- WIDA 2021 eConference
- The Fountas & Pinnell Literacy Continuum: A Tool for Assessment, Planning, and Teaching / A Virtual Full-Day Workshop
- Highly Targeted Interventions for Students Struggling with Reading (Grades K-2)
- Phonics, Spelling and Word Study Grades (K-2) Fountas & Pinnell Classroom Webinar Series
- Reading Minilessons (Grades K-3): A Fountas & Pinnell Classroom™ Webinar Series
Academic Best Practices: Prairie Crossing continues to create goals and integrate resources and strategies which support the culture and instruction of Education for Sustainability (EfS).

Over the past four years, PCCS has focused on creating a comprehensive Natural Leaders program that reflects the best practices of creating a climate and culture that support student health and achievement. By blending research-based practices related to social and emotional learning with best practices related to creating a climate that supports sustainability mindsets, PCCS is now creating an assessment model that will allow us to monitor both short term and long-term impacts of our program and on the development of sustainability mindsets that allow students, faculty, and staff to care for self, others, and the environment.

PCCS staff continue to assess our model for instruction for best practices as compared to research in EfS, Literacy, and Mathematics instruction. One instructional goal this year will be to increase the staff’s capacity for differentiation within the classroom while attending to the many standards in the Tier 1 curriculum.

Another goal will be to continue refining our instructional model and curriculum, especially with newer teachers, to ensure fidelity within the P3BL & EfS mindsets.

As a member of the Catalyst Network, Prairie Crossing continues to shine as a model for others as they visit our site and learn how to implement best practices related to becoming a healthy, equitable and sustainable school. Along with visiting educational leaders and teachers, these methods and models for instruction have become a staple pre-teacher observation and intern location for education majors from many local Colleges and Universities. These partnerships saw more than 20 pre-service teachers and interns working and learning at PCCS this past year.

PCCS again was highlighted in numerous articles in the Network’s GreenNotes newsletter and Green Schools Catalyst Quarterly, the only peer review publication for green, healthy, and sustainable schools in the world. PCCS was also featured in the recently published book titled Trailblazers for Whole School Sustainability: Case Studies of Educators in Action.
Section G: Evaluation of Student Performance
Section G: Evaluation of Students’ Performance

Types of Assessment, Timelines, 2021-2022
Students in grades 2-8 completed NWEA MAP assessments in fall, winter, and spring (FWS). Students in grades K-5 completed aimswebPLUS benchmark assessments in fall, winter, and spring. Whereas it has been administered through grade 8 in the past, the practice was reconsidered in light of the COVID-19 pandemic and the current cost vs. benefit of the measures along with other data that is collected. The BESS social-emotional self-report screening was completed in grades 5-8, and teachers in grades K-4 completed the BESS teacher report on nominated students (e.g., through a gated process) in fall and late winter. The assessments given are listed below:

<table>
<thead>
<tr>
<th>Grade Level/Assessment</th>
<th>K</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>District Assessments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aimswebPLUS Assessments of Early Literacy/Reading</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aimswebPLUS Assessments of Early Numeracy/Math</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NWEA/MAPS (Reading &amp; Math)</td>
<td>N/A</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
<td>FWS</td>
</tr>
<tr>
<td>Fountas &amp; Pinnell (Reading)</td>
<td>FS</td>
<td>FS</td>
<td>FS</td>
<td>FS</td>
<td>FS</td>
<td>FS</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEL Teacher Questionnaire (Behavior)</td>
<td>Fall &amp; Late Winter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>BESS Self Report (Behavior)</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fall &amp; Late Winter</td>
</tr>
<tr>
<td><strong>State Assessments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCESS (EL*)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IAR</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spring</td>
</tr>
</tbody>
</table>

*EL students take all other assessments as per their grade level requirements
**Data Review/Tiers of Support**

PCCS utilizes a Multi-Tiered System of Supports (MTSS) for students. During a typical school year, upon completion of the universal screenings each trimester, the assessment data is examined by the Data Team, which includes the Director of Student Services, Dean of Staff and Students, School Psychologist/Intervention Coordinator, Grade Level Resource Teacher and Grade Band Classroom Teachers. Data is examined to determine each student’s attainment and/or progress toward grade level academic benchmarks and needs for intervention support. When students perform below set benchmarks (below the grade level benchmark [25th-30th percentile] on aimswebPLUS Curriculum-Based Measurements, below expectations on Fountas & Pinnell benchmark assessment, or below the 35th percentile on the NWEA in the content area of reading and/or math), the Data Teams discuss additional factors that may be impacting a student’s performance. Data teams and teachers discuss student performance on classroom assessments, unit assessments, assignments, and day-to-day performance.

A student is typically identified as needing intervention when performance on two or more indicators is below grade level expectations. Students are determined eligible for Tier 2 and Tier 3 interventions based on data collected from formal benchmark assessments and informal assessments/information from the classroom teacher. Students determined eligible receive instruction in the core curriculum along with additional instruction either in the classroom by the classroom teacher and/or instructional assistant and/or by an interventionist outside of the regular classroom. Students receiving assistance are instructed in small groups within the classroom, or individually/in a small group outside of the classroom. Parents of students identified as needing intervention(s) are contacted by the Intervention Coordinator via formal letter describing the need and types of support the student will receive. At Tiers 2 and 3, students have goals set and progress is monitored on an ongoing basis, typically every other week. A schedule is set which reflects when students will be pulled for intervention outside of the classroom and for how often.

Each student’s progress data is typically discussed at least monthly during intervention team meetings and via communication with the teacher. If a student is not making progress, intervention is adjusted; this may include changing the frequency or duration of intervention, group configuration, and materials being used. If needed, the student may be referred to the Student Support Team (SST) to begin the problem solving process. Reports of student progress are sent home each trimester in line with report cards.

In addition to collecting and reviewing academic data for intervention, PCCS collects and reviews behavioral data for intervention. Upon completion of behavioral screening twice per year (fall and late winter) using a research-based screening tool, data is reviewed by the School Social Worker and School Psychologist/Intervention Coordinator, and the Administrative Team. Additional sources of data considered include office discipline referrals, Student Support Team (SST) referrals, and teacher observations. Difficulties identified in the student’s educational functioning due to behavioral, organizational, and/or emotional factors are examined to determine if the student is at or below grade level behavioral standards, and what tier of behavioral/social-emotional support is appropriate:

- **Tier 1**: General behavior expectations per the PBIS Matrix and CARES attributes, core social-emotional curriculum with weekly to monthly visits from School Social Worker and/or School Psychologist, Weekly/Daily class “crew” meetings, Consultation with teachers at grade
band meetings regarding ongoing needs and concerns, Social-emotional website shared with staff and families, Restorative practices related to classroom supports and discipline.

- **Tier 2**: Tier 1 plus Check In/Check Out, Social Academic Instructional Groups (SAIGs), SST referral and problem-solving process, and individual social work/counseling.

- **Tier 3**: Tiers 1 and 2 plus Modified CICO (individual goals and/or structure), FBA/BIP, and Referral for special education evaluation.

**Assessment Data 2021-2022**
Assessment Data should be interpreted in light of the impact of the COVID-19 pandemic on student academic and social-emotional functioning. In addition to consideration of the impact on learning and performance, it should be noted that the majority of comparative norms were established prior to the pandemic and therefore do not account for the unforeseen negative influence of the pandemic on student scores.

**aimswebPLUS Early Literacy/Reading**

Kindergarten Letter Naming Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th %ile</td>
<td>3 (6.3%)</td>
<td>2 (4.3%)</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>75-89th %ile</td>
<td>2 (4.2%)</td>
<td>3 (6.4%)</td>
<td>4 (8.5%)</td>
</tr>
<tr>
<td>26-74th %ile</td>
<td>29 (60.4%)</td>
<td>25 (53.2%)</td>
<td>28 (59.6%)</td>
</tr>
<tr>
<td>11-25th %ile</td>
<td>10 (20.8%)</td>
<td>13 (27.7%)</td>
<td>11 (23.4%)</td>
</tr>
<tr>
<td>1-10th %ile</td>
<td>4 (8.3%)</td>
<td>4 (8.3%)</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>27.5</td>
<td>41.8</td>
<td>50.8</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>14.73</td>
<td>14.61</td>
<td>13.78</td>
</tr>
</tbody>
</table>

Kindergarten Letter Word Sounds Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th %ile</td>
<td>11 (23.4%)</td>
<td>2 (4.3%)</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>75-89th %ile</td>
<td>10 (21.3%)</td>
<td>4 (8.5%)</td>
<td>3 (6.4%)</td>
</tr>
<tr>
<td>26-74th %ile</td>
<td>21 (44.7%)</td>
<td>25 (53.2%)</td>
<td>26 (55.3%)</td>
</tr>
<tr>
<td>11-25th %ile</td>
<td>5 (10.6%)</td>
<td>13 (27.7%)</td>
<td>13 (27.7%)</td>
</tr>
<tr>
<td>1-10th %ile</td>
<td>N/A</td>
<td>3 (6.4%)</td>
<td>3 (6.4%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>16.2</td>
<td>28.3</td>
<td>38.7</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>12.96</td>
<td>10.51</td>
<td>8.31</td>
</tr>
</tbody>
</table>
Grade 1 Nonsense Word Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th percentile</td>
<td>5 (10.4%)</td>
<td>3 (6.4%)</td>
<td>2 (4.2%)</td>
</tr>
<tr>
<td>75-89th percentile</td>
<td>7 (14.6%)</td>
<td>4 (8.5%)</td>
<td>4 (8.3%)</td>
</tr>
<tr>
<td>26-74th percentile</td>
<td>17 (33.4%)</td>
<td>14 (28.8%)</td>
<td>11 (22.9%)</td>
</tr>
<tr>
<td>11-25th percentile</td>
<td>7 (14.6%)</td>
<td>12 (25.5%)</td>
<td>16 (33.3%)</td>
</tr>
<tr>
<td>1-10th percentile</td>
<td>12 (25.0%)</td>
<td>14 (29.8%)</td>
<td>15 (31.3%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>33.3</td>
<td>45.7</td>
<td>55.0</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>27.13</td>
<td>28.10</td>
<td>31.40</td>
</tr>
</tbody>
</table>

Grade 1 Oral Reading Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th percentile</td>
<td>10 (25.0%)</td>
<td>8 (16.7%)</td>
<td>8 (16.7%)</td>
</tr>
<tr>
<td>75-89th percentile</td>
<td>4 (10.5%)</td>
<td>11 (22.9%)</td>
<td>9 (18.8%)</td>
</tr>
<tr>
<td>26-74th percentile</td>
<td>9 (22.5%)</td>
<td>8 (16.7%)</td>
<td>11 (22.5%)</td>
</tr>
<tr>
<td>11-25th percentile</td>
<td>5 (12.5%)</td>
<td>4 (8.3%)</td>
<td>5 (10.4%)</td>
</tr>
<tr>
<td>1-10th percentile</td>
<td>12 (30.0%)</td>
<td>17 (35.4%)</td>
<td>15 (31.3%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>40</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>47.5</td>
<td>58.8</td>
<td>74.0</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>49.13</td>
<td>44.10</td>
<td>50.91</td>
</tr>
</tbody>
</table>

Grade 2 Reading Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th percentile</td>
<td>12 (25.0%)</td>
<td>9 (18.9%)</td>
<td>14 (29.2%)</td>
</tr>
<tr>
<td>75-89th percentile</td>
<td>10 (20.4%)</td>
<td>17 (35.4%)</td>
<td>13 (27.1%)</td>
</tr>
<tr>
<td>26-74th percentile</td>
<td>21 (45.9%)</td>
<td>16 (33.3%)</td>
<td>16 (33.3%)</td>
</tr>
<tr>
<td>11-25th percentile</td>
<td>3 (6.3%)</td>
<td>3 (6.3%)</td>
<td>5 (10.4%)</td>
</tr>
<tr>
<td>1-10th percentile</td>
<td>2 (4.2%)</td>
<td>3 (6.3%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>372.3</td>
<td>401.7</td>
<td>436.3</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>60.93</td>
<td>57.43</td>
<td>51.95</td>
</tr>
</tbody>
</table>
### Grade 3 Reading Comprehension:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-99th Mile</td>
<td>9</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>75-80th Mile</td>
<td>10</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>25-75th Mile</td>
<td>24</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>11-25th Mile</td>
<td>2</td>
<td>0.1%</td>
<td>2</td>
</tr>
<tr>
<td>1-10th Mile</td>
<td>2</td>
<td>0.3%</td>
<td>2</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>44</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>177.6</td>
<td>192.2</td>
<td>193.9</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>22.50</td>
<td>27.00</td>
<td>24.02</td>
</tr>
</tbody>
</table>

### Grade 4 Reading Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Mile</td>
<td>16</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>75-80th Mile</td>
<td>5</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>25-75th Mile</td>
<td>16</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>11-25th Mile</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1-10th Mile</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>482.3</td>
<td>502.6</td>
<td>597.0</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>69.71</td>
<td>71.06</td>
<td>76.14</td>
</tr>
</tbody>
</table>

### Grade 5 Reading Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Mile</td>
<td>14</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>75-80th Mile</td>
<td>0</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>25-75th Mile</td>
<td>16</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>11-25th Mile</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1-10th Mile</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total Students</td>
<td>42</td>
<td>43</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>500.6</td>
<td>520.7</td>
<td>522.0</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>50.13</td>
<td>51.16</td>
<td>64.90</td>
</tr>
</tbody>
</table>
NWEA MAP Reading/Language Arts

![Student Growth Summary Report](image)

aimswebPLUS Early Numeracy/Math

Kindergarten Number Naming Fluency:

![Kindergarten Number Naming Fluency Chart](image)
### Kindergarten Quantity Total Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Tle</td>
<td>9 (19.1%)</td>
<td>7 (14.9%)</td>
<td>6 (12.8%)</td>
</tr>
<tr>
<td>75-89th Tle</td>
<td>5 (10.9%)</td>
<td>3 (6.4%)</td>
<td>3 (6.4%)</td>
</tr>
<tr>
<td>25-74th Tle</td>
<td>25 (55.3%)</td>
<td>24 (51.1%)</td>
<td>25 (53.2%)</td>
</tr>
<tr>
<td>11-25th Tle</td>
<td>5 (10.5%)</td>
<td>11 (23.4%)</td>
<td>10 (21.3%)</td>
</tr>
<tr>
<td>1-10th Tle</td>
<td>2 (4.3%)</td>
<td>2 (4.3%)</td>
<td>3 (6.4%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>14.1</td>
<td>15.9</td>
<td>16.7</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>9.39</td>
<td>15.9</td>
<td>4.37</td>
</tr>
</tbody>
</table>

### Grade 1 Number Comparison Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Tle</td>
<td>5 (10.4%)</td>
<td>0 (0.0%)</td>
<td>2 (4.2%)</td>
</tr>
<tr>
<td>75-89th Tle</td>
<td>4 (8.3%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>25-74th Tle</td>
<td>23 (47.0%)</td>
<td>20 (40.4%)</td>
<td>28 (56.0%)</td>
</tr>
<tr>
<td>11-25th Tle</td>
<td>10 (20.0%)</td>
<td>9 (18.8%)</td>
<td>7 (14.6%)</td>
</tr>
<tr>
<td>1-10th Tle</td>
<td>6 (12.5%)</td>
<td>2 (4.2%)</td>
<td>2 (4.2%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>22.2</td>
<td>27.7</td>
<td>29.7</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.00</td>
<td>5.27</td>
<td>4.39</td>
</tr>
</tbody>
</table>

### Grade 1 Math Facts Fluency:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-95th Tle</td>
<td>6 (12.5%)</td>
<td>9 (18.6%)</td>
<td>7 (14.6%)</td>
</tr>
<tr>
<td>75-95th Tle</td>
<td>5 (10.4%)</td>
<td>11 (23.9%)</td>
<td>11 (23.9%)</td>
</tr>
<tr>
<td>25-74th Tle</td>
<td>25 (52.1%)</td>
<td>25 (52.1%)</td>
<td>25 (52.1%)</td>
</tr>
<tr>
<td>11-25th Tle</td>
<td>9 (18.6%)</td>
<td>2 (4.2%)</td>
<td>4 (8.3%)</td>
</tr>
<tr>
<td>1-10th Tle</td>
<td>3 (6.4%)</td>
<td>1 (2.1%)</td>
<td>3 (6.4%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>12.1</td>
<td>18.1</td>
<td>17.9</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.07</td>
<td>5.16</td>
<td>6.70</td>
</tr>
</tbody>
</table>
Grade 2 Math Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Pct</td>
<td>11 (22.0%)</td>
<td>10 (20.0%)</td>
<td>20 (41.7%)</td>
</tr>
<tr>
<td>75-95th Pct</td>
<td>12 (25.0%)</td>
<td>11 (22.0%)</td>
<td>16 (33.3%)</td>
</tr>
<tr>
<td>25-75th Pct</td>
<td>21 (43.0%)</td>
<td>16 (33.3%)</td>
<td>12 (25.0%)</td>
</tr>
<tr>
<td>11-25th Pct</td>
<td>1 (2.1%)</td>
<td>2 (4.3%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>10-11th Pct</td>
<td>3 (5.9%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>182.8</td>
<td>216.0</td>
<td>240.5</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>34.79</td>
<td>34.03</td>
<td>33.19</td>
</tr>
</tbody>
</table>

Grade 3 Math Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Pct</td>
<td>3 (6.5%)</td>
<td>7 (14.0%)</td>
<td>10 (21.3%)</td>
</tr>
<tr>
<td>75-95th Pct</td>
<td>9 (19.1%)</td>
<td>11 (22.0%)</td>
<td>9 (19.1%)</td>
</tr>
<tr>
<td>25-75th Pct</td>
<td>25 (53.3%)</td>
<td>18 (37.3%)</td>
<td>22 (48.3%)</td>
</tr>
<tr>
<td>11-25th Pct</td>
<td>6 (12.8%)</td>
<td>1 (2.1%)</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>10-11th Pct</td>
<td>3 (6.5%)</td>
<td>1 (2.1%)</td>
<td>4 (8.5%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>48</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>189.5</td>
<td>220.5</td>
<td>234.9</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>35.16</td>
<td>29.57</td>
<td>37.12</td>
</tr>
</tbody>
</table>

Grade 4 Math Benchmark:

<table>
<thead>
<tr>
<th>Comparison: National</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99th Pct</td>
<td>12 (25.5%)</td>
<td>10 (20.0%)</td>
<td>13 (27.1%)</td>
</tr>
<tr>
<td>75-95th Pct</td>
<td>9 (19.1%)</td>
<td>11 (22.0%)</td>
<td>13 (27.1%)</td>
</tr>
<tr>
<td>25-75th Pct</td>
<td>20 (42.6%)</td>
<td>18 (37.3%)</td>
<td>13 (27.1%)</td>
</tr>
<tr>
<td>11-25th Pct</td>
<td>6 (13.6%)</td>
<td>2 (4.2%)</td>
<td>1 (2.1%)</td>
</tr>
<tr>
<td>10-11th Pct</td>
<td>2 (4.3%)</td>
<td>1 (2.1%)</td>
<td>5 (10.2%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>47</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Mean</td>
<td>221.8</td>
<td>235.5</td>
<td>254.1</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>36.80</td>
<td>35.95</td>
<td>44.15</td>
</tr>
</tbody>
</table>
Grade 5 Math Benchmark:

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>19th percentile</td>
<td>16 (26.4%)</td>
<td>17 (37.2%)</td>
<td>17 (35.2%)</td>
</tr>
<tr>
<td>33rd percentile</td>
<td>25 (40.5%)</td>
<td>28 (42.7%)</td>
<td>28 (42.7%)</td>
</tr>
<tr>
<td>50th percentile</td>
<td>51 (58.4%)</td>
<td>51 (58.4%)</td>
<td>51 (58.4%)</td>
</tr>
<tr>
<td>66th percentile</td>
<td>81 (69.0%)</td>
<td>81 (69.0%)</td>
<td>81 (69.0%)</td>
</tr>
<tr>
<td>Total Students</td>
<td>44</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Mean</td>
<td>246.5</td>
<td>253.0</td>
<td>269.0</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>42.67</td>
<td>44.44</td>
<td>41.45</td>
</tr>
</tbody>
</table>

NWEA MAP Mathematics
Section H: Results of Corrective Action
Section H - Results of corrective action

During the first half of the year, students were identified for Title I services (the “Scholars” program) based on benchmarking data obtained along with consideration of prior participation in previous years and close monitoring of classroom performance during the first several weeks of school. Twenty-eight students in grades 1-4 were identified for Scholars reading, and 23 in grades 1-4 were identified for Scholars math, with an overlap of 11 students identified for both programs. Students participated either in intervention in groups of 2-3 several times per week (typically 3) or 1-on-1 twice per week with an interventionist utilizing scientifically research-based interventions and strategies.

Of the 28 students within the Title I reading program, as of Dec. 31, 50% exhibited a Performance Rate of Improvement near, at, or above their Goal Rate of Improvement, meaning they were considered on target to meet their goal by spring, all of which are set at or above the 50th percentile. Of the 23 students in the Title I math program, 61% exhibited a Performance Rate of Improvement near, at, or above their Goal Rate of Improvement, meaning they were considered on target to meet their goal by spring, all of which are set at or above the 50th percentile. During this period, three Scholars reading students graduated due to progress made and one student moved to a new district. One student was removed from Scholars math by parent request. Two students were referred for special education evaluations.

During the second half of the year, students continued to receive Title I intervention (the “Scholars” program) based on progress monitoring data along with winter benchmarking, which was obtained in January/February. 25 students in grades 1-4 participated in Scholars reading, and 22 students in grades 1-4 participated in Scholars math, with an overlap of 11 students in both programs. Students continued to participate in small groups, or in some instances, 1-on-1, with an interventionist utilizing scientifically research-based interventions and strategies.

During this period, two Scholars reading students were exited when they qualified for special education services, one Scholars math student exited when they qualified for special education services, and six Scholars math students graduated due to progress made. Of the 23 students within the Title I reading program, as of May 27 (as noted above, two students exited mid-term), 13% exhibited a Performance Rate of Improvement near, at, or above their Goal Rate of Improvement, meaning they were close to or met their spring goal at the 50th percentile. It is notable that, although the majority of students did not achieve the 50th percentile goal, 39% had an ending rate of improvement above 1.0. Of the 15 students in the Title I math program, as of May 27 (as noted above, six students (27%) exited mid-term due to progress made), 13% exhibited a Performance Rate of Improvement near, at, or above their Goal Rate of Improvement, meaning they were close to or met their spring goal at the 50th percentile. It is notable that 43% of students achieved a final score at or above the 25th percentile.