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PRAIRIE CROSSING

CHARTER SCHOOL

CREATING NATURAL LEADERS

Accountability Report
2016-2017

Prairie Crossing Charter School

Accountability Plan 2016-2017

Exhibit G

Part 5 – Education Elements

Section A: Class Size

2016-2017

Class	Number of Students
Kindergarten, Berger	22
Kindergarten, Teitz	22
1st, Johnson	24
1st/2nd, Jeffery	24
1st/2nd, Barnett	24
2nd, Smith	24
3rd, Hahn	24
3rd/4th, Wagner	24
3rd/4th, Larson	24
4th, McGovern	24
5th, Neil	24
5th/6th, Hershiser	24
5th/6th, Barber	24
6th, Turner	24
7th, Bonczkowski	24
7th, Stewart	24
8th, Jackson	24
8th, Flood	23
Total	427

2016-2017 Outreach Outcomes for Accountability Report

The primary outreach goal for Prairie Crossing Charter School is to increase visibility in the community, through a variety of community-based events and partnerships as well as sponsorship/support in the community, in order to attract more families of educationally disadvantaged students to the school.

Over the last year, our school has seen a 15% increase in low income students, a 14% increase in EL students, and a 13% increase of EDS students receiving services. Our goal is to continue to see this trend continue as we further our outreach initiatives to reach more families of educationally disadvantaged students.

Organizational Initiatives

As in past years, all enrollment, outreach materials, and marketing materials are available in English and Spanish. The School website, available in multiple languages, is a tool prospective families can utilize to learn more about our school, and includes lottery materials and other important information. Our website also provides information regarding enrollment and the lottery that are available for download in English and Spanish.

The Outreach Workgroup serves as an active arm of the school, providing outreach support in the school's efforts to increase visibility in the community. Some of the school's outreach efforts this year include:

- In June 2016, through our partnership with ***LEARN Charter School*** in North Chicago, PCCS provided classroom space, environmental lessons and teachers to help several classes from LEARN have the opportunity to immerse themselves in environmental curriculum.
- Over the summer, we reached out to local realtors to educate them about PCCS as a public school option. We also made contact with a few local preschools, with the intent of engaging their students with ours in a "class buddy" type format.
- PCCS served as one of the sponsors of one of our high school districts, ***Warren Township High School***, in their Centennial celebration, with our school name on a banner at the high school.
- PCCS held another school supply drive at the beginning of the school year, supporting ***Warren and Fremont Townships*** by donating several hundred items to families in need.
- PCCS participated in the ***Liberty Prairie Foundation Fall Festival***, sharing information with the visitors doing activities with the children.
- PCCS staff members met with ***Gurnee Park District***, ***Fremont Township***, and ***Warren Township High School*** to share information about PCCS and attempt to engage them as community partners.
- Participation in the school's ***Community Rummage Sale*** over three days, that attracted hundreds of families in the county;
- Assembly of over 400 Halloween treat bags, with PCCS promotional materials in English and Spanish included. PCCS families passed out these bags to trick or treaters in their neighborhoods--with representation throughout several neighborhoods in both underlying districts;
- Hosted a ***Holiday Marketplace*** at PCCS, which drew hundreds of patrons who shopped and learned more about PCCS (as well as advertising at local businesses).
- Advertised for Open House in the ***Wildwood Park District*** Winter Brochure.

- Hosted two on-site Open Houses.
- Advertising for the Open House/Lottery through a variety of mediums--newspapers (Reflejos and Daily Herald), online digital impressions (25,000 posts), PSAs, social media, and 400+ letters and flyers to local area businesses and agencies.
- January Open House presentation to members of ***Gurnee MOMS Club*** during one of their meetings.
- Participation in the ***Libertyville Green Living Fair***;
- Participated in a Preschool Fair at the ***Fremont Public Library***, with other public schools, to educate prospective parents about PCCS.
- PCCS has adopted a stretch of highway within our district boundaries, fulfilling our mission of caring for the environment while also increasing our visibility in the community.
- Attended the ***AAUW Preschool Kindergarten Night*** in February
- Support our students in different drives they have hosted to benefit the public and larger community (Shoe drive to benefit SWALCO, winter goods drive to benefit PADS, electronics drive, Bake Sale at local plant sale, toilet paper drive to benefit local food pantry).

Again this year, we organized and supported several drives to benefit the larger community this year, including: Toys for Tots, sponsored by the Lake County Regional Office of Education and the U.S. Marines; a community food drive to benefit Warren and Fremont Townships (with a total of 414 food items donated); and a book drive for our friends at LEARN Charter School in North Chicago. Lastly, we have continued to hold Open Houses prior to our live lottery in March to educate prospective families about PCCS.

Lottery Evaluations & Recommendations
In an attempt to make the lottery process simpler for prospective families, the lottery registration form was streamlined substantially this year, 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 221 lottery applications for the March 1st lottery. 28 of the 48 openings for the 2017-2018 school year were filled by sibling preference, with 20 seats eligible to the remaining 193 applicants. Since the lottery, we have received an additional 58 applications for next year's wait list.

The current lottery process continues to be a transparent, impartial and live event that takes place on or about March 1st each year. The lottery is a public event and is video recorded, with the results of the lottery shared on the school's website the day after the lottery.

For the FY18 school year, PCCS will be at the capacity of our facilities and have the highest enrollment in the school's history with 428 students..

Transportation Evaluation
PCCS continues to support and engage with its families in the carpool system that has been utilized since the school's inception. Families have willingly partnered with other families to carpool and share responsibility for commuting to and from school. The school takes an active

role in supporting carpool and works personally with each new and returning family who identifies needing assistance with finding a carpool resource.

This year, PCCS provided transportation to one family who did not have transportation for school. PCCS has paid $16,425 for student transportation for the year. 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.

PCCS continues to **Expand our Outreach** opportunities, by identifying and increasing partnerships with other organizations to broaden our visibility throughout Lake County.

PCCS has again partnered with the ***Waukegan Public Library***, through our partnership in the *Bus to Us* program, in which our 3rd/4th grade students worked cooperatively with students from local Waukegan schools to collaborate on environmental lessons. This partnership increased to a level in which PCCS students hosted students from Clearview Elementary School during PCCS' Earth Week for a day of environmental learning, lunch, and play.

Our partnership with the ***Alliance for Human Services*** has continued, and PCCS hosted their translator program on our campus in the evenings last fall as well as this spring. This partnership invites participants to learn more about PCCS while they are taking the class.

Through our ***Farm to Table*** program, for the second year we have partnered with local restaurants in Lake County to further enrich our program and incorporate the larger community in the unique programming we offer. We have worked with five restaurants this year and look forward to building partnerships with more restaurants next year as well as local farms.

As partners with ***Conserve Lake County***. PCCS again served as one of the sponsors for and participated in the *Conserve Lake County Prairie Harvest Fest*.

PCCS hosted members of the ***Academy of Global Citizenship Charter School*** to discuss our school's environmental initiatives.

Renewed partnerships as well as memberships have taken place with ***INCS (Illinois Network of Charter Schools), Say YES to Lake County Coalition, and Lake County Community Coalition***.

PCCS' involvement in the ***One Earth Film Festival*** served to strengthen our partnerships with some other Lake County groups, as well as provided over 100 attendees the opportunity to visit the school campus and learn about PCCS and other organizations.

Our continued partnership with ***CrossWays Preschool*** gave us the opportunity to allow our 5th/6th graders to teach their preschoolers some environmental lessons and explore the campus one day during Earth Week.

PCCS is working with ***Fremont Public Library*** to identify programs that we can develop a partnership, with PCCS providing some environmental support and share our expertise.

PCCS has had preliminary conversations with the ***Lake County Fair*** group to partner with them on increasing sales and visibility for the Fair in Lake County by promoting it within our school community.

For the second year, we are working with ***Learn Charter School in North Chicago***. PCCS is providing educational support, farm visits, nature walks, prairie sweeps, lessons on nature journaling, tree identification classes, and share environmental backpack lessons with approximately 300 K-4th grade students from LEARN.

Finally, we are working with the ***Early Living Village***, a preschool in Gurnee, to support their Harvest Hoe Down in October. This is another opportunity for us to partner with a school in the community and share our environmental initiatives.

In FY18, we anticipate continuing with the partnerships we have made and involvement in the community.

Respectfully Submitted:

Dilrukshi Dybas
Community Engagement Liaison
Prairie Crossing Charter School
ddybas@pccharterschool.org

Prairie Crossing Charter School
Lottery Results
2004-2017

	Total # of Applicants	Total # accepted	# of siblings of returning students	# of Out of District Applicants	Woodland 50 Applicants	Fremont 79 Applicants
2004-05	188	43	22	4	N/A	N/A
2005-06	211	42	37	10	N/A	N/A
2006-07	229	44	36	4	185	40
2007-08	188	74	33	14	150	24
2008-09	185	52	29	20	151	26
2009-10	182	40	27	19	127	36
2010-11	198	39	28	27	137	31
2011-12	205	44	17	19	148	38
2012-13	238	44	19	31	173	34
2013-14	191	44	26	24	150	17
2014-15	165	51	29	20	133	12
2015-16	166	46	27	11	142	13
2016-17	156	48	30	6	131	19
2017-18	221	48	28	31	169	21
2017-18						
Kindergarten	102	44	24			
1st Grade	41	4	4			

Link to the Website 2017-2018 school year wait list, this wait list is updated as changes happen.

Kindergarten Wait List Registration Form 2017-2018

* Required

Registration for the 2017-2018 Wait List Instructions:

Kindergarten Registration form 2017-2018 Wait List Instructions:

Applications are accepted after the lottery drawing, names will be placed on the wait list in the order they are received by the school.

Registration for the 2017-2018 Wait List Instructions:

1. Complete form only for new students applying for the Wait-List (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).
3. Contact Janette Siegel @ 847-548-1938 or via email jsiegel@pccharterschool.org once you have submitted your form to confirm it was received.
5. If your child is called for an open seat during the current school year and you would like to accepted you are required to send in 2 Proofs of Residency(Utility Bill, Rental Agreement, Tax Bill) and a certified copy of your child's Birth Certificate (note that your child must be 5 years of age on or before Sept 1st in order to enter Kindergarten) within 3 days of accepting the open seat.

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. 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.

The wait-list is maintained on our website. Please refer to the 2017-2018 wait-list when checking for updates.

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 that for the 2017-2018 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 Wait List? Please fill out a separate form for each child applying. *

- ◯ Yes
- ◯ No

If you have other children applying for the Wait List, please provide their name and grade level for the 2017-2018 school year *

Your answer

Father's Name *

Your answer

Father's Address (street, city and zip code) *

Your answer

Father's Cell Phone *

Your answer

Father's Home Phone *

Your answer

Father's Email Address *

Your answer

Mother's Name *

Your answer

Mother's Address *

Your answer

Mother's Cell Phone *

Your answer

Mother's Home Phone *

Your answer

Mother's Email Address *

Your answer

Where did you hear about Prairie Crossing Charter School?

- ☐ Friend
- ☐ Newspaper
- ☐ Online
- ☐ Schools
- ☐ Daycare
- ☐ Other

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

SUBMIT

Never submit passwords through Google Forms.

Formulario de Inscripción para la Lista de Espera de Jardín de infancia 2017-2018

* Required

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CREATING NATURAL LEADERS

Inscripción para la Lista de Espera 2017-2018 Instrucciones:

Registro del Jardín de infancia 2017-2018 Instrucciones para la Lista de Espera:

Las solicitudes se aceptan después del sorteo de la lotería, los nombres se colocarán en la lista de espera en el orden en que son recibidos por la escuela.

Inscripción para la Lista de Espera 2017-2018 Instrucciones:

1. Complete el formulario solamente para los nuevos estudiantes que solicitan la lista de espera (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 pueden ser enviados por correo a petición).
3. Póngase en contacto con Janette Siegel @ 847-548-1938 o por correo electrónico jsiegel@pccharterschool.org una vez que haya enviado su formulario para confirmar que fue recibido.
5. Si a su hijo se le solicita un asiento abierto durante el año escolar actual y le gustaría aceptarlo, deberá enviar 2 Comprobantes de residencia (factura de servicios públicos, contrato de alquiler, factura de impuestos) y una copia certificada del nacimiento de su hijo Certificado (tenga en cuenta que su hijo debe tener 5 años de edad antes del 1 de Septiembre para ingresar al Kindergarten) dentro de los 3 días de haber aceptado el asiento abierto.

La admisión no tiene carácter discriminatorio y está abierta a todos los estudiantes, independientemente de su raza, etnia, sexo, condición socioeconómica, orientación sexual, preferencia religiosa o discapacidad. Somos una escuela pública gratuita que proporciona una educación personalizada de kindergarten a octavo grado para estudiantes que residen en los distritos Woodland (50) y Fremont (79).

La lista de espera se mantiene en nuestro sitio web. Consulte la lista de espera 2017-2018 al revisar las actualizaciones.

Apellido del Solicitante *

Your answer

Nombre del solicitante *

Your answer

Segundo nombre del solicitante

Your answer

Fecha de Nacimiento del Solicitante *

Your answer

Distrito de Residencia del Solicitante *

- ◯ Distrito Escolar # 50 de Woodland
- ◯ Fremont Distrito Escolar # 79
- ◯ Vivimos fuera del Distrito # 50 y Distrito # 79

Estoy confirmando que para el año escolar 2017-2018 mi hijo entrará: *

- ◯ Jardín de infanciation (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)

Do you currently have a child/children attending Prairie Crossing Charter School? *

- ◯ Yes
- ◯ No

¿Tiene otros niños solicitando la Lista de Espera? Por favor llene un formulario separado para cada niño que solicita. *

- ◯ Sí
- ◯ No

Si tiene otros niños solicitando la Lista de Espera, por favor proporcione su nombre y grado para el año escolar 2017-2018 *

Your answer

Nombre del Padre *

Your answer

Dirección del padre (calle, ciudad y código postal) *

Your answer

Teléfono Celular del Padre *

Your answer

Teléfono del padre *

Your answer

Dirección de correo electrónico del padre *

Your answer

Nombre de la madre *

Your answer

Dirección de la madre *

Your answer

Teléfono celular de la madre *

Your answer

Teléfono de la casa de la madre *

Your answer

Dirección de correo electrónico de la madre *

Your answer

¿Dónde se enteró de Prairie Crossing Charter School?

- ☐ Amigo
- ☐ Periódico
- ☐ En línea
- ☐ Escuelas
- ☐ Guardería
- ☐ Otro

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

- ◯ Sí, utilizar esto como mi firma electrónica
- ◯ No, entraré a la oficina para firmar este formulario

SUBMIT

Never submit passwords through Google Forms.

Board of Director's Policy
Students 500 Series

Policy # 500.6

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 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

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Transportation Plan

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

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

Volunteer Policy

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

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 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.

Any family unable to pay the books and materials, or needing extra time to pay the fee should submit the form below to the Executive 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 Executive 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 shall decide waivers on a case-by-case basis in a non-discriminatory fashion and shall rely upon documentation submitted by the applicant. The Executive 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. The Executive Director will review explanation for payment plan requests.

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. 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:

Adopted: April 2004
Amended: May 2007
Revised and Adopted: 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: Attn: Executive Director
Prairie Crossing Charter School
1531 Jones Point Road
Grayslake, IL 60030-3536

Section C: Enrollment of Students with Disabilities 2016-2017

Primary Disability	Related Disability	Related Service	Related Service	Related Service	Dismissed from Services 2016-2017
504					
504					
504					
504					X
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					X
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					
504					
Emotional Disability		Social Work Services			X
Autism		Social Work Services			
Specific Learning Disability					
Other Health Impairment					X
Orthopedic Impairment		Occupational Therapy			
Multiple Disabilities		Social Work Services	Occupational Therapy, 1:1 Aide	Speech/	

				Language Services	
Specific Learning Disability					
Autism		Social Work Services	Occupational Therapy	1:1 Aide, BIP	
Specific Learning Disability	Speech Language Impairment	Speech/Language Services			
Other Health Impairment		Social Work Services	BIP		
Specific Learning Disability					
Specific Learning Disability		Occupational Therapy			X
Specific Learning Disability					
Developmental Delay		Speech			
Autism		Social Work			
Autism		Occupational Therapy, Speech Language Therapy	Social Work Services	1:1 Aide, BIP	
Speech Language Impairment					X
Specific Learning Disability					
Other Health Impairment					
Other Health Impairment		Physical Therapy	Occupational Therapy	Speech Language Therapy, Consultant Services	
Specific Learning Disability		Social Work Services			
Specific Learning Disability					
Speech Language Impairment					
Specific Learning Disability	Speech Language Impairment	Speech/Language Services			
Developmental Delay		Occupational Therapy, Physical Therapy	Social Work Services, Speech/Language Services		

Specific Learning Disability		Speech/Language Services			
Speech Language Impairment					
Hearing Impairment		Audiology			
Developmental Delay		Occupational Therapy	Social Work Services		
Speech Language Impairment					
Specific Learning Disability	Speech Language Impairment				X
Specific Learning Disability					
Other Health Impairment		Speech/Language Services	Occupational Therapy		
Speech Language Impairment					
Specific Learning Disability	Speech Language Impairment	Occupational Therapy			
Other Health Impairment					
Speech Language Impairment					
Other Health Impairment					
Speech Language Impairment					X
Other Health Impairment		Social Work Services	Occupational Therapy		
Other Health Impairment		Social Work Services			
Specific Learning Disability					
Specific Learning Disability					
Specific Learning Disability	Speech Language Impairment	Speech Language Services			
Speech Language Impairment					
Hearing Impairment		Audiology			
Hearing Impairment		Audiology	Speech/Language Services		
Hearing Impairment		Audiology	Speech/Language Services		
Other Health Impairment		Social Work Services			

Specific Learning Disability					
Other Health Impairment		Occupational Therapy	Social Work Services		
Specific Learning Disability					
Other Health Impairment		Aide, Occupational Therapy	Social Work Services, BIP		
Speech Language Impairment		Occupational Therapy			
Other Health Impairment		Occupational Therapy	Aide		
Orthopedic Impairment		Occupational Therapy	Physical Therapy		
Speech Language Impairment					
Specific Learning Disability	Speech Language Impairment	Speech/Language Services			

SECTION D: 2016-2017 Personnel Credentials

Name	Position	Degree	Certification	Years Teaching
Alvarado, Jesse	Custodian			
Anderson, Jacqueline	Assistant	Bachelors	Substitute/ParaPro	
Barber, Kyle	Teacher	Bachelors	Yes	2
Barnett, Katy	Teacher	Masters	Yes	12
Batz, William	Maint. Supervisor	Bachelors		
Berger, Shirley	Teacher	Bachelors	Yes	14
Blom, Edith	One on One Assistant	Bachelors	ParaPro	
Bonczkowski, Kimberly	Teacher	Bachelors		1
Bonicontro, Allison	Assistant	Bachelors	Yes	
Breitenfield, Ann	Assistant	Bachelors	Substitute	
Burks, Camille	Aftercare			
Coonan, James	Tech Support	Bachelors		
Deigan, Geoff	Executive Director	Bachelors		
Disalvo, Kim	Business Manager			
Dybas, Dil	Community Engagement Liaison	Bachelors		
Evensen, Saeram	Assistant	Bachelors	Yes	
Flaig, Carol	Environmental Leader			
Flinn, Josh	Teacher/ Title 1 Reading Spe.	Bachelors	Yes	.5
Flood, Josh	Teacher	M.A.T	Yes	5
Freeman, Robert	Teacher	Bachelors	Yes	2.25
Germata, Katie	Assistant			
Gernady, Anne	School Psychologist	Masters	Yes	
Hahn, Lynn	Teacher	Bachelors	Yes	18
Hamerlind, Theresa	Assistant	Bachelors	Yes	
Hershiser, Michael	Teacher	Masters		13.5
Hershiser, Naomi	Dean Of Environmental Learning	Masters	Yes	8
Hurwitz, Samuel	Assistant	Bachelors		

Jackson, Heather	Teacher	Bachelors	Yes	4
Jeffery, Christine	Teacher	Bachelors	Yes	14
Johnson, Matthew	Assistant	Bachelors	Yes	
Johnson, Patricia	Teacher	Bachelors	Yes	12
Knab, Mackenzie	One on One Asst.	Bachelors	ParaPro	
Krissek, Donna	Assistant	Bachelors	Substitute	
Larson, September	Teacher	Bachelors	Yes	5
Lavitt-Wagner, Amanda	Teacher	M.A.T	Yes	4
Leve-McClevey,Wendy	Assistant	Bachelors	Substitute	
Loustaunau, Chris	P. E. Teacher	M.A.T	Yes	1
Loustaunau, Jessica	Director of Sp. Ed.	Masters	Yes	
Marlette, Megan	Assistant	Bachelors		
McGeever, Jana	Teacher	Bachelors	Yes	10
McGovern, Cynthia	Teacher	Masters	Yes	24.5
McKee, Marjorie	Resource Teacher	Masters	Yes	3.45
Meyer, Caryn	Social Worker	Masters	Yes	21
Moriello, Nicholas	Custodian			
Moyer, Rebecca	Assistant	Bachelors	ParaPro	
Mudge, Lisa	After Care Superv./Sp. Ed. Asst.	Bachelors		
Mui, Katherine	Assistant	Bachelors	Yes	
Nasir, Nasreen	After Care	Bachelors		
Neil, Susan	Teacher	Bachelors	Yes	1
Noble, Marsha	Nurse	Bachelors		
Parker, Julie	Assistant	MA/MS	Yes	
Pechter, Alyssa	Teacher	Bachelors	Yes	.5
Plucinski, Melissa	Resource Teacher	Masters	Yes	8
Reidy, Nancy	One-on-One Teacher Assistant	Masters	Yes	
Roman-Ahlgrim, Lisette	Teacher	Bachelors		2.55
Schaefer, Yvonne	Admin. Assistant			
Siegel, Janette	Admin. Assistant			
Siegel, Quentin	After Care			
Smetters, Felicia	Assistant	Bachelors	Yes	

Smith, Kelly	Dean of K-4/Teacher	Masters	Yes	17
Stanbary, Michelle	Teacher	Bachelors	Yes	2
Steinbeck, Tammy	Assistant	Bachelors	Substitute	
Stenzel, Patti	Bookkeeper			
Stewart, Sarah	Teacher	Bachelors	Yes	2.5
Teitz, Carol	Teacher	Bachelors	Yes	1
Thomas, Andrew	Teacher	Bachelors	Yes	3
Tomei, Susan	One-on-One Teacher Assistant	Bachelors	ParaPro	
Trage, Helen	Assistant	Bachelors		
Turner, Roxanne	Teacher	Bachelors	Yes	2
Venegoni, Danielle	Resource Teacher	Masters	Yes	4
Verenski, Frances	Assistant	Masters	Substitute	
Zamiar, Tony	Dean of 5-8	Masters	Yes	22
Zaragoza, Peter	Assistant		ParaPro	
Contracted Specialists Name	Position	Degree	Certification	Years Teaching
Caruth, Laura	Speech Pathologist	Masters	Yes	
Schmidt, Melissa	Hearing Itinerant Teacher	Masters	Yes	
Vanderbilt, Katie	OT	Bachelors	Yes	
Earley, Laurie	Physical Therapist	Bachelors	Yes	

NGSS Lesson Planning Template

Grade: Kindergarten	**Topic: Weather and Climate**	**Lesson (number/title): 1**

Brief Lesson Description:

- **Introduction to using our 5 senses to make observations**

Performance Expectation(s):

- **I can use my 5 senses to describe the items I observe in the world around me.**
- **This is not a weather and climate lesson. We felt inclined to include this for use of observational purposes**

Specific Learning Outcomes:

- **Students will be able to identify their own 5 Senses and use them to describe things that we observe verbally and in written work.**

Narrative / Background Information

Prior Student Knowledge:

- Personal Experience

Science & Engineering Practices:	**Disciplinary Core Ideas:**	**Crosscutting Concepts:**
• Asking questions (science) and defining problems (engineering) • Developing and using models • Planning and carrying out investigations • Analyzing and interpreting data • Using mathematics and computational thinking • Constructing explanations (science) and designing solutions (engineering) • Engaging in argument from evidence • Obtaining, evaluating, and communicating information **Connections to Nature of Science** Scientific Investigations Use a Variety of Methods ● Scientists use different ways to study the world.		• Patterns • Cause and effect: Mechanism and explanation • Scale, proportion, and quantity • Systems and system models • Energy and matter: Flows, cycles, and conservation • Structure and function • Stability and change

Possible Preconceptions/Misconceptions

- My body is a sense.

LESSON PLAN – 5-E Model

Teacher Prep:
You may need to borrow some items from this list that are available in other places within your building or other close buildings (the middle school or high school). The music teacher or art teacher could also be a good resource for this activity.
Recommended Materials (but not limited to):
5 Stations, one for each of the 5 senses –

Sight Station: Colorful Environmental Weather Pictures, aluminum foil, colorful paper/color chips

Hearing Station: musical instruments (drum, guitar, etc.), jingle bell, shell (you can hear the ocean)

Taste Station: (enough for each, individual student to taste) salt, carrots, honey, slices of lemon/lemonade, radish/turnip

Smell Station: flowers, vanilla extract, peppermint extract, lemon or lime slices

Touch Station: cotton balls, sand, rocks, container of water, sticks, sponge, woodchips, moss

ENGAGE: Opening Activity – Access Prior Learning / Stimulate Interest / Generate Questions

- **Youtube video: https://www.youtube.com/watch?v=lvBXWMvOGOk**
- **How can you observe like a scientist?**
- **Inform the students about the following activity.** At 5 different tables, you will have items that students can use their 5 senses to investigate. At each station, the students will only use 1 of their senses to explore. There will be a sight station, hearing station, smelling station, tasting station, and touching station. You can rotate students however you like through the stations for your individual classroom.

EXPLORE: Lesson Description – Materials Needed / Probing or Clarifying Questions
5 Senses Stations

- Divide the class into small groups.
- Each group will then be sent to one of the five sense stations.
- Students will use ONLY one of their senses to describe the items at their station. Prompt them with sentence stems to use in conversation with their friends at each station: "I smell…", "I taste…", "I see…", "I feel…", "I hear…"
- Make sentence strips and practice reading at each station.
- Each group will rotate until they have been to all of the sense stations.

EXPLAIN: Concepts Explained and Vocabulary Defined

- Vocabulary: the 5 senses. You may need to clarify any body parts we use for this as some students may be unfamiliar with the correct name of that body part.
- Through conversation at the tables, students will explore using the vocabulary.

ELABORATE: Applications and Extensions

- Students will complete the "5 Senses Student Journal Page". They will record 2 things they experienced at each station by drawing or writing about it in the available space. Use clipboards

EVALUATE:
Formative Monitoring (Questioning / Discussion):
Summative Assessment (Quiz / Project / Report):

Elaborate Further / Reflect:

Materials Required for This Lesson/Activity

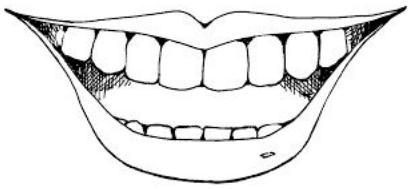
Quantity	Description	Potential Supplier (item #)

1 Package (4 in each)	Kaleidoscope Party Favors	Walmart (Item #: 552458282)
6	Lemons	
6	Limes	
	aluminum foil	
1	Pure Vanilla: Premium 100% Pure Extract, 1 Oz	Walmart (Item #: 009234385)
1	McCormick Specialty Extracts Pure Peppermint Extract, 1 oz	Walmart (Item#: 009234513)
1	sand	
1	wood chips	
	flowers	
	salt	
	carrots	
	honey	
	radish	

Name_____ **Date**_____

My 5 Senses

I see _____. 		
I smell_____. 		
I hear _____.		

		
I taste_____. 		
I feel _____. 		

Every day in Nature sketch book-write, copy from the board
Did we print sentence strips to paste in?

Today is Tuesday,3/1/2017
Today's weather is _____.
The temperature is _____ (explain small circle)

kite and 4 weather types to hang in alcove

http://www.weatherlink.com/user/pccs/index.php?view=main&headers=1

to PCCS weather station

Today is

_____

_____

Today's weather is

_____

_____

The temperature is _____

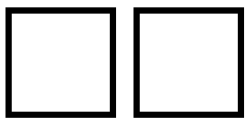
_____

Today is

Monday Tuesday Wednesday Thursday Friday

Today's weather is

sunny partly cloudy cloudy rainy windy snowy

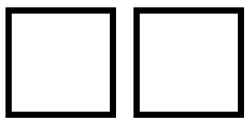
The temperature is  **°F.**

Today is

Monday Tuesday Wednesday Thursday Friday

Today's weather is

sunny partly cloudy cloudy rainy windy snowy

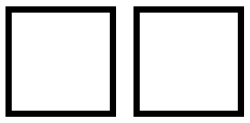
The temperature is  **°F.**

Today is

Monday Tuesday Wednesday Thursday Friday

Today's weather is

sunny partly cloudy cloudy rainy windy snowy

The temperature is  **°F.**

Next Generation Science

Earth's Place in the Universe

A complete unit for 1st grade

Primarily Teaching

Elementary Teaching Resources from a 21-year veteran teacher

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".

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:

1-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.

1-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.

☒ Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2)

I can make 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.

☒ Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (1-ESS1-1)

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

Disciplinary Core Ideas

ESS1.A: 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.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)

1.MD.C.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?)
http://www.calendar-updates.com/sun.asp
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.)
*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? Again, use a number line to take equal jumps toward the middle to find the average.
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)
(Compare hours of sunlight between seasons. Also ask , "Which season is best for growing plants?")
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.
(Question: Why does the moon look different each night?)
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

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 steller 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

Date_____

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** {select a student} 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.} It's something that happens over and over--it repeats, or happens more than once. The last cool word in this lesson 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).

Next Generation Science 1st Grade

Date_____

Earth's Place in the Universe

LESSON 1 Continued:

4. 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."
5. {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.}
6. 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.
7. 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.
8. Last is the tricky prediction part! Just like mid-day is between sunrise and sunset, mid-morning is between sunrise and mid-day. 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.}
9. 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--

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______________________________

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Date______________________________

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

Lesson 1

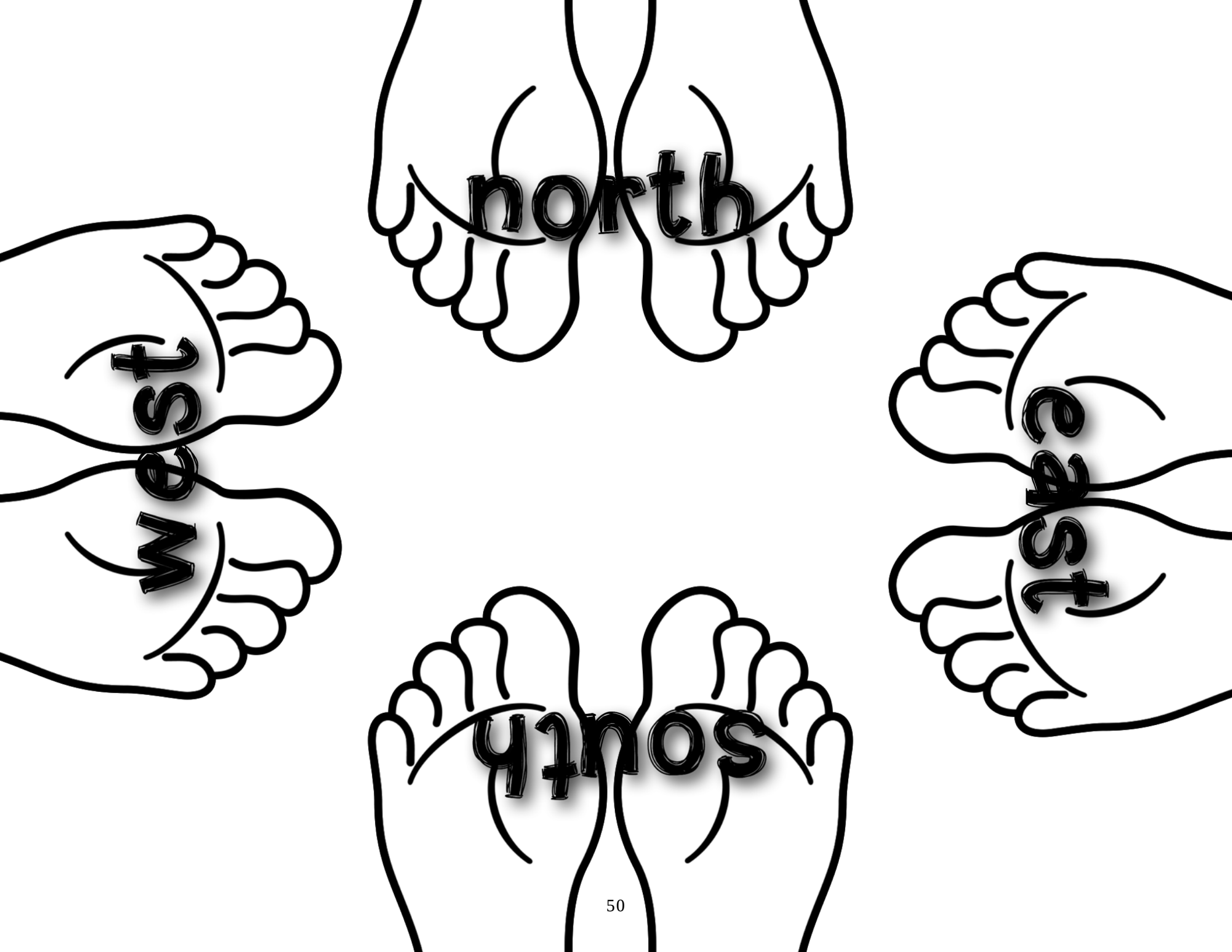
observations

sun

describe

patterns

predicted

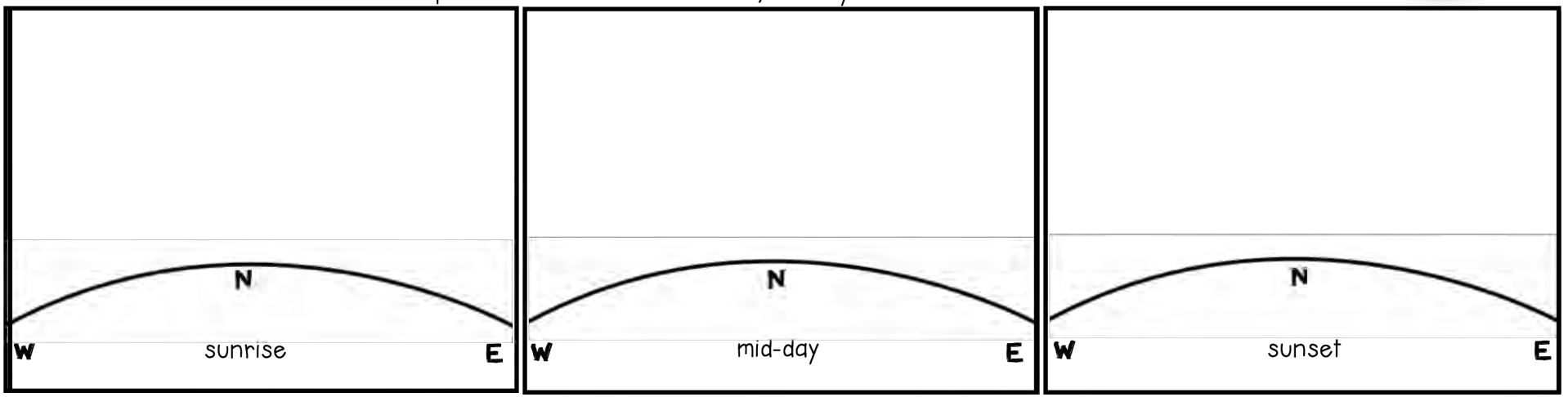

north
west
east
south

Lesson 1

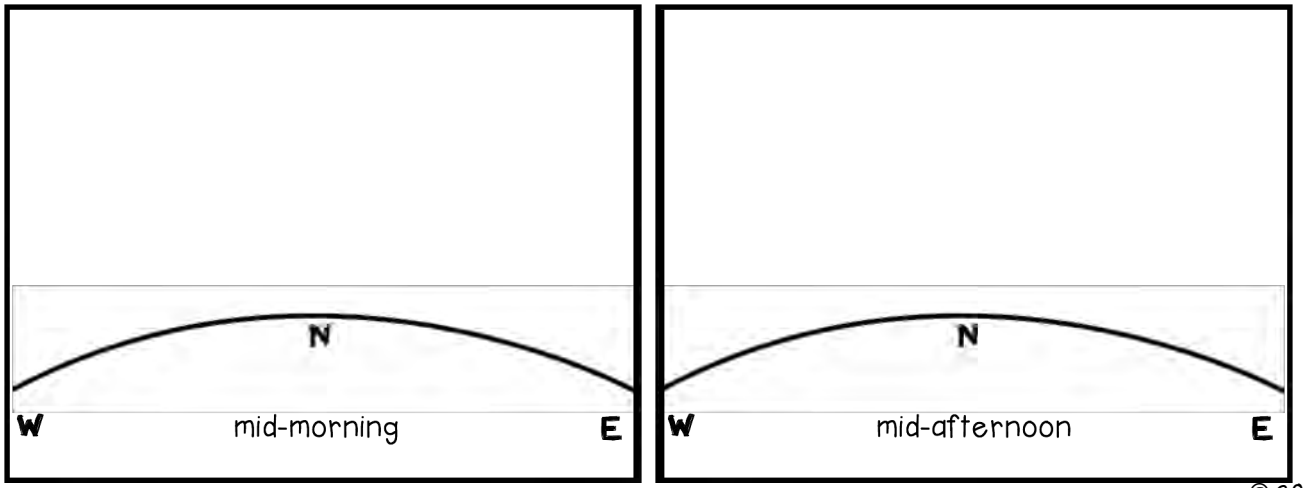
Predicting Sun Patterns

Name _____

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

Date_____

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.

Next Generation Science 1st Grade

Date_____

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.

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

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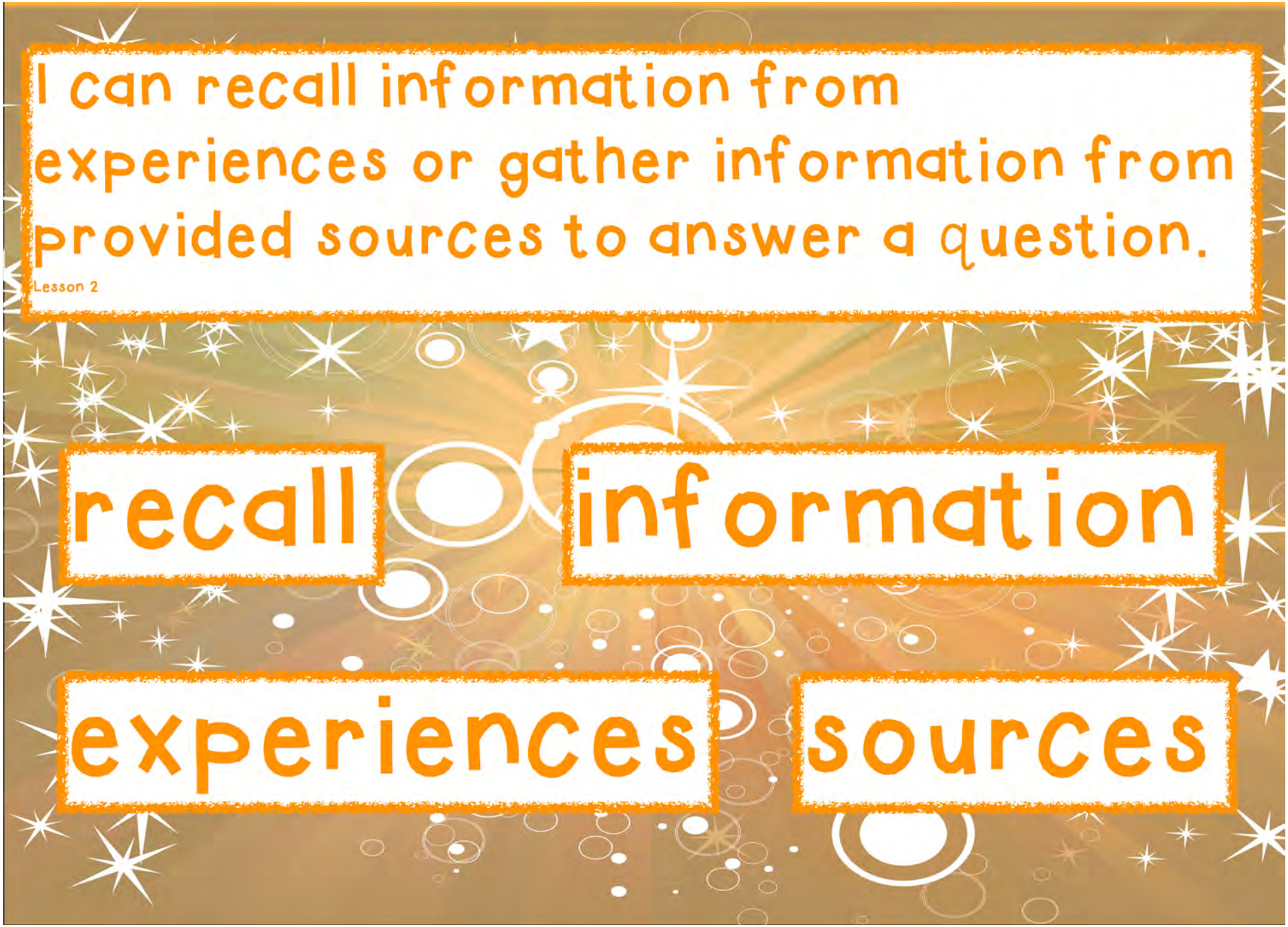
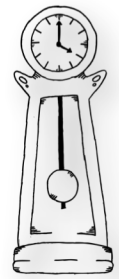
Date______________________________



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.

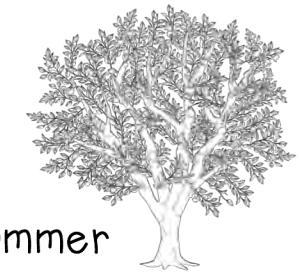
I am using a **book / web site / app** to gather information about hours of sunlight.

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.

spring

Hours of sunlight:_____



summer

Hours of sunlight:_____

fall

Hours of sunlight:_____

winter

Hours of sunlight:_____

We have the most hours of sunlight during the _____.

Next Generation Science 1st Grade

Date_____

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, intergalatic 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.

Suggested resource: http://www.calendar-updates.com/sun.asp

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.}

Next Generation Science 1st Grade

Date_____

Earth's Place in the Universe

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

Question Reward Ticket

Name____________________________
____I asked for help.
____I asked a thoughtful question.

(to get info)______________________

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____I answered someone else's question. (to clarify)
Date_____________________________

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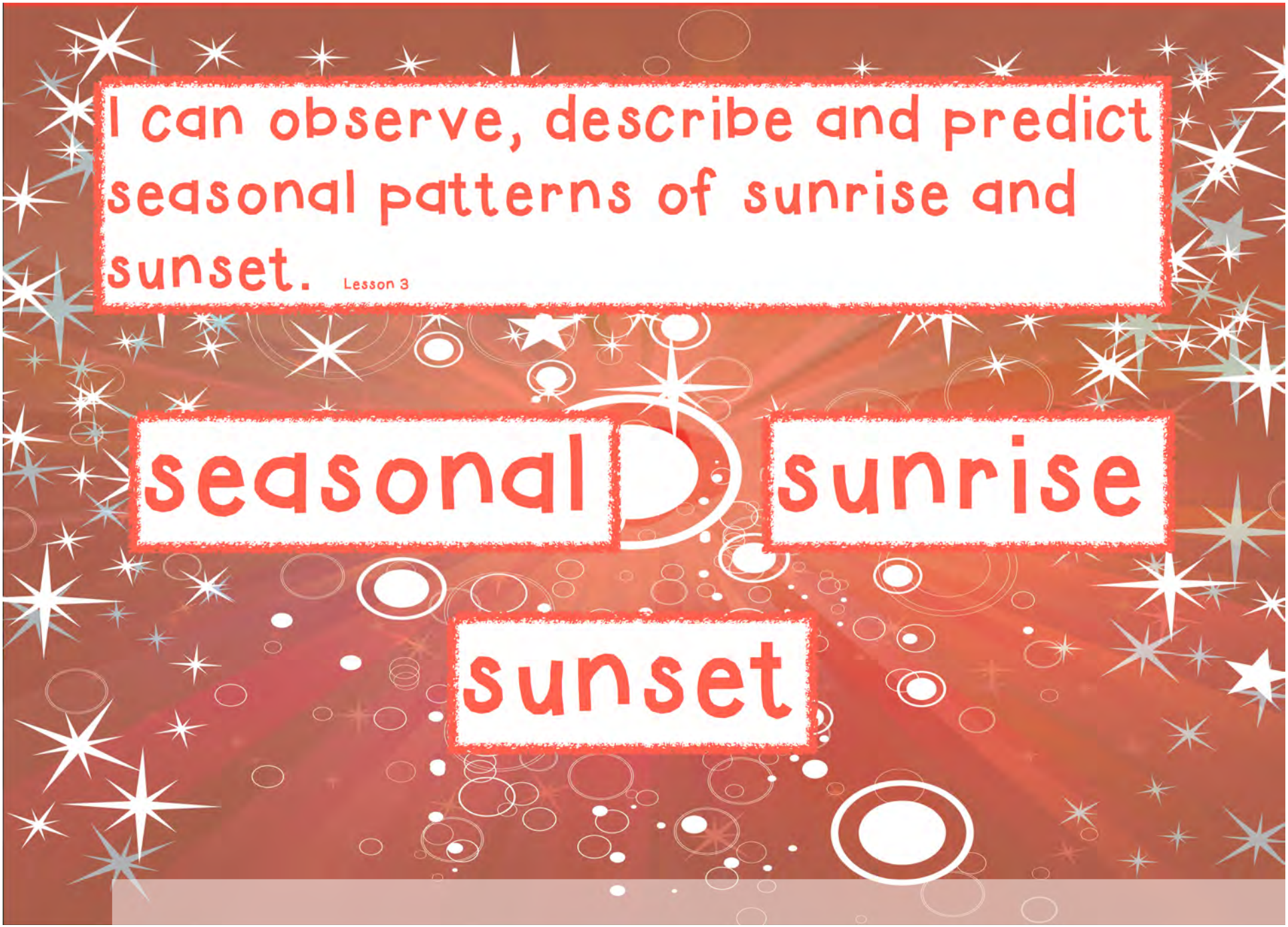
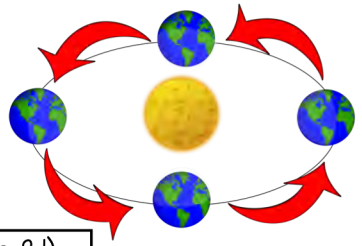


Lesson 3

Predicting Seasonal Patterns



Name _____

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. **fall** **winter** **spring** **summer**

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!**

CURRENT Season _____ THIS season's **equinox / solstice** date: _____ **ACTUAL Time of SUNRISE / Time of SUNSET**

_____ _____ _____:_____ a.m. / _____:_____ p.m.

NEXT Season _____ NEXT season's **equinox / solstice** date: _____ **ACTUAL Time of SUNRISE / Time of SUNSET**

_____ _____ _____:_____ a.m. / _____:_____ p.m.

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

NEXT Season _____ NEXT season's **equinox / solstice** date: _____ **ACTUAL Time of SUNRISE / Time of SUNSET**

_____ _____ _____:_____ a.m. / _____:_____ p.m.

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

LAST Season _____ LAST season's **equinox / solstice** date: _____ **ACTUAL Time of SUNRISE / Time of SUNSET**

_____ _____ : a.m. / : p.m.

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.

Next Generation Science 1st Grade

Date_____

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.}

Next Generation Science 1st Grade

Date_____

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.

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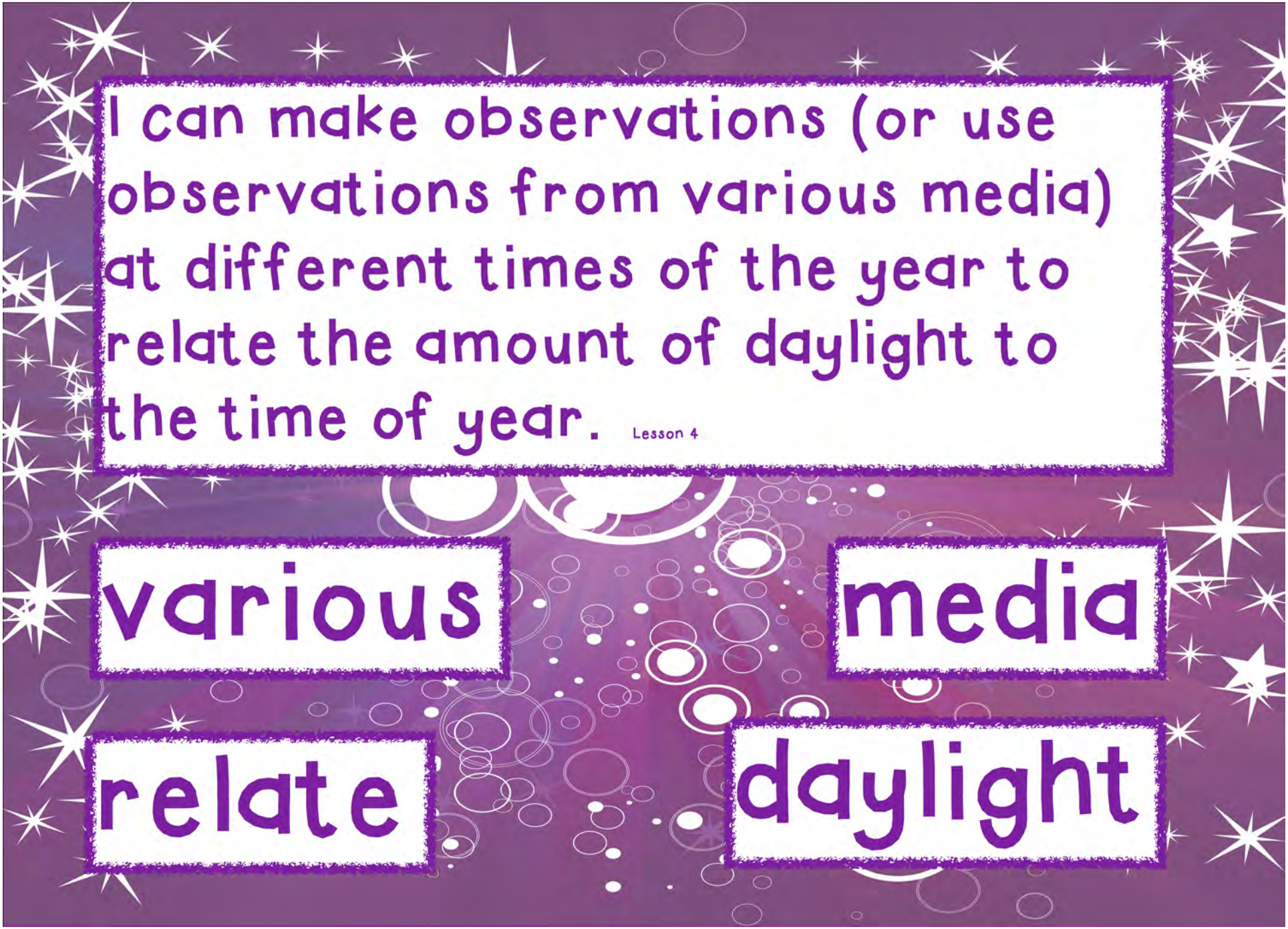
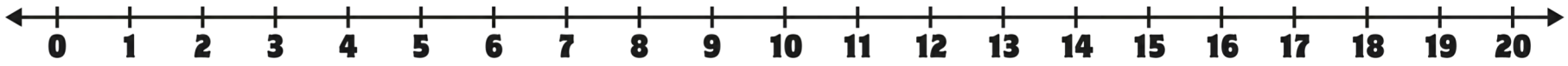


Lesson 4

Observing Seasonal Daylight Data

Name _____

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?



Season	Sunrise	Sunset	Hours of Daylight
summer	_____:_____ a.m.	_____:_____ p.m.	Actual:_____
fall	_____:_____ a.m.	_____:_____ p.m.	STOP & Predict:_____ Actual:_____
winter	_____:_____ a.m.	_____:_____ p.m.	Actual:_____
spring	_____:_____ a.m.	_____:_____ p.m.	STOP & Predict:_____ Actual:_____

Next Generation Science 1st Grade

Date_____

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 got 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.

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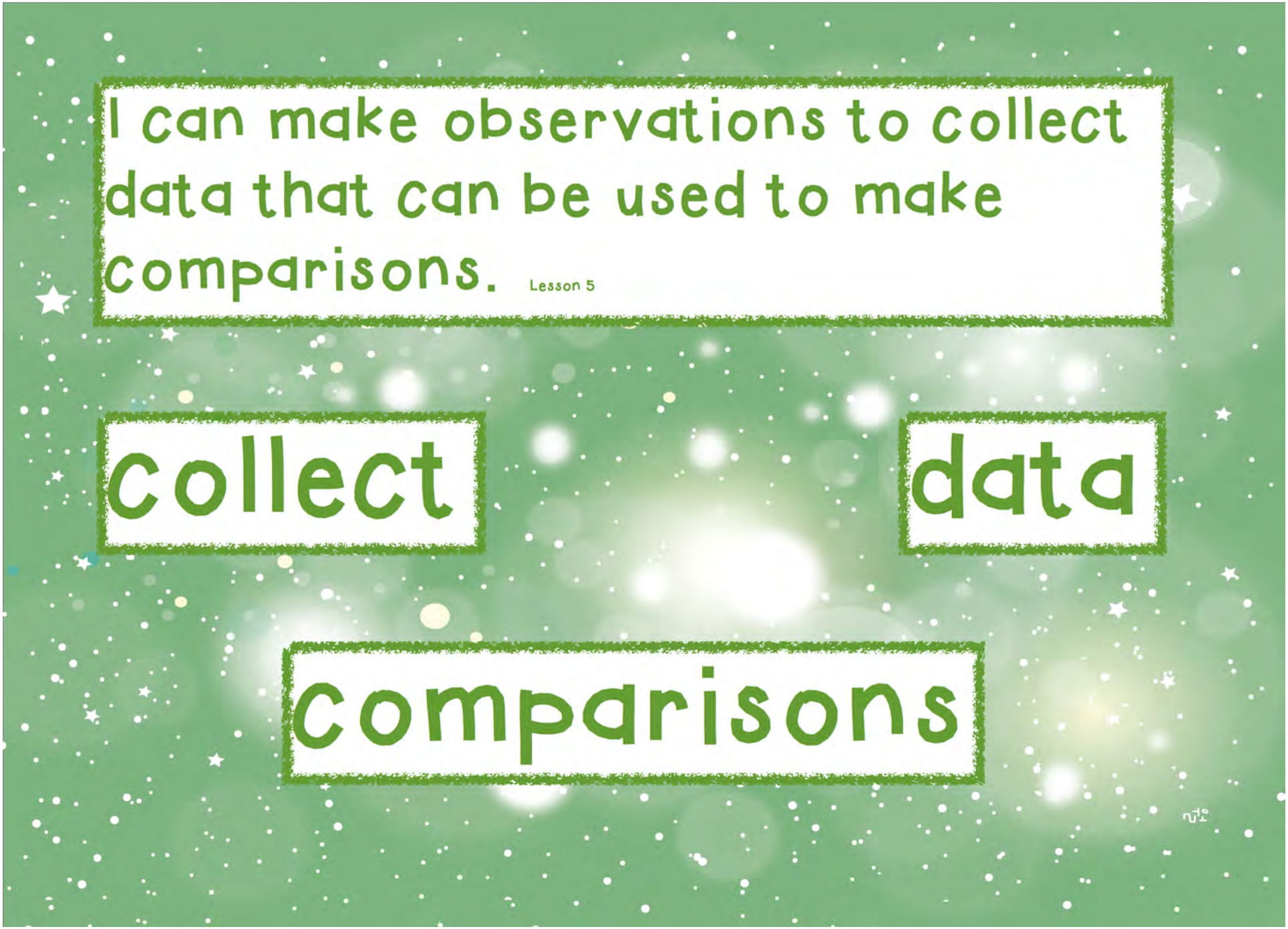


Lesson 5

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?

_____

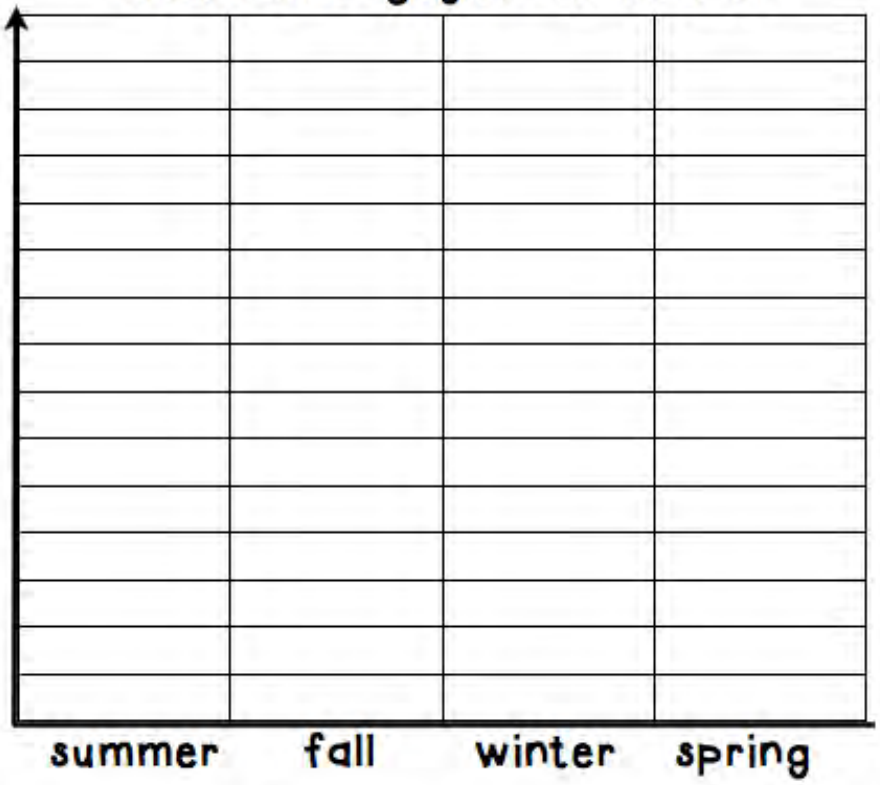
4. How many **more** hours of sunlight does summer have than fall?_____ winter?_____ spring?_____

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?

_____

Hours of Daylight Per Season



Next Generation Science 1st Grade

Date_____

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.}

Next Generation Science 1st Grade

Date_____

Earth's Place in the Universe

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.

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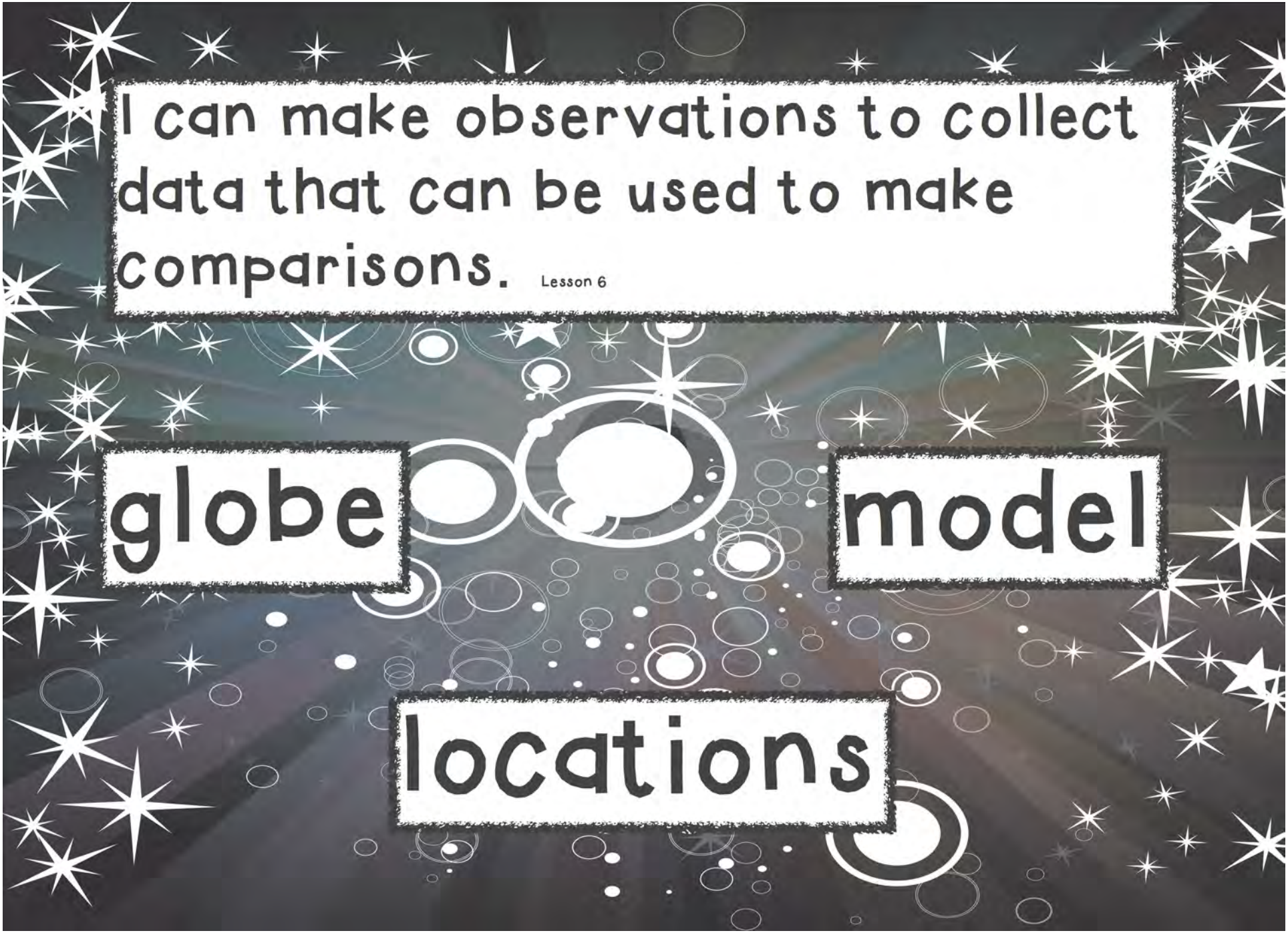
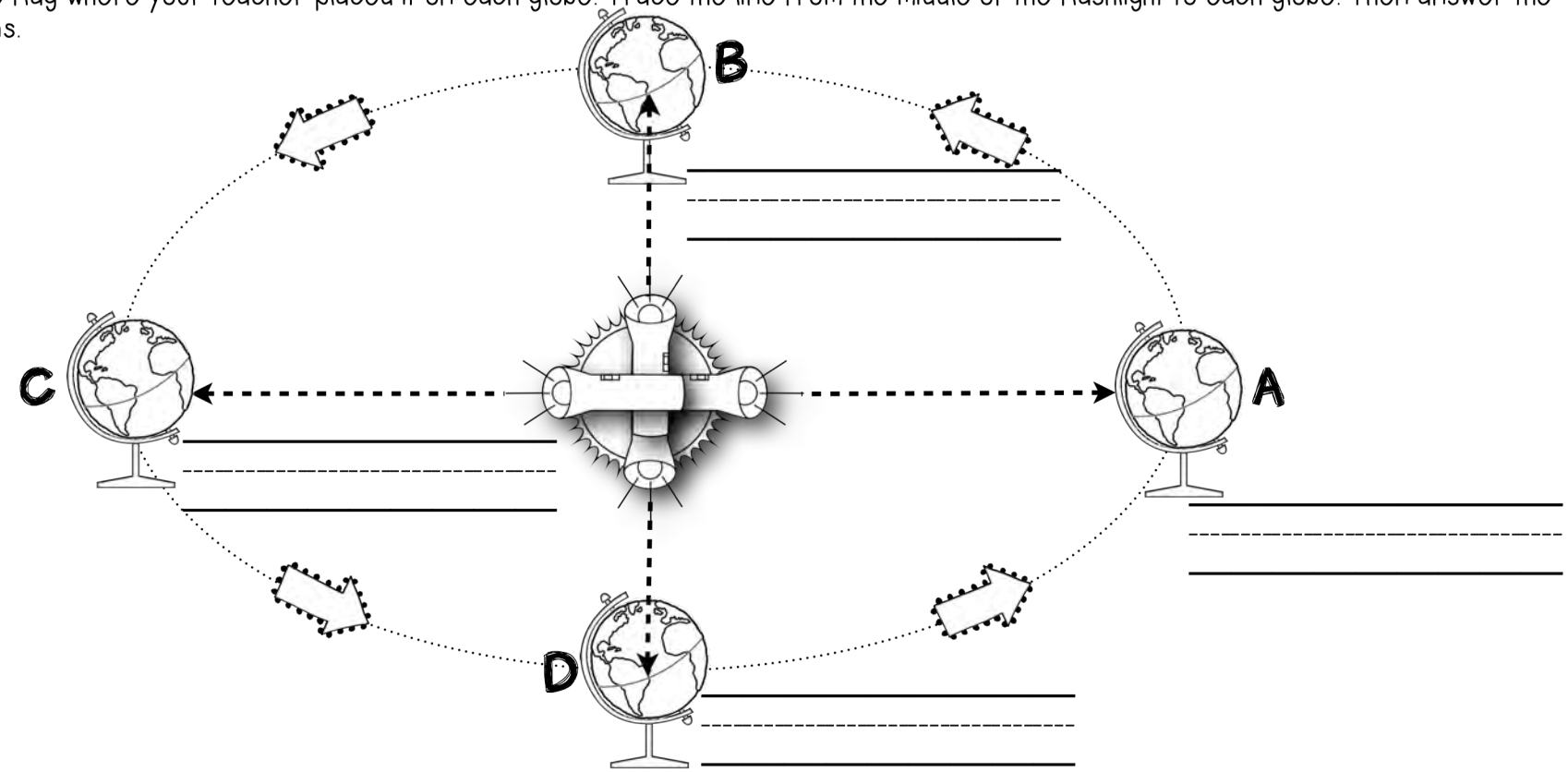


Lesson 6

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

Date_____

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 book: 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

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 astmosphere. 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.
3. First, let's read a few sections of a book called, The Moon: Exploring the Earth's Night Light. {Read sections: 14. A Natural Satellite of Earth; 16. The Orbit of the Moon; 17. Which Direction Does the Moon Travel Around the Earth?; and 18. Phases of the Moon.}
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.}

Next Generation Science 1st Grade

Date_____

Earth's Place in the Universe

LESSON 7 Continued:

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.

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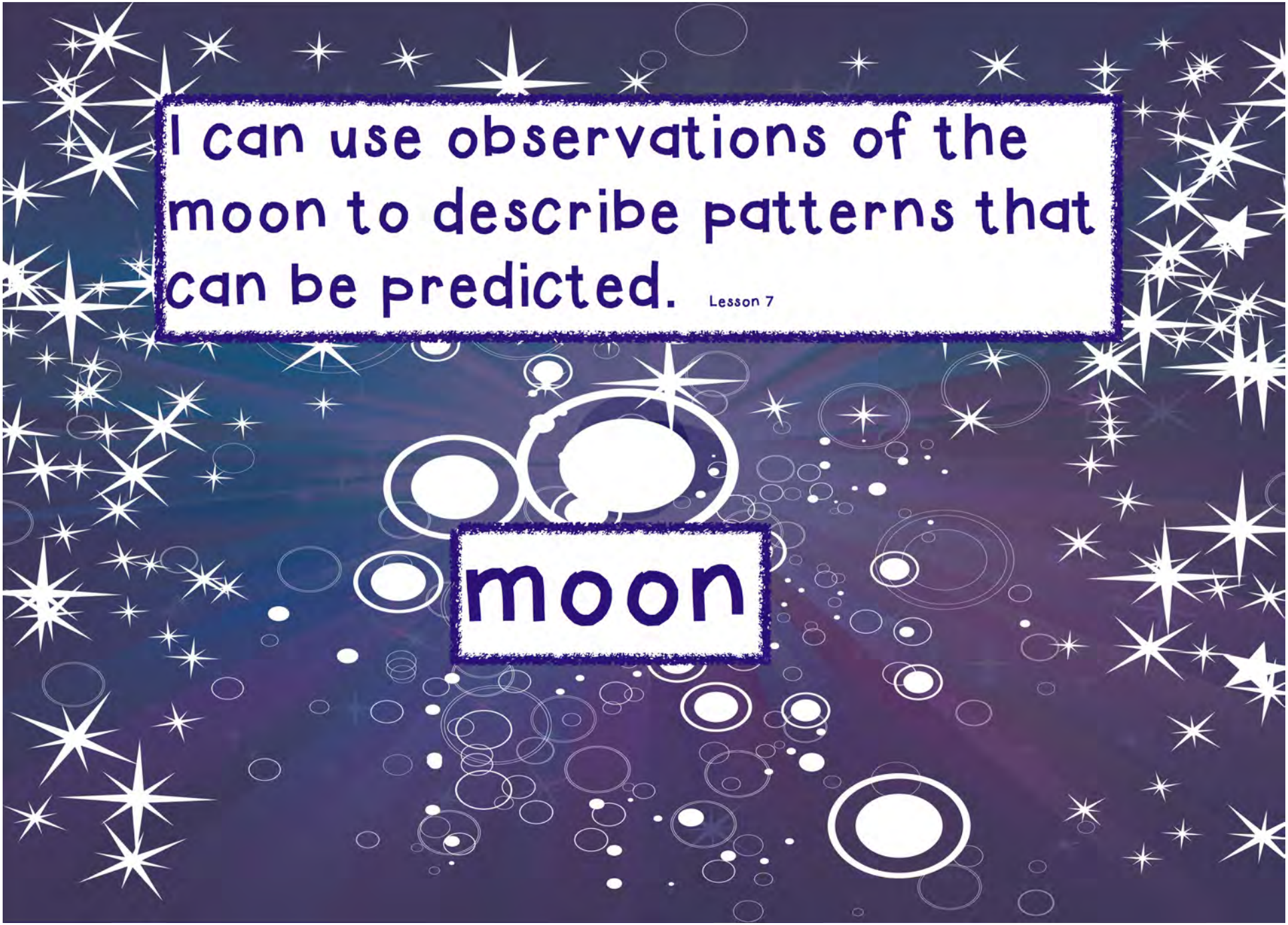


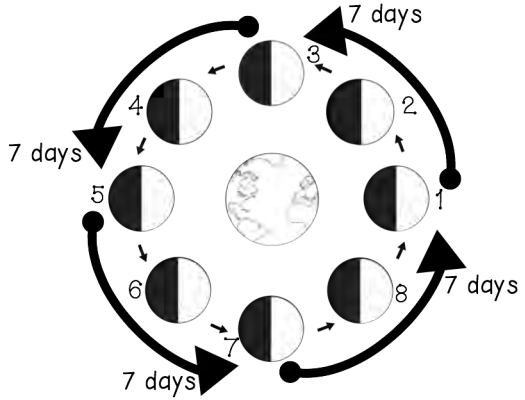
Lesson 7

Moon Pattern Predictions

Name _____

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.

1. new moon	2. waxing crescent	3. half moon 1st quarter	4. waxing gibbous



5. full moon	6. waning gibbous	7. half moon 3rd quarter	8. waning crescent

Next Generation Science 1st Grade Date_____

Earth's Place in the Universe

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?

Next Generation Science 1st Grade

Date_____

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 <u>more</u> 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.

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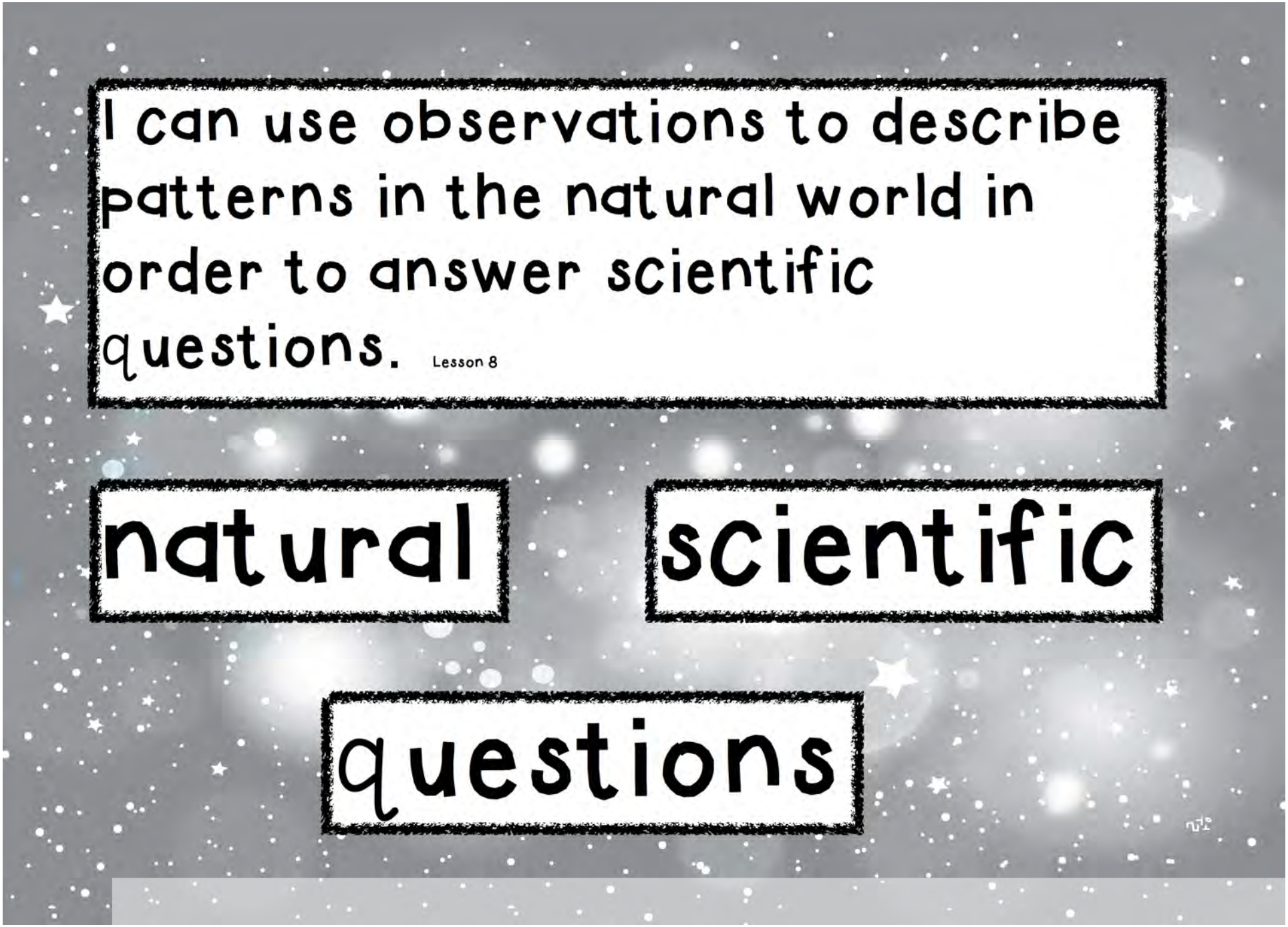


Lesson 8

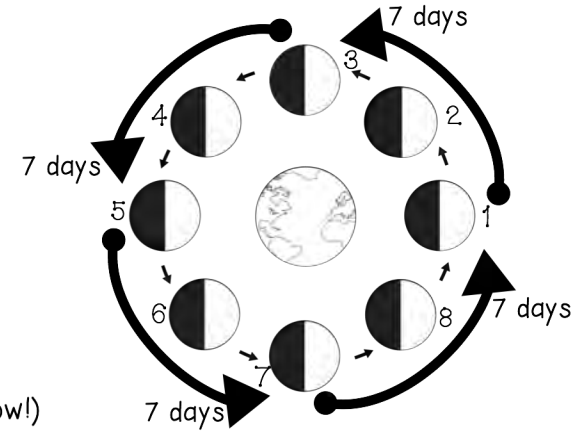
Using Patterns to Answer Questions

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



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 leap year, then it has 29!

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

January	3	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? _____

Next Generation Science 1st Grade

Date_____

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, intergalatic 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-with 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."

Next Generation Science 1st Grade
Earth's Place in the Universe

Date_____

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-halverson/ 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.

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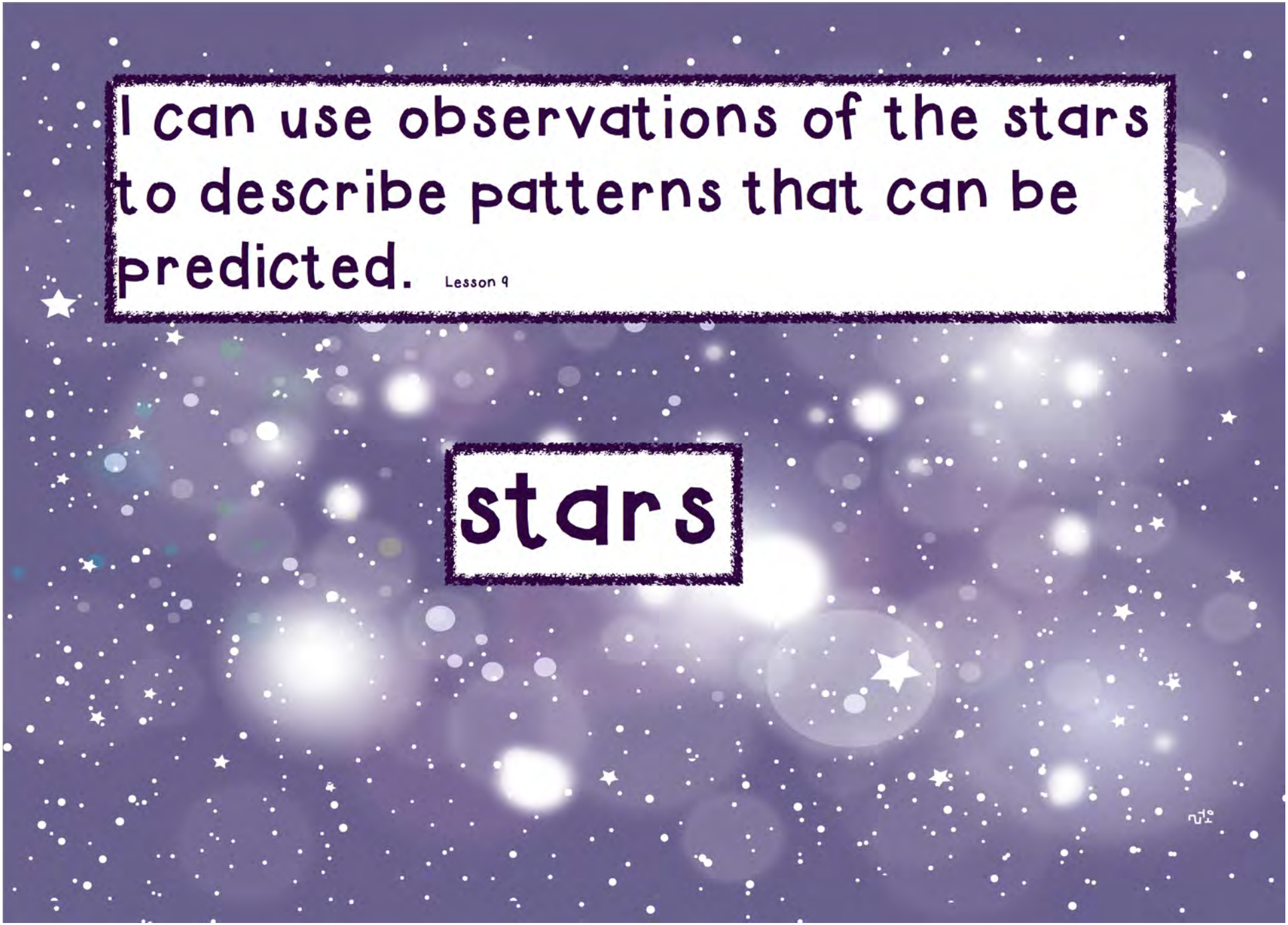
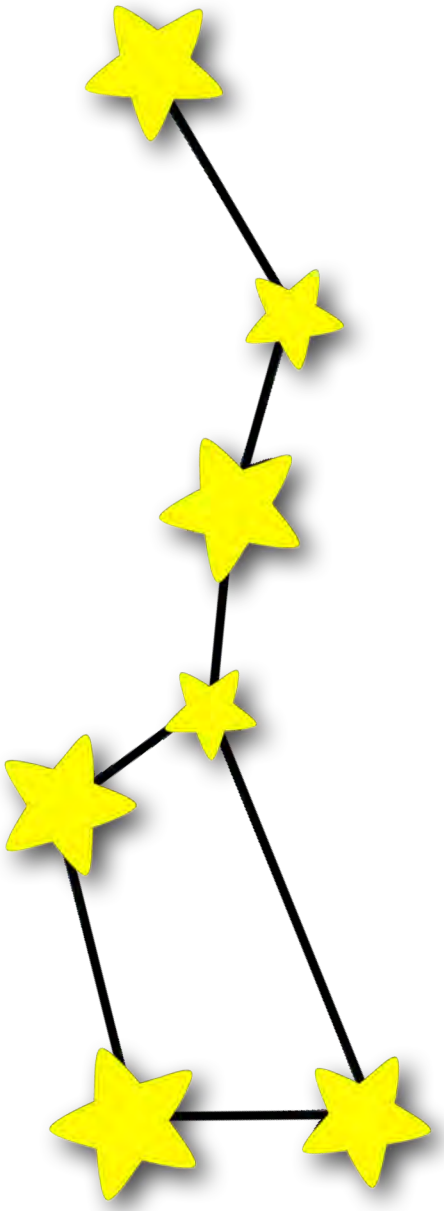




fall

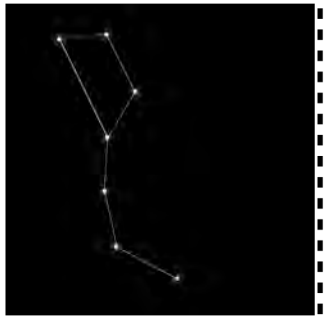
winter

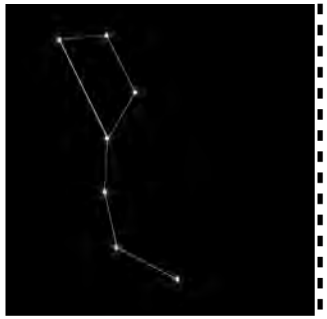
summer

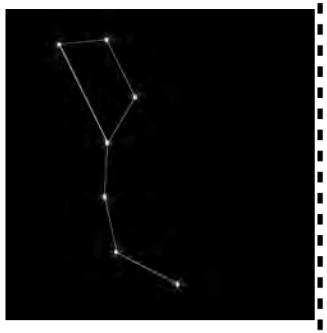
spring

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.

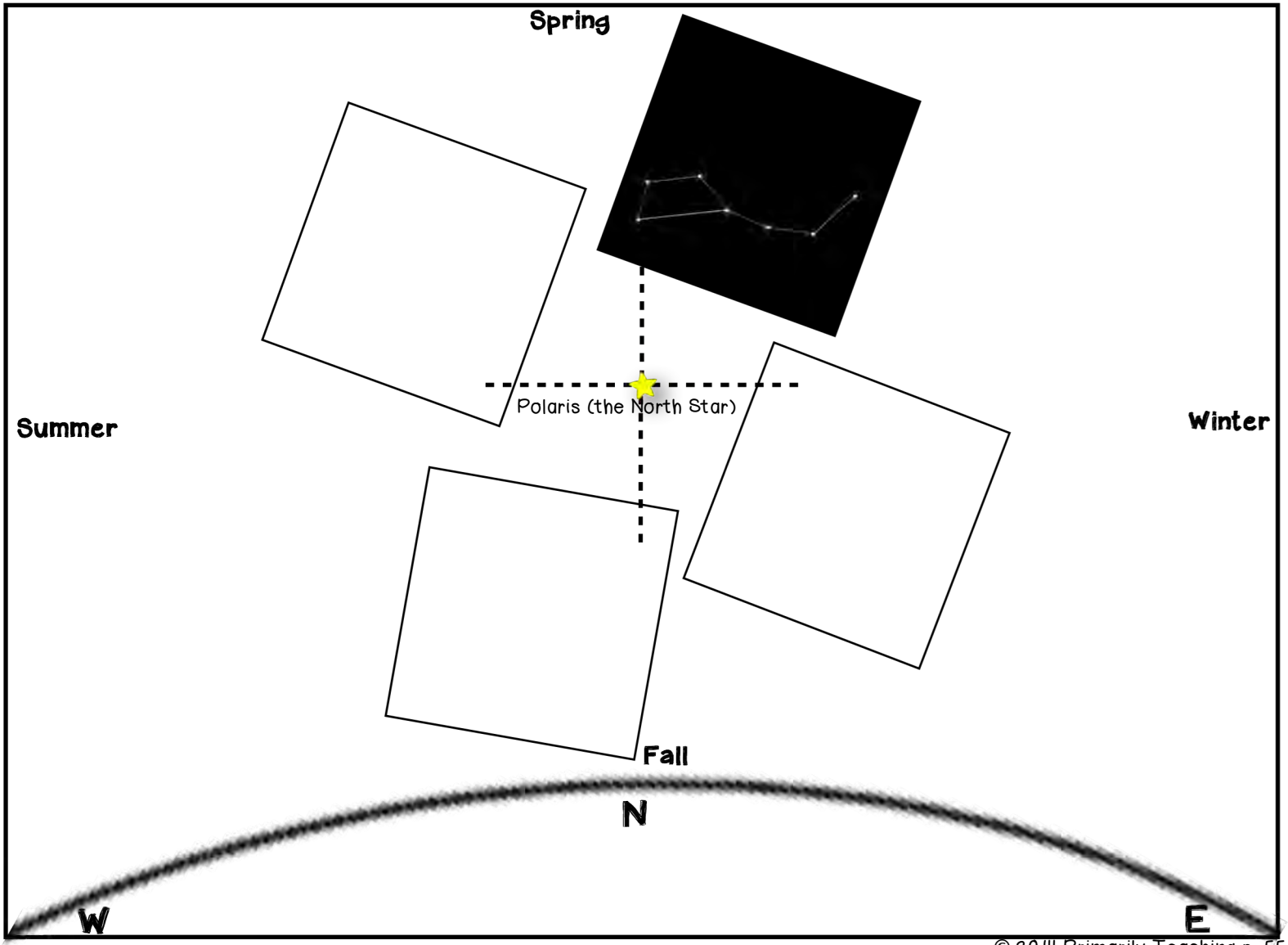




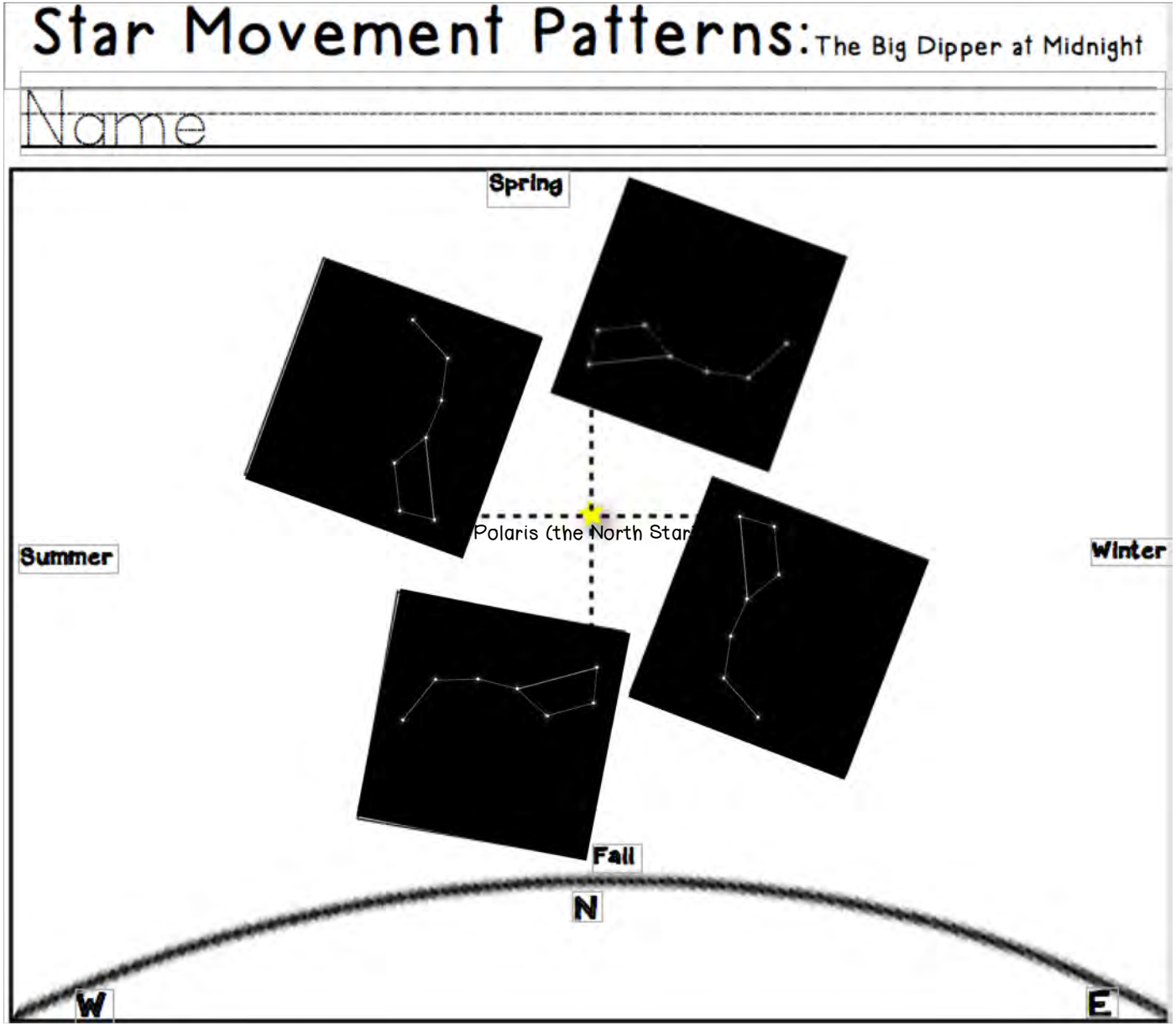


Star Movement Patterns: The Big Dipper at Midnight

Name _____



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.



Next Generation Science 1st Grade

Date_____

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?"

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

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______________________________

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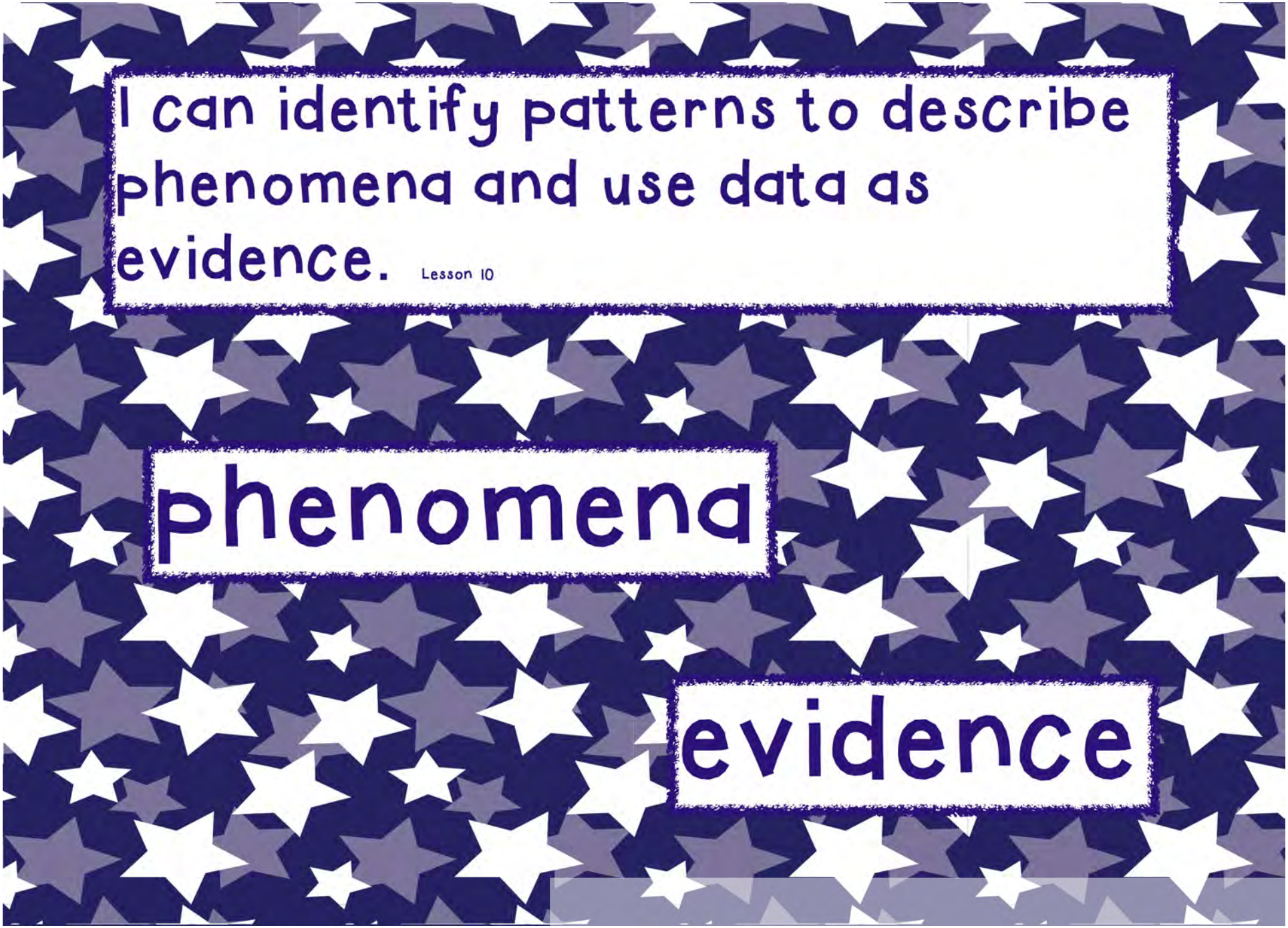

Lesson 10

Patterns as Evidence

Name _____

Pattern	Evidence (proves)
We always see the _____ side of the _____ moon and it seems to _____.	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.
The sun rises in the _____ and sets in the _____.	From space, looking down at the north pole, the earth rotates _____.
The moon goes through _____.	The moon _____ around the earth.
The _____ move in the night sky from season to season.	The earth _____ around the sun.

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

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

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

Next Generation Science 1st Grade

Date_____

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.}

Next Generation Science 1st Grade

Date_____

Earth's Place in the Universe

LESSON 11 Continued:

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 first 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.

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 take 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 others' 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

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____________________________

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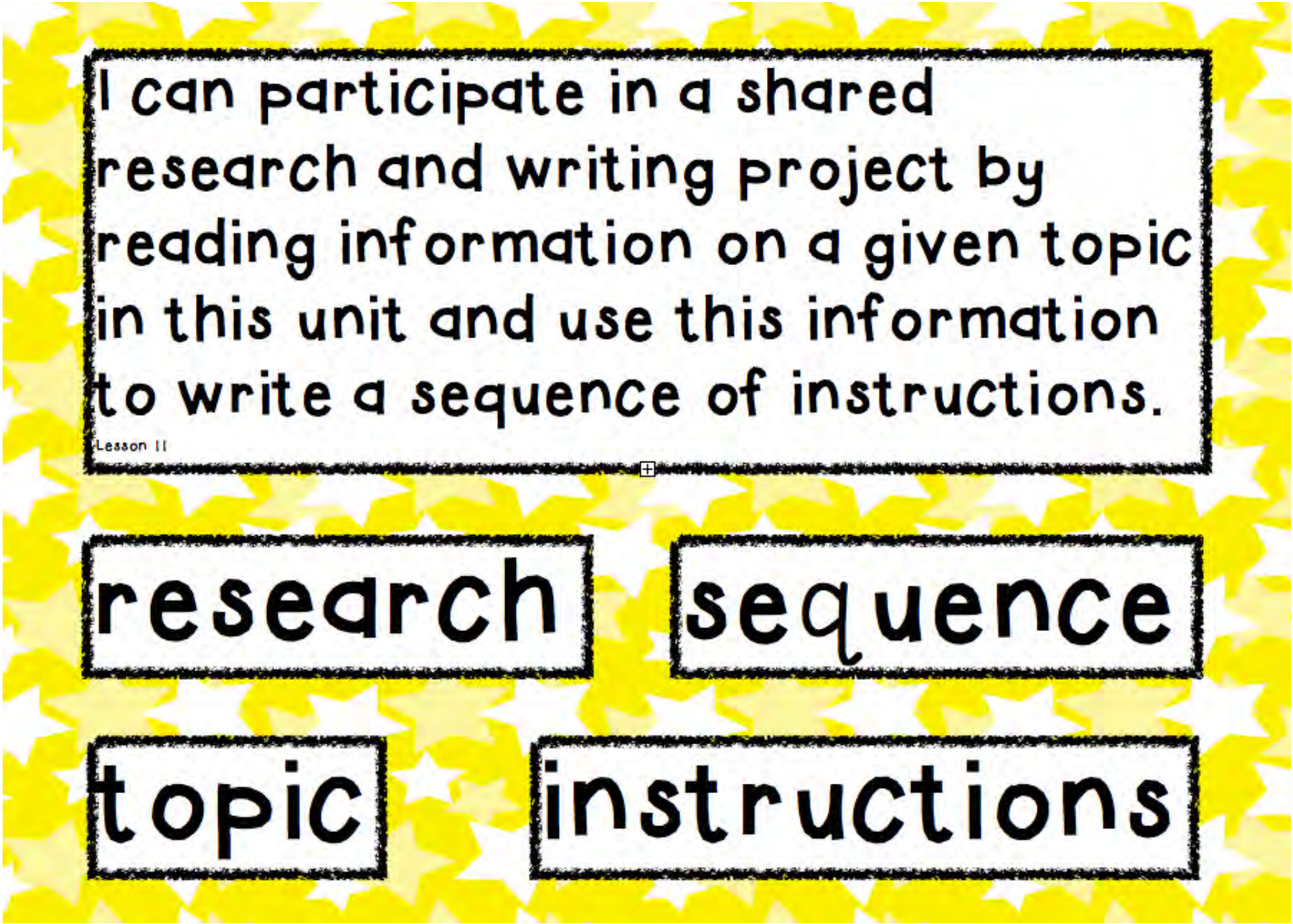


Lesson 11

Step 1: How-to Brainstorming

Name_____

I remember how to:

I know most about how to _____.

Step 2: Hooking Your Reader!

Name_____

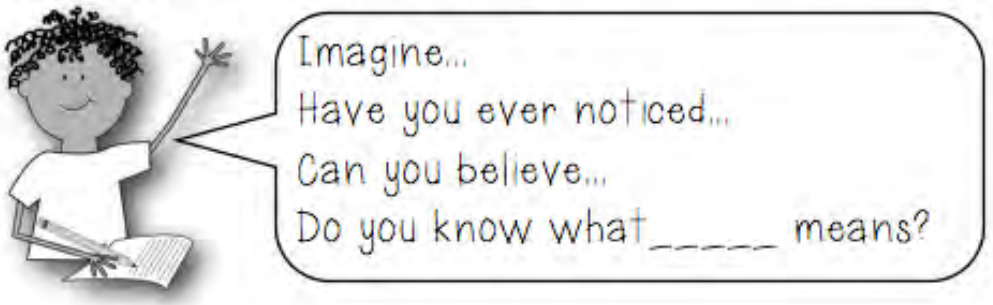
The beginning of your piece needs to be so exciting, the reader just can't stop reading! Try one of the following writing tricks:

_____Describe a scene.

_____Describe some action.

_____Give a cool fact.

_____Give the meaning of a tricky word related to your topic.

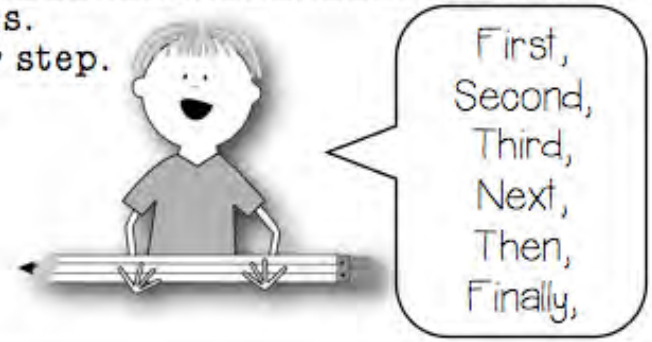


Step 3: Steps in a Process

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.



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...

Putting it all together: Sharing My Information With The World!

Title of My Informative Piece:

Informative/Explanatory Writing Scoring Guide

2=clear & correct 1=unclear/incorrect 0=did not do

	Self-Score	Peer Score	Teacher Score
Clear Topic			
Clear Facts			
Created Closure			
Neatness and Spacing Between Words			
Correct Capitalization			
Correct End Punctuation			
Published Digitally (2) Published by Hand (1) Draft was scored (0)			
Totals			

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:

Earth's Place in the Universe Unit Test

Name _____

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**).

Earth's Place in the Universe Answer Key

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**).
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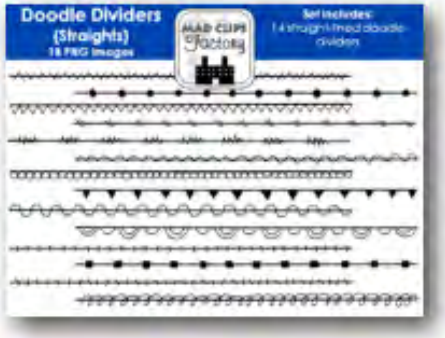
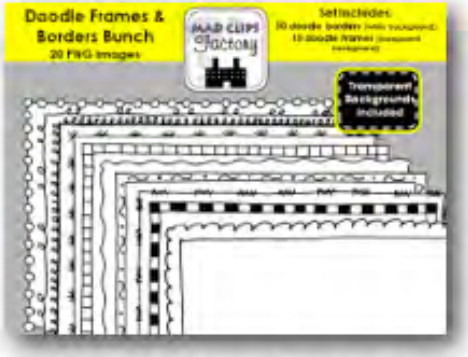
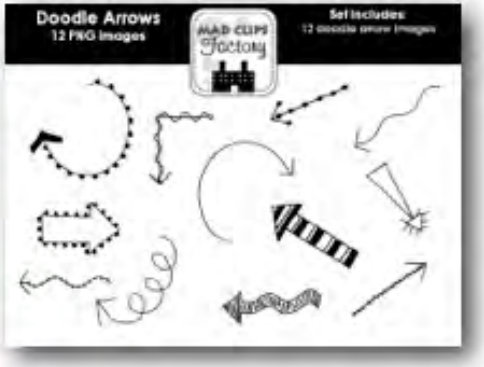
Gracious Acknowledgements







Thursday 3/2/17

Schedule
5:45-6pm -- sign in, introductions, logistics
6-7pm -- stations (2, 28-minute time blocks with 2 activities in each)
7-7:30 pm -- stargazing if sky is clear! WHERE should we do this? By the fire pit? The best place would be the middle of the soccer field but that's a bit of a walk. We can see.

Activities

- Crater with flour --
- Phases of the moon with oreos (stay in room for 2 rotations) (7 oreos per group)
- Constellation activity (writing?)listen to a story about a constellation and then come up with your own
- Night Sky Painting - marble painting and name the Constellation
- Star gazing at 7:00 pm --

Felicia and Katy's rooms -- constellation
Kelly and Tricia's rooms -- moon

Childcare
Will be provided by Mrs. Nasir

Materials: Kelly, Katy, Felicia, Tricia, Naomi
- Crater with flour-
    - **Flour, glitter, pans, 'craters' ,rulers, drawing paper**
- Phases of the moon with oreos (stay in room for 2 rotations)
    - **Mini oreos, frosting as glue, paper plates, toothpicks, markers, example poster**?
- Constellation activity (writing?) listen to a story about a constellation and then come up with your own
    - **Star map to connect dots, paper, Constellation stories**
- Night Sky Painting - marble painting and name the Constellation
    - **Lids from copy paper, white paint, marbles, Black/blue construction paper**
- Star Gazing --
    - **Pointer, sky map**




Astronomy Evening with First and Second Grade





When- Thursday, March 2nd
Time- 5:45-7:30 pm
Where- Meet in Muir Hall
Who- 1st/2nd grade students and parents

Join the first and second grade band to learn all about space!

To culminate our Sun, Moon and Stars unit, students will share their knowledge through fun family activities. Following several indoor experiences, we will move outside (weather permitting) for some star gazing! Please come dressed for both indoor and outdoor learning!

RSVP to your child's classroom teacher by Monday, Feb 27th. We will need to know how many parents and if you will need child care. Childcare for siblings will be provided at $5 per child.

EST. 1999
PRAIRIE CROSSING
CHARTER SCHOOL
CREATING NATURAL LEADERS

Third and Fourth Grade Science and Service Learning Project 2016-2017

The goal of this unit was to develop a Service Learning Project using a Problem Based Learning approach with third and fourth grade students. After we learned about the wild bee population decline, we decided to present this problem to our students. We invited a local honey beekeeper to the classrooms and we began our investigations into the world of pollinators. After several group meetings and internet searches, we decided that our problem statement would be, "How can we support the native bee population around PCCS?"

Students will understand and apply steps of a Project Based Learning Experience:

a. Form need to know list based on an issue
b. Form a driving question focused on solving a problem
c. Student voice and choice (project ideas)
d. Collaboration and communication (opportunity to work in small groups)
e. Inquiry and innovation (research)
f. Feedback and revision
g. Publicly present product

Content objectives:

a. Differentiate between honey bees and wild native bees
b. Understand that native bees are important to pollination.
c. Understand the connection between pollination and agriculture.
d. Understand that native bees are endangered.
e. Identify possible causes of native bee population decline.
f. Generate solutions and models that would support native bee populations.

ELA objectives:

a. CCSS RI.4.1 Read informational text closely
b. CCSS RI.4.2 Determine main idea and supporting details
c. CCSS RI.4.3 Determine cause and effect in informational text
d. CCSS RI.4.4 Draw conclusions from informational text

e. CCSS SL.4.1 Engage effectively in a wide range of conversations
f. CCSS SL.4.2 Paraphrase portions of text presented in diverse media and formats
g. CCSS SL. 4.4 Report on a topic or text in an organized manner, using appropriate facts, details

Communication objectives:

a. Collaboration in small groups
b. Utilize technology resources for research
c. Create media to educate about native bee population decline, the impact on agriculture, and methods to support native bees.

This unit had several lessons that built upon one another.

Lesson One:

Step one: Project launch. Presented the Buzz Kill letter from Sierra Club. (This was geared toward honeybees, but we made the bridge to native bees, rusty patched bumblebee, which are not honeybees)

Step two: Generated ideas for "need to know" list in small groups.

Lesson Two:

Classroom visit from a local beekeeper. This lesson provided background knowledge on bees in general, the differences between bees and wasps, and honey bees and other bees.

Lessons Three and Four:

This was the research phase of the Problem Based Learning experience. After a review of the purpose of our Service Learning Project, students were introduced to solitary bees and wild bees as another type of bees to consider for our project. Students completed a cause and effect

organizer to answer the question: "Why are wild bees dying?" After developing our problem statement, "How can we support the wild bee population at Prairie Crossing Charter School?", students generated possible solutions to the problem using online resources with support from www.kidrex.org, a search engine for students and chromebooks.

Students found that native bees are efficient pollinators and there are interventions that humans can put in place to support the bee populations. The students came up with several ideas: 1) decrease the amount of herbicides used, 2) provide shelters for bees for nesting, and 3) plant flowers that attract and provide pollination opportunities to bees. We chose to focus on shelters and flowers, because decreasing the herbicides used at the school and in the surrounding community did not seem to be something that the students could advocate.

Lesson Five and beyond:

Students then decided that we should have five groups:

1) Seeking donors for bee house kits and bee cocoons,
2) Seeking donors for native plants that attract bees,
3) Researching an appropriate location for a bee house on campus,
4) Preparing a public service announcement for a Green Challenge, a monthly student-led assembly that focuses on Environmental Issues,
5) Arranging a parent information night

At this point, each group made good progress toward their goals. The bee house and bee cocoon group received donations of bees and nesting materials. The native plant group connected with a first and second grade classroom who is planting a new garden and will be receiving donations of native plants to add to their garden. The bee house location group met with school administrators to find a suitable location for the installation of the bee house and created signage to post near the bee house. The Green Challenge group created an informational student-friendly slideshow to share at the school-wide assembly and enlisted the help of the rest of the students to create posters to hang in the school informing the student population about the bee house. The parent informational group held a parent informational meeting which included an informational slideshow, question and answer session, and a snack.

United States Democratic Election Unit

Unit Title: Environmentalist Election, to Name the Gym

Grade level: 5th/6th **Time Frame:** Approximately 9 weeks

Overview:

In this unit, students from grades 5 and 6 will conduct an election campaign. At the beginning of the unit, students will review the structure of United States government, as well as the election system in the United States. Students will also be introduced to the histories and political philosophies of the country's six leading political parties: the America First Party, the Constitution Party, the Democratic Party, the Green Party, the Libertarian Party, and the Republican Party. As the unit continues, students will apply their knowledge of the United States election system by taking part in a school wide election for the naming of the school gymnasium. Students will form campaign groups based on their candidates (famous environmentalists) and complete the campaign and election process.

Common Core (English Language Arts Standards):

Reading

CCSS.ELA-LITERACY.RI.5.2

Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-LITERACY.RI.6.2: Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

CCSS.ELA-LITERACY.RI.5.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*

CCSS.ELA-LITERACY.RI.6.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

Writing

CCSS.ELA-LITERACY.W.5.1

Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-LITERACY.W.5.1.A: Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose

CCSS.ELA-LITERACY.W.5.1.B: Provide logically ordered reasons that are supported by facts and details.logically ordered reasons that are supported by facts and details.

CCSS.ELA-LITERACY.W.6.1: Write arguments to support claims with clear reasons and relevant evidence.

CCSS.ELA-LITERACY.W.6.1.A: Introduce claim(s) and organize the reasons and

evidence clearly.

CCSS.ELA-LITERACY.W.6.1.B: Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.

CCSS.ELA-LITERACY.W.5.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.6.2: Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-LITERACY.W.6.2.A: Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.6.2.B: Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

CCSS.ELA-LITERACY.W.6.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

CCSS.ELA-LITERACY.W.6.6: Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

College, Career and Civic Life Framework (Social Studies Standards):

D2.Civ.1.3-5. Distinguish the responsibilities and powers of government officials at various levels and branches of government and in different times and places.
D2.Civ.4.3-5. Explain how groups of people make rules to create responsibilities and protect freedoms.
D2.Civ.5.3-5. Explain the origins, functions, and structure of different systems of government, including those created by the U.S. and state constitutions.
D2.Civ.6.3-5. Describe ways in which people benefit from and are challenged by working together, including through government, workplaces, voluntary organizations, and families.
D2.Civ.7.3-5. Apply civic virtues and democratic principles in school settings.
D2.Civ.8.3-5. Identify core civic virtues and democratic principles that guide government, society, and communities.
D2.Civ.9.3-5. Use deliberative processes when making decisions or reaching judgments as a group.

D2.Civ.10.3-5. Identify the beliefs, experiences, perspectives, and values that underlie their own and others' points of view about civic issues.
D2.Civ.11.3-5. Compare procedures for making decisions in a variety of settings, including classroom, school, government, and/or society.

Essential Questions:

- How do people solve problems?
- How do people formulate and use "rules" to improve their lives?
- How do people communicate "rules" to others?

Knowledge and skills:

Students will be able to…

- Understand the election process
- Explain the electoral college
- Identify the different levels of elections in the US
- Build a political campaign

Introductory Concepts & Essential Vocabulary:

- Democratic Election Process, Branches of Government, How a Bill Becomes a Law:
    - electoral college, secret ballot, caucus, popular vote, legislative, executive, judicial, preamble and US Constitution, checks and balances

Teacher research/resources:

- "Interact U.S. Presidential Election Process" Curriculum
- Government/Election Process Knowledge Pre/Post Test
- Election Vocabulary Poster - template

Lessons

Day 1: Introduction to three types of elections and vocabulary activity
Day 2: Slide presentation on process of running for president
Day 3-5: Studied six past major political parties
Day 6: Introduction of Gym Naming PBL
Day 7: Students were put into small groups and researched individual Environmental Leaders
Day 8: Small group share out on Environmental Leaders then choose one to be their representative
Day 9: Students provided with PBL packet describing their individual requirements and rubrics
Day 10: Students delegated roles within campaign (group); briefing paper and press release
DAy 11: Introduction of Electoral College voting map, students worked on briefing paper and press release
Day 12: Continuation of Electoral College voting map and campaign documents
Day 13: Students present campaign documents
Day 14-30: Students work in campaign groups on additional campaign materials (bumper sticker, yard sign, commercial, etc.)
Day 31: Campaign groups present candidates to their class
Day 32: Continuation of presentations
Day 33: Classroom Primary election to select classroom candidate for general school-wide election
Day 34-40: Continue production of mass campaign materials
Day 41: Students run school wide election
Day 42: Students continue running school wide election
Day 43: Students tally votes and press release on Winner of election is drafted
Day 44: Announcement at School wide assembly on winner of the election

Students' Written Work

May Watts Press Release

Contact Person: Campaign Committee (student emails were included here)

The creation of the Prairie Path

Chicago,IL
10/25/16

We want our gym to be named after May T. Watts. She created the Prairie Path and that is very important thing she did in her life. This is the main reason why we think our gym should we named after her. This was a big project but she still committed her time to it.It should be recognized.

May T. Watts wanted to help Americans stay connected with the nature around them. Thus, the Prairie Path in Illinois was made. About 61 miles long. Recycling an old out-of-service rail line. This will help Americans to stay connected with nature around them by creating an assuring walk way filled with the sound and movements of nature. The Prairie Path laid out

blueprints for the new rail-trails to come. She wrote to the Chicago Tribune's editor who published the letter sent. Here is what she wrote: *"We are human beings," wrote Watts. "We are able to walk upright on two feet. We need a footpath. Right now there is a chance for Chicago and its suburbs to have a footpath, a long one. The right-of-way of the Aurora electric road lies waiting. If we have courage and foresight, such as made possible the Long Trail in Vermont and the Appalachian Trail from Maine to Georgia, and the network of public footpaths in Britain, then we can create from this strip a proud resource."*
(Source:http://www.railstotrails.org)

In all I find that May T. Watts is right that we need a place to walk. A place to enjoy nature. A place to feel open. A place which once was a railroad but know is something beautiful. The Prairie Path was the place we needed.
Questions? Contact: maytwatts@natural.com or call 123-392-COOL

VOTE FOR JANE GOODALL!
NAME THE GYM AFTER HER!
SHE HAS DONE MANY THINGS FOR THE ENVIRONMENT SUCH AS:

- In 1962 she entered Cambridge University, England and began work on a PHD in ethology (the science of animal behavior)
- In 1977 she founded the Jane Goodall Institution for wildlife, research, education, and conservation!
- In 1995 she was awarded the National Geographic Society's Hubbard Medal for distinction in exploration
- Jane Goodall is very experienced with animals.
- She discover that chimpanzees use around 20 different sounds to communicate.
- She also contributed to discovering how chimpanzee's used tools to thrive.

HERE ARE SOME QUOTES BY JANE GOODALL!

"Change happens by listening and then starting a dialogue with the people who are doing something you don't believe is right."
"The least I can do is speak out for those who cannot speak for themselves."

Gaylord Nelson Biography

Gaylord Nelson was a naturalist who was born on June 4, 1916, Clear Lake, Wisconsin. Nelson is best known as the father of Earth Day. He served the Wilderness Society's Counselor after his career as a U.S. senator and governor of Wisconsin. His efforts contributed to the passage of various environmental laws, including the Environmental Protection Act (EPA). Nelson helped come up with the idea of Earth Day, which the American Heritage Magazine called "one of the most remarkable happenings in the history of democracy."

Gaylord Nelson did lots of other things during his early adulthood, too. During World War Ⅱ, he served in the Pacific. Nelson earned a BA award from San Jose State College and a law degree from the University of Wisconsin. When the war was over, he practiced law in Madison, Wisconsin.

Why should Gaylord Nelson be a good candidate for the gym building? He has lots of achievements, including the Presidential Medal of Freedom. The Presidential Medal of Freedom is the nation's highest civilian award, recognizing exceptional service.

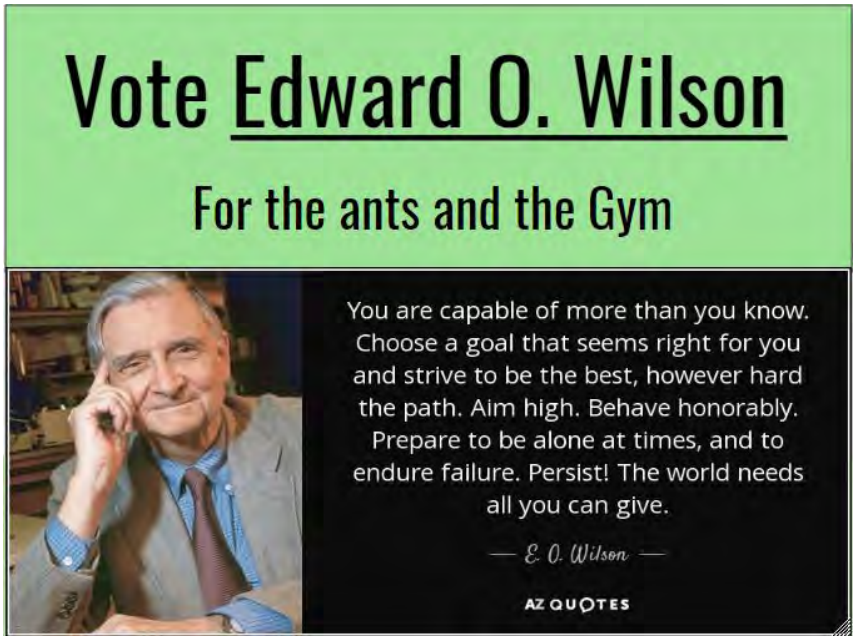
In 1962, Nelson was elected to the U.S. Senate, and he represented Wisconsin for 18 years straight. He helped author legislation to create a national hiking trails system and the 2,100-mile Appalachian Trail System. Gaylord Nelson even helped sponsor lots of key pieces of environmental legislation, like the Wilderness Act. His efforts led to bedrock environmental laws, including the Environmental Protection Act, the Clean Air Act and the Clean Water Act. When he left the Senate in 1981, Nelson furthered his commitment to conservation by serving on the board of the Wilderness Society.

In 1948, Gaylord Nelson began his political career. Nelson served as the Dane County state senator and then two terms as the governor of Wisconsin, which started in 1958 and ended in 1962 and then he was elected onto the Senate. Gaylord Nelson was best known as being one the the fathers of Earth Day, which became a huge success on April 22, 1970. Nelson died on July 3, 2005 at age 89 from a heart attack. Because of Gaylord Nelson, Earth Day became possible. If he didn't ever exist, there would be no Earth Day. (No celebration of the planet that is taking care of us.) Both the Gaylord Nelson Institute for Environmental Studies at the University of Wisconsin-Madison and the Gaylord Nelson Wilderness area in Wisconsin honor Nelson and his contributions. And his name could live on at this, at our, school.

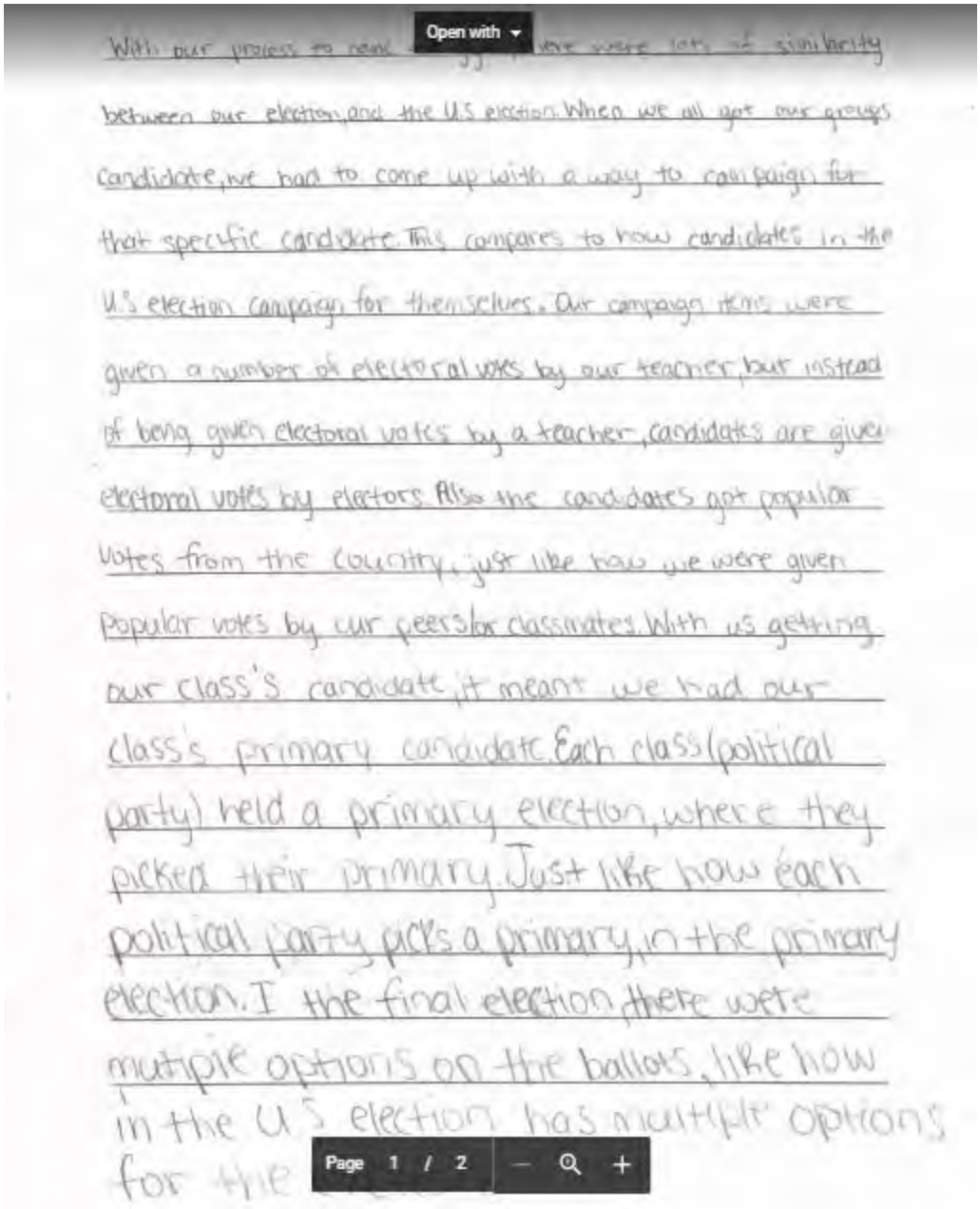
Students' Multimedia Work

- "Jane Goodall, she does good for all!" commercial
- "E.O. Wilson" commercial

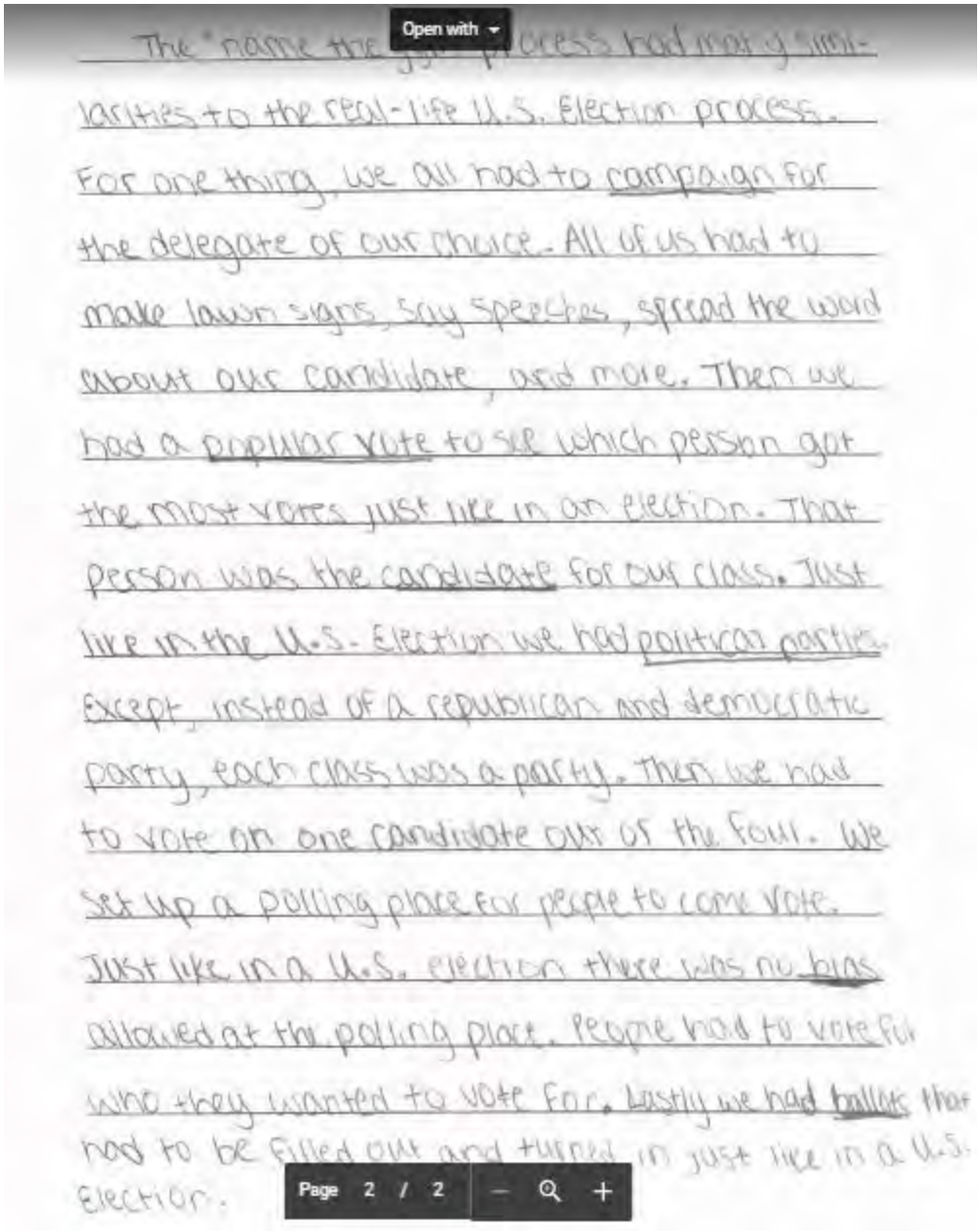
- Flyer for Edward O. Wilson:



- Reflection on Election Unit



- Second Reflection on Election Unit



Supporting Materials:.
Your Name:

Who are you researching?
Where are they from?
What are some of their accomplishments **in environmentalism**?

-
-
-

What are some unique facts about them that make you believe we should name the gym after them?

-
-
-

-
Your name:_____
Homeroom:_____

Think about how the "name the gym" process connects to the real-life U.S. Election process. Write a 5-10 sentence reflection, detailing what you learned from our unit. Within your reflection, describe what our election process was like and how our election compares to a real U.S. election. Use at least five of the following words in your reflection, to show meaning and/or connections:

Words to Use

Popular vote	Electoral college/votes	Campaign
Bias	Primary election	General election
Candidate	Political Party	Ballot
Democracy		

For example: "In real elections, a candidate is chosen to represent each political party. In our unit, a candidate was chosen to represent each % homeroom class."

Election to Name the Gym
Run by % Students

There will be students from % stationed at your polling place, to review the process and help answer questions. Please explain topics related to the voting process prior to your voting session as well:

1) Review importance of voting

a) Responsibility of citizens
b) Results will have lasting impact: make an educated decision

2) Review procedure for voting
   a) Confidential/private
   b) Using a ballot
   c) Respectful of peers' opinions
3) Review the candidates with your class
   a) 30 second commercials for the four candidates will be shared with you early next week, once the primary results are finalized.
   b) There will also be campaign materials around campus next week, leading up to the election (yard signs, brochures, hallway flyers, etc)

Please sign-up for a time to vote below, one class per polling place at each time.

"Early Voting" will be available **Thursday, November 17th** from:

Time Slot	**Polling Place 1: Computer Lab**	**Polling Place 2: The Barn (Thursday only)**
9:45-10:15 (run by Neil students)	McGovern	Teitz
1:15-1:35 (run by Turner / Barber students)	Johnson	xxxxxxxxxxxxxxxxxxxx
1:45-2:15 (run by Turner/Barber students)	Stewart	Hamerlind (Jackson)
2:25-2:55 (run by Turner/Hershiser students)	Bonczkowski	Flood
3:05-3:15 (run by Neil/Barber students)	Hahn	cp

"Election Day" will take place **Friday, November 18th** from:

Time Slot	**Polling Place 1: Computer Lab**	**Polling Place 2: Muir Hall**
10:40-11:05 (run by Turner students)	Berger	
12:15-12:45 (run by Turner students)	Jeffery	Wagner Teitz
1:45-2:15 (run by Neil/Barber students)	Neil	Smith

2:30-3:00 (run by Turner/Hershiser students)	Hershiser	Larson
3:05-3:15 (run by Neil/Turner students)	Turner	Barnett

Unit 1 (Industrialization & Progressive Era)

Grade level: 8

Duration: Approximate 4 weeks

Overview:

In this unit, students are studying the effects of unregulated Industrial growth on business, people, and the economy. Students will also be looking at the changes made by progressives in the era in reaction to that growth. The analogy in class is drawn to why at times even nature needs to be regulated by both natural and human methods in order to preserve the ecosystem. The core activity in class, supported by primary and secondary source activities, is a loose factory simulation. Students compare the experiences of those working within the cottage industry or small businesses in designing a product---a paper airplane. Once their designs are complete, students compete to determine which one will be "mass produced" in a factory setting.

Common Core Standards & Skills:

- Reading Like A Historian (RLAH) skills: sourcing, contextualization, close reading, corroboration
- identifying opposing viewpoints: claims and evidence
- note-taking strategies
- close-reading
- identifying point of view
- identifying main ideas
- making a hypothesis based on evidence
- making a claim based on evidence- reading for information
- inference
- evaluation of historical impact
- oral presentation and listening
- analysis of primary source written documents and images

-analyze two secondary source documents with opposing viewpoints

CCSS.ELA-LITERACY.RH.6-8.1
Cite specific textual evidence to support analysis of primary and secondary sources.
CCSS.ELA-LITERACY.RH.6-8.2
Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
CCSS.ELA-LITERACY.RH.6-8.5
Describe how a text presents information (e.g., sequentially, comparatively, causally).
CCSS.ELA-LITERACY.RH.6-8.6
Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
CCSS.ELA-LITERACY.RH.6-8.7
Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
CCSS.ELA-LITERACY.RH.6-8.8
Distinguish among fact, opinion, and reasoned judgment in a text.
CCSS.ELA-LITERACY.RH.6-8.9
Analyze the relationship between a primary and secondary source on the same topic.

Essential Questions:

What are the consequences of unregulated growth?
What does it mean to be progressive? How does one initiate change?

KEY UNIT VOCABULARY

Industrialization
Laissez-faire capitalism
Social Darwinism
Robber baron
Captain of industry
Monopoly
Trust
Labor union
Strike
Collective bargaining
Homestead Strike
Populist party
Open immigration
"Old" immigrants
"New" immigrants
Nativism
Chinese Exclusion Act
Progressives
Muckraker
Consumer protection
The Jungle
Meat Inspection Act
Pure Food and Drug Act
Child labor
How The Other Half Lives
Settlement house
Referendum
Recall
Secret ballot
Federal Reserve Act
Clayton Antitrust Act
17th Amendment
Women's suffrage
19th Amendment
Conservation

Lesson # and Focus Question	Content	Activities	Evidence of Learning
1. What were the main characteristics of U.S. industrialization in the late 1800s?	- general characteristics of industrialization - causes of industrialization	- image categorization **copies needed	- paragraph based on categorization of images
2. What were the positive effects of industrialization in the late 1800s and early 1900s?	- positive aspects of industrialization	- primary source historical reading +Three writing tips	- one page response to FQ
3. Did the problems caused by Industrialization outweigh its positive effects in the US around the year 1900?	- laissez-faire capitalism - social Darwinism - negative aspects of industrialization	- primary source historical reading	- graphic organizer with evaluation
4. How did Industrialization impact factory life?	-Factory life & experiences -Product design -Budgeting	-Paper airplane factory construction simulation	-Reflection on experiences compared to historical, contemporary labor conditions
5. Were the business leaders in the Industrial Age robber barons or captains of industry?	- laissez-faire policies - Carnegie, Rockefeller, JP Morgan	-modern scenario consideration -secondary source reading -video	- evidence backed claim in response to focus question
6. Why did the Homestead Strike turn violent?	- rise of labor unions - strike at Carnegie's Homestead steel factory	- documents: cognitive modeling/guided practice on RLAH skills - primary source historical reading	- extended-answer guiding questions - extension: dialog writing/ performance
SUPPLEMENTAL LESSON: How did Chicago newspapers cover the Pullman Strike?	- the Pullman Strike - media bias	- document analysis: modified jigsaw	- graphic organizer with reasoned opinion - optional HW with current events connection

Lesson # and Focus Question	Content	Activities	Evidence of Learning
7. Why did the Populist Party attract millions of supporters in the late 1800s?	- Populist movement - election of 1896	- primary source documents: guided practice and analysis	- short answers to document questions - paragraph in response to guiding question - HW Regents Qs
8. Why did nativists oppose the United States policy of open immigration in the late 1800s and early 1900s?	- open immigration - "old" immigrants and "new" immigrants - nativism	- primary and secondary source historical reading	- short answers to document questions - paragraph in response to guiding question
9. Why did Americans pass the Chinese Exclusion Act of 1882?	- transcontinental railroad/Pacific Railway Act - Chinese Exclusion Act	- hypothesis based on timeline - primary source historical reading	- graphic organizer - one-page response to FQ
10. How progressive was the Progressive Era?	- Progressive Era reform movements and legislation	- short secondary source reading and interpretation	- completed Defining Progressivism worksheet - short written response to focus question
11. How successful were progressives in provoking political, social, economic, and environmental reforms?	- Progressive Era reform movements and legislation	- analysis of primary source text and images - jigsaw/fishbowl presentation of material	- completed guiding questions - completed graphic organizer - Regents multiple choice questions
12. What was life like in American cities during the Progressive Era?	- photographs and writings of Jacob Riis - motivations of Progressive Era social reformers	- analysis of primary source photographs - primary source historical reading	- written responses to guiding questions
13. How did the actions of the women's suffrage movement lead to the 19th Amendment? (2-day lesson)	- women's suffrage movement - 19th Amendment	- students create timeline using primary source documents **copies needed	- responses to guiding questions - 1-2 paragraph response to focus question using documents

Lesson # and Focus Question	Content	Activities	Evidence of Learning
14. Was the United States government a positive force in working to solve the social, political, and economic problems caused by industrialization?	- Unit assessment	- multiple choice questions - document graphic organizer - essay	- argumentative essay based on documents and knowledge of the period

Industrial Revolution Simulation

Students provided the opportunity to design their own product in "cottage industry" environment: handmade and given time to comfortably create a paper airplane of their own. They must keep various costs in mind as they design the paper airplane and reflect upon how they created their paper airplane. Students then go through a minor "competition" to determine who has the most demanded product (2-6 paper airplanes, depending on size). Groups then will determine what is the most cost efficient method of creating the highest number of paper airplanes before creating one plane in a factory environment. Following this, they are given semi-similar conditions of a factory to be provided a first-hand account of what factory life was like.

Industrial Revolution Simulation Instructions:

Set up:
1) Set up the supplies throughout the room with clear signs that are able to be read. Before starting the activity, instruct the students that there will be 2 minutes of cleanup time available and that the room needs to be put in order when everything is done. If necessary, designate one student to be the "Assistant manager" who will keep track of time.

iPad should be set up on the stand. Change settings so it remains on the "paper airplane" app.

Hook: Refresh with students what the cottage industry and factory systems were. Ask for positives and negatives of each.

Guided learning:
Cottage industry:
Distribute reflection sheets and cost reports. Explain how the cost report works using overhead. All costs must be included. Explain that there will be a competition for best paper airplane, and if your costs are not accurate, you will be disqualified. Explain that you are able to use some printed paper airplane instructions.

Go over reflection questions.

Independent learning:
Paper airplanes require student name and period number!!
Provide at least 15 minutes for students to make paper airplanes and begin. Allow students to move about the room as they need for materials.

Periodically check in with students and ask them questions related to their design. Reinforce that they need to create something that needs to be appealing to others for various reasons. They also need to keep track of how they created the paper airplane.

At the end of the time, proceed to clean up. Ask students to respond to reflection questions. If time allows, discuss with the class how they felt the process went.

Day 2:
Hook: Ask students what are the most important qualities of a paper airplane. Guide them to looking at least two factors: Distance and looks. The last quality could be construction or cost. State that we will be going through a testing phase to generate market interest in the products and see which will be bought by a factory for mass production. Whoever has the best planes will be in charge of their own factory for production.

First test: Distance. Bring students into the hallway. Have them throw one by one to see who has the best paper airplane. Take throwing ability into consideration and allow more than one throw.

After the student(s) with the best distance are settled, return to the room. At this point, you have to have the students vote on the next two chosen qualities a paper airplane should have. After these two rounds of voting, have the appropriate number of paper airplanes chosen per group.

At this point, have students finish reflection questions up to "Assembly Line Simulation 1".

Instruct the students that in order to mass produce their paper airplanes, the cost has to be lowered to pay more employees. They must modify the paper airplane in order to lower the cost but still maintain enough quality that consumers would still by the paper airplane. As a group, under the guidance of the creator of the plane, the students will have to make a plan to lower the cost. They then will have to divide themselves up into specific and separate roles involved in the creation of the paper airplane. The creator must supervise the final product. Have them answer the applicable reflection questions.

The group should then be allowed the remaining time to create the paper airplane under easy circumstances. They should work out a proper strategy as they do this and times themselves to see how quickly they can complete one of appropriate quality.

The students should then answer any applicable reflection questions.

Day 3:
Students are instructed to return to their assembly lines. They are told they need to create a certain number of planes in a given amount of time in order to meet the demand. If they fail, they will all be fired.

Factory rules are given:

1) Not talking to your neighbor.
2) Only the supervisors are allowed to talk.
3) Any wasted or dropped materials will be counted against the group.
4) Any off task behavior will be counted against the individual, by penalty of being fired.

At this point, lights should be turned out and the blinds should be mostly closed. Loud music can be played to simulate rougher conditions in a factory.

Instruct students before and during the simulation that they have suffered injuries: one arm, one leg, one eye, back injury, etc. They have to keep up with the pace of workers or they will be let go.

Give the students only 10 minutes to complete a certain number of airplanes.

Be short with students: try to mimic conditions of a factory with uncaring bosses.

After the time limit is over, judge each of the planes completed.

Briefly discuss the various differences in the stages of the simulation.

Show Apple Factory video.

Allow students time to complete reflection questions.

Paper Airplane Cost Report
Maximum Cost: $_____

Capital Goods	Cost	Check if used	Total Cost
Construction Materials			
Paper airplane instructions	$4.00		
Use of Scissors	$2.00		
Staples	$0.10 each		
Folding	$0.05 each fold		
Use of scotch tape	$1.00		
Use of masking tape	$1.35		
Paperclips	$0.30		
Paper	$1.25 per sheet		
Desk work space	$5.00		
Color Application			
Red Marker	$0.70		
Blue Marker	$0.50		
Yellow Marker	$0.20		
Green Marker	$0.45		
Brown/Black Marker	$0.50		
Any other color marker	$0.40 per color		
Use of Pen (any color)	$0.10 per color		
Use of regular pencil	$0.05		
Use of Colored Pencil	$0.15 per color		
		Total Cost:	

*If there is another construction material you would like to add, it must be approved and cost out by the contractor, Mr. Flood.

Key Terms:

Capital: Capital resources are any goods that are used in the production process to produce a good or service.

Example:

Profit: A financial gain. The difference between the amount earned and the amount spent in buying, operating, or producing something.

Supply and Demand: Economic law that supports determining the price of a good. Supply is the quantity available of a good and the demand is the quantity that consumers will purchase.

1. If demand increases and supply remains unchanged, a shortage occurs, leading to a higher product price.
2. If demand decreases and supply remains unchanged, a surplus occurs, leading to a lower product price.
3. If demand remains unchanged and supply increases, a surplus occurs, leading to a lower product price.
4. If demand remains unchanged and supply decreases, a shortage occurs, leading to a higher product price.

Cottage Industry Simulation: an industry whose labor force consists of family units or individuals working at home with their own equipment

Before Making the Airplane

1. What makes a good paper airplane?

2. What qualities do you think people would want in a paper airplane that they would buy?

3. What qualities do you want to make a paper airplane more functional?

4. What qualities are you going to try to have present in your paper airplane?

5. What do you think are the most important capital goods you will need for making the airplane?

During & After Construction:

1. How did time impact your construction of the paper airplane?

2. What was difficult about constructing your airplane?

3. What advantages do you think you had? Were there any disadvantages?

4. What advantages do you think others had? Do you think others had disadvantages?

5. Do you think, at the rate you make the paper airplane, it would be easy to make a profit? Why or why not?

Factory Simulation: The main characteristic of the factory system is the use of machinery, originally powered by water or steam and later by electricity. Other characteristics of the system mostly derive from the use of machinery or economies of scale, such as the use of unskilled labor, division of labor, the centralization of factories, and the standardization of interchangeable parts.

Assembly line simulation 1:

1. In order to pay the salaries of the factory employees, the maximum cost of production for your paper airplane has been reduced even though it will be sold at a similar price. You will have to make modifications that may enhance or lessen the quality of the plane. What will your group do to minimize costs but still maintain a relative level of quality?

2. Your group must also determine a method to incorporate all of your group members to make the paper airplane. As this is a new factory, you are to create a prototype paper airplane through an assembly line to determine if your group's construction strategy will work. What is each group member doing?

   Supervisor:
   Line lead:
   Line workers:

3. Do you think the paper airplane retains the same level of quality as the first item? Why or why not?

4. Did your assembly line system work? Why or why not? What were conditions like after you were done?

Assembly line simulation 2:

After simulation:

1. Your group now had to make many paper airplanes in a short amount of time. What were some challenges that you faced? What were challenges your group faced?

2. After the simulation, what did you feel were the primary concerns of factory workers and the factory owner?

3. How does this impact the lives of workers and conditions of the factory?

Concluding Question:

How does technology and innovation impact the human factor in production? Cite specific examples.

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Do you believe the Industrial Revolution to have been a wholly negative or positive event? Use the stations for specific examples.

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Ledger

Cost of each airplane: _____

Sale price of paper airplane: _____

Quota: _____

Number of Line Workers: _____

Wage for Line Workers: _____

Number of Project Managers: _____

Wage for Project Managers: _____

Number of Line Leads: _____

Wage for Line Leads: _____

Work spaces used: _____

Cost per work space: _____

Total cost of work spaces: _____

Total Costs: _____

Profit Goal: _____

Number of completed airplanes: _____

Net Profit: _____

Chemical Building Blocks and Interactions Unit Overview

Grade level: 8 **Time Frame:** Approximately 8 Weeks

Overview:

For this unit, students will be getting an introductory look into the world of chemistry. Students will survey various concepts in chemistry such as molecules and atoms, chemical bonding, elements and the periodic table. Students will demonstrate their learning and understanding in this unit through various hands on labs, projects, and assessments.

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.

Common Core:

- **RI 8.1:** Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
- **RI 8.2:** Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
- **RI 8.8:** Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.

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 conservation play in mole relationships?
- 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:

Intro to Matter	Solids, Liquids, and Gases	Atoms & Bondings
Chemical Reactions	Acids, Bases, and Solutions	

Essential Vocabulary:

matter chemistry substance physical property
chemical property element atom chemical bond
molecule compound chemical formula mixture heterogeneous
homogeneous solution physical change chemical change law of conservation of mass
energy endothermic exothermic solid liquid
gas melting melting point freezing vaporization
evaporation boiling boiling point condensation sublimation
element electron nucleus protons energy level
neutrons valence electron chemical bond symbol atomic number
period group family ion ionic bond
subscript covalent bond metallic bond chemical equation reactant
product coefficient catalyst solvent
solubility acid base pH scale indicator
neutralization

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 an 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
- **Mini Newspaper**- Students will create a mini newspaper article that has four different articles. Each one of the articles will reflect a type of physical or chemical change and property that can be seen in nature. These should be in color and well written
- **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.
    - Phase Change Comic Directions

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 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)
- American Chemical Society (Middle School Chemistry) www.middleschoolchemistry.com/lessonplans/
- 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)

Transformations Unit Overview

Unit Title: Transformations on a Coordinate Plane

Grade Level: 8th **Time Frame:** Approx 6 weeks

Overview:
In this unit, students will use prior knowledge, expand on new concepts, and apply skills to real world examples of transformations of shapes on a coordinate plane. Students will dig deeper on translating, rotating, reflecting, and dilating shapes in order to apply transformations and to compare congruency and similarities.

Common Core Standards:
CCSS.MATH.CONTENT.8.G.A.1
Verify experimentally the properties of rotations, reflections, and translations
CCSS.MATH,.CONTENT.8.G.A.2
Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
CCSS.MATH,.CONTENT.8.G.A.3
Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
CCSS.MATH,.CONTENT.8.G.A.4
Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.

Essential Questions:
- What are the four types of transformations?
- What transformation was used to get from one shape to the next?
- Is the transformed shape congruent or similar?

Knowledge and Skills:
Students will be able to…
- Describe in their own words the four transformations
- Perform transformations of a shape on a coordinate plane
- Identify a series of transformations from one figure to the next
- Apply transformations to solve real world problems

Introductory Concepts:
- Transformations on a coordinate plane

- Translations on a coordinate plane
- Rotations on a coordinate plane
- Reflections on a coordinate plane
- Dilations on a coordinate plane

Essential Vocabulary:

- Transformation
- Translation
- Rotation
- Point of rotation
- Prime notation
- -Reflection
- -Coordinate plane
- -Congruent
- -Point of Dilation
- -Dilation
- -Ordered pair
- -Similar
- -Origin

Teacher research/resources:

Guided Notes
Translations Sequencing Activity
Dilations Task Cards
Rotation Riddles
Reflections Task Cards
Transformations Mad Lib activity
Transformation Hurdles
Transformations Cheat Sheet
21st Century Application Project

Lessons

Week 1: Introduction to Transformations

Students will review graphing ordered pairs on a coordinate plane as well as graphing a series of points to create images. Students will learn a brief introduction of the four transformations that can be performed on a coordinate plane and learn about prime notation.

Week 2: Translations

Students will dig deeper on translating, sliding, shapes around a coordinate plane. Students will master translating shapes when given a rule, correctly identify a translation rule given two figures, and series of translations upon an image.

Week 3: Reflections

Students will dig deeper on reflecting, mirror images, shapes around a coordinate plane. Students will master reflecting shapes when given a rule, correctly identify a reflection rule given two figures, and series of reflections upon an image.

Week 4: Rotations

Students will dig deeper on rotating, turning, shapes around a coordinate plane. Students will master rotating shapes when given a rule, correctly identify a rotation rule given two figures, and

series of rotations. In this sections students complete a real world connection to the rotations of stars.

Week 5: Dilations
Students will dig deeper on dilating, shrinking or stretching, shapes around a coordinate plane. Students will master dilating shapes when given a rule, correctly identify a dilation rule given two figures, and series of dilations. Students will understand the concept of congruency and similarity.

Week 6: Application to Real world
Students put all four transformations together to perform various problems. Students apply learned skills and make connections to real world problems. Students can perform multistep transformations as well as identify the series of transformations of shapes.

Edgar Allan Poe Unit - Grade 8 ELA

Overview: In this unit, students will consider how Poe's penchant for ambiguity, use of specific literary devices, and choice of subjects creates suspense and an unsettling mood. Students will interact with his works in a variety of ways, including putting the narrator of "The Tell-Tale Heart" on trial, creating an illustrated guide to "The Raven," and making a presentation on Poe's use of irony. Students also will read informational text to deepen their understanding of certain themes. Finally, students will write an essay analyzing how Poe's use of two literary devices creates suspense or develops a mood.

Common Core Standards:

Reading Literature

CCSS.ELA-LITERACY.RL.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RL.8.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot.
CCSS.ELA-LITERACY.RL.8.3 Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
CCSS.ELA-LITERACY.RL.8.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
CCSS.ELA-LITERACY.RL.8.6 Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.
CCSS.ELA-LITERACY.RL.8.7 Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
CCSS.ELA-LITERACY.RL.8.9 Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.

Reading: Informational Text

CCSS.ELA-LITERACY.RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RI.8.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
CCSS.ELA-LITERACY.RI.8.6 Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
CCSS.ELA-LITERACY.RI.8.7 Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
CCSS.ELA-LITERACY.RI.8.8
Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.

CCSS.ELA-LITERACY.RI.8.9
Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Writing

CCSS.ELA-LITERACY.W.8.1 Write arguments to support claims with clear reasons and relevant evidence.
CCSS.ELA-LITERACY.W.8.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for

writing types are defined in standards 1-3 above.)
CCSS.ELA-LITERACY.W.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. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 8 here.)
CCSS.ELA-LITERACY.W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

Speaking and Listening
CCSS.ELA-LITERACY.SL.8.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.8.5 Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

Essential Questions/Unit Focus
How does a writer create suspense?
How do we identify an author's style?
Why do dark tales capture our imagination?

Primary topics and skills addressed
- Verbal, situational and dramatic irony
- Literary/poetic devices: Alliteration, assonance, consonance, cacophony, onomatopoeia, rhythm, external rhyme, internal rhyme
- Identifying elements of an author's style
- How writing style and literary devices affect tone/mood/suspense
- Using annotation to aid in comprehension
- Analyzing arguments
- Analyzing whether texts disagree on matters of fact or matters of interpretation
- Consistency in tense, integrating quotes
- Literary analysis essay: focus on integrating more than one work into analysis or (differentiation) focus on including and explaining evidence to support claim, using one text or one literary device.

Texts
Anchor texts (all by Edgar Allan Poe):
- "The Tell-Tale Heart"
- "The Cask of Amontillado"
- "Annabel Lee"
- "The Raven"

Related texts:
- "Room for Debate: The Dark Side of Young Adult Fiction" (Six YA writers theorize about why dystopian novels are so popular with teens. The New York Times, Dec. 26, 2010)
- "Edgar Allan Poe" (video) History Channel
- "The Cask Of Amontillado" (video) YouTube
- "Treehouse of Horror: The Raven" (*The Simpsons*)
- "Insanity Plea" (explanation of the law from Cornell Law School web page)
- "How to Write Opening and Closing Statements for Mock Trials"

Writing tasks/Assessment
- Daily writing (discussion questions, personal responses, etc.)
- Mock trial of narrator from "The Tell-Tale Heart"
- Short essay arguing why teens are drawn to dystopian themes

- Irony presentation
- Mini-poster/presentation on literary devices in "The Raven"
- Final assessment paper: How does Poe create suspense in his writing? or, How does he develop a particular mood?

Teaching Sequence

1. Introduce Poe and watch History Channel biography. Students will look for repeating patterns in Poe's life, including his idealized relationships with women, deaths of people close to him, poverty, self-destructive behavior, and violence.

2. Read "The Tell-Tale Heart" and either answer open-ended questions, or (differentiated) answer multiple-choice questions and create plot diagram. (Audio available as support)

3. Courtroom trial of "Tell-Tale Heart" narrator. Assign roles for defense team, prosecution team, witnesses, and jury. Students will look for text evidence and research legal terms to prepare for their roles. (Differentiation: roles require different levels of sophistication of text analysis; all have role to play.)

4. Grammar: Verb tense consistency in TTH

5. Read "Room for Debate: The Dark Side of Young Adult Fiction" Student will read four of the six opinions and analyze two of the arguments, focusing on differences of interpretation. Then they will write a short, one-draft essay laying out their opinion on why many teens are drawn to dystopian books. (Differentiation: different reading levels for the arguments.)

6. Read "The Cask of Amontillado" aloud. Prior to reading, students will consider different quotes on the theme of revenge and clarify their thinking on the idea. During reading, students will annotate and answer checkpoint questions.

7. Watch video of "The Cask of Amontillado" Compare and contrast the narrators of TTH and Cask.

8. Grammar/Writing: Choosing between and punctuating direct and indirect quotes with "Cask."

9. Irony lesson: Defining and identifying verbal, situational and dramatic irony. Students will use personal whiteboards to guess which form of irony each example represents.

10. Irony presentation: In groups of three, students will create a Google Slideshow with examples of the three types of irony from TTH and Cask, and from the real world. Discuss use of dramatic irony in creating suspense.

11. Read "Annabel Lee" (comic book format) and answer questions. Relate to patterns seen in Poe's life. (Universal design: format makes text more accessible to struggling readers)

12. Poetic devices presentation and practice.

13. Read "The Raven" aloud. Students will create a mini-poster for their assigned stanza with the text, an illustration, a "translation" of the stanza, and a section identifying different poetic devices used in that stanza. Students will present their posters in order. (Differentiation: assign stanzas according to level of complexity; storyboard activity available for students who need alternate assignment.)

14. Watch *The Simpsons* version of "The Raven." Discuss mood in original vs the retelling. (Universal design: makes text more accessible)

15. Author style analysis, looking at Poe vs. S.E. Hinton (read earlier in the year)

16. Essay: Students will examine two literary devices Poe uses to create suspense or a particular mood in two of the works we have studied. Essay will include a well-developed introduction with a bridge and a claim, at least two-four paragraphs focusing on the devices used in two of the works, and a concluding paragraph. Teacher will conference during the writing process; peer edit of rough draft. Skills to focus on: Strong claim in thesis statement; integrating quotes smoothly; explaining how the evidence relates to the claim. Differentiation: Students who need more support will focus **on one text or one literary device in two texts.**

Samples of Supporting Materials

Annabel Lee Text Dependent Questions ANSWER KEY

Text-dependent Questions	Evidence-based Answers
Poe structures this poem similar to a particular genre in literature. What genre and how do you know? Why would Poe choose to start this poem in this way?	*Lines one and two sound similar to that of "Once upon a time..." ("many and many a year ago") and "in a land far, far away" ("a kingdom by the sea") which mirror the genre of fairy tale. He wanted to emphasize that their love was a special love evocative of everlasting fairy-tale romance.*
List some words that are repeated in this poem.	
What picture does Poe paint by repeating certain words and phrases? Explain.	*Poe repeats love, loved, maiden, lived, Annabel Lee, and kingdom by the sea. The repetition gives them special emphasis, and together they create that sense of a fairy tale in a magical land, where love is everything.*
Who does the narrator fault for Annabel Lee's death and what is his reasoning?	*In stanzas two and three, Poe says that the angels took away Annabel Lee (line 18) because they were jealous of their love and wanted it for their own (coveted, line 12). Also: 21-23, in which he says "The angels.../Went envying her and me––/Yes!––that was the reason..." he explains the motive of the angels for taking her away.*
In the first stanza on page ___, what is the speaker saying? What message about love is the poet trying to convey?	*His love for Annabel Lee is so strong that their souls are still united, even though death has separated them physically. ("And neither the angels.../Nor the demons.../Can ever dissever my soul from the soul of the beautiful Annabel Lee.") The poet is saying that true love is stronger than angels, demons, or death. ("But our love it was stronger...")*
What do lines 40-41 echo that is found	*They echo the phrase "kingdom by the sea",*

elsewhere in the poem? What is the significance of this?	*but now he's using sepulcher and tomb instead of kingdom. This means that although he's viewing their love as undying, her actual, tragic death still saddens him.*
Why does "wingéd" have an accent? Why does Poe include this?	*By adding an accent to winged, Poe makes it a two-syllable word, which maintains the rhythm. For example, line 9 ("But we loved with a love that was more than love") has four stressed syllables, and by making winged two-syllables, it is possible to have four stressed syllables in line 11.*
How does the rhythm of the poem affect its tone?	*The rhythm creates a bit of a sing-song tone, which supports the feeling of a beautiful, lilting fairy tale. Also, it becomes very musical, almost as if Poe is singing a love song to Annabel Lee. Possible evidence: "But our love it was stronger by far than the love/Of those who were older than we––/Of many far wiser than we––"*

"The Raven" Mini-poster

Write the number of your stanza. (1 point)	
Write the whole stanza neatly so other people can read it. (5 points)	
Explain what is happening in this stanza. You probably will need to look at a few stanzas before yours to understand what is going on. (10 points)	
Identify a poetic or literary device used in your stanza. Quote the words, phrases or lines. Explain why those words show that device. (For example: In stanza 1, Ogden Nash uses alliteration, which is the repetition of the beginning sound of a word. He includes the words flea, fly, flaw, flue, and flew, all of which repeat the "fl" sound.) (10 points)	
Illustrate your stanza. Color not required. (*Once upon a midnight dreary...*) (10 points)	

Sample class discussion questions:

Raven Class Discussion Notes

Talking raven https://www.youtube.com/watch?v=yFXU7o0fYII

1. Do you think the speaker of this poem has really lost his mind, or does he just seem very, very sad to you?
2. How is this narrator similar to or different from some of the other Poe narrators we have encountered?
3. Does the raven push the narrator over the edge or does he do it to himself?
4. Why tell this story as a poem instead of a story? How do poetic devices enhance the effect Poe is going for?
5. What creates the mood of this poem? Things that can contribute to mood:

- Choice of language
- Narrator
- Irony (dramatic, verbal, situational)
- Setting
- Plot
- Poetic devices (alliteration, assonance and consonance, rhyme, repetition)
- Allusions
- Imagery
- Humor

- Pace
- Subject matter/theme

The New York Times: Room for Debate. Dec. 26, 2010. Text 1 of 6

Craving Truth-telling

Paolo Bacigalupi is the author of "Ship Breaker," a 2010 National Book Award Finalist in Young People's Literature. He has also won the Hugo, Nebula and John W. Campbell Awards.

UPDATED DECEMBER 17, 2012, 12:37 PM

I suspect that young adults crave stories of broken futures because they themselves are uneasily aware that their world is falling apart.

> *The truth of the world around us is changing and teens want to read something that isn't a lie.*

We might pummel them with advertising that says they should buy a new iPod, or Xbox, or Droid XYZ, and that everything in the world is shiny and delightful -- but whether we're looking at the loss of biodiversity, or the depletion of cheap and easily accessible energy, or the hazards of global warming, our children will inherit a world significantly depleted and damaged in comparison to the one our parents handed down to us. And they know it.

With "Ship Breaker," a novel set in a future when oil has run out and New Orleans has drowned under rising sea levels, I was trying to illuminate the sort of world that we adults are handing off to them. In the story, child laborers tear apart ancient oil tankers and freighters, recycling the last valuable resources from "the Accelerated Age." Quality of life is significantly reduced from our present circumstances, and judging from teenagers' responses, they crave precisely that sort of truth-telling. Which doesn't really surprise me. As a teen, I remember that I craved truth-telling as well, and devoured it wherever I could find it.

Unfortunately, the truth of the world around us is changing, and so the literature is morphing to reflect it. Teens want to read something that isn't a lie; we adults wish we could put our heads under the blankets and hide from the scary story we're writing for our kids.

The New York Times: Room for Debate. Dec. 26, 2010. Text 2 of 6

Pure Escapism For Young Adult Readers

Maggie Stiefvater, a writer, artist and musician, is the author of the "Shiver" trilogy, "Lament: The Faerie Queen's Deception and "Ballad: A Gathering of Faerie."

UPDATED DECEMBER 20, 2011, 11:30 AM

Ahh, dystopia. All it takes is a glimpse at upcoming young adult booklists for 2011 and 2012 to see that the dystopian trend is not only big now, but is going to get bigger in the next few years.

> *In a culture defined by shades of gray, the absolute black and white choices in dark young adult novels are incredibly satisfying for readers.*

The question of why these dark novels appeal to teenagers has been around awhile, and there's a pretty standard response. It tends to be some variation of "these are dark, pessimistic times with the economy and culture; the darkness of the subject matter reflects those fears."

My thoughts on that? Ha and double ha. I don't believe it.

In my experience, the teenagers who are loving the dystopian themes are generally the ones who don't have to face it. I don't think they read dark novels because it reflects their world. Would we be so enamored with dystopian fiction if we lived in a culture where violent death was a major concern? It wouldn't be escapism.

Here's my theory: our world is getting increasingly complex. Teenagers face a huge number of choices and an almost paralyzing array of expert opinions on what constitutes right and wrong. In a culture defined by shades of gray, I think the absolute black and white choices in dark young adult novels are incredibly satisfying for readers.

Teenagers want to be able to fight for what's right -- but finding out what's right is now 90 percent of the battle. If only the evil in the world was named Voldemort, we could get down to the business of slaying it. And with the dystopian novels, we know just what we're fighting for.

Name _____ Date _____

Comparison of Informational Texts

What main idea are you comparing across texts?	
Title 1:	Title 2:
Author 1's point of view:	Author 2's point of view:
Key ideas and support provided:	Key ideas and support provided:
What conflicting information is presented? How do the texts disagree?	

Defining Style

1. Words	Are the words simple or fancy? Are they technical, descriptive, from a certain time period, formal or informal? Are there slang words or foreign words? Does the language call attention to itself, for example through alliteration, rhythm, or unusual word choice?
2. Sentences	Are the sentences long or short? Do they contain many clauses? Are they often fragments?
3. Literary devices	Are there any metaphors, similes, or symbols? Does the author use words that appeal to the senses, personification, parallel structure, repetition, questions, irony?
4. Pace	Is the writing slower and descriptive or thoughtful, with an emphasis on setting and atmosphere, or does it move quickly with a focus on action and plot?
5. Point of View	Possibilities: first, second, third, omniscient, multiple. Is the narrator reliable?
6. Characters	What kinds of characters are they? Complex? Stereotypes? Do they change or are they static?
7. Tone	What is the author's attitude? What is the mood of the story? Does the author seem sarcastic? Aggressive? Sad? Pessimistic? Hopeful? Bitter? (And so on...)
8. Allusions	How often does the author refer to other texts, myths, symbols, famous figures, historical events, quotations, and so on?
9. Subject	Does the author often return to particular topics, themes, or subjects?

Style Analysis: Look for elements that help create Edgar Allan Poe's unique style. Write down the category from the defining style sheet, what you are noticing, and why Poe might have used that stylistic device. Star the two most important.

Category	Quote/evidence/observation	Why did he do that?
allusion	"from Night's Plutonian shore" (The Raven)	Poe refers to the god of the underworld in Greek mythology to make a connection between the bird and death. Adds depth.
point of view	first-person narrator in all four works	

Poe Literary Analysis

For your literary analysis, answer one of the two prompts below:

1. How does Edgar Allan Poe create suspense? Identify two aspects of his writing that contribute to that feeling and discuss them, with examples from at least two of the works you have read.

2. How does Poe create and develop a mood in his writing? What mood do you think he is creating, and what are two important elements he uses to enhance that feeling? Give evidence from at least two of his works.

Your essay should have:

- an introduction with a hook and a lead-in to a thesis statement.
- two body paragraphs (one for each technique you focus on).
- at least two pieces of evidence that shows how Poe uses the element effectively.
- explanation of how that evidence creates suspense or develops a mood.
- transitions between paragraphs and ideas.
- a short conclusion.

Grading

_____ Introduction (10) Has a hook, a connection from the hook to the thesis, mentions the author and the works you talk about, and has a thesis statement.

_____ Paragraph one (10) Focuses on one element, develops it with 2 pieces of strong evidence, and discusses the evidence.

_____ Paragraph two (10) Focuses on one element, develops it with 2 pieces of strong evidence, and discusses the evidence.

_____ Conclusion (5) Sums up the main ideas and leaves the reader with something to think about.

_____ Comprehension (10) Essay reflects a strong understanding of the meaning of the text; claims about the texts are accurate.

_____ Spelling and grammar (5) Sentences are complete; other errors are minor. No spelling or capitalization mistakes.

Graphic Organizer

Element 1:	
Evidence from the text:	How this creates suspense/mood
Evidence from the text:	How this creates suspense/mood
Element 2:	
Evidence from the text:	How this creates suspense/mood
Evidence from the text:	How this creates suspense/mood

Lesson : El Cuerpo

4th grade

Goal: Learn various names of the body

1. Student copy words off the board.

2. They are given dictionaries to look up the Spanish translation of the word.

3. Have the children make a connection with previous "Cinco sentidos" vocabulary and "Deportes" vocabulary words.

Once the fourth graders are comfortable with their current vocabulary words we work on the following in class and for homework.

1. When the students are comfortable with the vocabulary have them incorporate it with the "phrase of the week". The current phrase of the week is "Me duele_____" which translates to "My _____hurts."

2. List Spanish vocabulary and have students draw pictures that represent the vocabulary.

3. During our "role playing" time everyone is given dialogue in English incorporating various vocabulary current and past along with various phrases in which they must translate on the spot.

4. Worksheet with Spanish vocabulary is given out as homework. The vocabulary words are written in English and students must write the Spanish translation and draw a corresponding picture.

Activity

1. Played online game together in class.

2. "Simon Dice", "Simon Says" was played in class along with the "Spanish Hokey Pokey".

Assessments: Assessment was given to the fourth graders. This assessment included the pronouns which the children are constantly reviewing. There is a fill in the blank with a word bank. The third section consists of matching vocabulary with riddles. The last section was a review of previous vocabulary.

Nombre _____
Maestra_____

4th grade

Write the correct pronoun in the blank space.

1. I _____

2. you (familiar)_____

3. you (formal) _____

4. he/she _____ 5. _____

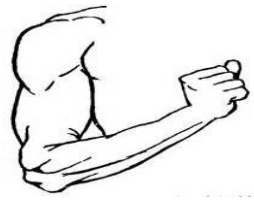
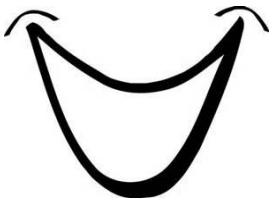
6. we _____ 7. _____

8. they _____ 9._____

10. you (familiar)_____

la rodilla	la mano	el pie	la cara	el ojo
la oreja	la boca	el cabello	el brazo	el diente

Pick a word from the word bank and write it under its corresponding picture.

 _____	 _____
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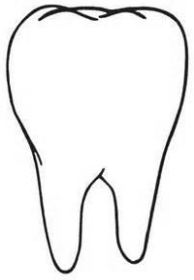
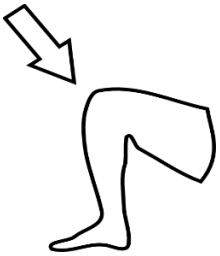
 _____	 _____
 _____	 ----------

Answer the riddles with the correct vocabulary word. Write the correct letter in the line provided.

21._____ I can point with this:

22._____ My belly

23._____My feet have five of these:

24._____I can comb this:

25._____You can find my eyes, nose, and hair on this:

26._____I have two of these:

27._____ My _____hurts

a. el estómago

b. la pierna

c. el dedo

d. Me duele _____.

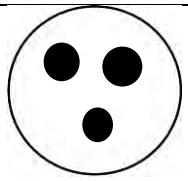
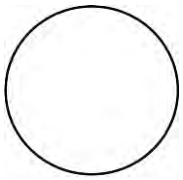
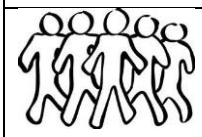
e. el pelo

f. la cabeza

g. los dedos de pie

cansado	la natación	football americano
asustado	el equipo	el baloncesto

Pick a word from the word bank and write it under its corresponding picture.

 _____	 _____
 Zzz _____	 _____
 _____	 _____

Write the corresponding letter in the lines provided:

31. _____ el tacto
32. _____ el oido
33. _____ el gusto
34. _____ la vista
35. _____ el olfato

A. smell
B. sight
C. hear
D. touch/feel
E. taste

Unit lesson - Spanish
5th grade
Unidad 1 Leccion 1

Objective: Express likes and dislikes of activities.

Procedures:
Day 1- Lesson opener p. 30-31, oral discussion about activities vocabulary. Listen/watch “presentacion de vocabulario”. Practice vocabulary with in class activities. Assign vocabulary worksheet as practice of new words.

Day 2- Lesson “vocabulario en contexto” and watch Telehistoria Escena 1. Practice vocabulary from previous day’s homework. Oral imitation practice.

Day 3- Practice conversations. Complete grammar presentation and book exercises p. 45-47. Assign worksheet for homework.

Day 4- Comprehension checks and grammar practice.

Day 5- Conversation cards and speaking/listening practice among small groups.

Day 6- Todo junto and Telehistoria Escena 2.

Day 7- Repaso de la leccion.

Day 8- Comprehension quiz.

Nombre _____
Fecha _____

Tarea.

Write the Spanish words 2 times each.

andar en patineta: to skateboard

_____ _____

bailar: to dance

_____ _____

cantar: to sing

_____ _____

comprar: to buy

_____ _____

descansar: to rest

_____ _____

dibujar: to draw

_____ _____

escuchar musica: to listen to music

_____ _____

estudiar: to study

_____ _____

hablar por telefono: to talk on the phone

_____ _____

jugar al futbol: to play soccer

_____ _____

mirar la television: to watch T.V.

_____ _____

montar en bicicleta: to ride a bike

_____ _____

pasar un rato con los amigos: to spend time with friends

_____ _____

pasear: to take a walk

_____ _____

practicar deportes: to practice sports

_____ _____

preparar la comida: to prepare food

_____ _____

tocar la guitarra: to play the guitar

_____ _____

tomar apuntes: to take notes

_____ _____

Nombre _____ Clase _____ Fecha _____

Did You Get It? *Presentación de gramática*

***Level 1* p. 42**
***Level 1A* p. 44**

¡AVANZA! **Goal:** Understand what an infinitive is and use infinitives with the verb **gustar**.

The Infinitive

- An *infinitive* is the basic form of a verb. In English, most infinitives include the word *to*. Compare the following infinitive in Spanish and English:

Spanish	English
leer	**to** read

Infinitives have many uses. To talk about what people like to do, you simply use the infinitive after the verb **gustar**.

Me gusta leer. ***(I like** to read.)*
Te gusta leer. ***(You like** to read.)*
Le gusta leer. ***(He/She/You like(s)** to read.)*
Nos gusta leer. ***(We like** to read.)*
Os gusta leer. ***(You like** to read.)*
Les gusta leer. ***(They/You like** to read.)*

EXPLANATION: If you wonder why there are no subject pronouns (**yo**, **tú**, **él**, **ella**, **usted**, etc.) in the above sentences, it is because **gustar** literally means *to be pleasing*. When you say **Me gusta leer**, you are really saying, "To read is pleasing to me." To get the sentence correct in Spanish, you need to first rephrase the English sentence. Here's how it works:

I like to read.	→	*To me it is pleasing to read.*	→	**Me gusta leer.**
You like to read.	→	*To you it is pleasing to read.*	→	**Te gusta leer.**
He likes to read.	→	*To him it is pleasing to read.*	→	**Le gusta leer.**
We like to read.	→	*To us it is pleasing to read.*	→	**Nos gusta leer.**
You like to read.	→	*To you it is pleasing to read.*	→	**Os gusta leer.**
They like to read.	→	*To them it is pleasing to read.*	→	**Les gusta leer.**

- When you want to emphasize or identify the person who is pleased, you can add the corresponding noun or pronoun preceded by **a**:

A Sonia le gusta leer.
Sonia likes to read. (To Sonia it is pleasing to read.)

A ella le gusta leer.
She likes to read. (To her it is pleasing to read.)

- These are the *pronouns* that follow **a**:

A mí me gusta correr. *(I)*
A ti te gusta correr. *(You)*
A usted le gusta correr. *(You)*
A él o ella le gusta correr. *(He or She)*
A nosotros(as) nos gusta correr. *(We)*
A vosotros(as) os gusta correr. *(You)*
A ustedes les gusta correr. *(You)*
A ellos(as) les gusta correr. *(They)*

Nombre _____ Clase _____ Fecha _____

Did You Get It? *Práctica de gramática*

***Level 1* pp. 43–44**
***Level 1A* pp. 45–47**

¡AVANZA! **Goal:** Understand what an infinitive is and use infinitives with the verb **gustar**.

1 Match each English phrase with the corresponding Spanish phrase.

1.	I like . . .	Les gusta...
2.	They like . . .	Nos gusta...
3.	He likes . . .	Me gusta...
4.	We like . . .	Te gusta...
5.	You like . . .	Le gusta...

2 Who likes what? Choose the correct English sentence.

1. Le gusta comer.
- **a.** I like to eat.
- **b.** We like to eat.
- **c.** He likes to eat.

2. Me gusta montar en bicicleta.
- **a.** He likes to ride a bicycle.
- **b.** I like to ride a bicycle.
- **c.** She likes to ride a bicycle.

3. Te gusta jugar al fútbol.
- **a.** We like to play soccer.
- **b.** He likes to play soccer.
- **c.** You like to play soccer.

4. Nos gusta leer.
- **a.** We like to read.
- **b.** They like to read.
- **c.** You like to read.

5. Les gusta estudiar.
- **a.** We like to study.
- **b.** He likes to study.
- **c.** They like to study.

6. Le gusta beber agua.
- **a.** He likes to drink water.
- **b.** They like to drink water.
- **c.** I like to drink water.

3 Choose one of the phrases to complete the sentences in Spanish.

Les gusta	**Me gusta**	**Le gusta**	**Nos gusta**	**Te gusta**

1. She likes to watch television.
_____ mirar la televisión.

2. We like to run.
_____ correr.

3. You like to rest.
_____ descansar.

4. I like to do homework.
_____ hacer la tarea.

5. They like to play soccer.
_____ jugar al fútbol.

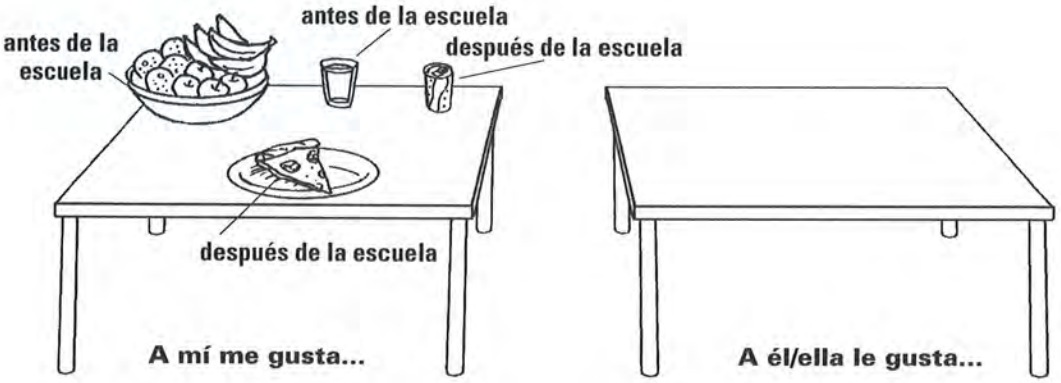
6. He likes to drink water.
_____ beber agua.

Conversation Cards *Unidad 1, Lección 1*

Estudiante A

¿Qué te gusta comer y beber? Take turns asking your partner what he or she likes to eat and drink before and after school. Draw what your partner likes to eat and drink on the empty table.

Modelo: **Estudiante A:** *¿Qué te gusta comer después de la escuela?*
Estudiante B: *A mí me gusta comer...*



Estudiante B

¿Qué te gusta comer y beber? Take turns asking your partner what he or she likes to eat and drink before and after school. Draw what your partner likes on the empty table.

Modelo: **Estudiante A:** *¿Qué te gusta comer después de la escuela?*
Estudiante B: *Me gusta comer...*

Nombre _____ Clase _____ Fecha _____

Prueba 2

Level 1, pp. 42–44 Level 1a, pp. 44–47

Gramática

A. Write what these people like and don't like to do. Choose the word that best completes each sentence. (10 points)

me	te	le	nos	les

1. A mí _____ gusta jugar al fútbol.
2. A Rosa _____ gusta hablar por teléfono.
3. A ti _____ gusta trabajar después de las clases.
4. A nosotras _____ gusta comer papas fritas.
5. A Jorge y a Miguel _____ gusta comprar refrescos.

B. Write what these people like to do using **gustar**. (10 points)

1. A Pedro / comer helado

   _____

2. A ti / dibujar

   _____

3. A mí / preparar la comida

   _____

4. A nosotros / andar en patineta

   _____

5. A ustedes / beber refrescos

   _____

Floor Hockey/Fitness Unit

Teacher: Mr. Flinn and Mr. Loustaunau
Grade Level: 3/4
# of Students: 24

Facilities Available: Half of the gymnasium (divided by curtain).

Equipment Needed: 24 Hockey sticks, 24 pillow polo sticks, 24 scooter hockey sticks, 24 scooters, tennis balls, 24 pairs of goggles, cones, pug goals, poly spots (numbered 1-6), dodgeballs, hockey nets, dividers, music, team shake app/with Ipad, floor dividers, hula hoops, and jerseys.

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 3-The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
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.

Illinois Content Standards Addressed:
Standard # 19.A.2 Demonstrate control when performing combinations and sequences in locomotor, non-locomotor and manipulative motor patterns.
Standard # 19.B.2 Identify the principles of movement (e.g., absorption and application of force, equilibrium).
Standard # 19.C.2a Identify and apply rules and safety procedures in physical activities.
Standard # 19.C.2b Identify offensive, defensive and cooperative strategies in selected activities and games.
Standard # 20.A.2a Describe the benefits of maintaining a health-enhancing level of fitness.
Standard # 21.A.2a Accept responsibility for their own actions in group physical activities.
Standard # 21.A.2b Use identified procedures and safe practices without reminders during group physical activities.

Unit Objectives:
1. **Psychomotor:** SWBAT use an assortment of objects; such as hockey sticks, using hand eye coordination to better develop their accuracy and distance while successfully controlling equipment.
2. **Cognitive:** SWBAT identify safety rules and expectations before and after every lesson.

3. **Affective:** SWBAT demonstrate a positive attitude and participate in lessons 100% of the time. SWBAT communicate and work together to pass and shoot into a net to score a goal.
4. **Fitness:** SWBAT participate in daily physical activity to maintain an elevated heart rate.

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).

Unit	A day	B day	C day
Floor Hockey	Safety and Control: Expectations and Stick Handling	Fitness Day	Floor Hockey Pass and Shoot: passing with accuracy and shooting into a net
Pillow Hockey	Pillow Hockey Pass and Shoot: passing with accuracy and shooting into a net	Pillow Hockey game	Pillow Hockey game
Scooter Hockey	Review Scooter safety, expectations and shooting into a net	Scooter Hockey game	Scooter Hockey game

Teacher Observation Checklist (Example)

Name	Activity Day A:	Activity Day B:	Activity Day C:
	Focus:	**Focus:**	**Focus:**

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 and but was respectful, responsible and safe.

Example Lesson Plan

Title: Pillow Polo Hockey: Pass and Shoot 3/20

Grade/s: 3rd & 4th

Objective/s: Students will be able to communicate and work together to pass and shoot into a net to score a goal.

Equipment: Pillow polo sticks, cones, pug goals, poly spots (numbered 1-6), elementary goggles, dodgeballs.

Safety: Wear the elementary safety goggles and the pillow part of the stick shouldn't go over students knees.

Warm-up: Students will enter by changing their shoes and sitting crisscross applesauce in the center circle of our side of the gym. When they sit, they will put on goggles to protect their eyes. Once all students are ready, instruction will begin. (Approx. 5 mins)

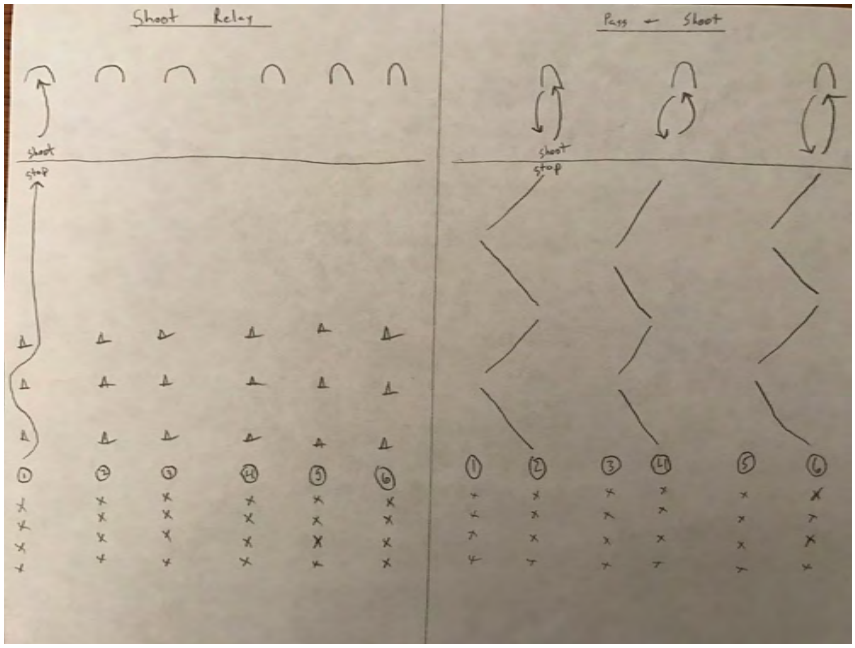
Game Play: Pillow Hockey Shoot Relay/ Pass and shoot
Instruction- The students will be sitting in the center circle. The teacher will show the students how to properly hold the pillow sticks (similar to a hockey stick) and what the expectations are to respect the equipment (Don't slam the sticks and don't pick at the foam). Then the teacher will demonstrate the activity. (Approx. 5 mins)
Activity- Students will be in groups of four, standing in line behind their numbered polyspot. The first two students in line will have a pillow stick. The first student will start with the dodgeball and will weave forward throughout the cones and stop about 5-7 feet in front of the goal and will shoot at the goal (1 time) and then turn around and control the ball back to the line and hand off the stick to the next student in line and the next student will repeat. (Approx. 10 mins)

Transition to Pass and Shoot- teacher will have the students freeze and go back to their line and sit crisscross applesauce in their lines and the teacher will move all the cones out of the way. The teacher will have lines 1 and 2 stand up and will help demonstrate the pass and shoot activity. (Approx. 5 mins)

Activity- Two lines will work together by passing back and forth up to the goals where the **even number** line will stop the dodgeball about 5-7 feet away from the goal and shoot on goal. Then the students will pass the ball back and forth back to the line and then the students will switch lines. The lines working together will be 1+2, 3+4, and 5+6. (Approx. 10 mins)

Exit Transition: teacher will have the students freeze and go back to their line and sit crisscross applesauce in their lines and the teacher will dismiss the line that is being the most respectful to change their shoes. Then the students will line up to exit the gym and go back to class. (Approx. 5 mins)

Setup:



Music Unit Plan

Topic: *The Star-Spangled Banner*

Grade Level: 5th/6th Grade

Length of Unit: 10 class periods

Standards	**MU:Pr4.1.5a.** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, and context as well as the musicianship of self and others. **MU:Pr4.1.5d.** Demonstrate and explain how intent is conveyed through interpretive decisions and expressive qualities (for example, dynamics, tempo, timbre, articulation/style). **MU:Pr4.1.6d.** Perform a selected piece of music demonstrating how their interpretations of the elements of music and the expressive qualities (for example, dynamics, tempo, timbre, articulation/ style, phrasing) convey intent. **MU:Pr4.2.5c** Explain how context (such as social, cultural, and historical) informs performances. **MU:Pr5.1.5a.** Apply teacher provided and established criteria and feedback to evaluate the accuracy and expressiveness of ensemble and personal performances. **MU:Re7.1.5b.** Demonstrate and describe, citing evidence, how responses to music are informed by the structure, the use of the elements of music, and context (for example, social, cultural, historical). **MU:Re8.1.5a.** Demonstrate and explain how expressive qualities are used in performers' and personal interpretations to reflect expressive intent **MU:Re8.1.6a.** Describe a personal interpretation of how performers' application of the elements of music and expressive qualities, within genres and cultural and historical context, convey expressive intent. **MU:Re9.1.5** Evaluate musical works and performances, applying established criteria, and explain appropriateness to the context, citing evidence from the elements of music. **MU:Re9.1.6** Apply teacher-provided criteria to evaluate musical works or performances. **MU:Cn11.1.6a** Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life as developmentally appropriate.

Objectives	- Students will understand the basic story of why the anthem was written. - Students will be able to sing the national anthem with correct text, pitch, and rhythm. - Students will listen to different versions of the anthem and explain what they liked and did not like about the performance using musical vocabulary and knowledge. - Students can perform their own version of the anthem for their classmates.
Concepts	- Basic history of the Star-Spangled Banner - Singing on pitch and in time/ musical accuracy - Performance etiquette during the singing of the national anthem - Critical listening and reflecting on musical performances
Materials	- Computer/ speaker/ projector/ ChromeCast - Star-Spangled Banner slideshow - Keyboard and sheet music - Lyrics game (8 sets - groups of 3 students) - Full poem text (one copy per group) - Anthem Idol scoring Google Form - Kahoot review game - Written assessment
Layout of Unit	1. Introduction a. The class will sing the anthem once with just the musical accompaniment as a pre-assessment. I will record it to play it back to them another day, after they have learned to sing the song. b. I will show the class a short video about the history of the Star-Spangled Banner. I will pause occasionally to ask students to rephrase what happened to check for understanding. At the end of the video, students will be able to ask questions and share what they found interesting about the story. 2. Lyrics and Melody a. Students will begin learning the lyrics and melody of the Star-Spangled Banner. I will speak a line on text and the students will repeat after me. As the students become comfortable with the text, I will play the melody on the keyboard. The students will then repeat after me on text and melody. The phrases will gradually increase in length until the students

know the entire song. The song is broken up into 4 logical sets of text, so we will focus on those chunks individually and then add them together.

3. Lyrics and Melody
    a. Students will review some of the sections of the anthem that still needed more work, also in repeat-after-me style. The class will run through the song as a whole 1-2 times.
    b. Students will break into groups of 3 to play the lyrics puzzle game. Each group will receive a ziplock bag of the lyrics to the song that have been cut into small phrases or pairs of words. The goal is to put the lyrics back in the correct order.
    c. If time remains, students will work in their group to practice singing the national anthem. At the end of class, each group will sing a short section of the anthem for their classmates.
4. Lyrics and Melody/ Original Text Analysis
    a. Review singing the anthem with good pitch, correct lyrics, and good singing technique. Spot check and correct sections that still need work.
    b. Students will break into groups with a copy of the full text from the original poem. Their goal is to determine what the purpose or main idea in each verse is and decide which verse would make the best national anthem. They will determine whether the rhyme scheme is consistent throughout the entire poem and whether or not each verse would fit the melody that we know for the anthem. Students will decide based on melodic contour, phrasing, rhyme scheme, etc. which verse they think makes the most sense as the national anthem. A brief discussion of why each group chose the verse they did will allow for a better understanding of the poem as a whole, and it will also allow me to determine their understanding of the musicality of a poem.
5. Anthem Idol Day 1
    a. The students will be using their chromebooks to complete a Google Form scoring a variety of national anthem performances performed by famous/ professional musicians. They will score the performances based on accuracy, musicality, and performance. They will also specify one thing about the performance that they liked/ thought worked well and one thing that they disliked/ thought could have been done better. These

	will be graded based on the students' detail and quality of the justification of their opinions. b. I will take the averages of the scores given by the students to determine their class winner of Anthem Idol, which will be revealed on the review day. 6. Anthem Idol Day 2 a. Listen to and score more performances. 7. Anthem Idol Day 3 a. Listen to and score more performances. 8. Classroom Idol a. Students will have a chance to do some final practice of their performance. b. Students who wish to perform for the class will be able to. Their peers will score them the same way they scored the professional anthem performances. I will take the average of the scores to determine the winner in each class. Everyone who performs will earn an extra credit point; on top of that, 3rd place will earn 1 extra, 2nd place will earn 2 extra, 1st place will earn 3 extra. 9. Kahoot Review and Idol winner reveal a. Students will play a Kahoot review game about the history of the national anthem, the lyrics, and vocabulary words that may be on their assessment. b. I will reveal the results of both Anthem Idol and Classroom Idol. 10. Assessment & Anthem Fails a. I will answer any last-minute questions from the students and briefly review the main points that students may have struggled with. b. Students will take the written assessment. c. When the students are finished with their assessment, they may listen to/ watch the video(s) on Google Classroom of "anthem fails" (performances with incorrect words, poor tone, incorrect pitch, etc) or other performances of the anthem that they want to explore.
Assessment	- Singing: I will listen while the students are learning the lyrics and melody to determine what still needs work as a class. The class will sometimes be broken up into

	groups to work briefly on their own and then they will share specific sections in their groups so that I can tell more specifically what needs work. At the end of the unit, students will get the opportunity to compete against their classmates to win "Classroom Idol" with their own performance of the anthem (this activity will be extra credit). - Understanding of the text: students will write notes and findings on poem sheet about rhyme scheme, overall meaning of the verse, etc; effort-based grade - Anthem Idol: students will receive grades on the detail and justification of their reflections - Written Assessment: students will take a written assessment at the end of the unit to show their understanding of the story behind the song, some of the vocabulary in the song, and the lyrics. This will be graded based on accuracy.

The Defense of Fort McHenry (full text)

1. O say can you see, by the dawn's early light,

   What so proudly we hailed at the twilight's last gleaming,

   Whose broad stripes and bright stars through the perilous fight

   O'er the ramparts we watched were so gallantly streaming?

   And the rocket's red glare, the bombs bursting in air,

   Gave proof through the night that our flag was still there,

   O say does that star-spangled banner yet wave

   O'er the land of the free and the home of the brave?

---

2. On the shore dimly seen through the mists of the deep

   Where the foe's haughty host in dread silence reposes,

   What is that which the breeze, o'er the towering steep,

   As it fitfully blows, half conceals, half discloses?

   Now it catches the gleam of the morning's first beam,

   In full glory reflected now shines in the stream,

   'Tis the star-spangled banner - O long may it wave

   O'er the land of the free and the home of the brave!

The Defense of Fort McHenry (full text)

3. And where is that band who so vauntingly swore,

   That the havoc of war and the battle's confusion

   A home and a Country should leave us no more?

   Their blood has wash'd out their foul footstep's pollution.

   No refuge could save the hireling and slave

From the terror of flight or the gloom of the grave,

And the star-spangled banner in triumph doth wave

O'er the land of the free and the home of the brave.

---

4. O thus be it ever when freemen shall stand

   Between their loved home and the war's desolation!

   Blest with victory and peace may the heaven rescued land

   Praise the power that hath made and preserved us a nation!

   Then conquer we must, when our cause it is just,

   And this be our motto - "In God is our trust,"

   And the star-spangled banner in triumph shall wave

   O'er the land of the free and the home of the brave.

Name: _____
Teacher: _____

Star-Spangled Banner Quiz

Multiple Choice Choose the correct answer. (2 pts each)

1. With which country was America fighting when the anthem was written?
   a. France b. England c. Germany d. Italy

2. What was the full name of the man who wrote the lyrics to our national anthem?
   a. Scott Francis Key
   b. Francis William Key
   c. William Francis Key
   d. Francis Scott Key

3. What was the name of the **poem** that was later turned into our national anthem?
   a. The Star-Spangled Banner
   b. The Battle of Fort McHenry
   c. The Defense of Fort McHenry
   d. The Stars and Stripes

4. Was Key successful in getting the doctor released from the enemy ship?
   a. Yes; they left right away
   c. No; the enemy killed the doctor

b. Yes; they had to stay overnight
d. No; the enemy kept the doctor forever

5. Key's job helped him with his negotiations with the enemy. What was his job?
   a. Doctor
   b. Lawyer
   c. Teacher
   d. Blacksmith

6. Where was Key standing while he wrote the national anthem?
   a. Inside the fort
   b. At his house
   c. On the beach
   d. On his boat

7. What happened to the enemy troops?
   a. They surrendered when their commander died
   b. Their commander killed them for losing
   c. They all died in the battle
   d. They lost the battle but won awards

8. What time of day was it when Key realized that the Americans had won the battle?
   a. Twilight
   b. Noon
   c. Dawn
   d. Midnight

Match the word with its definition. (1 pt each)

1. _____ gallantly
2. _____ perilous
3. _____ rampart

a. defensive wall
b. bravely
c. dangerous

Fill in the missing lyrics to the National Anthem. (1 pt each)

Oh, _____ can you _____, By the _____ _____ light,

What so _____we _____, At the _____last

_____?

Whose _____stripes and _____stars, Through the _____

_____,

O'er the _____we _____, Were so _____

_____.

And the _____ red _____, The _____

_____in air,

Gave _____ through the _____, That our _____ was still

_____.

Oh say _____ that star-spangled _____ yet _____,

O'er the _____ of the _____ , and the _____ of the

_____ .

WORD BANK

Banner Bombs Brave Bright Broad Bursting Dawn's Does Early Fight Flag Free Gallantly Glare Gleaming Hailed Home Land Night Perilous Proof Proudly Ramparts Rocket's Say See Streaming There Twilight's Watched Wave

Extra Credit (up to 2 points):

What was the full name of the doctor Key had to rescue (1)? _____

_____

How many verses were written in the original poem (1)? _____

Anthem Idol

Your email address (**mstanbary@pccharterschool.org**) will be recorded when you submit this form. Not **mstanbary**? Sign out

* Required

1. **Performer** *

Mark only one oval.

- President's Own Marine Band
- Lady Gaga
- Andy Grammer
- Metallica
- Taylor Swift
- Ariana Grande
- N*Sync
- Demi Lovato
- Luke Bryan
- Gaither Vocal Band
- Cactus Cuties
- Beyonce
- Charlie Daniels
- Josh Grobin
- Rascal Flatts

2. **Performance (was it an enjoyable performance? was it interesting to watch/ listen to?)** *

Mark only one oval.

1	2	3	4	5

3. **Accuracy (were the notes, rhythms, and words accurate compared to the original?)** *

Mark only one oval.

1	2	3	4	5

4. **Musicality (use of ornamentation, dynamics, vibrato; arrangement choice)** *
Mark only one oval.

1 2 3 4 5

5. **What is one thing you liked/ thought they did well?** *

6. **What is one thing you did not like/ think they could have done better?** *

Student Responses

Grade Level	Performer	Perform-ance	Accuracy	Musicality	Liked:	Didn't Like:
5	Metallica	5	5	5	I liked the Guitar sound, it just sounded more awesome to me. It also made it more exciting.	It wasn't as much of a "respect the flag" sort of thing.
6	N*Sync	5	5	5	Loved the harmony. It was almost perfect. And I loved how they did a switch off type of thing.	At the end, I think they held the brave a little too long.
5	President's Own Marine Band	3	5	5	I thought it sounded very much like the original, and seemed very professional.	Wasn't to interesting to watch, nothing wasn't really happening/ not really a performance.
6	Taylor Swift	2	4	3	I liked that she made the song her own, and did it in her own style.	She could have made it a little more similar to the original, or shown her voice off a little more. It kind of sounded like she was talking in the beginning.

Class: Art
Unit: Ceramics
Grade: 5th-8th Grade Explore

Unit and # of Class sessions	Ceramics: Hand Building. 8-12 Sessions.
Standards	**26.A.3e** **26.B.3d**
Objectives	Introduction to ceramics History of Ceramics Hand Building Methods: Pinching, Coil and Slab Joining Techniques Glazing
Materials	Clay Handbuilding tools Rolling pins Glaze
Procedure	Teacher will introduce the class to the basics of ceramics and its history. Students will learn about 3 hand building techniques; pinching, coil and slab construction. Over the course of the explore sessions, the 5th-8th grade students will create 3 projects that utilize hand building concepts and will engage in creative problem solving to create their art pieces. Students will create a pinch pot animal using pinch pots as their basic building block, will create a coil vessel (vase, planter, container etc.) and finally will create a luminary using slab construction. The main focus of these activities are to teach students three hand building techniques while allowing for creative freedom to create art pieces that incorporate their individual interests and perspectives.
Assessment(s)	Students will be assessed on their understanding of handbuilding techniques on their final pieces as well as individual self assessments through the use of reflective writing responses.

Examples of student works:

Pinch Pot Fox

Pinch Pot Sloth

Coil Pitcher, Slab Construction Luminary

Section F: Updated Goals, Objectives, and Pupil Performance Standards

Education & Curriculum

Following our Strategic Plan goals, the 2016-2017 school year had teachers and staff continuing to write integrated units which align with and include the C3 Social Studies Standards, Next Generation Science Standards, and Common Core Learning Standards.

PCCS teachers continued to work with the Math and ELA leaders from the Lake County Regional Office of Education (ROE). This Professional Development fell in the areas of writing and Guided Reading Instruction, and math implementation. This year we attempted to use the ISBE Model Math Program and found it to be frustrating for the K-6th grades. Looking ahead to FY18, we will be purchasing The Bridges Math Program to give the teachers additional supports in intervention and differentiation and we are excited that the Bridges program will better integrate into our curriculum and instructional models. In ELA, PCCS purchased and trained teachers with the Lucy Calkin's Writing Workshop model for instruction in writing. Select teachers were chosen to pilot the Lucy Calkin's reading instructional model and materials and we found that although the materials and model were developed well, they were ineffective when used in our instructional model and multigrade structure. We will continue to use them with looping classrooms and modify the materials and instructional model to be used in the multiage classrooms.

This year, we were proud to have improved our Health Curriculum & Instruction with regular classes being taught by adding an additional PE/Health teacher.

PCCS' special needs population reached more than 40% of the school's total population. The staff built strategies for responding to these changes with additional intervention and enrichment opportunities. This program is growing and improving under the leadership of the School Psychologist and grade band leaders.

Social Emotional: Positive Behavior Intervention and Supports (PBIS)

In our fourth year, our PBIS committee continues to build interventions and supports along with providing a regular curriculum with Social Emotional goals. The members of the PBIS Committee attended enhanced training through Midwest PBIS Network and we are happy to have submitted an application for Platinum status recognition. This effort is being led by the school psychologist and social worker who co-teach the evidence-based social emotional curriculum.

Staffing and Professional Development

PCCS Faculty improved our innovative four legged approach to Professional Development (PD) this year. The first level of PD has all 1st and 2nd year teachers work closely with their mentors to build basic skills and assimilate into the PCCS culture and practice. This included weekly meetings, attending individualized PD together, and mentor observations. Career teachers developed both environmental learning goals and academic learning goals.

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, to grade level and content area articulation with surrounding school and organizations.
- Investing in a Instructional Coach (consultant) to assist teachers with identifying instructional resources and management strategies tuned-in to specific classroom needs for individual students.
- At the tertiary level, curriculum experts from the ROE delivered detailed content specific strategies for instruction in Math and ELA for all classroom teachers and finally,
- Select teachers participated in book study groups and research projects. Topics included; Co-Teaching, Conscious Classroom Management Strategies, Teaching Students with Anxiety, Implementing differentiation through guided reading, Reader's Workshops, STEM instruction & Gifted Instructional Strategies.

Along with Teacher Development, the Deans and Director of Student Services attended several Administrative Academies/Professional Development events. The Franczek-Radelet School Law Seminars, The Language of Leadership, KIDS assessments.

Partnerships: Prairie Crossing increased partnerships with Waukegan School District #60, Libertyville's Crossways Preschool, the Waukegan Public Library's *"Bus to Us"* program and Learn Charter School in North Chicago to share experiences and learning opportunities on the Prairie Crossing Charter School campus. This Spring we will begin a three year process to become a National Green Schools "Catalyst School." This partnership will allow our staff to work closely with experts in environmental education and academia nationwide to identify and share best practices in Environmental Education.

Section G: Evaluation of Students' Performance

Types of Assessment, Timelines, 2016-2017

During the 2016-2017 year, universal screenings were given to students three times during the year (fall, winter, and spring) to determine if individual students were making expected progress in the areas of reading, writing, and math. The assessments given are listed below:

Grade Level/ Assessment	**K**	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**
Given 3 times per year									
AIMSweb Tests of Early Numeracy	X	X	--	--	---	--	--	--	--
AIMSweb M-Comp (Math Computation)	--	X	X	X	X	X	--	--	--
AIMSweb M-CAP (Math Concepts & Applications)	--	--	X	X	X	X	--	--	--
AIMSweb Tests of Early Literacy	X	X	--	--	--	--	--	--	--
AIMSweb Oral Reading Fluency	--	X	X	X	X	X	--	--	--
Given 2 times per year									
NWEA/MAPS (Reading & Math)	--	--	X	X	X	X	X	X	X
Fountas & Pinnell (Reading)	X	X	X	X	X	X	X	--	--
Words Their Way (Spelling)	X	X	X	X	X	X	X	--	--
SSBD (Behavior)	X	X	X	X	X	X	X	X	X
State Assessments									
ACCESS (EL*)	X	X	X	X	X	X	X	X	X
PARCC	--	--	--	X	X	X	X	X	X

*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. Upon completion of the universal screenings each trimester, the assessment data is examined by the Director of Student Services, Dean of Staff and Students, School Psychologist/Intervention Coordinator, Reading and Math Interventionists, and individual 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 AIMSweb 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), classroom teachers are consulted for additional information about a student's performance. Data team and teacher 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 discussed at least monthly in grade band meetings and during intervention team meetings. 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/Student Services Coordinator, 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, Core social-emotional curriculum with weekly to monthly visits from School Social Worker and/or School Psychologist
- **Tier 2**: *Tier 1 plus* Check In/Check Out (CICO), Social Academic Instructional Groups (SAIGs), SST referral and problem-solving process and individual social work
- **Tier 3**: *Tiers 1 and 2 plus* Modified CICO, FBA/BIP, and Referral for special education evaluation

Benchmark Assessment Data 2016-2017

Assessment Results by Grade Level 2016-2017: Reading

	AIMSweb Literacy Measures-Fall	AIMSweb Literacy Measures-Spring	NWEA Reading- Fall	NWEA Reading-Spring
Kinder-garten	Letter Naming Fluency: 95% Letter Sound Fluency: 91%	Letter Naming Fluency: 84% Letter Sound Fluency: 57%		

		Nonsense Word Fluency: 70%		
1st grade	Letter Naming Fluency: 88% Letter Sound Fluency: 77% Nonsense Word Fluency:90%	Nonsense Word Fluency: 83% Oral Reading Fluency: 90%		
2nd grade	Oral Reading Fluency: 98%	Oral Reading Fluency: 91%	93%	81%
3rd grade	Oral Reading Fluency: 98%	Oral Reading Fluency: 96%	100%	88%
4th grade	Oral Reading Fluency: 92%	Oral Reading Fluency: 90%	94%	88%
5th grade	Oral Reading Fluency: 89%	Oral Reading Fluency: 92%	96%	92%
6th grade			85%	88%
7th grade			89%	85%
8th grade			96%	87%

Assessment Results by Grade Level 2016-2017: Math

	AIMSweb Numeracy/Math Measures- Fall	**AIMSweb Numeracy/Math Measures- Spring**	**NWEA Math- Fall**	**NWEA Math- Spring**
Kinder-garten	Early Numeracy- Quantity Discrimination: 95% Early Numeracy- Missing Number: 89%	Early Numeracy- Quantity Discrimination: 86% Early Numeracy- Missing Number: 91%		
1st grade	Early Numeracy- Quantity Discrimination:88% Early Numeracy- Missing Number: 81% Math- Computation: 85%	Early Numeracy- Quantity Discrimination:79% Early Numeracy- Missing Number: 79% Math- Computation: 81%		
2nd grade	Math- Computation: 83% Math-Concepts & Applications: 71%	Math- Computation: 75% Math-Concepts & Applications: 75%	88%	83%
3rd grade	Math- Computation: 90% Math-Concepts & Applications: 88%	Math- Computation: 83% Math-Concepts & Applications: 81%	94%	90%
4th grade	Math- Computation: 96% Math-Concepts & Applications: 85%	Math- Computation: 89% Math-Concepts & Applications: 85%	85%	73%
5th grade	Math- Computation: 85% Math-Concepts & Applications: 72%	Math- Computation: 85% Math-Concepts & Applications: 92%	96%	83%

6th grade			90%	87%
7th grade			91%	83%
8th grade			91%	89%

Section H - Results of corrective action

READING

First Grade Reading Intervention Results 2016-2017

Grade	Gender	Fall Fountas & Pinnell Instructional	Fall AIMS- Letter Naming Fluency	Fall AIMS- Letter Sound Fluency	Fall AIMS- Nonsense Word Fluency	Winter AIMS- Nonsense Word Fluency	Winter Oral Reading Fluency- Words Read Correct	Spring AIMS- Nonsense Word Fluency	Spring AIMS- Oral Reading Fluency- Words Read Correct	Spring Fountas & Pinnell Instructional Level
1	M	C	47	16	12	15	23	57	88	J
1	F	B	29	24	25	37	20	58	62	J
1	M	B	20	9	8	21	10	49	22	H
1	M	B	41	25	18	28	12	29	16	E
1	F	BEL. A	34	22	19	55	16	67	20	D
1	F	A	38	33	23	67	12	65	33	F

Data Analysis: 100% of students improved their performance on the Fountas & Pinnell assessment, with two students moving from below/well below benchmark to at/above benchmark. 100% of students improved their performance on the AIMSweb Nonsense Word Fluency measure, with four of six students scoring above the spring benchmark. 100% of students improved their performance on the AIMSweb Oral Reading Fluency measure, with two students earning scores above the spring benchmark.

Second Grade Reading Intervention Results 2016-2017

Grade	Gender	Fall AIMS- Oral Reading Fluency (ORF) Words Correct	Fall NWEA Reading %ile	Fall Fountas & Pinnell Instructional Level	Winter AIMS Oral Reading Fluency (ORF)- Words Correct	Spring AIMS Oral Reading Fluency (ORF)- Words Correct	Spring NWEA Reading %ile	Spring Fountas & Pinnell Instructional Level
2	M	74	58	F	114	115	48	K
2	F	67	48	J	63	78	59	N
2	M	52	36	J	56	64	17	N
2	M	70	24	H	104	106	38	M
2	F	40	51	I	67	73	75	M
2	F	22	41	H	55	75	38	M

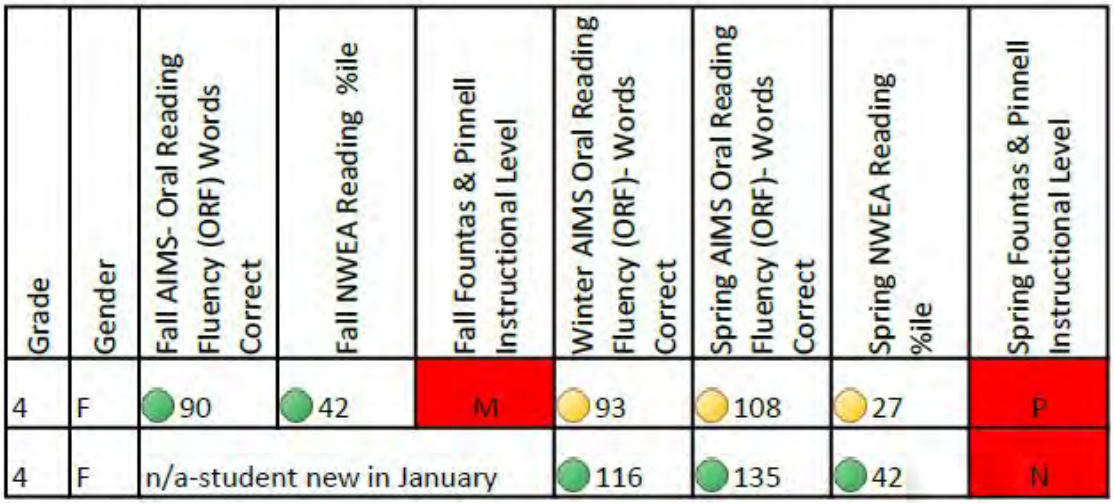
Data Analysis: 50% of students improved their NWEA Reading score between fall and spring, with over 80% of students scoring above benchmark in spring. 100% of students improved their performance on the Fountas & Pinnell Assessment, with over 80% performing at/above benchmark in spring. 100% of students improved their AIMSweb Oral Reading Fluency score between fall and spring.

Third Grade Reading Intervention Results 2016-2017

Grade	Gender	Fall AIMS- Oral Reading Fluency (ORF) Words Correct	Fall NWEA Reading %ile	Fall Fountas & Pinnell Instructional Level	Winter AIMS Oral Reading Fluency (ORF)- Words Correct	Spring AIMS Oral Reading Fluency (ORF)- Words Correct	Spring NWEA Reading %ile	Spring Fountas & Pinnell Instructional Level
3	F	60	43	K	76	102	26	L

Data Analysis: This student improved her oral reading fluency consistently over the course of the year, performing above benchmark in spring. Her Fountas & Pinnell performance increased somewhat. Her NWEA score dropped between fall and spring but remained above the 25th percentile in spring.

Fourth Grade Reading Intervention Results 2016-2017



Grade	Gender	Fall AIMS- Oral Reading Fluency (ORF) Words Correct	Fall NWEA Reading %ile	Fall Fountas & Pinnell Instructional Level	Winter AIMS Oral Reading Fluency (ORF)- Words Correct	Spring AIMS Oral Reading Fluency (ORF)- Words Correct	Spring NWEA Reading %ile	Spring Fountas & Pinnell Instructional Level
4	F	90	42	M	93	108	27	P
4	F	n/a-student new in January			116	135	42	N

Data Analysis: The student who was enrolled all year improved her AIMSweb Oral Reading Fluency score between fall and spring; Her performance on the Fountas & Pinnell assessment improved three levels but did not reach benchmark in spring. Her NWEA score dropped between fall and spring but remained above the 25th percentile in spring. The student who came mid-year scored above the 25th percentile on the AIMSweb Oral Reading Fluency measure in both winter and spring. Her performance on NWEA was above the 35th percentile in spring. Her performance on the Fountas & Pinnell assessment did not reach benchmark in spring.

MATH

Second Grade Math Intervention Results 2016-2017

Grade	Gender	Fall AIMS-Computation (M-COMP)	Fall AIMS-Concepts & Applications (M-CAP)	Fall NWEA Math %ile	Winter AIMS-Computation (M-COMP)	Winter AIMS-Concepts & Applications (M-CAP)	Spring AIMS-Computation (M-COMP)	Spring AIMS-Concepts & Applications (M-CAP)	Spring NWEA Math %ile
2	M	7	3	13	14	10	24	10	10
2	F	11	4	33	15	8	30	3	7
2	F	6	5	18	19	10	39	16	30
2	F	19	3	20	27	13	29	8	23
2	F	15	10	13	20	17	42	12	81

Data Analysis: 60% of students improved their performance on NWEA between fall and spring, with one student reaching above the 80th percentile in spring. 100% of students improved their performance on AIMSweb M-Comp, and 80% of students improved their performance on AIMSweb M-CAP.

Third Grade Math Intervention Results 2016-2017

Grade	Gender	Fall AIMS-Computation (M-COMP)	Fall AIMS-Concepts & Applications (M-CAP)	Fall NWEA Math %ile	Winter AIMS-Computation (M-COMP)	Winter AIMS-Concepts & Applications (M-CAP)	Spring AIMS-Computation (M-COMP)	Spring AIMS-Concepts & Applications (M-CAP)	Spring NWEA Math %ile
3	F	8	9	40	32	3	28	16	32
3	M	28	9	95	34	3	51	9	91
3	F	13	3	61	43	8	22	7	32
3	F	19	6	69	40	4	52	12	46
3	M	17	6	61	28	7	46	20	52

Data Analysis: No student improved their performance on NWEA between fall and spring, but all students remained above the 30th percentile and 60% scored above the 45th percentile. 100% of student improved their performance on AIMSweb M-Comp, and 80% improved their performance on AIMSweb M-CAP.

Fourth Grade Math Intervention Results 2016-2017

Grade	Gender	Fall AIMS-Computation (M-COMP)	Fall AIMS-Concepts & Applications (M-CAP)	Fall NWEA Math %ile	Winter AIMS-Computation (M-COMP)	Winter AIMS-Concepts & Applications (M-CAP)	Spring AIMS-Computation (M-COMP)	Spring AIMS-Concepts & Applications (M-CAP)	Spring NWEA Math %ile
4	F	16	5	31	32	12	51	14	11
4	F				29	12	41	12	22
4	F	24	8	31	28	8	44	10	26
4	M	32	7	26	46	11	53	23	29
4	M	27	9	31	55	12	52	24	33

Data Analysis: Of the students who were enrolled all year, two slightly improved their performance on NWEA. 60% of students performed above the 25th percentile on spring NWEA. 100% of students improved their performance on both AIMSweb M-Comp and M-CAP.