

Grade Level Change to Contract Amendment Request Form

The Charter Contract, was entered into by and between the New Mexico Public Education Commission, and **21st Century Public Academy** ("the School"), effective **10 of December, 2019**. The School was approved for a **5 Year** Charter Contract.

The School's Charter Contract currently states:

AUTHORIZED GRADE LEVELS: 4-8

The School requests consideration from the Public Education Commission (PEC) to change the terms of its Charter Contract, Section 4, Number 3, as follows:

PROPOSED CHANGE TO GRADE LEVELS SERVED: 1st-8th

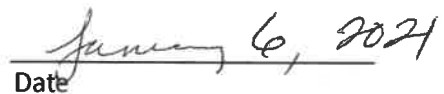
EFFECTIVE DATE: July 1, 2021

GRADE LEVELS SERVED: ☒ INCREASE ☐ DECREASE

The School's Grade Level Change to Contract amendment request is hereby submitted by, **Bianca Belmonte-Sapient**, on **January 6th, 2021** and affirms the school meets the following eligibility criteria:

- ☐ The school must confer with the PEC to convert to the 2019 contract template within 30 days of a vote on this request; and
- ☐ Received no lower than a "C" letter grade in SY16 through SY18, no lower than the top 75% in the NM School Accountability System, or in all of the past three years for which a Tier evaluation is available, have been identified as Tier 2 or better in the Academic Performance Framework; and
- ☐ Has not had its board of finance revoked within the last three years; and
- ☐ The school's governing board is in compliance with all reporting requirements.


Charter School Representative Signature


Date

21st Century Public Academy's Grade Level Change amendment request was reviewed and voted upon by the Public Education Commission and is hereby:

☐ APPROVED

☐ DENIED

Chair, Public Education Commission
cc: School File

Date

**21st Century Public Academy
Governance Council Meeting Minutes
October 15, 2020**

Members Present: Virginia Trujillo, President
Art Silva, Vice-President
Kathy Webb, Secretary
Evelyn Dow, Member
Victoria Tafoya, Member
Gary Boyd, Member
Daniel Kegler, Member

Member Absent: All members Present via Virtual Meeting with Zoom

Guests: Mary Tarango, CEO
Bianca Belmonte-Sapien, Principal
Zach Kirchgessner, the Vigil Group
Jeremy Peckens, CPO
Janet Giron, PTA President
One other parent

Governance Meeting Called to Order by Virginia Trujillo, President at 5:35 PM

Roll Call

- Quorum met via Roll Call

Approval of Agenda

Motion to Approve Agenda ---Gary Boyd
2nd--- Art Silva
Motion Approved via Roll Call Vote

Approval of Minutes

Motion to Approve Minutes, September 17, 2020 meeting---Gary Boyd
2nd ---Kathy Webb
Motion Approved Via Roll Call Vote

Open Forum

Introduction of Parents Attending

FINANCE

- **Budget Report**
Zach Kirchgessner presented Account Summary Reports for September 2020: the Expenditure and Revenue Reports, Issued Purchase Order Report, Bank Register Report and Outstanding Checks Report, Bank Reconciliation Reports.
- **Cash Disbursements and Bank Reconciliation**
Motion to approve Cash Disbursements and Bank Reconciliation for September 2020
---Gary Boyd
2nd Evelyn Dow
Motion Approved by Roll Call Vote
- **APPROVAL OF BARS**
No BARS this month

Students Rights and Responsibilities Handbook

Motion to Approve the Students Rights and Responsibilities Handbook for School Year 2020-2021

---Victoria Tafoya

2nd Kathy Webb

Motion Approved by Roll Call Vote

Grade Level Changes for PEC Contract Amendment

Motion to Approve Grade Level Changes for PEC Contract Amendment--- Art Silva

2nd Gary Boyd

Motion Approved by Roll Call Vote

Enrollment Increase for PEC Contract Amendment

Motion to Approve Enrollment Increase for PEC Contract Amendment---Art Silva

2nd Victoria Tafoya

Motion Approved by Roll Call Vote

PRINCIPAL's REPORT, Bianca Belmonte-Sapient

1. STATE Website Check-In Requirement to post Current Model of Instruction (Remote), Start Date (November 2). 21st CPA met the requirement
2. Registration Numbers 2020-2021 (as of 10/08/20)
40 Day Count for funding for SY 20-21 decrease of 29 students from 380 in approved budget.
 - 4th Grade- (26)
 - 5th Grade - (39)
 - 6th Grade- (85)
 - 7th Grade - (104)
 - 8th Grade - (97)Total: 351
3. Title 1-McKinney-Vento- New school based program requirement, Ms. Amy McGrane is our program director of AFIT (assistance to families in transition), serving two families currently.
4. Student Data-Fall MAPs
Growth Goals established-Double Years' Expected Growth based on NWEA MAPS 2020 NORMS.
2020 Fall MAPS:
 - Science 57% Proficient
 - Language Usage 51% Proficient
 - Math 44% Proficient
 - Reading 53% Proficient

CLOSED SESSION

Motion to enter a CLOSED SESSION---Kathy Webb

2nd Victoria Tafoya

Motion Approved by Roll Call Vote

RETURN TO REGULAR SESSION

Motion to Return to Regular Session---Art Silva

2nd Gary Boyd

Motion Approved by Roll Call Vote

REOPENING PLAN

Motion to Extend Remote Learning until January 2, 2021, continuing small group (1-5) in person learning for Special Needs and At Risk Students ----Kathy Webb

2nd Gary Boyd

Motion Approved by Roll Call Vote

Next Meeting: November 19, 2020

Motion to Adjourn

Motion to Adjourn---Kathy Webb

2nd Gary Boyd

Motion Approved by Roll Call Vote

Meeting Adjourned at 6:58 PM

Kathy Webb 11/19/2020

21st Century Public Academy Amendment to Grade Levels Served- Increase 1st, 2nd, 3rd Grades

Narrative Response:

Increase rationale for this request: Our request comes primarily from our families and community and from our desire to provide more students an opportunity to learn, achieve develop and grow at 21st Century Public Academy. Families will often come into the school and ask if we can serve lower grades. In our community, there are limited high performing elementary school options. We built our new Phase 2 and Gym, Music Room and classrooms for growth. Our current maximum occupancy is 1,576. Our rationale for adding lower grades to expand includes serving our community, honoring existing request from families, having elementary Dragons who know our school community as role models as they continue in upper grades, developing increased academic achievement through Out of School Instruction (OSIs), and ensuring high academic expectations are known among students and families as students enter our Middle School. Increasing total school enrollment in our lower grades will also enable us to have more students and families who understand and can benefit from the high academic expectations at 21st Century Public Academy.

Detailed staffing plan: Staffing (administrative, instructional, and non-instructional), enrollment, and target population needs will be addressed by the following processes-
Recruitment/Hiring/Training:

At the beginning of our Charter Renewal process, our Governance Council and Administration discussed and included a five-year plan for Grade Level service increases. To meet the target populations' instructional needs we are planning to add pairs of grade level teachers for each grade- 1st, 2nd, 3rd grade, one PE/Dance position, an Elementary Art position, an additional Special Education Teacher, and five additional EAs to work with the Special Education team and elementary grade level. To recruit teacher candidates, we attract applicants through word of mouth and through our traditional advertising of open positions (NMACES, school website/Facebook/Twitter, Indeed.com). Over the summer the new elementary teachers will train with the current Elementary teacher leaders to form an elementary team. The Elementary teachers will collaborate with the grade level partner teachers, our technology coordinator and EAs to prepare their classrooms. The team will train to understand our mission, vision and expectations with the entire staff and administration. Department teachers will assist to train the recruited grade level teachers on school policies and procedures as well as curriculum development, NWEA assessments, State requirements, and OSIs. In SY 19-20, a current teacher/administrator certified and joined the admin team, bringing our leadership team to four. We will continue to have a full-time nurse to meet the target population needs. Our Facilities Manager has ordered and collected (from salvage and from schools who closed down) classroom furniture, teacher desks and cabinets to supply 1st, 2nd and 3rd grade classrooms.

Plan for meeting 1st, 2nd and 3rd grade enrollment targets:

Necessary advertising and/or promotion to meet the targets: We hired a marketing company to advertise our school through various strategies (social media, news media, community print). Our PTA and school community has begun to recruit students in time for the lottery

announcement. We also promoted the opportunity to families at a media event in the Fall of 2020, on fliers distributed in the community and on our school website and social media. We also publicize on a community mother's website, PED Vistas, post on school sign, email current families to spread the word, post on our school website, promote by PTA with fliers and on their Facebook account. We host open house (virtually this year), provide facility tours and already have several families for lottery enrollment.

Number of returning students- 451; Anticipated new student enrollment- 220 students

Concrete resources needed for implementation:

Consider the changes needed to curriculum, assessment, and instruction to implement this request.

To serve 1st, 2nd and 3rd grade we would purchase the battery of NWEA MAPS Assessments (Language Usage, Science, Math and Reading and Reading Fluency) for BOY/MOY/EOY data collection. Will use NWEA Skills and Accelerator as an online skills practice resource. We will use instructional materials funds and operational funds to purchase approved textbooks, materials, a complete set of Chromebooks for 1 to 1 technology for each grade, and the Elementary teams/co-teachers will develop curriculum and 20 OSI units of instruction tied to NM Standards. Elementary teachers of 1st grade will participate in NM PED teaching reading and phonics training, including the Dyslexia Screener implementation. We will provide Art and Music materials and instruction 1 hour/week as well as daily PE instruction. We have classrooms available for each grade to use as well as cafeteria, bathrooms and gym/outdoor space in our current facility for the additional students. We are negotiating the further expansion of our school complex to include a playground on a lot across from our current school as well as an additional building to separate the elementary and middle schools across the street from our current school.

Criteria for promotion:

Elementary students must demonstrate adequate progress on standards, attaining passing grades in all core classes. By the end of each grade a student must have a report card grade of 70 or higher in language arts, mathematics, science, and social studies to be promoted. The student must also demonstrate and maintain sufficient attendance. Should a student fail 4 core classes over two semesters of the year, they may not have demonstrated an adequate level of proficiency that students are expected to obtain to demonstrate proficiency of academic core content standards. In consultation with the Special Education Team, each grade level team will assess annual yearly progress for students with an Individualized Education Plan (IEP). These students' promotion is governed by promotion criteria in adherence to the IEP goals, modifications, and accommodations in the student's IEP in the four core content areas. English Learners' progress and growth in language development from one level to the next, with EL supports/scaffolds, will be demonstrated to move from each grade to the next, but EL status would not hinder their advancement to the next grade.

Staffing Chart	Current 20-21	Anticipated 21-22	Anticipated 22-23	Anticipated 23-24
			PK	PK
			PK	PK
		1st	K	K
		1st	K	K
		2nd	1st	1st
		2nd	1st	1st
		3rd	2nd	2nd
		3rd	2nd	2nd
	4th	4th	3rd	3rd
	4th	4th	3rd	3rd
	5th	5th	4th	4th
	5th	5th	4th	4th
	6th ELA	6th ELA	5th	5th
	6th Math	6th Math	5th	5th
	6th Sci	6th Sci	6th ELA	6th ELA
	6th SS	6th SS	6th Math	6th Math
	7th ELA	7th ELA	6th Sci	6th Sci
	7th Math	7th Math	6th SS	6th SS
	7th Sci	7th Sci	7th ELA	7th ELA
	7th SS	7th SS	7th Math	7th Math
	8th ELA	8th ELA	7th Sci	7th Sci
	8th Math	8th Math	7th SS	7th SS
	8th Sci	8th Sci	8th ELA	8th ELA
	8th SS	8th SS	8th Math	8th Math
	Art	Art	8th Sci	8th Sci
	Media Arts (.5)	Art	8th SS	8th SS
	Media Arts	Media Arts (.5)	Art	Art
	Music	Media Arts	Art	Art
	PE	Music	Media Arts (.5)	Media Arts (.5)
	PE	PE	Media Arts	Media Arts
	PE 5th (.2)	PE	Music	Music
	PE 4th (.2)	PE 5th (.2)	Music (.5)	Music (.5)
	SUPPORT STAFF	PE 4th (.2)	PE	PE

	SW	PE 1st/2nd/3rd (.6)	PE	PE
	OT	SUPPORT STAFF	PE 5th (.2)	PE 5th (.2)
	SLP	SW	PE 4th (.2)	PE 4th (.2)
	Head SPED	OT	PE 1st/2nd/3rd (.6)	PE 1st/2nd/3rd (.6)
	SPED	SLP	PE K/PK (.4)	PE K/PK (.4)
	SPED	Head SPED	SUPPORT STAFF	SUPPORT STAFF
	SPED	SPED	SW	SW
	SPED (.2)	SPED	OT	OT
	APE	SPED	SLP	SLP
	EA	SPED	Head SPED	Head SPED
		APE	SPED	SPED
		EA	SPED	SPED
		EA	SPED	SPED
	ADMIN STAFF	EA	SPED	SPED
	CEO	EA	SPED	SPED
	Admin Asst.	ADMIN STAFF	APE	APE
	Admin Office Manager	CEO	EA	EA
	Facilities Manager	Admin Asst.	EA	EA
	Principal	Admin Office Manager	EA	EA
		Facilities Manager	EA	EA
		Principal (Middle School)	EA	EA
		Principal (Elementary School)	EA	EA
			ADMIN STAFF	ADMIN STAFF
			CEO	CEO
			Admin Asst.	Admin Asst.
			Admin Office Manager	Admin Office Manager
			Facilities Manager	Facilities Manager
			Principal (Middle School)	Principal (Middle School)
			Principal (Elementary School)	Principal (Elementary School)

21st Century PA Enrollment Cap	Current 20-21	21-22	22-23	23-24
8th	104	100	100	100
7th	104	100	100	100
6th	104	100	100	100
5th	40	40	40	40
4th	40	40	40	40
3rd		40	40	40
2nd		40	40	40
1st		40	40	40
K			40	40
PK			32	32
TOTAL:	392	500	572	572

Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 1st	Content Area ELA
Course Title (grades 9–12 Only)	
Alignment to Educational Program <i>Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.</i>	<p>Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.</p>
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>	<p>(M) CCSS.ELA-LITERACY.RL.1.1.10 Ask and answer questions about key details in a text. Identify the main topic and retell key details of a text. Describe the connection between two individuals, events, ideas, or pieces of information in a text. CCSS.ELA-LITERACY.RL.1.1 Ask and answer questions about key details in a text. CCSS.ELA-LITERACY.RL.1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. CCSS.ELA-LITERACY.W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.</p>
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>	<p>“The Planets” by Gail Gibbons “The Solar System” by Gregory L. Vogt “The Solar System” by Dana Meachen Rau Student reproducible handouts</p>

Lesson (add as needed)	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	Preactivity before going to Planetarium. We will discuss the content vocabulary and the teacher will read the first two books, "The Planets" by Gail Gibbons and	Students will complete a "What I Know" chart. They will then have an open discussion about their "What I Know" chart. After their discussion, students will watch a short video and listen to the "The Planets" and "The Solar System" books that will be read aloud to them.
2	Students will explore the museum while on the OSI and complete related materials. Main focus will be The Solar System. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to The Solar System while exploring the Museum.
3	Students will complete a post OSI assessment related to "The Solar System" by Gregory L. Vogt.	Students will take an assessment piece consisting of OSI related material and "The Solar System" by Gregory L. Vogt consisting of short answers and illustrations
4	Students will listen and respond to a short book "The Solar System" by Dana Meachen Rau. This will set the stage for their final assessment.	Students will do short answer questions.
5	Teacher will review the material from the three books and OSI.	Students will respond to a writing prompt. "Why is the sun important?" Students will follow the RACED Rubric
S.A.	Provide an opportunity for students to complete the Summative Assessment items. These Summative Assessment items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment items that will allow students	Assessment piece will consist of a short answer and fill in the chart pertaining to the three books and OSI information about the Solar System.

<p><i>to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.</i></p>	<p>CCSS.ELA-LITERACY.RL.1.1 Ask and answer questions about key details in a text without prompting. CCSS.ELA-LITERACY.RL.1.1 Ask and answer questions about key details in a text without prompting. CCSS.ELA-LITERACY.W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure without the use of drawings or dictation.</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment: Reading

1. "The Planets" by Gail Gibbons: Attached, 9 total questions each worth 11 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F:
2. "The Solar System" by Gregory L. Vogt: Attached, 9 total questions each worth 11 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F
3. "The Solar System" by Dana Meachen Rau: Attached, 5 total questions each worth 20 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

Assessment: Writing

1. Narrative "Why is the Sun so Important" RACED Rubric

Resources:

1. [The Planets by Gail Gibbons read aloud - YouTube](#)
2. [Ms Susan Reads "The Solar System" by Gregory Vogt - YouTube](#)
3. The Solar System by Dana Meachen Rau

Worksheet Answer Key

First, can you tell me what it means when a book is nonfiction? ~~A nonfiction book contains facts and is it does not come out of the author's imagination.~~

Let's begin by reading the book *The Planets* by Gail Gibbons.

1. What is the main topic of this book?

The main topic of this book is to discuss the planets of the solar system and how you can view them in the night sky and study them.

2. Please tell me 3 important facts/key details on pages 1-11 in this book.

3. ~~Fact #1-~~All the planets, except Earth, are named after Greek and Roman gods and goddesses.

4. ~~Fact #2-~~A star shines because it is made up of burning gases, a planet shines because the sun's light is reflecting off of it.

6. ~~Fact #3-~~The planets circle around the sun in paths called orbits.

6. What does the word "planet" mean? What language does this word come from?




The word planet means wanderer. It is a Greek word.

7. What does the word "solar" mean?

The word solar means connected to the sun.

8. Find the large headings beginning on page 12 and fill them in the table below.

Draw a picture showing a piece of information under the heading and write a description of your picture.

Heading	Drawing or written fact
Ex. Page 12__Mercury____ 	 Mercury is very hot during the day and very cold at night.
Page 14__Venus____ 	Answers will vary but must be about something on pages 14 and 15.

(Continues for each planet.)

9. Choose three pages in this book. On each of these pages, describe what the illustration (which is a drawing or picture) is telling you and also describe what the text is telling you.

	looking at the sky	clear nights	because it is showing a clear night with no clouds
Page ____ Answers will vary	Answers will vary	Answers will vary	Answers will vary
Page ____ Answers will vary	Answers will vary	Answers will vary	Answers will vary

Now we are going to take a look at the book, *The Solar System* by Gregory L. Vogt.

Use the Table of Contents to find the section on Revolution and Rotation.

10. What page does this section begin on? This section begins on page 11
11. Read through this section with your teacher and write all the patterns it discusses below. You should read about four patterns found in the solar system.

According to the dictionary, a pattern is “a repeated way in which something happens.”

Pattern #1-Planets revolve around the sun

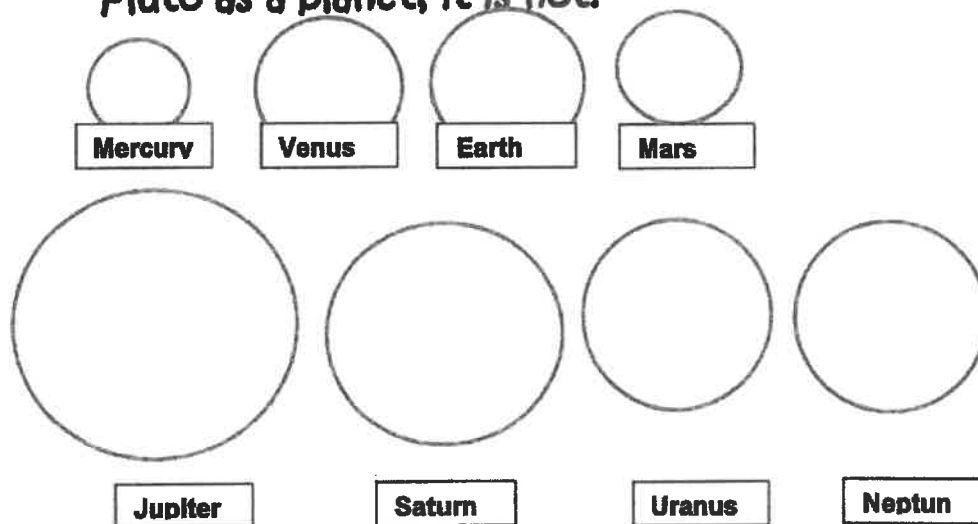
Pattern #2-Moons revolve around planets

Pattern #3-The planets closest to the sun move the fastest

Pattern #4-The planets also rotate as they move around the sun

- 12. How does the illustration on page 10 help you to understand these patterns? The illustration shows the orbits of the planets around the sun. It also shows the different sizes of the planets.**
- 13. The author talks about the planets nearest the sun moving the fastest on page- 11. What fact does the author write about to explain why the planets move faster near the sun? The sun's gravity affects how fast planets move. The gravity is stronger the closer the planet is to the sun.**

14. Use the images on pages 12-20 to draw what the 8 planets look like. Keep in mind that this book was published in 2003 before Pluto was changed to a dwarf planet. Therefore, when the book refers to Pluto as a planet, it is not.



*Mercury-should be a reddish brown color

*Venus-should be an orange brown color with some dark spots

*Earth-should be blue, white, and a little green

*Mars-should be a rusty color with dark and light spots

*Jupiter-should be brown and white striped with a big spot in the southern half



*Saturn-should be yellow gold with large rings

*Uranus-should be a blue green color

*Neptune-should be a blue with small white spots

The final book we are going to read is *The Solar System* by Dana Meachen Rau.

15. Look at the Table of Contents in this book, compare it to the Table of Contents in *The Solar System* by Gregory L. Vogt and answer these questions.

Question	Answer
<p>How many sections are listed in each of the book's Table of Contents?</p> 	<p>Rau-11</p> <p>Vogt-16</p>
<p>What is on page 7 of Gregory Vogt's book that is not in the Table of Contents of Dana Meachen Rau's book?</p> 	<p>Early Ideas</p>
<p>Look at page 20 of Gregory Vogt's book and at page 14 of Dana Meachen Rau's book. Do both books list Pluto as a planet? Why?</p>	<p>Rau-yes, published 2001</p> <p>Vogt-yes, published 2003</p> <p>Pluto demoted-2006</p>

Assessment Answer Key

1. What does it mean when a book is nonfiction?

Nonfiction means the book contains facts that are true.

1. What is the main topic of this book?

This book is about shooting stars.

2. What is the difference between a meteoroid, a meteor, and a meteorite?

Meteoroid	Meteor	Meteorite
A small bit of ash, or solid material like rock or metal no larger than a grain of sand, it gets hot as it rubs against the air as it travels toward Earth, the heat produces light	This is a meteoroid that makes a light streak in the sky	This is what it is called when a meteoroid strikes the Earth, moon or another planet

3. What do you think are the two most important facts in this book?

Fact #1-A shooting star is not really a star. It is debris in space that glows when it gets close to Earth.

Fact #2-Sometimes these objects strike the Earth and are called meteorites.

Project Answer Key

Questions:

1. The planet that is farthest from the sun is Neptune.
2. The planet that is closest to the sun is Mercury.
3. Neptune is 10 AU farther from the sun than Uranus is.
4. Neptune is 20 AU farther from the sun than Saturn is.
5. Which two planets are less than ONE AU from the sun?

Mercury and Venus

6. Earth is 1 AU from the sun. How many more AU from the sun is Mars than Earth is from the sun? Mars is 2 AU from the sun. Earth is 1 AU from the sun, therefore, Mars is one more AU from the sun than Earth is.

7. According to the dictionary, a fact is "something that is true."

Please find and name ONE fact in this book about shooting stars.

A shooting star is not a star, it is a meteor, which means "something in the air."

8. Please draw a picture of what the sky may look like on a clear night if the Earth were orbiting through a large cloud of particles that makes shooting stars.

The picture should look similar to the one on pages 6 and 7.

	Beginning (1)	Nearing Proficiency(2)	Proficient(3)	Advanced(4)
R Restate the Question	Question not restated	Question partially restated	Question mostly restated	Question skillfully restated with no pronouns
A Answer the question	Question not answered	Question partially answered	Question mostly answered	Answers are accurate
C Cite the evidence	No evidence stated Ideas are unclear in relation to the problem or story	Partial evidence(at least one example) stated Evidence is not relevant to the problem or story	Majority of evidence (at least two examples) stated Evidence is mostly relevant to problem, story, etc.	Majority of evidence (at least three examples) stated Evidence is directly relevant to problem, story, etc.
E Expand or Explain your answer.	No expansion/ explanation of importance of evidence Difficult to follow Poorly focused on topic	Partial connection to self, text, world, or author's craft Partially explains or expands on ideas	Evident connection to self, text, world, or author's craft. Uses some prior knowledge.	Strong connection to self, text, world, or author's craft. Uses prior knowledge. Explains/ Expands on evidence in detail Concluding statement Voice is demonstrated
D Demonstrate appropriate conventions and knowledge of vocabulary	Very little evidence of proper usage and mechanics Words or ideas mentioned; very limited basic vocabulary No clear organization No transition words Frequent use of fragments and run ons.	Many errors in spelling, punctuation, grammar and punctuation Attempts to use new key words in description; goes beyond basic vocabulary Some order of main idea & details or sequence Occasional fragments or run ons	Some errors in spelling, punctuation, grammar and punctuation Uses new key/related words and ideas correctly; varies language Main idea & details or sequential, as appropriate Uses complete sentences; generally simple sentences	No errors in spelling, punctuation, grammar and punctuation Uses new key/related words/ideas easily; colorful, interesting words suitable for topic and audience Good flow of ideas from topic sentence Uses complete sentences; varying structure & length

Curriculum Sample Template—8 Pages Max. (12 pages for Integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 1st		Content Area Math	
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Alignment to Educational Program		Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area	
Standard Number and Description		<p><i>(M)</i> CCSS.MATH.CONTENT.1.MD.A.2</p> <p>Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.</p> <p>CCSS.MATH.CONTENT.1.MD.C.4</p> <p>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.</p>	
Materials/Resources Needed		pencils, paper, rulers, markers, and crayons.	
List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).			

Lesson (add as needed)	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	Students will do a pre-activity and lesson for OSI consisting of measurement using different units.	Students will do a measuring activity using different units..
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Their main focus will be planet distances from the sun. Students will experience a sense of freedom as they explore the museum in groups of six along with a	Following the Planetarium presentation, the students will complete an OSI handout related to planet distances from the sun while exploring the museum.

	parent chaperone. They will be allowed to roam freely but must stay with their group!	
3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will do a measuring activity. This will be a hands-on activity consisting of the use of astronomical units, cubes, pencils, markers, and crayons. The teacher will provide large sheets of butcher paper for the students to draw their sun and planets. They will be allowed to move around the room and even work on the floor if so desired.	Students will complete a measurement activity chart that is meant to be an assessment in accuracy followed by a visual representation of the solar system. Students will map out and accurately place the sun and planets in correct order.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will take an assessment piece consisting of conversions, measuring, and graphing.

Approved 5.14.19 Page 12

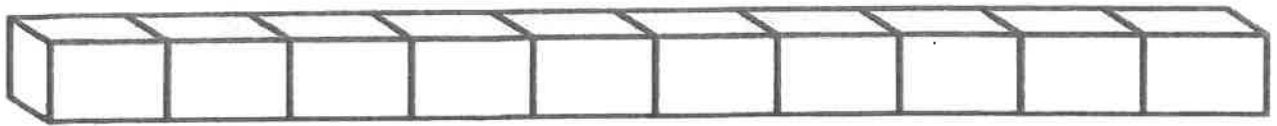
	to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	CCSS.MATH.CONTENT.1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

1. **Measurement with Astronomical Units, Cubes:** Attached, *scores are 100 divided by 6, 16 points each.* 90-100 *A* 80-89 *B* 70-79 *C* 60-69 *D* below 60 *F*
Students will complete Astronomical Units, cubes, measurement activity that is meant to be an assessment in expressing the length of an object as a whole number of length units. They will interpret data from a graph using Astronomical Units, cubes.
2. **Sun and Planets: Unit Conversions.** 100 divided by 9 checkpoints worth 11 points each. Students will convert Astronomical Units, cubes, to a larger unit of measurement, such as, a piece of string. They will use large butcher paper to place the sun and planets using their new measuring unit.
90-100 *A* 80-89 *B* 70-79 *C* 60-69 *D* below 60 *F*
3. **String Measurement :** Attached, 100 divided by 5 worth 20 points each. 90-100 *A* 80-89 *B* 70-79 *C* 60-69 *D* below 60 *F*

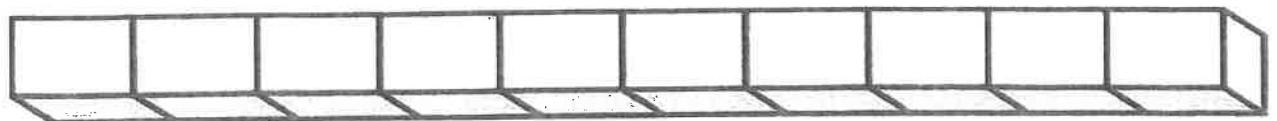


The following chart tells how many astronomical units each planet is from the sun. One astronomical unit, or AU, is the distance from the Earth to the sun. Mercury and Venus are less than one astronomical unit and all the planets that orbit further from the sun than Earth are more than one astronomical unit.

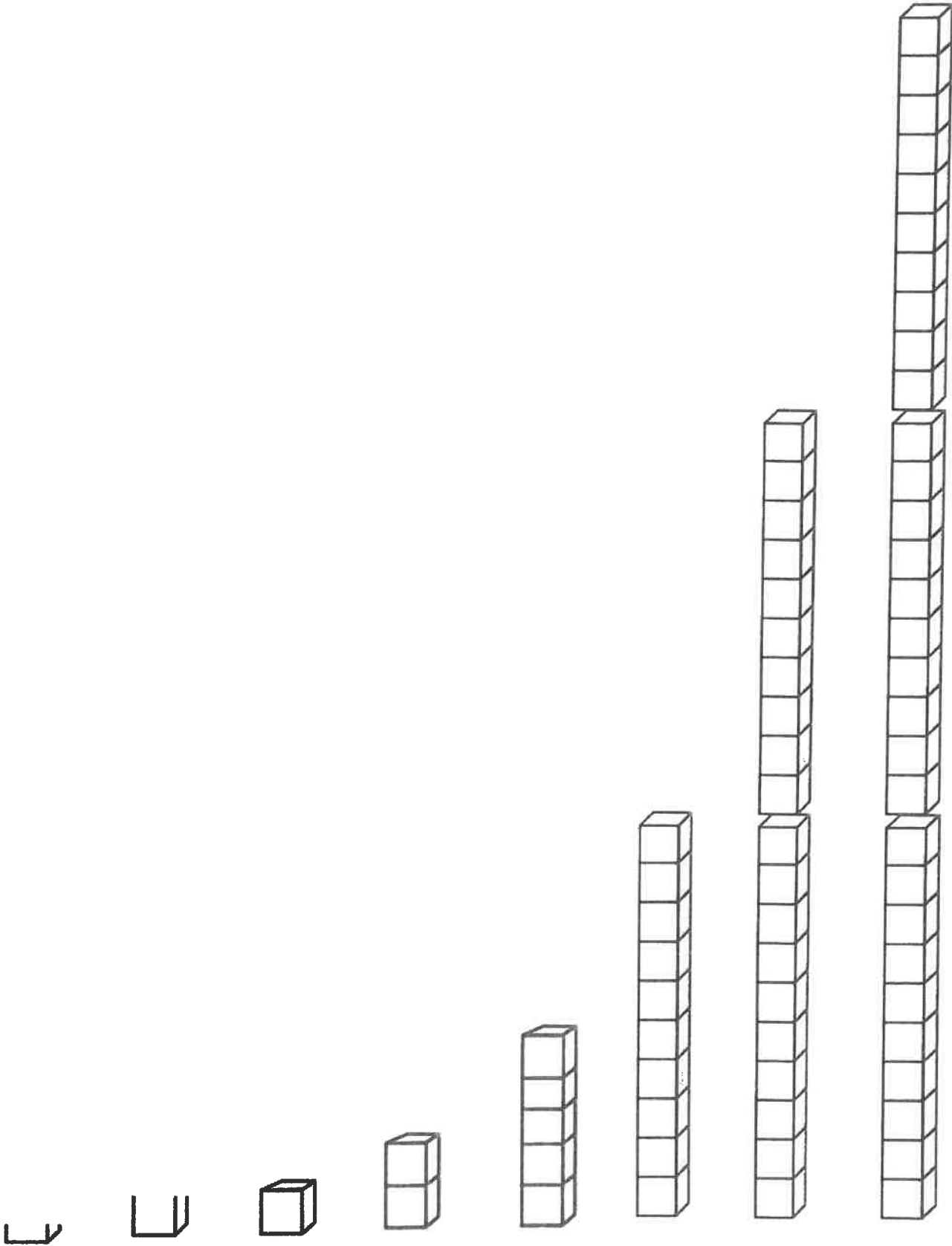
Planet	Astronomical units from the sun (AU)*
Mercury	0.5
Venus	0.7
Earth	1
Mars	2
Jupiter	5
Saturn	10
Uranus	20
Neptune	30

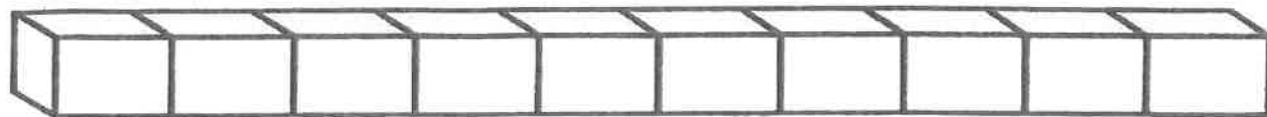
*Numbers are rounded

Place the sun in the center and use the stackable cubes horizontally to measure the distances the planets are from the sun.



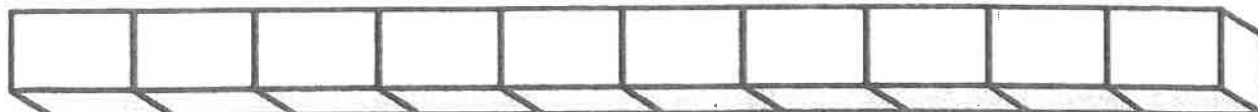
Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune





Questions:

1. The planet that is farthest from the sun is Neptune.
2. The planet that is closest to the sun is Mercury.
3. Neptune is 10 AU farther from the sun than Uranus is.
4. Neptune is 20 AU farther from the sun than Saturn is.
5. Which two planets are less than ONE AU from the sun?
Mercury and Venus
6. Earth is 1 AU from the sun. How many more AU from the sun is Mars than Earth is from the sun?
1



Answer Key

How Many Inches?

a.



Caryn



Jessica

b.



Lyn



Jill

c.



Jordan



Kevin

d.



Carl



Andy

e.



Sam



Tyler

Note: Lengths may vary depending on your computer and printer settings.

- a. Caryn and Jessica's string is about 4 inches long.
- b. Lyn and Jill's string is about 2 inches long.
- c. Jordan and Kevin's string is about 5 inches long.
- d. Carl and Andy's string is about 1 inch long.
- e. Sam and Tyler's string is about 3 inches long.

Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 1st	Content Area Science	
Course Title (grades 9–12 Only)		
Alignment to Educational Program <i>Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.</i>	Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding of the content area.	
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>	<p>(M) NGSS*1-ESS1-1</p> <p>NMCCSS: Strand II: Content of Science</p> <p>Standard III (Earth and Space Science): Understand the structure of Earth, the solar system, and the universe, the interconnections among them, and the processes and interactions of Earth's systems.</p> <p>K-4 Benchmark I: Know the structure of the solar system and the objects in the universe.</p> <ol style="list-style-type: none"> 1. Observe the changes that occur in the sky as day changes into night and night into day. 2. Describe the basic patterns of objects as they move through the sky, constellations. 3. Recognize that the sun, moon, and stars all appear to move slowly across the sky. <p>CCSS.MATH.CONTENT.1.MD.A.2</p> <p>Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.</p>	
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>	Computers, rulers, toothpicks, marshmallows, toilet paper rolls, pencils, black construction paper, scissors, glue, and rubber bands.	

Lesson <i>(add as needed)</i>	Instructional Strategies —Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard Identified as the focus of review.	Student Activities —Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	<p>Students will do a pre-activity and lesson for OSI consisting of a “What I Know chart” and a movement activity. Students will be given time to share their charts. When doing movement activity students will be in groups of 9. So, we will do this more than once so everyone is included. This will be very fun especially when they all start moving in the direction of their orbit! Around and around we go.</p>	<p>First students will complete a What I Know chart. They will share in an open forum. Then they will be introduced to the “Solar System” through guided teacher sharing. This will include the sun, moon, and planets. Students will watch a short video on The Solar System, “The Planets” by Gail Gibbons.. This will be followed by participating in an activity where one stands in the middle representing the sun. Other students, representing planets, will take a certain amount of steps away from the sun showing the orbital comparison.</p>
2	<p>Students will explore the museum while on the OSI and complete materials related to the Planetarium. Main focus will be the sun, moon, planets, and constellations. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!</p>	<p>Following the Planetarium presentation, the students will complete an OSI handout related to the sun, moon, and planets while exploring the Museum.</p>
3	<p>Students will complete a post OSI assessment.</p>	<p>Students will take an assessment piece consisting of OSI related material.</p>
4	<p>Students will participate in a hands on STEM activity. Students will be allowed to pair up or even work in groups of threes. Teacher will provide marshmallows, toothpicks, black construction paper, toilet paper roll, and bendy straws for students to manipulate. Should be lots of fun!</p>	<p>Students will participate in a hands-on STEM activity. They will make a Zodiak Constellation using toothpicks and marshmallows. They will also be encouraged to design their own constellation, naming it, and placing it in the night sky. STEM skills utilized include team work, engineering, trial and error, and accuracy. When completed students will make a constellation viewer out of a toilet paper roll and black construction paper.</p>
5	<p>Students will do a measuring activity. This will be a hands-on activity consisting of the use of astronomical units, cubes, pencils, markers, and crayons. The teacher will provide large sheets of butcher paper for the students to draw their planets. They will be allowed to move around the room and even work on the floor if so desired.</p>	<p>Students will complete a measurement activity chart that is meant to be an assessment in accuracy followed by a visual representation of the solar system. Students will map out and accurately place the sun and planets in correct order.</p>

S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will take an assessment piece consisting of multiple choice, fill in the blank, and short answer. All questions will be pertaining to the sun, moon, and planets.
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Approved 6.14.19 Page 12

to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	<p>K-4 Benchmark I: Know the structure of the solar system and the objects in the universe.</p> <p>1. Observe the changes that occur in the sky as day changes into night and night into day.</p> <p>2. Describe the basic patterns of objects as they move through the sky: • sun appears in the day • moon appears at night but can sometimes be seen during the day • sun and moon appear to move across the sky • moon appears to change shape over the course of a month.</p> <p>3. Recognize that the sun, moon, and stars all appear to move slowly across the sky</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores

Assessment:

1. *Sun, Moon, and Stars Pretest: Attached, scores are 100 divided by 12, 8 points each. 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
2. *Solar System, Name the Planets: Attached, scores are 100 divided by 9, 11 points each. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*

3. *Sun, Moon, and Stars* Post test: Attached, scores are 100 divided by 12, 8 points each. 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

4. *STEM Activity: This activity will be measured through teacher observations of students. Teacher is looking for STEM qualities namely, team work, engineering, trial and error, and accuracy.*

Resources:

1. The Planets by Gail Gibbons read aloud. - YouTube
2. https://www.youtube.com/watch?v=VM_i_gvX20s
3. The Solar System by Dana Meachen Rau
4. <http://www.curiouslittleclassroom.com/first-grade/first-grade-science/first-grade-science-in-language-arts/>

NAME: _____

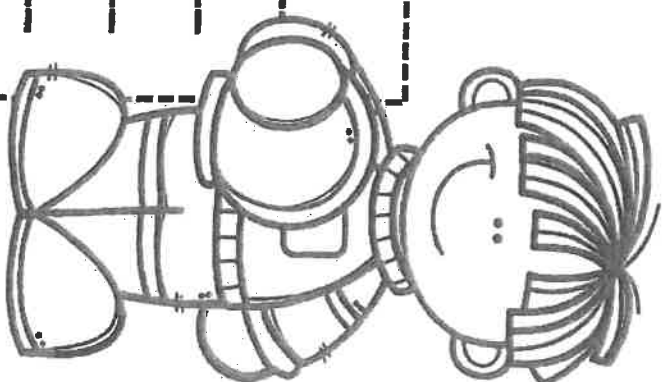
What do I know about the Solar System?

Before the unit:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

After the unit:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Name: Pre Test / Post-Test

Sun, Moon, and Stars Pre/Post Test

1. The Earth rotates. What does rotate mean?

- a. axis
- ☒ b. spins
- c. makes waves

2. What is the sun?

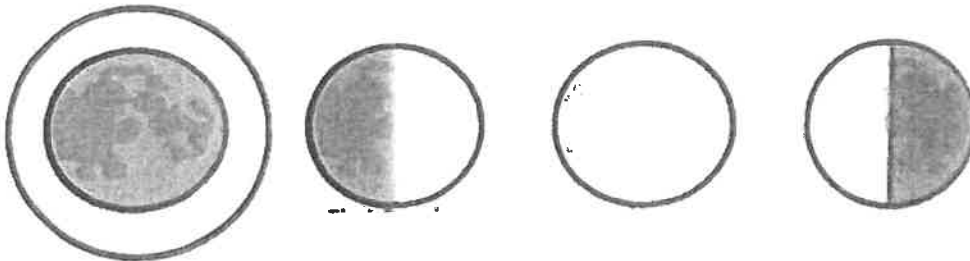
- a. a black hole
- b. a bright flashlight
- ☒ c. a star

ANSWER KEY

3. What causes day and night?

- a. The Sun spins around the Earth
- b. Clouds hide the sun at night
- ☒ c. The Earth's rotation around the sun

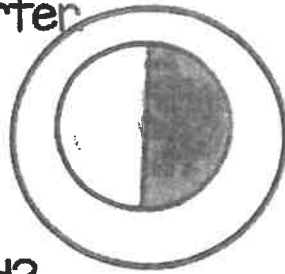
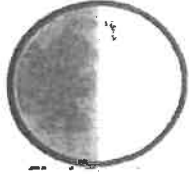
4. Circle the picture of the New Moon.



5. How many days does it take the Earth to orbit around the Sun?

- a. 24
- ☒ b. 365
- c. 100

6. Circle the picture of the Last Quarter



7. What does the Moon revolve around?

- a. the Sun
- ☒ b. the Earth
- c. the stars

8. The Moon can sometimes be seen during the day.

☒ True

☐ False

9. What star is closet to the Earth?

THE SUN

10. What are groups of stars that look like pictures called?

- a. herds
- ☒ b. constellations
- c. paintings

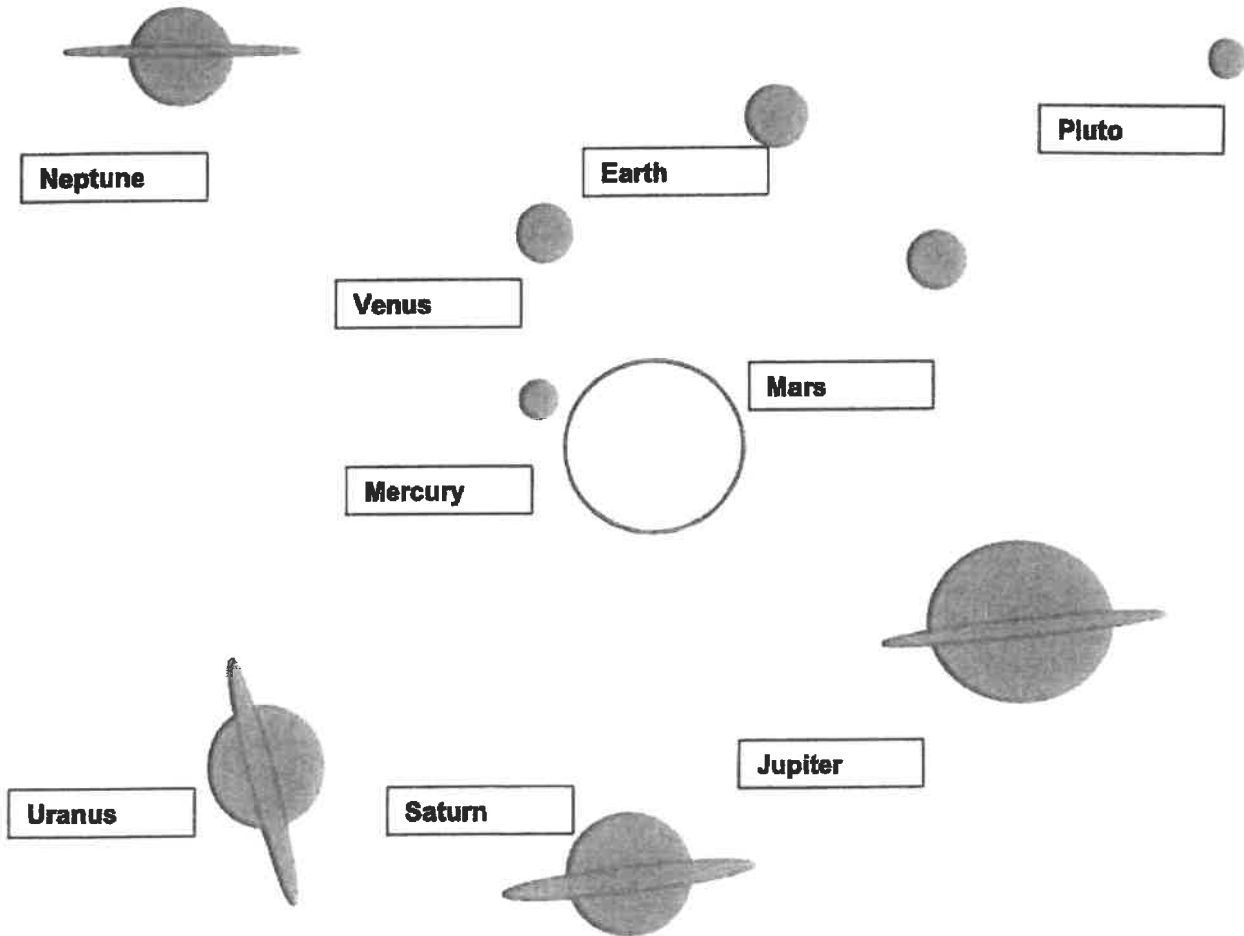
11. What are stars made of?

- ☒ a. hot glowing gases
- b. rocks
- c. light bulbs

12. What color can stars be?

☒ RED ☐ PURPLE ☐ PINK ☒ YELLOW ☐ GREEN ☒ WHITE ☒ BLUE

Using the information in this book, can you label the planets, and dwarf planet, in the order they orbit the sun?



How are all the planets similar?	How are all the planets different?
All of the planets are round.	Some of the planets are much bigger than others.

Curriculum Sample Template—8 Pages Max. (12 pages for Integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 1st		Content Area Social Studies	
Course Title (grades 9–12 Only)			
Alignment to Educational Program <i>Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.</i>		Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.	
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>		K-4 Benchmark II-D: Understand how physical processes shape the Earth's surface patterns and biosystems. 1. Describe the Earth-Sun relationship and how it affects living conditions on Earth.	
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>		pencils, markers, crayons, glue	
Lesson <i>(add as needed)</i>	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.	
1	Students will do a pre-activity for OSI consisting of a teacher-led discussion on how the sun's relationship to the Earth affects our daily lives, the seasons. Climate, weather, and the change of the seasons affect much of what we do each day.	Students will have a classroom discussion about the Earth's seasons. Climate, weather, and the change of the seasons affect much of what we do each day. How do seasons affect... your clothing? your job? your food? your recreation? your customs? animals around you? plants around you?	
2	Students will explore the museum while on the OSI and complete	Following the Planetarium presentation, the students will complete an OSI	

	materials related to the Planetarium. Main focus will be the Earth's seasons, Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone, or teacher. They will be allowed to roam freely but must stay with their group!	handout related to the Earth's Seasons while exploring the Museum.
3	Students will complete a post OSI assessment.	Students will complete illustrations as an assessment piece consisting of OSI related material.
4	Students will complete illustrations of the Earth's seasons showing effects of seasonal changes. These illustrations will include Autumn / Fall, Winter, Spring, and Summer.	Students will complete illustrations representing the Earth's Seasonal Changes including Autumn/ Fall, Winter, Spring, and Summer.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will complete an assessment piece consisting of a short narrative describing one of their illustrations and making connections between their activities and the season, as well as the effects this season has on plants and animals.

Approved 6.14.19 Page 12

	to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	K-4 Benchmark II-D: Understand how physical processes shape the Earth's surface patterns and biosystems. 1. Describe the Earth-Sun relationship and how it affects living conditions on Earth.
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

1. *Seasons Fall / Autumn: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
2. *Seasons Winter: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
3. *Seasons Spring: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
4. *Seasons Summer: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F

** Each season is an individual grade and at the conclusion of the assignment all four will be combined for an overall grade with a total of 100 points.*

Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

5. Describe one illustration short narrative: worth 100 points Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

Resources:

1. <https://www.youtube.com/watch?v=2UXnIBCTsY>
2. <https://www.youtube.com/watch?v=UQfT5uKp2hg>



SEASONS

Dr.

How do seasons affect...

your clothing?

your job?

your food?

your recreation?

your customs?

animals around you?

plants around you?

Draw in the plants, animals and people as they look and live in each season.



tree

Social Studies work teaches about our daily life.

In our work on Social Studies we look at how all the strands affect our daily lives. Geography/climate, economics, government, cultural traditions and even history all shape decisions we make in daily life – even as young students. These pages were taken from my “All Year Social Studies TownBuilder” product for Grades 2-3 which is an in depth year-long study of all these strands.

Seasons affect many parts of daily life.

Climate, weather and the change of the seasons affect much of what we do each day. Many people choose where to live based on the climate. Weather can be both a helpful and destructive force for people and their property. The change of seasons allows for many different types of work, food, celebrations and recreation. Plants and animals also change their ways with the seasons. These four Student Journal pages – Fall, Winter, Spring and Summer were included to show the effects of weather changes on how we live. They also integrate many science concepts of weather and plant and animal life cycles.

Make connections between your life and the seasons, and between the seasons themselves.

Describe relationships between the seasons and your activities, clothing, food, traditions...

Describe relationships between the seasons and plant and animal life cycles.

I ask the students to draw their house, themselves and at least one plant and animal as they would be living in each season. Their house may be covered with snow, or sporting a fall wreath or some holiday decorations. The student may be raking leaves, shoveling snow or playing in a backyard swimming pool. Plants may be dormant, blooming or producing fruits. Animals may be migrating away or nesting. The students will have their own ideas and there are more ideas for each season on the next page. The last page is a writing format for the students to explain what they drew for each season. Some prompting questions could include:

- What is your favorite thing about this season? Do you look forward to it every year? Why or why not?
- How can people earn extra money in this season? (shoveling snow, raking leaves, lifeguard...)
- What holidays does your family celebrate in this season – what traditions go with those holidays?
- What are the wild animals that live around you doing during this season? (squirrels, rabbits...)
- Look at your tree. How has it changed from the way you drew it on the last season page?
- What is traveling like during this season?
- We have to pay for heating and air conditioning – is this an “expensive” season?
- I’m sure you and your students will have more ideas. Enjoy!

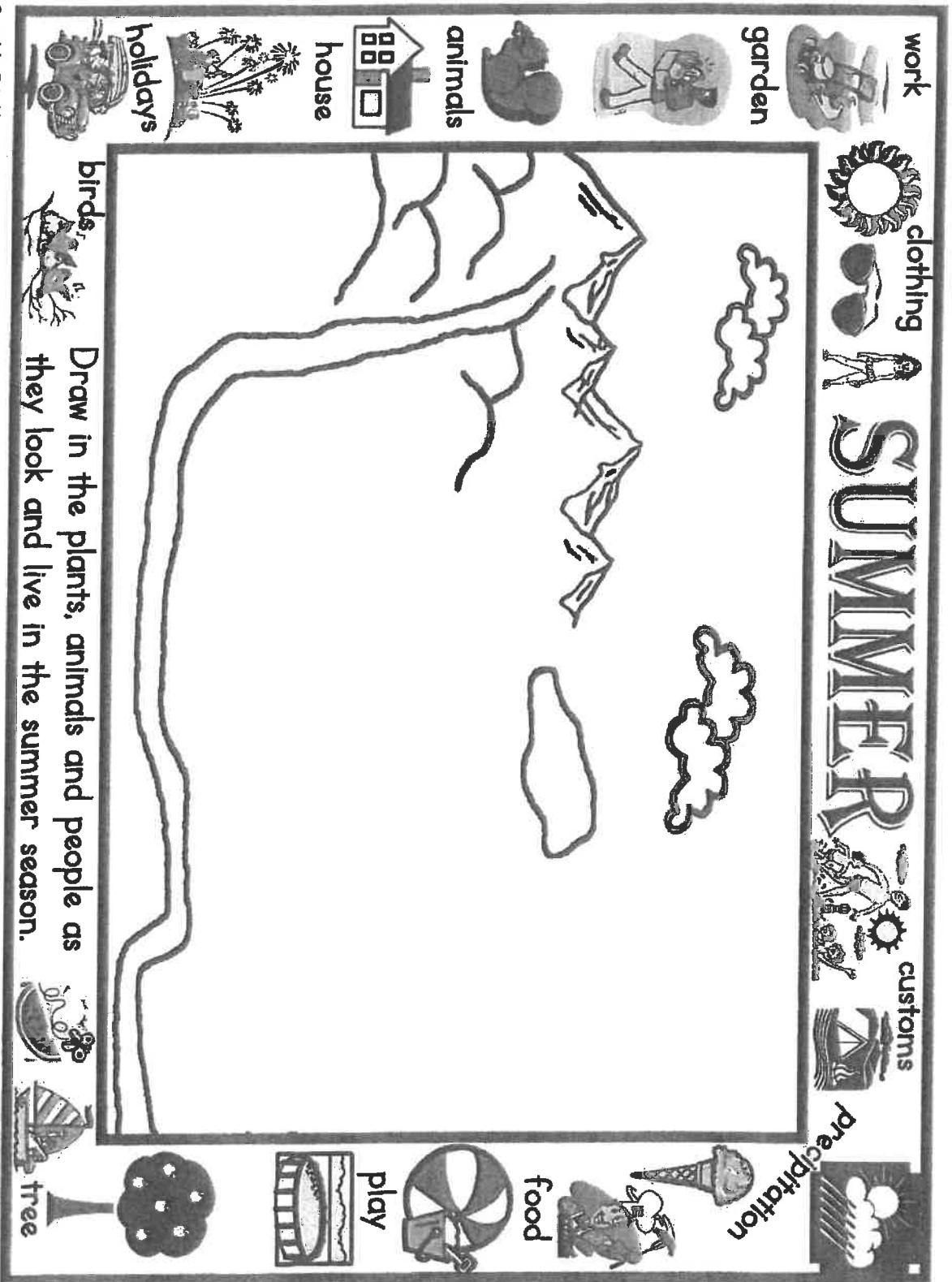


Seasons Affect Life!



Ideas for showing effects of seasonal changes

	People	Plants	Animals
Fall/ Autumn	<ul style="list-style-type: none"> *Harvest, storage, feasts *Weather effects, prepare for winter *Warmer clothing *Leaf raking *Fall holidays *Fall foliage trips *Back to school! 	<ul style="list-style-type: none"> *Bear fruit to create seeds *Less rain, less daylight, less chlorophyll *Leaves change color, fall *Some die, some dormant *Animals, people, wind, water spread seeds *Life cycle tied to weather, temp 	<ul style="list-style-type: none"> *Storing food, bulking up for hibernation *Loss of hiding places *Less to eat *Migration *Winter fur, some change color
Winter	<ul style="list-style-type: none"> *Stored or imported food, less fresh produce *Weather may inhibit travel, stay indoors more *Snow, ice, weather effects *Snow management jobs *Winter holidays & sports 	<ul style="list-style-type: none"> *Many are dormant *Leaves are gone, needles stay green *Brown, brittle *Some animals live in trees for winter *People use firewood 	<ul style="list-style-type: none"> *Live off fat, other stored food *Some fed by people *Hibernation *Migration *Less travel, less active *More, thicker fur
Spring	<ul style="list-style-type: none"> *Planting gardens *Lighter clothes *Spring cleaning custom *Building, painting *Spring holidays and sports 	<ul style="list-style-type: none"> *Warmer temps, more rain *Trees start to grow leaves *Germination *Animals eat new plants *Birds nest in trees *People plant new seeds 	<ul style="list-style-type: none"> *More food sources *New grass *Babies! *Return migration *Shed winter coats
Summer	<ul style="list-style-type: none"> *Pruning, fertilizing *Summer sports *Recreation – swimming *Summer holidays & travel 	<ul style="list-style-type: none"> *Pollination, flower making *Growing season *Insects, animals eat plants *Trees offer shelter and shade 	<ul style="list-style-type: none"> *More food available *More active *Raising babies



Draw in the plants, animals and people as they look and live in the summer season.

Date _____

Describe your drawing. Make connections between your activities and the season, as well as the effects this season has on plants and animals.



Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 2nd	Content Area ELA
Course Title (grades 9–12 Only)	
Alignment to Educational Program <i>Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.</i>	Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>	<p>(M) CCSS.ELA-LITERACY.RL.2.1 Ask and answer such questions as <i>who</i>, <i>what</i>, <i>where</i>, <i>when</i>, <i>why</i>, and <i>how</i> to demonstrate understanding of key details in a text.</p> <p>CCSS.ELA-LITERACY.RL.2.9 Compare and contrast the most important points presented by two texts on the same topic. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.</p> <p>CCSS.ELA-LITERACY.RL.2.1 Ask and answer such questions as <i>who</i>, <i>what</i>, <i>where</i>, <i>when</i>, <i>why</i>, and <i>how</i> to demonstrate understanding of key details in a text</p> <p>CCSS.ELA-LITERACY.RL.2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.</p> <p>CCSS.ELA-LITERACY.W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.</p> <p>"The Planets" by Gail Gibbons "The Solar System" by Gregory L. Vogt "The Solar System" by Dana Meachen Rau Student reproducible handouts</p>
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>	

Lesson <i>(add as needed)</i>	Instructional Strategies —Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities —Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. <i>Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.</i>
1	Preactivity before going to Planetarium. We will discuss the content vocabulary and the teacher will read the first two books, "The Planets" by Gail Gibbons and	Students will complete a "What I Know" chart. They will then have an open discussion about their "What I Know" chart. After their discussion, students will watch a short video and listen to the "The Planets" and "The Solar System" books that will be read aloud to them.
2	Students will explore the museum while on the OSI and complete related materials. Main focus will be The Solar System. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to The Solar System while exploring the Museum.
3	Students will complete a post OSI assessment related to "The Solar System" by Gregory L. Vogt.	Students will take an assessment piece consisting of OSI related material and "The Solar System" by Gregory L. Vogt consisting of short answers and illustrations
4	Students will listen and respond to a short book "The Solar System" by Dana Meachen Rau. This will set the stage for their final assessment.	Students will do short answer questions.
5	Teacher will review the material from the three books and OSI.	Students will respond to a writing prompt. "Why is the Sun so important?" Students will follow the RACED Rubric
S.A.	<i>Provide an opportunity for students to complete the Summative Assessment items. These Summative Assessment items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment items that will allow students</i>	Assessment piece will consist of a short answer and fill in the chart pertaining to the three books and OSI information about the Solar System.

<p>to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.</p>	<p>CCSS.ELA-LITERACY.RI.2.1 Ask and answer such questions as <i>who</i>, <i>what</i>, <i>where</i>, <i>when</i>, <i>why</i>, and <i>how</i> to demonstrate understanding of key details in a text.</p> <p>CCSS.ELA-LITERACY.W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

1. "The Planets" by Gail Gibbons: Attached, 9 total questions each worth 11 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F
2. "The Solar System" by Gregory L. Vogt: Attached, 9 total questions each worth 11 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F
3. "The Solar System" by Dana Meachen Rau: Attached, 5 total questions each worth 20 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

Assessment: Writing

1. Narrative "Why is the Sun So Important" RACED Rubric

Resources:

1. The Planets by Gail Gibbons read aloud - YouTube
2. Ms Susen Reads "The Solar System" by Gregory Vogt - YouTube
3. The Solar System by Dana Meachen Rau

	looking at the sky	clear nights	because it is showing a clear night with no clouds
Page ____ Answers will Vary	Answers will Vary	Answers will Vary	Answers will Vary
Page ____ Answers will Vary	Answers will Vary	Answers will Vary	Answers will Vary

Now we are going to take a look at the book, *The Solar System* by Gregory L. Vogt.

Use the Table of Contents to find the section on Revolution and Rotation.

10. What page does this section begin on? This section begins on page 11
11. Read through this section with your teacher and write all the patterns it discusses below. You should read about four patterns found in the solar system.

According to the dictionary, a pattern is “a repeated way in which something happens.”

Pattern #1-Planets revolve around the sun

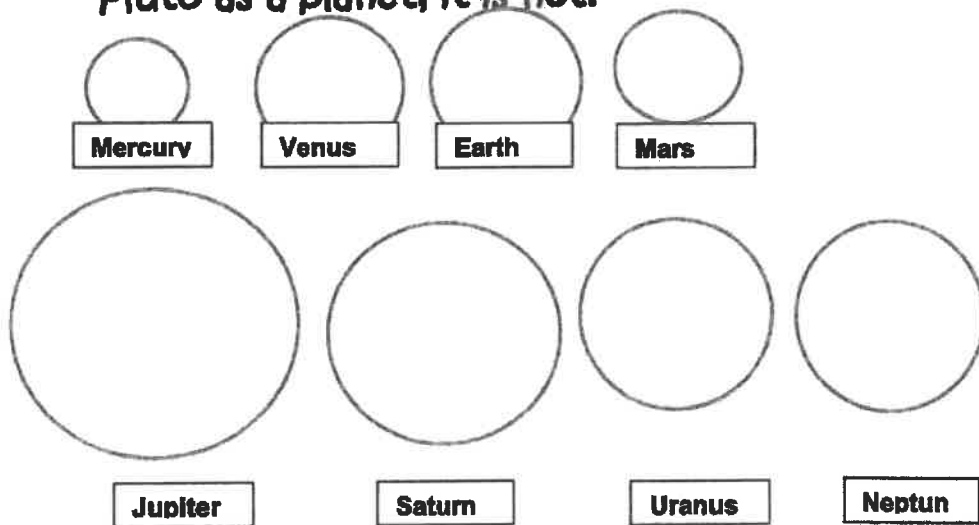
Pattern #2-Moons revolve around planets

Pattern #3-The planets closest to the sun move the fastest

Pattern #4-The planets also rotate as they move around the sun

- 12. How does the illustration on page 10 help you to understand these patterns? The illustration shows the orbits of the planets around the sun. It also shows the different sizes of the planets.**
- 13. The author talks about the planets nearest the sun moving the fastest on page 11. What fact does the author write about to explain why the planets move faster near the sun? The sun’s gravity affects how fast planets move. The gravity is stronger the closer the planet is to the sun.**

14. Use the images on pages 12-20 to draw what the 8 planets look like. Keep in mind that this book was published in 2003 before Pluto was changed to a dwarf planet. Therefore, when the book refers to Pluto as a planet, it is not.



***Mercury-should be a reddish brown color**

***Venus-should be an orange brown color with some dark spots**

***Earth-should be blue, white, and a little green**

***Mars-should be a rusty color with dark and light spots**

***Jupiter-should be brown and white striped with a big spot in the southern half**

***Saturn-should be yellow gold with large rings**

***Uranus-should be a blue green color**

***Neptune-should be a blue with small white spots**

Worksheet Answer Key

First, can you tell me what it means when a book is nonfiction? A nonfiction book contains facts and is it does not come out of the author's imagination.

Let's begin by reading the book *The Planets* by Gail Gibbons.

1. What is the main topic of this book?

The main topic of this book is to discuss the planets of the solar system and how you can view them in the night sky and study them.

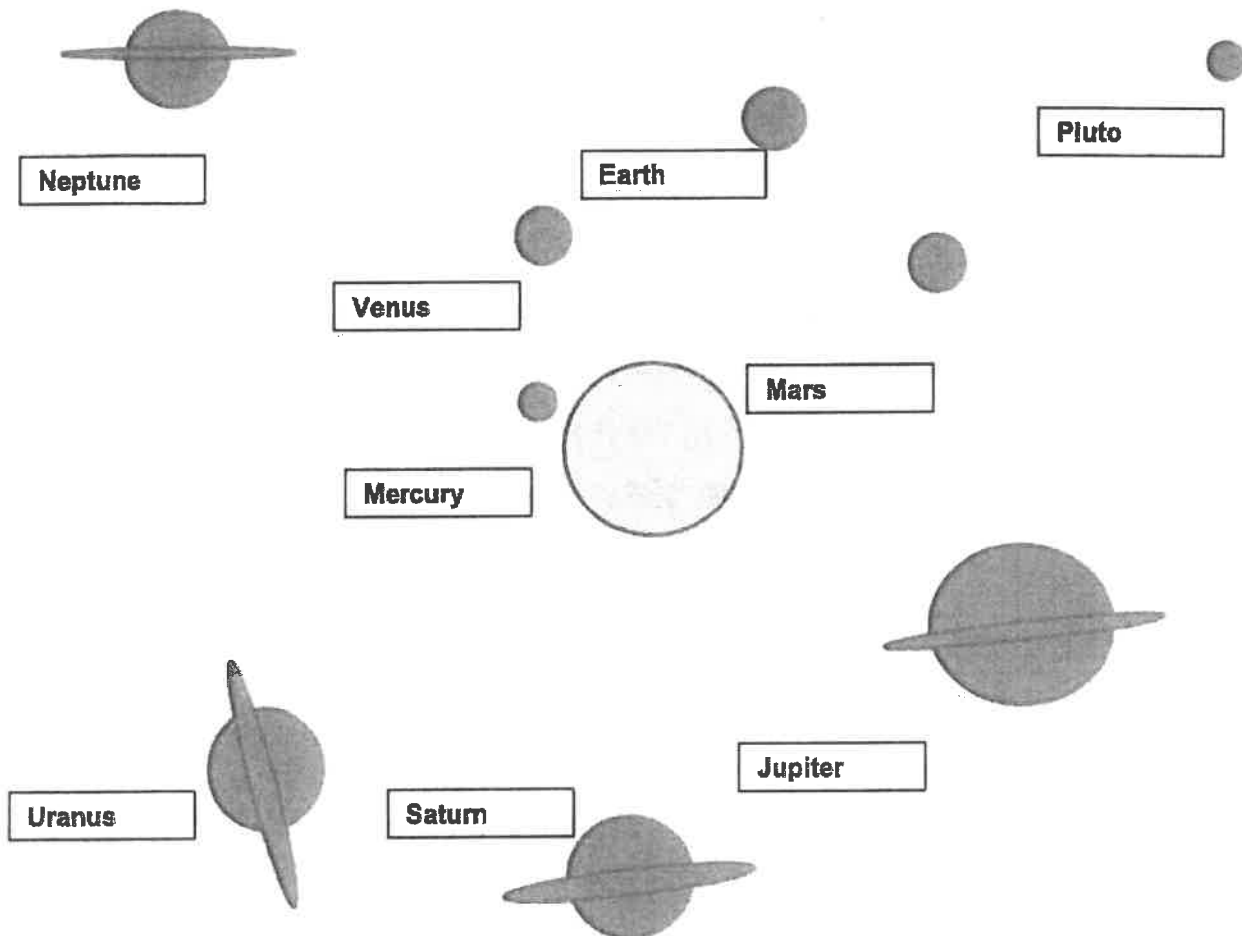
2. Please tell me 3 important facts/key details on pages 1-11 in this book.

Fact #1-All the planets, except Earth, are named after Greek and Roman gods and goddesses.

Fact #2-A star shines because it is made up of burning gases, a planet shines because the sun's light is reflecting off of it.

Fact #3-The planets circle around the sun in paths called orbits.

3. Using the information in this book, can you label the planets, and dwarf planet, in the order they orbit the sun?



4. How are all the planets similar?	5. How are all the planets different?
All of the planets are round.	Some of the planets are much bigger than others.

6. What does the word "planet" mean? What language does this word come from?




The word planet means wanderer. It is a Greek word.




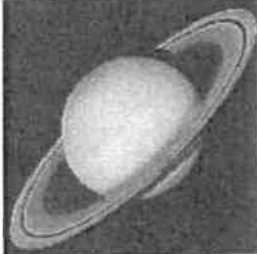

7. What does the word "solar" mean?


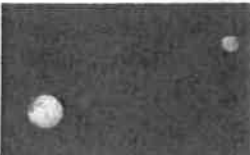
The word solar means connected to the sun.

8. Find the large headings beginning on page 12 and fill them in the table below.

Draw a picture showing a piece of information under the heading and write a description of your picture.

Heading	Drawing or written fact
Ex. Page 12__Mercury____ 	 Mercury is very hot during the day and very cold at night.
Page 14__Venus____ 	Answers will vary but must be about something on pages 14 and 15.

Page 16 <u>Earth</u> 	Answers will Vary but must be about something on pages 16 and 17.
Page 18 <u>Mars</u> 	Answers will Vary but must be about something on pages 18 and 19.
Page 20 <u>Jupiter</u> 	Answers will Vary but must be about something on pages 20 and 21.
Page 22 <u>Saturn</u> 	Answers will Vary but must be about something on pages 22 and 23.
Page 24 <u>Uranus</u> 	Answers will Vary but must be about something on pages 24 and 25.



Page 26 ____ Neptune ____ 	Answers will vary but must be about something on pages 26 and 27.
Page 28 ____ Pluto ____ 	Answers will vary but must be about something on pages 28 and 29.

9. Choose three pages in this book. On each of these pages, describe what the illustration (which is a drawing or picture) is telling you and also describe what the text is telling you.

Page #	Illustration	Text	How does the illustration help you understand the text?
Page ____ Answers will vary, but here is an example Page 5	The illustration shows people	The text you can see stars and planets on	The picture helps you understand the text

The final book we are going to read is *The Solar System* by Dana Meachen Rau.

15. Look at the Table of Contents in this book, compare it to the Table of Contents in *The Solar System* by Gregory L. Vogt and answer these questions.

Question	Answer
<p>How many sections are listed in each of the book's Table of Contents?</p> 	<p>Rau-11</p> <p>Vogt-16</p>
<p>What is on page 7 of Gregory Vogt's book that is not in the Table of Contents of Dana Meachen Rau's book?</p> 	<p>Early ideas</p>
<p>Look at page 20 of Gregory Vogt's book and at page 14 of Dana Meachen Rau's book. Do both books list Pluto as a planet? Why?</p>	<p>Rau-yes, published 2001</p> <p>Vogt-yes, published 2003</p> <p>Pluto demoted-2006</p>

Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 2nd	
Course Title (grades 9–12 Only)	Content Area Math
Alignment to Educational Program <i>Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.</i>	Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>	(M) CCSS.MATH.CONTENT.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. CCSS.MATH.CONTENT.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>	pencils, paper, rulers, markers, and crayons.

Lesson (add as needed)	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	Students will do a pre-activity and lesson for OSI consisting of measurement using different units.	Students will do a measuring activity using different units..
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Their main focus will be planet distances from the sun. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to planet distances from the sun while exploring the museum.

3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will do a measuring activity. This will be a hands-on activity consisting of the use of astronomical units, cubes, rulers, pencils, markers, and crayons. The teacher will provide large sheets of butcher paper for the students to draw their sun and planets. They will be allowed to move around the room and even work on the floor if so desired.	Students will complete a measurement activity. They will interpret a data chart that is meant to be an assessment in accuracy followed by a visual representation of the solar system. Students will convert Astronomical Units (AU) to inches. They will map out and accurately place the sun and planets in correct order.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will take an assessment piece consisting of conversions, measuring, and graphing.

Approved 6.14.19 Page 12

	to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	CCSS.MATH.CONTENT.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

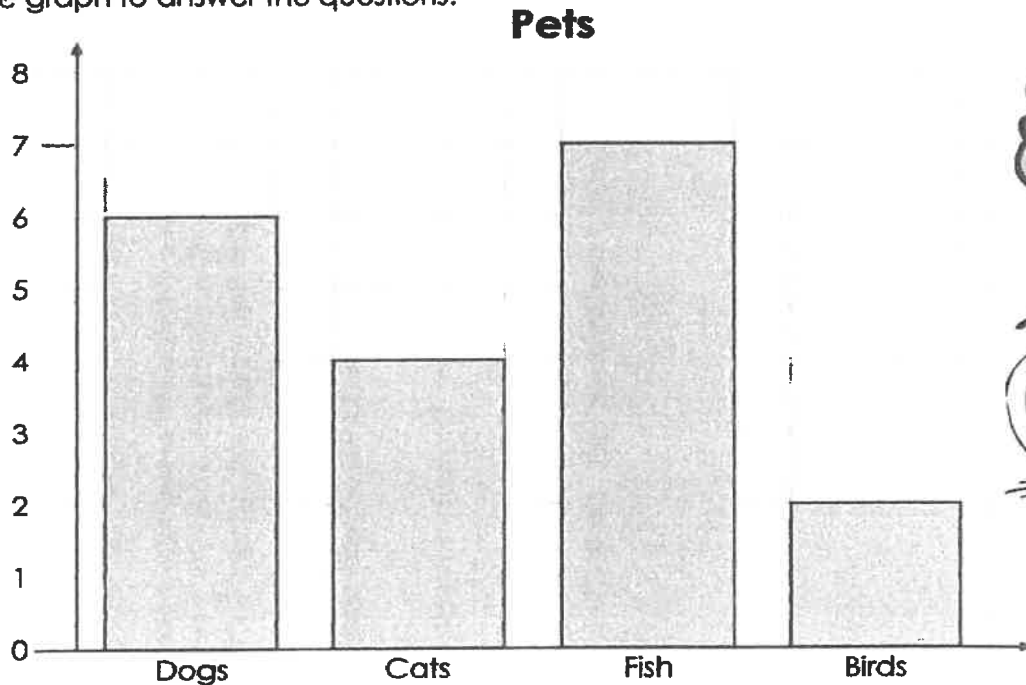
Assessment:

1. **Measurement with Astronomical Units, Cubes:** Attached, 100 divided by 6, worth 16 points each. *90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
Students will complete Astronomical Units, cubes, measurement activity that is meant to be an assessment in expressing the length of an object as a whole number of length units. They will interpret data from a graph using Astronomical Units, cubes.
2. **Sun and Planets: Unit Conversions.** Attached, 100 divided by 9 checkpoints worth 11 points each. Grading Scale 90-100 A, 80-89 B, 70-79 C, 60-69 D, below 60 F
Students will convert Astronomical Units, cubes, to inches. They will use large butcher paper to place the sun and planets using rulers and their new measuring unit.
3. **Pets Bar Graph:** Attached, 100 divided by 5 worth 20 points each. Grading Scale 90-100 A, 80-89 B, 70-79 C, 60-69 D,

ANSWER KEY

Bar Graph of Pets

This is a graph of pets that belong to the students of Miss Smith's class. Use the information from the graph to answer the questions.



1. How many dogs do the students have?

1. 6

2. How many birds do they have?

2. 2

3. How many cats do they have?

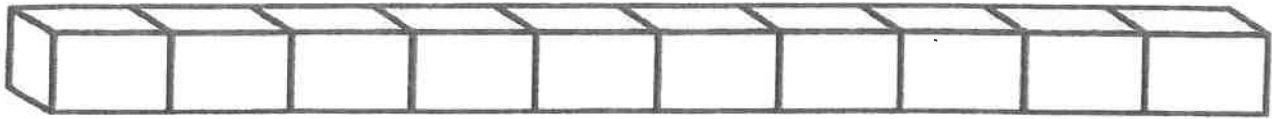
3. 4

4. How many fish do they have?

4. 7

5. Do they have more fish or cats?

5. fish

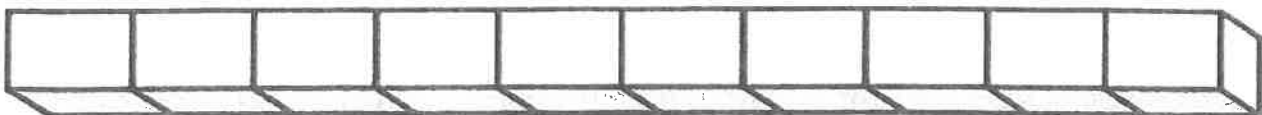


The following chart tells how many astronomical units each planet is from the sun. One astronomical unit, or AU, is the distance from the Earth to the sun. Mercury and Venus are less than one astronomical unit and all the planets that orbit further from the sun than Earth are more than one astronomical unit.

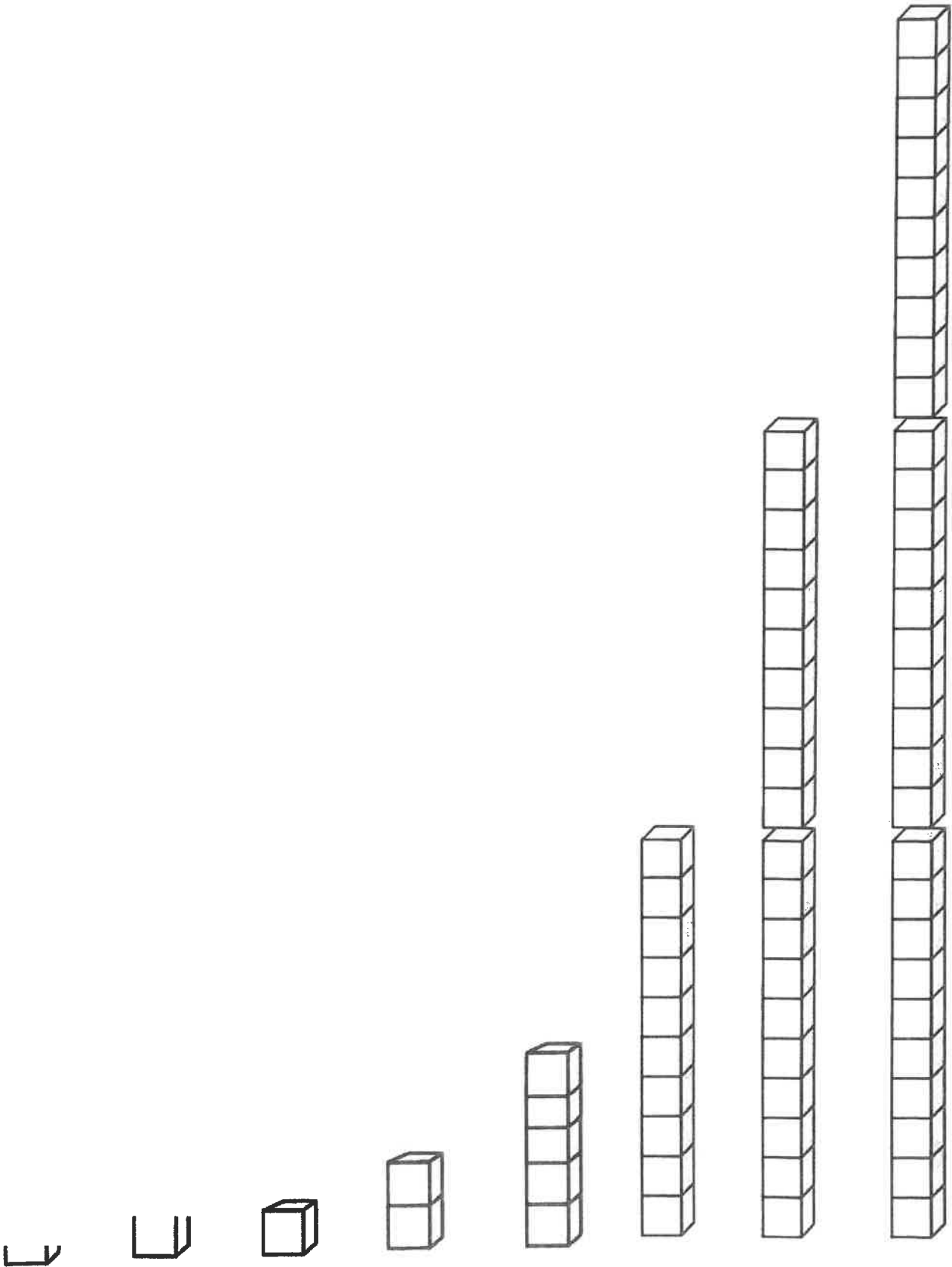
Planet	Astronomical units from the sun (AU)*
Mercury	0.5
Venus	0.7
Earth	1
Mars	2
Jupiter	5
Saturn	10
Uranus	20
Neptune	30

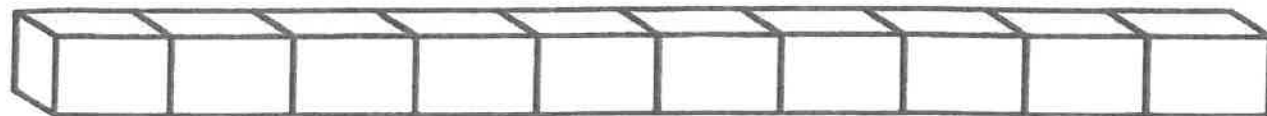
*Numbers are rounded

Place the sun in the center and use the stackable cubes horizontally to measure the distances the planets are from the sun.



Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune





Questions:

1. The planet that is farthest from the sun is Neptune.

2. The planet that is closest to the sun is Mercury.

3. Neptune is 10 AU farther from the sun than Uranus is.

4. Neptune is 20 AU farther from the sun than Saturn is.

5. Which two planets are less than ONE AU from the sun?

Mercury and Venus

6. Earth is 1 AU from the sun. How many more AU from the sun is Mars than Earth is from the sun?

1



Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample), Instruction Pages above should be deleted before submission.

Grade Level 2nd	
Course Title (grades 9–12 Only)	
Content Area Science	
Alignment to Educational Program	
Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.	Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas, including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding of the content area.
Standard Number and Description	
The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.	(M) 1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted. Strand II: Content of Science Standard III (Earth and Space Science): Understand the structure of Earth, the solar system, and the universe, the interconnections among them, and the processes and interactions of Earth's systems. K-4 Benchmark I: Know the structure of the solar system and the objects in the universe. 1. Observe that the phase of the moon appears a little different every day but looks the same again after about four weeks. 2. Observe that some objects in the night sky are brighter than others. 3. Know that the sun is a star.
Materials/Resources Needed	
List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).	Computers, rulers, toothpicks, marshmallows, toilet paper rolls, pencils, black construction paper, scissors, glue, and rubber bands.

Lesson <i>(add as needed)</i>	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	<p>Students will do a pre-activity and lesson for OSI consisting of a “What I Know chart” and a movement activity. Students will be given time to share their charts. When doing movement activity students will be in groups of 9. So, we will do this more than once so everyone is included. This will be very fun especially when they all start moving in the direction of their orbit! Around and around we go.</p>	<p>First students will complete a What I Know chart. They will share in an open forum. Then they will be introduced to the “Solar System” through guided teacher sharing. This will include the sun, phases of the moon, and planets. Students will watch a short video on The Solar System. This will be followed by participating in an activity where one stands in the middle representing the sun. Other students, representing planets, will take a certain amount of steps away from the sun showing the orbital comparison.</p>
2	<p>Students will explore the museum while on the OSI and complete materials related to the Planetarium. Main focus will be the sun, moon, planets, and constellations. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!</p>	<p>Following the Planetarium presentation, the students will complete an OSI handout related to the sun, moon, and planets while exploring the Museum.</p>
3	<p>Students will complete a post OSI assessment.</p>	<p>Students will take an assessment piece consisting of OSI related material.</p>
4	<p>Students will do “Objects in the Sky”. This will include the sun, star, moon, and earth followed by “Moon Phases” and “Share Your Learning”.</p>	<p>Students will read and answer questions related to the sun, star, moon, and earth. This will be followed by “Moon Phases” and “Share Your Learning”.</p>
5	<p>Students will participate in a hands on STEM activity. Students will be allowed to pair up or even work in groups of threes. Teacher will provide marshmallows, toothpicks, black construction paper, toilet paper roll, and bendy straws for students to manipulate. Should be lots of fun!</p>	<p>Students will participate in a hands-on STEM activity. They will make Zodiac Constellations using toothpicks and marshmallows. They will also be encouraged to design their own constellation, naming it, and placing it in the night sky. STEM skills utilized include team work, engineering, trial and error, and accuracy. When completed students will make a constellation viewer out of a toilet paper roll and black construction paper.</p>
S.A.	<p><i>Provide an opportunity for students to complete the Summative Assessment items. These Summative Assessment items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment items that will allow students</i></p>	<p>Students’ assessment piece consists of filling in the blanks and short answers. All questions will be pertaining to the sun, earth, star, and moon phases.</p>

<p><i>to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.</i></p>	<p>K-4 Benchmark I: Know the structure of the solar system and the objects in the universe.</p> <p>1. Observe that the phase of the moon appears a little different every day but looks the same again after about four weeks.</p> <p>2. Observe that some objects in the night sky are brighter than others.</p> <p>3. Know that the sun is a star.</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores

Assessment:

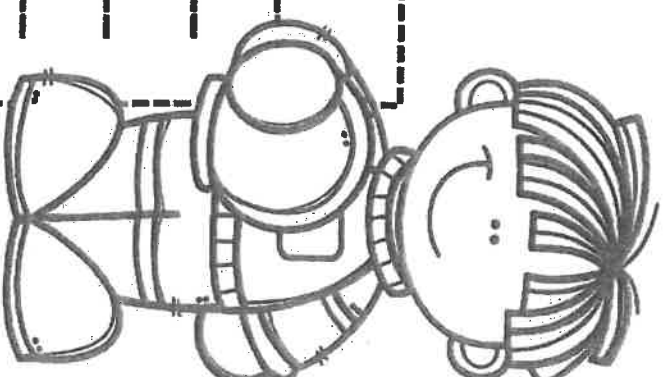
1. *Objects in the Sky: Attached, 4 questions 25 points each 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
2. *Moon Questions: Attached, 10 questions 10 points each 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
3. *Show Your Learning: Attached, 8 questions worth 12.5 points each. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
4. *STEM Activity: This activity will be measured through teacher observations of students. Teacher is looking for STEM qualities namely, team work, engineering, trial and error, and accuracy.*

Resources:

1. Phases of the Moon: <https://www.youtube.com/watch?v=f4ZHHdz16ZWg>
2. Moon Phases: <https://www.youtube.com/watch?v=bWeaQcUjPlc>

NAME: _____

What do I know about the Solar System?



Before the unit:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

After the unit:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Name _____

TEACHER COPY

Objects in the Sky

What did your reading tell you about objects in Earth's sky?

Star - Really far away.

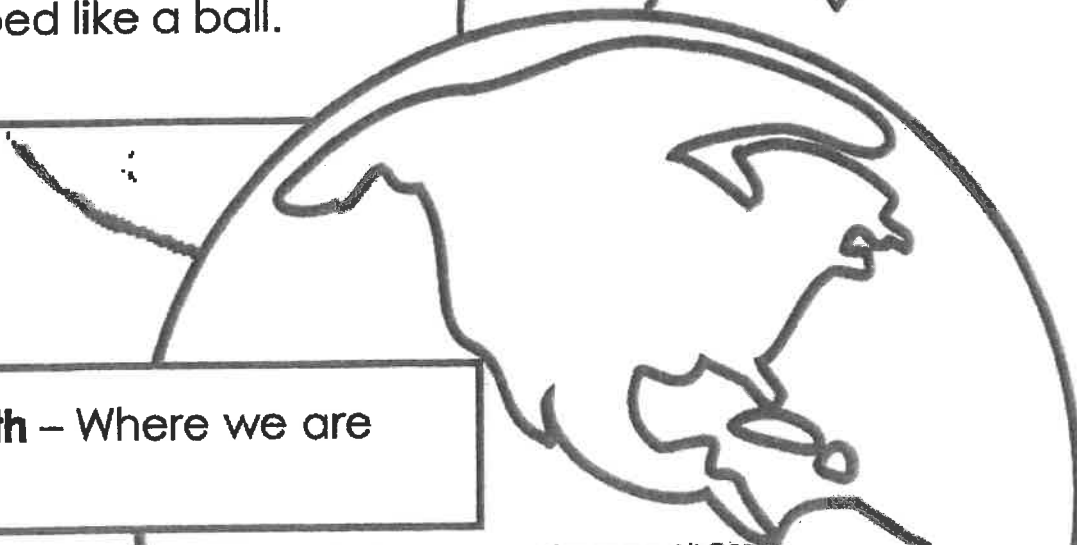


Sun - Closest star to Earth and is the brightest object in our sky. Earth travels around it.



Moon - Travels around Earth and is always shaped like a ball.

Earth - Where we are



Name _____

Moon Questions

Answers ↓

1. Where do we get natural light from at night?

_____ (moon)

2. What causes the moon to glow?

_____ (Sun)

3. Explain what a Quarter Moon is:

_____ (moon 1/2 illuminated)

4. Show your understanding of the relationship between the sun, moon and Earth (draw/label/write):

(Answers vary)

5. The moon phases follow a pattern. True or False

6. Draw a Quarter Moon:



When we talk about the phases of the moon we use the words waxing and waning, but what do these words mean?

Answers

Waxing - brighter moon

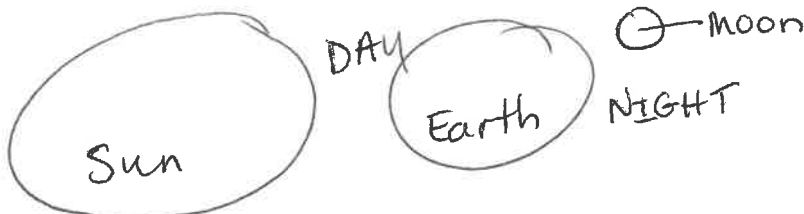
Waning - smaller visible surface

Show Your Learning

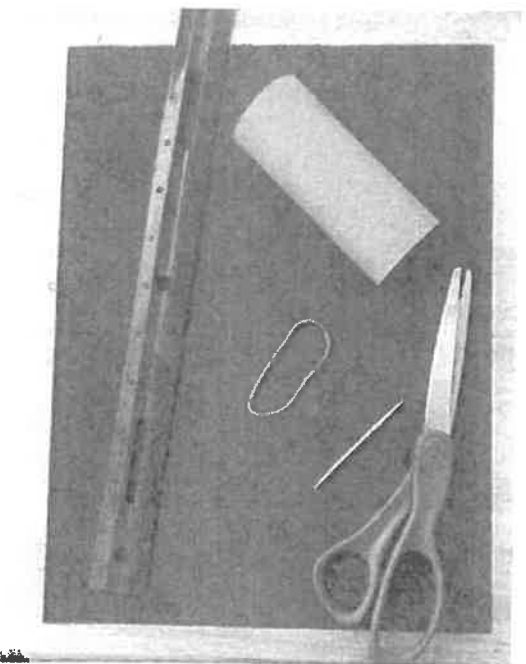
1. Draw the Earth in the Center of the page.
2. Draw the sun to the left of the Earth.
3. Draw a small moon to the right of the Earth.
4. Labels the following:

Day Night Sun Earth Moon

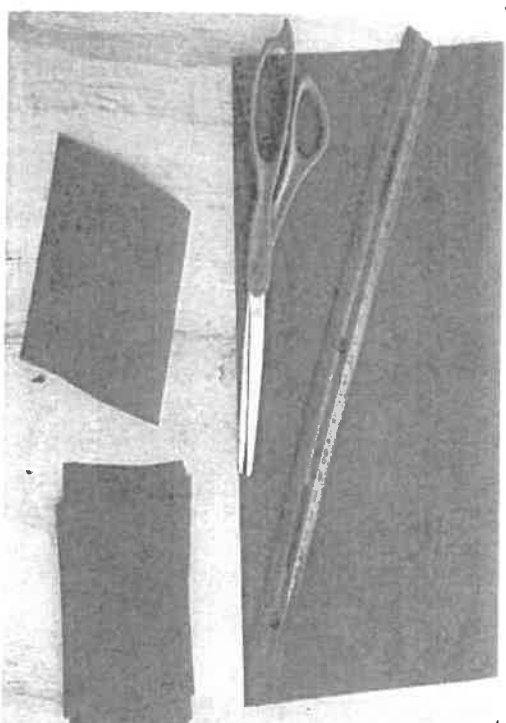
Answer key:



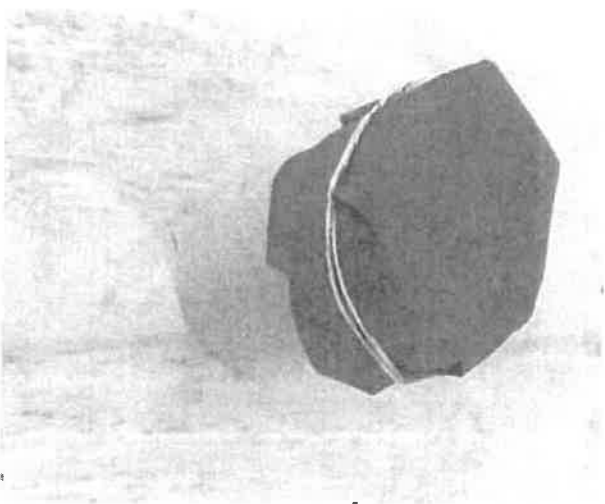
Stem Constellation Activity



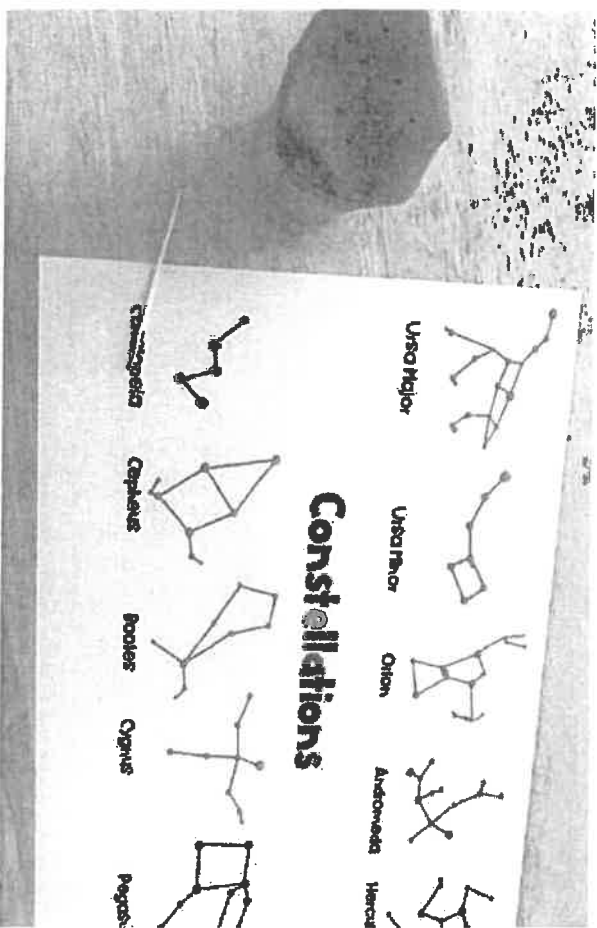
Gather supplies



Measure 4 x 4 inch squares of black paper per viewer and cut out



Attach 4 x 4 in. paper square to TP roll with a rubber band



Choose a constellation to poke into the black paper with a toothpick

Curriculum Sample Template—8 Pages Max. (12 pages for Integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 2nd		Content Area Social Studies	
Course Title (grades 9–12 Only)			
Alignment to Educational Program			
Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.		Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.	
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>		K-4 Benchmark II-B: Distinguish between natural and human characteristics of places and use this knowledge to define regions, their relationships with other regions, and patterns of change. 1. Describe how climate, natural resources, and natural hazards affect activities and settlement patterns. 2. Explain how people depend on the environment and its resources to satisfy their basic needs.	
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>		pencils, markers, crayons, glue	

Lesson <i>(add as needed)</i>		Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in or master the opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	
1 Students will do a pre-activity for OSI consisting of a teacher-led discussion on how the sun's relationship to the Earth affects our daily lives, the seasons. Climate, weather, and the change of the seasons affect much of what we do each day.		Students will have a classroom discussion about the Earth's seasons. Climate, weather, and the change of the seasons affect much of what we do each day. How do seasons affect... your clothing? your job? your food? your recreation? your customs? animals	

		around you? plants around you?
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Main focus will be the Earth's seasons. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone, or teacher. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to the Earth's Seasons while exploring the Museum.
3	Students will complete a post OSI assessment.	Students will complete illustrations as an assessment piece consisting of OSI related material.
4	Students will complete illustrations of the Earth's seasons showing effects of seasonal changes. These illustrations will include Autumn / Fall, Winter, Spring, and Summer.	Students will complete illustrations representing the Earth's Seasonal Changes including Autumn/ Fall, Winter, Spring, and Summer.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will complete an assessment piece consisting of a short narrative describing one of their illustrations and making connections between their activities and the season, as well as the effects this season has on plants and animals.

Approved 6.14.19 Page 12

	to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	<p>K-4 Benchmark II-D: Understand how physical processes shape the Earth's surface patterns and biosystems.</p> <p>1. Describe the physical processes that affect the Earth's features (e.g., weather, erosion).</p> <p>2. Identify characteristics of physical systems (e.g., water cycle).</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

1. *Seasons Fall / Autumn: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
2. *Seasons Winter: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
3. *Seasons Spring: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F
4. *Seasons Summer: Attached, worth 25 points* Grading Scale 20-25 A 15-19 B 10-14 C 5-9 D 0-4 F

** Each season is an individual grade and at the conclusion of the assignment all four will be combined for an overall grade with a total of 100 points.*

Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

5. Describe one illustration short narrative: worth 100 points Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

Resources:

1. <https://www.youtube.com/watch?v=2UXnllBtIsY>
2. <https://www.youtube.com/watch?v=UQjT5uKp2hg>

Seasons Affect Life!



Ideas for showing effects of seasonal changes

	People	Plants	Animals
Fall/ Autumn	<ul style="list-style-type: none"> *Harvest, storage, feasts *Weather effects, prepare for winter *Warmer clothing *Leaf raking *Fall holidays *Fall foliage trips *Back to school! 	<ul style="list-style-type: none"> *Bear fruit to create seeds *Less rain, less daylight, less chlorophyll *Leaves change color, fall *Some die, some dormant *Animals, people, wind, water spread seeds *Life cycle tied to weather, temp 	<ul style="list-style-type: none"> *Storing food, bulking up for hibernation *Loss of hiding places *Less to eat *Migration *Winter fur, some change color
Winter	<ul style="list-style-type: none"> *Stored or imported food, less fresh produce *Weather may inhibit travel, stay indoors more *Snow, ice, weather effects *Snow management jobs *Winter holidays & sports 	<ul style="list-style-type: none"> *Many are dormant *Leaves are gone, needles stay green *Brown, brittle *Some animals live in trees for winter *People use firewood 	<ul style="list-style-type: none"> *Live off fat, other stored food *Some fed by people *Hibernation *Migration *Less travel, less active *More, thicker fur
Spring	<ul style="list-style-type: none"> *Planting gardens *Lighter clothes *Spring cleaning custom *Building, painting *Spring holidays and sports 	<ul style="list-style-type: none"> *Warmer temps, more rain *Trees start to grow leaves *Germination *Animals eat new plants *Birds nest in trees *People plant new seeds 	<ul style="list-style-type: none"> *More food sources *New grass *Babies! *Return migration *Shed winter coats
Summer	<ul style="list-style-type: none"> *Pruning, fertilizing *Summer sports *Recreation – swimming *Summer holidays & travel 	<ul style="list-style-type: none"> *Pollination, flower making *Growing season *Insects, animals eat plants *Trees offer shelter and shade 	<ul style="list-style-type: none"> *More food available *More active *Raising babies



SEASONS



ustoms



your job?

your job?

your food?

your recreation?

your customs?

animals around you?

plants around you?

garden

clothing

customs

precipitation

work

animals

migrate

house

birds

holidays

wind

tree

clouds

mountains

lake

river

draw in the plants, animals and people as they look and live in the fall season.

food

play

Copyright © Debbie Bryant 2015

Date _____

Describe your drawing. Make connections between your activities and the season, as well as the effects this season has on plants and animals.



Curriculum Sample Template—8 Pages Max. (12 pages for Integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 3rd		Content Area ELA	
Course Title (grades 9–12 Only)			
Alignment to Educational Program Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.		Students will be attending an OSI, Out of School Instruction, to the NIM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas, including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.	
Standard Number and Description The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.		(M) CCSS.ELA-LITERACY.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. CCSS.ELA-LITERACY.RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. CCSS.ELA-LITERACY.W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Reading passages, pencils Writing templates	
Materials/Resources Needed List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).			

Lesson (add as needed)		Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.	
1		Students will read short passages; namely, “Apollo 11 Mission to the Moon”, “Galileo Galilei”, and “Nicolaus Copernicus”. They will follow the RACED rubric when answering questions.	
Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.			
Proactively before going to Planetarium. We will have an open discussion about astronomy and astronomers; namely, Galileo and Copernicus. We will also discuss the importance of the space race with the Soviet Union.			

2	Students will explore the museum while on the OSI and complete related materials. Main focus will be astronomy and the space race. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to astronomy and the space race while exploring the Museum.
3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will read and respond to a short passage "The Sun". This will set the stage for their three paragraph essay assessment piece on "Why is the Sun so Important". This passage is neatly written in a five paragraph format used for modeling.	Students will read a short passage "The Sun" and do short answer questions.
5	Teacher will review the "Writing Process" consisting of brainstorming ideas, writing a first draft, sloppy copy, revising and editing, final draft and publication. All written assignments pertaining to this lesson will be put up on "The Wall of Fame".	Students will respond to a writing prompt. "You've been given the opportunity to talk to Nicolaus Copernicus. So much has happened with the study of space since his time. Tell him what you have learned about the stars, constellations and planets. Students will follow the Writing Process using the RACED Rubric
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Assessment piece will consist of a three paragraph essay about "The Solar System". Grading will follow the RACED rubric.

Approved 6.14.19 Page 12

	to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	CCSS.ELA-LITERACY.RI.3.1 ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. CCSS.ELA-LITERACY.W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content

and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment: Reading

1. *Apollo Mission to the Moon: Attached, 8 total questions each worth 13 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
2. *Nicolas Copernicus: Attached, 8 total questions each worth 13 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
3. *The Sun: Attached, 6 total questions each worth 17 points. 8 total questions each worth 13 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*

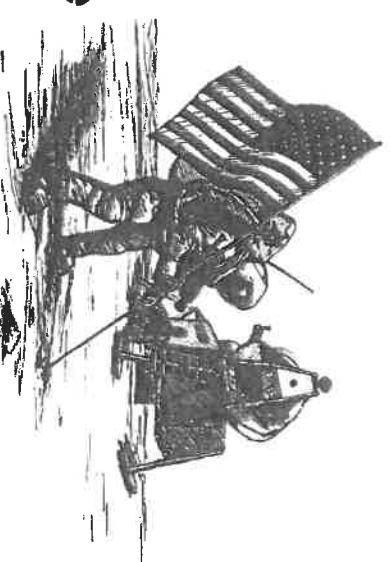
Assessment: Writing

1. *Three paragraph essay "The Solar System" RACED Rubric*
2. *Three paragraph essay "Why is the Sun so Important" RACED Rubric*
3. *Write a postcard choosing one of four prompts RACED Rubric*

Name: _____

Apollo 11 Mission to the Moon

(Nonfiction Cold read)



Apollo 11 was a mission to the moon launched by the United States of America. The spacecraft was named The Eagle and was piloted by 2 Americans Neil Armstrong and Buzz Aldrin. The lunar module traveled 240,000 miles in 76 hours. They landed on the moon on July 20, 1969. Neil Armstrong was the first man to step foot on the moon's surface just 6 hours after the spacecraft landed. Neil Armstrong uttered, "That's one small step for man, one giant leap for mankind," to communicate with NASA. Buzz Aldrin joined Armstrong on the moon's surface 20 minutes later and together they placed an American flag, took photographs and collected soil/rock samples for scientific research. The mission was complete and the shuttle returned to Earth, landing safely in the Pacific ocean on July 24, 1969.

1. What was the name of the spacecraft in the Apollo 11 mission?
a. Sun b. Moon Lander c. The Eagle d. NASA
2. How many miles did the astronauts travel to get to the moon?
a. 285,000 b. 240,000 c. 123,000 d. 1,000,000

3. Who were the 2 astronauts aboard the Apollo 11 mission shuttle?

----- and -----

4. Neil Armstrong uttered, "That's one small step for man, one giant leap for mankind," to communicate with NASA. What does uttered mean?

- a. angry b. moved c. tried d. said

5. What ocean did the Apollo 11 shuttle land in when returning to Earth?

- a. Indian b. Atlantic c. Pacific d. Arctic

6. What was one of the tasks completed while on the moon?

- a. take photographs b. collect soil/rock samples
c. posted an American flag d. a, b & c

7. How many minutes after Armstrong did Aldrin join in to walk on the moon?

- a. 5 minutes b. 15 minutes c. 20 minutes d. 30 minutes

7. Neil Armstrong quoted, "That's one small step for man, one giant leap for mankind," when he stepped onto the moon's surface. Why do you think he felt that step was a giant step for mankind?

Nicolaus Copernicus *(Nonfiction Cold read)*

Nicolaus Copernicus was born in 1473 in Poland. He was a brilliant man who studied many fields including medicine, astronomy (study of space), economics (study of how goods and services are created) and mathematics. He worked in



the church and was a medical physician. Astronomy was his hobby and he spent his free time studying the solar system. In Copernicus' time, scientists thought that Earth was the center of the solar system. This idea is called the geocentric model, meaning the sun and planets revolved around the Earth. Copernicus researched and studied the solar system and discovered the truth, the Sun is actually the center of the solar system. All the planets revolve around the sun which is called the heliocentric model. The heliocentric model is one that is still used and studied today. His research and ideas influenced future famous astronomers such as Galileo and Johannes Kepler.

1. Astronomy is the study of _____.
2. The geocentric model shows the _____ as the center of the universe.
 - a. Sun b. Uranus c. Earth d. Mars
3. The heliocentric models shows the _____ as the center of the universe.
 - a. Sun b. Uranus c. Earth d. Mars

4. Nicolaus Copernicus was a brilliant man who studied many fields. What do you think brilliant means?

- a. clumsy b. funny c. angry d. smart

5. What country was Copernicus born in? _____

6. What did Copernicus like to study as a hobby during his free time?

7. Copernicus died in 1543. About how old was he when he died?

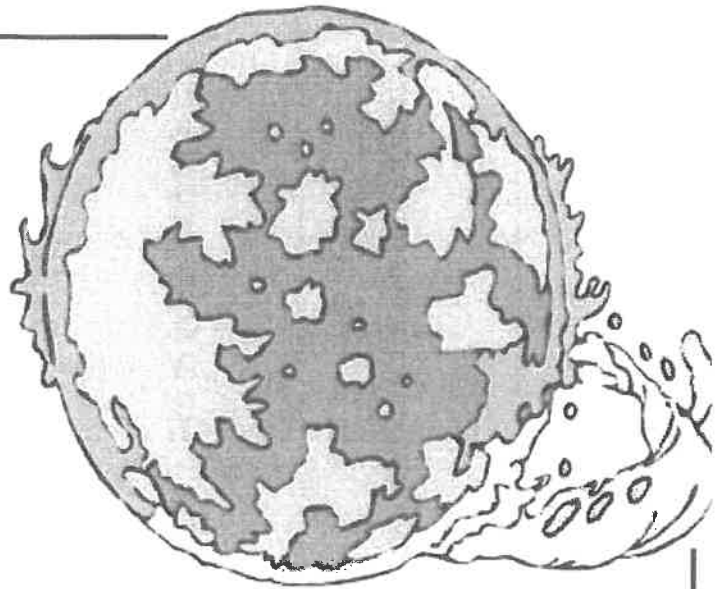
8. What future astronomers were influenced by Copernicus and his ideas?

Name: _____

The Sun

by Cynthia Sherwood

You may have heard people use the term "solar energy." They're probably talking about the technology that powers a house or heats a swimming pool. But there's only one place that you can find true "solar energy"—the sun!



Without the sun, there wouldn't be life on earth. The sun provides us with both light and heat. It's at the very center of our solar system, with all eight planets revolving around it. The planets' moons, thousands of asteroids, and trillions of comets also revolve around the sun.

From earth, we see the sun as a bright yellow dot in the sky that's sometimes hidden by clouds. But the sun is actually a glowing ball of fiery gas. The part of the sun that we see has a temperature of 10-thousand degrees Fahrenheit (5,600 degrees Celsius). Inside the sun, at its core, the temperature is 27-million degrees (15-million Celsius).

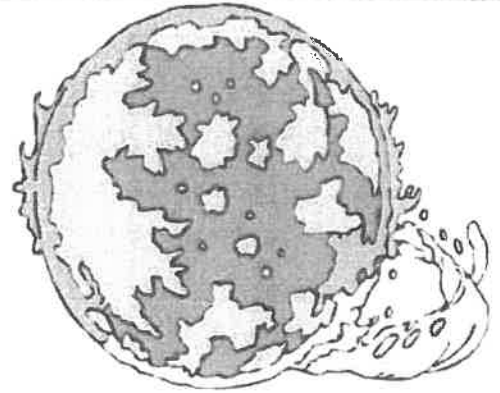
The core is where the sun's incredible energy is created. The temperature is so extreme that nuclear reactions take place and energy travels to the surface of the sun. That energy is then released as light and heat. It takes a million years for energy produced in the sun's core to reach its surface.

Besides being hotter than we can even imagine, the sun is amazingly big. You could fit more than a million Earths inside the sun! But believe it or not, the sun isn't anywhere close to being the biggest object in the universe. The sun is actually a star, just like the others you see at night. It's about average in size when compared to other stars. But to us here on earth, there's nothing average about the sun!

Name: _____

The Sun

by Cynthia Sherwood



1. Where is the sun located?
 - a. the center of the universe
 - b. the center of the galaxy
 - c. the center of the solar system
 - d. the center of the Earth

2. How hot is the sun's surface? How hot is the sun's core?

3. The sun is....
 - a. the largest known star
 - b. an average-sized star
 - c. a small star
 - d. the hottest known star

4. Match the words on the left with the definitions on the right.

_____ 1. solar energy

a. center, inside of a ball-shaped object

_____ 2. solar system

b. heat, light, or electrical power made from the sun

_____ 3. core

c. the sun, and all of the things that orbit around it

Why is the Sun so important?

How Do I Write a Postcard?

Dear Mickey,
I have missed you while
on my road trip with Daisy
Duck. We saw a huge whale
shark at the Georgia Aquarium
and we drove past the Great
Smoky Mountains in Tennessee.
Tomorrow we are driving onto
Kentucky to see the Derby
Museum before we head home.
Wish you were here!

Love,
Minnie Mouse

stamp

To: Mickey Mouse
Walt Disney World
PO Box 10040
Lake Buena Vista, FL
32830

	Beginning (1)	Nearing Proficiency(2)	Proficient(3)	Advanced(4)
R Restate the Question	Question not restated	Question partially restated	Question mostly restated	Question skillfully restated with no pronouns
A Answer the question	Question not answered	Question partially answered	Question mostly answered	Answers are accurate
C Cite the evidence	No evidence stated Ideas are unclear in relation to the problem or story	Partial evidence (at least one example) stated Evidence is not relevant to the problem or story	Majority of evidence (at least two examples) stated Evidence is mostly relevant to problem, story, etc.	Majority of evidence (at least three examples) stated Evidence is directly relevant to problem, story, etc.
E Expand or Explain your answer.	No expansion/ explanation of importance of evidence Difficult to follow Poorly focused on topic	Partial connection to self, text, world, or author's craft Partially explains or expands on ideas	Evident connection to self, text, world, or author's craft. Uses some prior knowledge.	Strong connection to self, text, world, or author's craft. Uses prior knowledge. Explains/ Expands on evidence in detail Concluding statement Voice is demonstrated
D Demonstrate appropriate conventions and knowledge of vocabulary	Very little evidence of proper usage and mechanics Words or ideas mentioned; very limited basic vocabulary No clear organization No transition words Frequent use of fragments and run ons.	Many errors in spelling, punctuation, grammar and punctuation Attempts to use new key words in description; goes beyond basic vocabulary Some order of main idea & details or sequence Occasional fragments or run ons	Some errors in spelling, punctuation, grammar and punctuation Uses new key/related words and ideas correctly; varies language Main idea & details or sequential, as appropriate Uses complete sentences; generally simple sentences	No errors in spelling, punctuation, grammar and punctuation Uses new key/related words/ideas easily; colorful, interesting words suitable for topic and audience Good flow of ideas from topic sentence Uses complete sentences; varying structure & length

Curriculum Sample Template—8 Pages Max. (12 pages for Integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 3rd		Content Area Math
Course Title (grades 9–12 Only)		
Alignment to Educational Program Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.		
Standard Number and Description The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.		
Materials/Resources Needed List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).		
		<p>Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas, including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area</p> <p>CCSS.MATH.CONTENT.3.MD.B.4</p> <p>Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.</p> <p>pencils, paper, rulers, markers, and crayons.</p>

Lesson (add as needed)	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	Students will do a pre-activity and lesson for OSI consisting of converting fractions to decimals.	Students will do a conversion activity comparing mass on Earth to Mercury. Mercury's gravitational pull compared to Earth is 0.38 or 38/100.
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Their main focus will be gravitational pull and planet distances from the sun. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to gravitational pull and planet distances from the sun while exploring the museum.

3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will complete a Solar System graphing activity.	Students will use data to create a bar graph relating to the planet distances from the sun.
5	Students will do a measuring activity. This will be a hands-on activity consisting of the use of rulers, pencils, markers, and crayons. The teacher will provide large sheets of butcher paper for the students to draw their planets. They will be allowed to move around the room and even work on the floor if so desired.	Students will complete a measurement activity that is meant to be an assessment in whole inches, halves, and fourths. First they will measure the planet's diameters using an inch ruler. Then they will measure the diameter using (mm). Using large sheets of paper they will construct the planets using either measuring units.
S.A.	Provide an opportunity for students to complete the Summative Assessment items. These Summative Assessment items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment items that will allow students	Students will take an assessment piece consisting of conversions, measuring, and graphing.

Approved 6.14.19 Page 12

to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	CCSS.MATH.CONTENT.3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

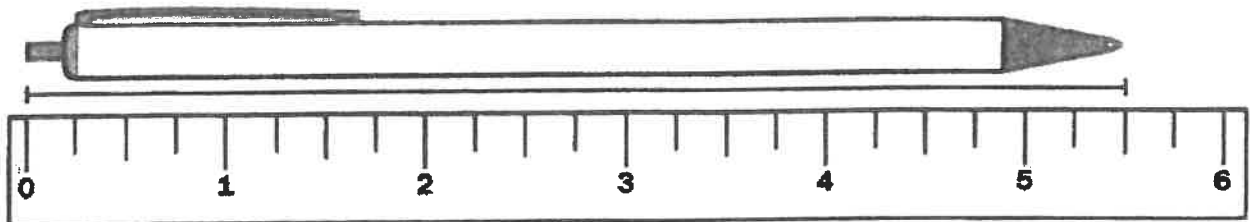
1. Measuring: Attached, Eight problems in all, 100 divided by 8 equals 12.5. Each problem is worth 13 points. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F Students will complete a diameter measurement activity that is meant to be an assessment in $\frac{1}{4}$, $\frac{1}{2}$, whole inches, and millimeters. First they will measure the planet's diameters using an inch ruler. Then, they will measure the diameter using (mm).
2. Calculate Your Weight on Other Worlds: Attached, Solve the conversions. 12 problems worth 8 points each. Grading Scale 90-100 A, 80-89 B, 70-79 C, 60-69 D, below 60 F
3. Graphing: Attached, Students will be given a pictograph with data for a cupcake bakery. They will use the data in the graph to answer the questions. Eight problems in all, two word problems worth 20 points each, the other six worth 10 points. Grading Scale 90-100 A, 80-89 B, 70-79 C, 60-69 D, below 60 F

Name: _____

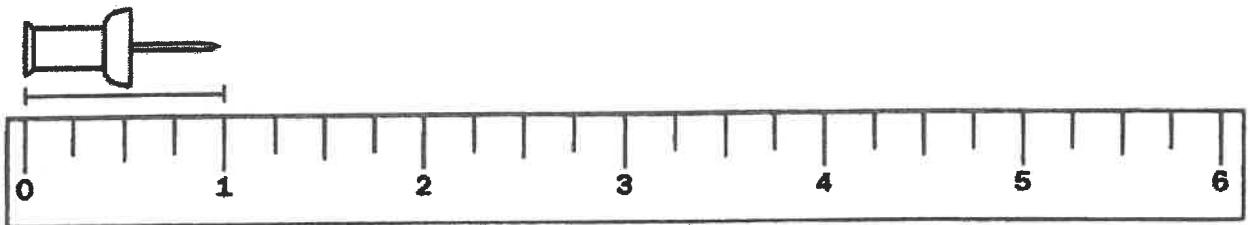
Measuring Inches

Measure to the nearest $\frac{1}{2}$ inch using the ruler shown.

a.



b.

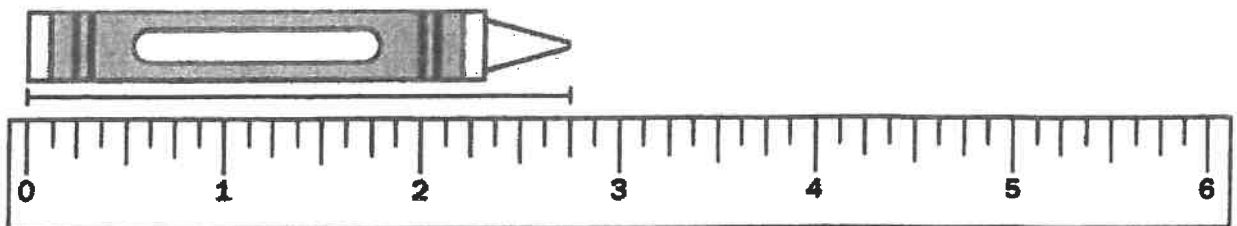


Name: _____

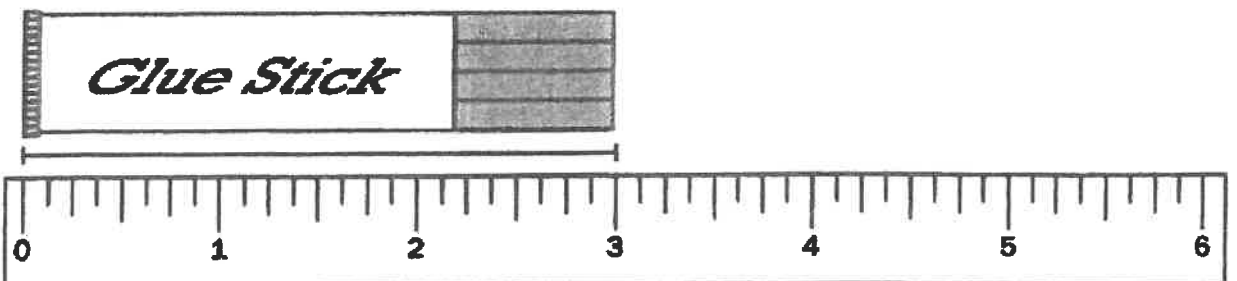
Measuring Inches

Measure to the nearest $\frac{1}{4}$ inch using the ruler shown.

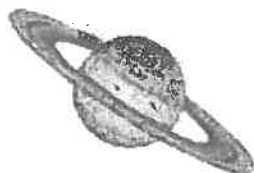
a.



b.



Calculate Your Weight on Other Worlds



Saturn is known as the "Ringed Planet" because it has colorful rings made of rock and ice. The gravity of Saturn is 108% of Earth's gravity.

To calculate your weight on Saturn, multiply your weight by 1.08.

$$\frac{\text{(Your Weight on Earth)}}{\text{(units - lbs or kg)}} \times \frac{\text{(Multiply by)}}{\text{(Your weight on Saturn)}} = \frac{\text{(units - lbs or kg)}}{\text{(units - lbs or kg)}}$$



Uranus spins sideways. It's north pole and south pole are on the sides.

The gravity of Uranus is 80% of Earth's gravity.

To calculate your weight on Uranus, multiply your weight by 0.8.

$$\frac{\text{(Your Weight on Earth)}}{\text{(units - lbs or kg)}} \times \frac{\text{(Multiply by)}}{\text{(Your weight on Uranus)}} = \frac{\text{(units - lbs or kg)}}{\text{(units - lbs or kg)}}$$



Neptune is a blue planet with extremely strong winds.

The gravity of Neptune is 112% of Earth's gravity.

To calculate your weight on Neptune, multiply your weight by 1.12.

$$\frac{\text{(Your Weight on Earth)}}{\text{(units - lbs or kg)}} \times \frac{\text{(Multiply by)}}{\text{(Your weight on Neptune)}} = \frac{\text{(units - lbs or kg)}}{\text{(units - lbs or kg)}}$$



Scientists no longer consider Pluto a planet. It's now considered a "Dwarf Planet."

The gravity of Pluto is 7% of Earth's gravity.

To calculate your weight on Pluto, multiply your weight by 0.07.

$$\frac{\text{(Your Weight on Earth)}}{\text{(units - lbs or kg)}} \times \frac{\text{(Multiply by)}}{\text{(Your weight on Pluto)}} = \frac{\text{(units - lbs or kg)}}{\text{(units - lbs or kg)}}$$

How much more would you weigh on Jupiter than Earth? Show your work.

answer: _____

How much less would you weigh on Pluto than Earth? Show your work.

answer: _____

Would you weigh more on the Earth's moon, or on Mercury?

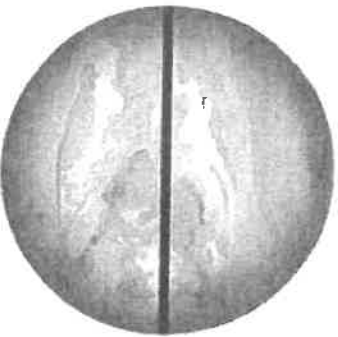
answer: _____

Name: _____

Measuring Planets

Directions: Use a ruler to measure the diameter of each planet.

Venus



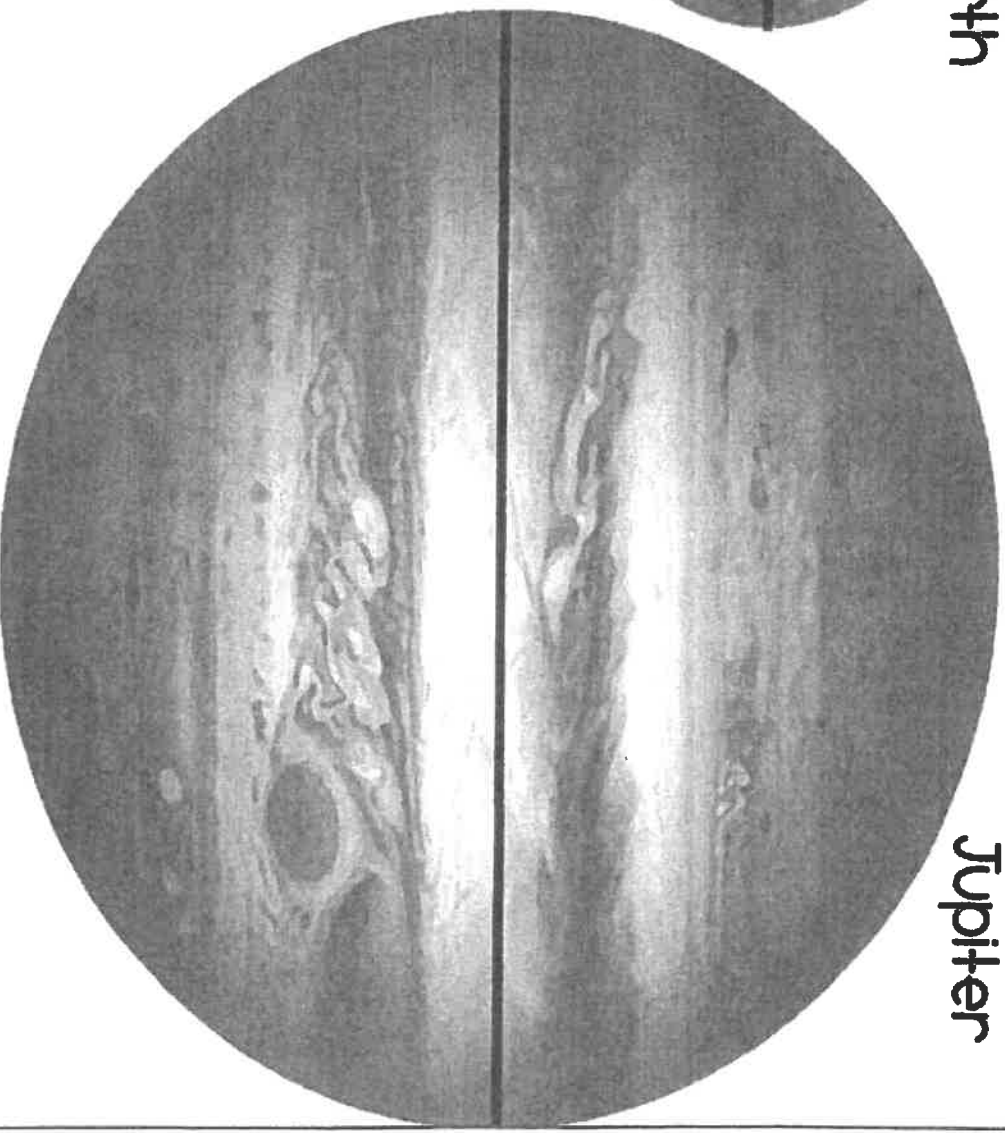
_____ inches

Earth

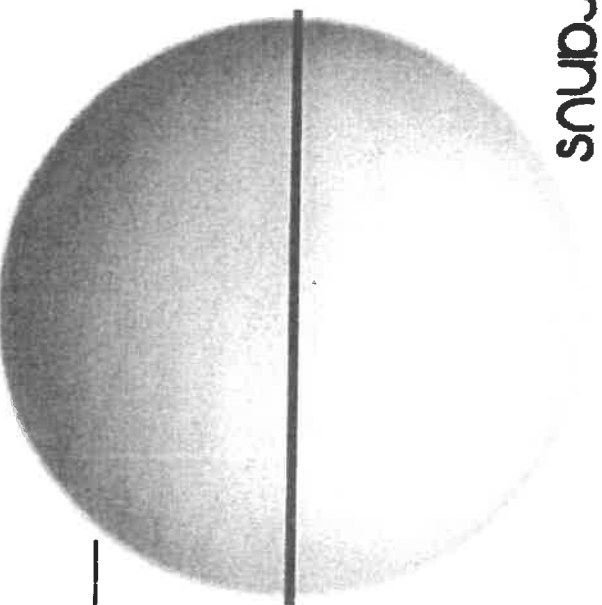


_____ inches

Jupiter



Uranus



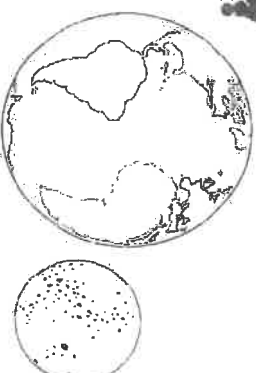
_____ inches

_____ inches

Name: _____

HOW MUCH DO YOU WEIGH ON MERCURY?

Mercury has less gravity than Earth, therefore on Mercury objects and people weigh much less. The gravitational pull compared to Earth is 0.38. Ex: A blue whale weighs 420,000 lbs. $420,000 \times 0.38 = 159,600$



1. How much do you weigh on Earth? _____ How much would you weigh on Mercury?

2. A small rabbit weighs about 4 pounds. How much would it weigh on Mercury?

3. A two year old child weighs about 25 pounds. How much would he/she weigh on Mercury?

4. A kitchen table weighs about 110 pounds. How much would it weigh on Mercury?

5. Queen Elizabeth's crown weighs 2.5 pounds. How much would it weigh on Mercury?

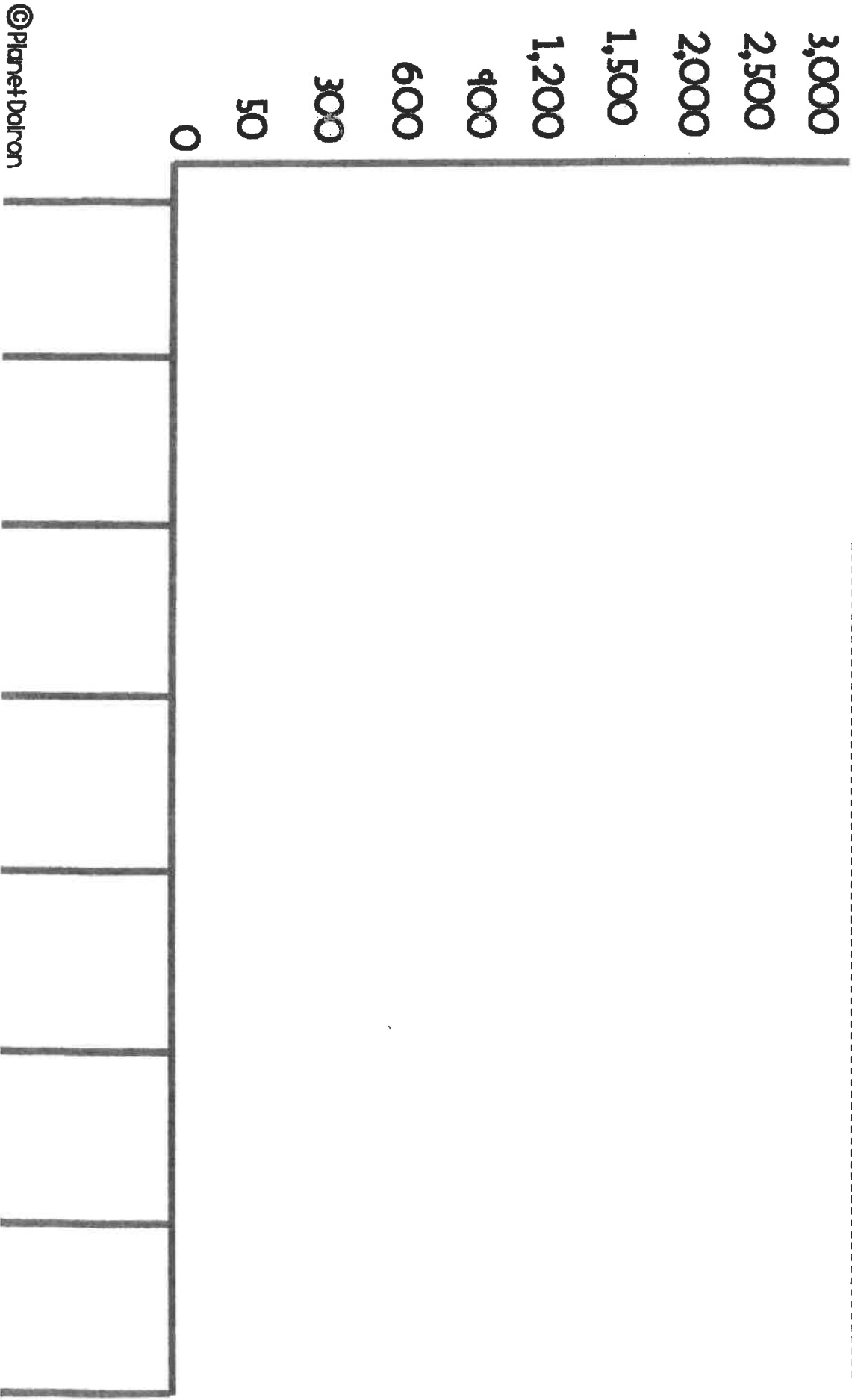
5. An adult cheetah weighs around 160 pounds. How much would it weigh on Mercury?

Name: _____

Solar System Graphing

Use the data to create a bar graph. Be sure to make it colorful and label the planets.

Planet distance from the Sun (estimated)					
Nepchune	2,800 million miles	Mercury	36 million miles		
Earth	93 million miles	Saturn	987 million miles		
Juplter	483 million miles	Mars	141 million miles		
Uranus	1,800 million miles	Venus	67 million miles		

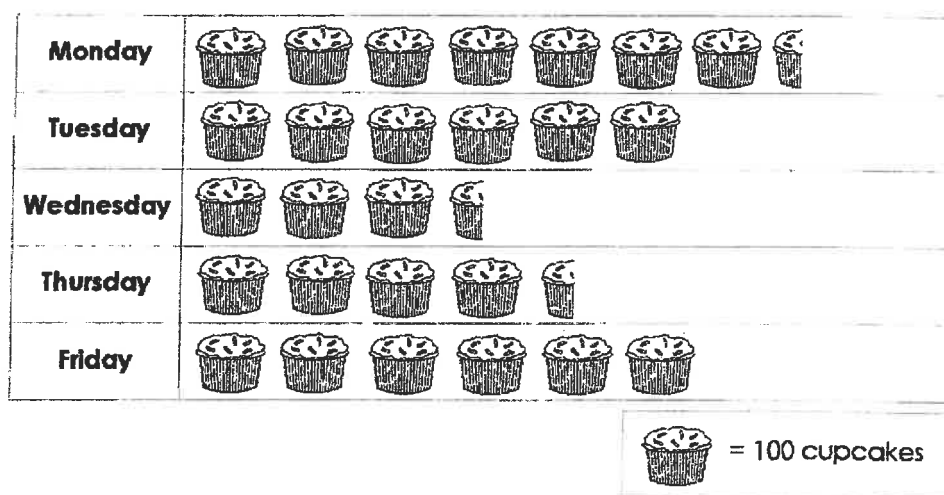


Name: _____

The Cupcake Bakery

The Cupcake Bakery makes cupcakes and ships them off to supermarkets across the country. The pictograph below shows how many cupcakes they bake each day. Use the information from the graph to answer the questions.

Number of Cupcakes Baked



- How many cupcakes were baked on Monday? 1. _____
- Were more cupcakes baked on Monday or Friday? 2. _____
- On which day were the fewest cupcakes baked? 3. _____
- How many cupcakes were baked on Tuesday and Wednesday combined? 4. _____
- How many more cupcakes were baked on Tuesday than Thursday? 5. _____
- How many more cupcakes were baked on Friday than Wednesday? 6. _____
- The Cupcake Bakery only makes two kinds of cupcakes: chocolate and white. On Friday, they baked 200 white cupcakes. How many chocolate cupcakes did they bake? 7. _____
- On Wednesday, the bakery made 100 chocolate cupcakes. How many white cupcakes did they make? 8. _____

Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 3rd		Content Area Social Studies
Course Title (grades 9–12 Only)		
Alignment to Educational Program		
Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.		Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning, students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding in the content area.
Standard Number and Description <i>The standard number and description (see instructions) of the standard being instructed and assessed to mastery in the curriculum sample. If more than one Standard is listed for a content area, one is clearly identified as the focus of review by having (M) before the standard number.</i>		K-4 Benchmark II-D: Understand how physical processes shape the Earth's surface patterns and biosystems. 1. Describe how physical processes shape features on the Earth's surface.
Materials/Resources Needed <i>List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).</i>		pencils, markers, crayons, glue

Lesson (add as needed)	Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.	Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.
1	Students will share what they know about the Earth's surface water.	Students will have a classroom discussion about the Earth being an ocean planet followed by a short video.
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Main focus will be the Earth's rotation, axis, and seasons.. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone, or teacher. They will be allowed to roam freely but must stay with their groups	Following the Planetarium presentation, the students will complete an OSI handout related to the Earth's Oceans while exploring the Museum.

3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will make a diagram or illustration of the Earth's season including.	Students will make their own illustration or diagram representing the Earth's Seasonal Changes including the Northern and Southern hemispheres, the Earth's tilt on its axis, and rotation.
5	Students will make a foldable.	Students will make a foldable of the Earth showing its Rotation and Revolution.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will take an assessment piece consisting of fill in the blank and short answer. All questions will be pertaining to the Earth's Seasonal Changes.

Approved 6.14.19 Page 12

to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	<p>K-4 Benchmark II-D: Understand how physical processes shape the Earth's surface patterns and biosystems.</p> <p>1. Identify the components of the Earth's biosystems and their makeup (e.g., air, land, water, plants, and animals).</p> <p>2. Describe how physical processes shape features on the Earth's surface.</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores.

Assessment:

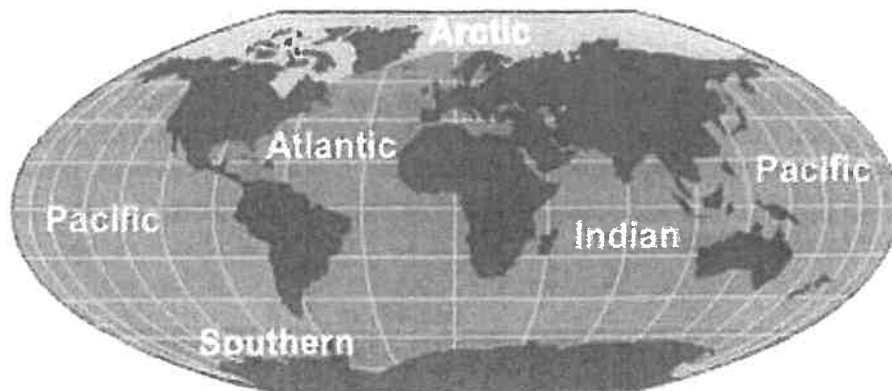
1. "What's the Big Idea about Water? Water's Impact on the Earth". Attached, 3 short answer questions worth 33 points each RACED Rubric
2. "Mountains and Oceans". Attached, 7 multiple choice and 2 short answer questions with each multiple choice worth 10 and short answer worth 15 each. RACED Rubric Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F
3. "Planets" Article a Day: Attached, Book of Knowledge, students record three main facts from the article using correct grammar, capitalization and sentence structure. RACED Rubric Three facts worth 33 points each. RACED Rubric Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F

Resources:

1. <https://www.youtube.com/watch?v=1WZsxVDTqeU>
2. <https://www.youtube.com/watch?v=WAW0sFMl6gA>
3. <https://www.youtube.com/watch?v=RvDPxq28BAU>

Mountains & Oceans: The Earth's Oceans

by ReadWorks



The earth's oceans hold 97% of the planet's water and cover about 70% of the planet's surface. There is an incredible amount of life in the oceans. There are thousands and possibly millions of animal and plant species living in the earth's oceans.

The earth has five oceans. They are the Pacific, Atlantic, Indian, Arctic, and Southern Oceans. The Pacific Ocean is the largest, and the Arctic Ocean is the smallest. The five oceans are connected, and together they make up one large "world ocean. "

The world ocean is important to the earth. It distributes heat all over the earth, and the world ocean's currents regulate the earth's climates. Without the world ocean, the hotter areas of the earth would be even hotter, and the colder areas would be even colder.

Changes in the earth have affected the oceans. For example, some human activities release greenhouse gases into the air. These gases trap heat in the earth. As a result, the world ocean has been getting warmer. This can cause the earth's climates to change.

Our actions on land also have affected life in the oceans. For example, when people litter or when oil drips from cars onto streets, the litter and oil often end up in the oceans. This has caused harm to many living things in the world ocean, and a lot of marine animals have died as a result.

We need to do our best to take good care of the oceans. The world ocean supports our lives, and it supports the lives of many other living things. We should support the ocean too.

Vocabulary

current

noun

definition: When we talk about the current of a river, we are talking about the movement of the water as it goes along. If the current is very strong, it can move a boat very fast. Air also moves in currents. A strong air current can make an airplane go much faster.

It was easy for the swimmers to swim in the same direction as the current, but it was hard to swim back.

Spanish: corriente

distribute

verb

definition: to divide into parts and give out to each of several people or groups.

The teacher distributed the tests to her students.

Spanish: distribuir, repartir

forms: distributed, distributes, distributing

marine

adjective

definition: A marine animal is an animal that lives in the sea. A marine scientist is a person who studies the sea. When something is called "marine," it has something to do with the sea.

Spanish: marino

What is Earth like?

Our home planet Earth is a rocky, terrestrial planet. It has a solid and active surface with mountains, valleys, canyons, plains and so much more. Earth is special because it is an ocean planet. Water covers 70% of Earth's surface.

Our atmosphere is made mostly of nitrogen and has plenty of oxygen for us to breathe. The atmosphere also protects us from incoming meteoroids, most of which break up in our atmosphere before they can strike the surface as meteorites.

Since we live here, you might think we know all there is to know about Earth. Not at all, actually! We have a lot we can learn about our home planet. Right now, there are many satellites orbiting Earth taking pictures and measurements. This is how we can learn more about weather, oceans, soil, climate change, and many other important topics.

Earth Facts

- Earth is the only planet in our solar system we know of that supports life.

What's the Big Idea about Water? Water's Impact on the Earth

by American Museum of Natural History

This text is provided courtesy of OLogy, the American Museum of Natural History's website for kids.

All Water on Earth Is Linked in a Vast Cycle

Earth's water is always in motion. It moves inside the planet, across its surface, and in the atmosphere above.



Photo Credit: Coombs / USGS

Water in lakes, rivers, and oceans turns into vapor and moves into the air through evaporation. Plants draw water from the soil and return it to the air. Volcanoes release water vapor that was locked deep inside rocks. All that water rises and falls back to Earth as rain or snow. This water cycle repeats over and over.

Can you imagine how far the water in your shower has traveled? (Remember, it's been on Earth for over 4 billion years!) Where do you think it will go next?

Water and Climate Are Connected in Many Ways

Climate is the average weather in a place, over a long time. Water, in its various forms (liquid, vapor, and ice), plays an important role in controlling climate.

At the North and South poles, sea ice forms and melts with the seasons. When the ice melts, cold water sinks to the bottom of the ocean and circulates around the globe.

Ocean currents also move warm water around the earth.

When the warm water evaporates, it causes the atmosphere above it to warm. Water vapor, and other greenhouse gases in the atmosphere, hold in the sun's heat like a blanket. Together, these processes keep our planet from getting too hot or too cold.

Falling and running water erodes rocks, creating giant canyons. Rivers and streams move dirt that forms new land.

Water Shapes Our Planet

Water runs easily through your fingers. It may not feel powerful. But lots of water, acting over time, shapes the world around us.

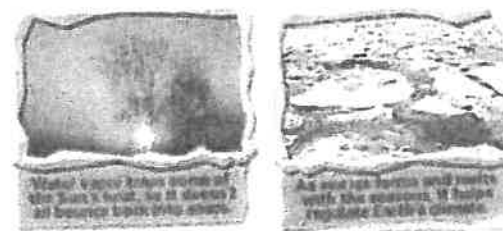


Photo Credit: NSF (top); V. Ryzin (bottom)

Name: _____ Date: _____

1. Earth's water is always in motion. It moves inside the planet and in the atmosphere above. Where else does water move?

RACED Rubric

2. Describe how the motion of the earth's water affects the planet.

Support your answer with evidence from the text and images.

RACED Rubric

3. What is the main idea of this text?

RACED Rubric

Glaciers scrape across the ground, carving valleys and dragging debris. Tides and storms claw away at coastlines. And water locked in Earth's crust actually has a role in moving the giant continents below our feet.



Photo Credit: NPS Central Park (top); AMNH / T. Gaud (bottom)

Name: _____ Date: _____

1. According to the text, what makes up the world ocean?

- A. the Atlantic and Pacific Oceans
- B. the Pacific and Arctic Oceans
- ☒ C. the earth's five oceans
- D. the earth's largest ocean

2. What is the cause of the world ocean getting warmer?

- A. The earth's oceans cover about 70% of the earth's surface.
- B. Thousands of animal and plant species live in the earth's oceans.
- C. The world ocean distributes heat all over the earth.
- ☒ D. Greenhouse gases released by human activities trap heat in the earth.

3. Read these sentences from the text.

[S]ome human activities release greenhouse gases into the air. These gases trap heat in the earth. As a result, the world ocean has been getting warmer. This can cause the earth's climates to change.

What can you conclude about the earth's oceans based on this information?

- A. The earth's oceans are not affected by human activities.
- ☒ B. The earth's oceans impact the climates on the earth.
- C. Greenhouse gases usually change the color of the earth's oceans.
- D. If it snows enough, the earth's oceans will become cooler again.

4. Which of the following conclusions is supported by the text?

- A. It is unclear how the earth's oceans affect the earth's climates.
- B. Enough is being done to protect the world ocean.
- C. Litter and oil do not affect the world ocean.
- ☒ D. Many living beings, including humans, depend on the oceans.

5. What is the text mostly about?

- A. where water comes from and how it is used
- B. how some oceans are different from others
- C. all the environmental issues facing the earth
- ☒ D. the world ocean and how it is important

6. Read these sentences from the text.

Changes in the earth have **affected** the oceans. For example, some human activities release greenhouse gases into the air. These gases trap heat in the earth. As a result, the world ocean has been getting warmer.

As used in the text, what does the word "**affected**" most nearly mean?

- ☒ A. caused a change in
- B. disturbed
- C. helped or supported
- D. got rid of

7. Choose the answer that best completes the sentence.

The oceans are very important to life on the earth _____ so many plants and animals live in the ocean.

- A. thus
- B. therefore
- C. although
- ☒ D. because

8. According to the text, what are the names of the five oceans?

RACED Rubric

9. Why might it be important to take good care of the world ocean? Use evidence from the text to support your answer.

RACED Rubric

Curriculum Sample Template—8 Pages Max. (12 pages for integrated ELA sample). Instruction Pages above should be deleted before submission.

Grade Level 3rd		Content Area Science	
Course Title (grades 9–12 Only)			
Alignment to Educational Program			
Describe how the methods of instruction found in this sequence of lessons align to the Educational Program described in the charter contract and the Amendment Request.		Students will be attending an OSI, Out of School Instruction, to the NM Museum of Natural History Planetarium. Students will do a pre-activity related to the OSI in all content areas; including but not limited to Math, ELA, Science, and Social Studies. While at the museum they will complete related materials for each content area. Upon returning students will complete a follow up activity. The post activity will be a summative evaluation to check for the students' understanding of the content area.	
Standard Number and Description		<p>(M) Strand II: Content of Science</p> <p>Standard III (Earth and Space Science): Understand the structure of Earth, the solar system, and the universe, the interconnections among them, and the processes and interactions of Earth's systems.</p> <p>K-4 Benchmark I: Know the structure of the solar system and the objects in the universe.</p> <p>CCSS.MATH.CONTENT.3.MD.B.4</p> <p>Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.</p>	
Materials/Resources Needed		Computers, rulers, toothpicks, marshmallows, toilet paper rolls, pencils, black construction paper, scissors, glue, and rubber bands.	
List all items the teacher and students will need for the entire sequence of instruction (excluding common consumables).			
Lesson (add as needed)		Student Activities—Describe the Student Activities, lesson by lesson, that would clearly provide students with opportunities to engage in or master the grade-level rigor defined by the standard identified as the focus of review. Indicate alignment of Student Activities to the standard/component identified as the focus of review and specific Standard(s) of Mathematical Practice.	
Instructional Strategies—Describe the Instructional Strategies, lesson by lesson, that would clearly provide students with opportunities to engage in the grade-level rigor defined by the Standard identified as the focus of review.			

1	Students will do a pre-activity and lesson for OSI consisting of a "What I Know chart" and a movement activity. Students will be given time to share their charts. When doing movement activity students will be in groups of 9. So, we will do this more than once so everyone is included. This will be very fun especially when they all start moving in the direction of their orbit Around and around we go.	First students will complete a What I Know chart. They will share in an open forum. Then they will be introduced to the "Solar System" through guided teacher sharing. This will include the sun, phases of the moon, and planets. Students will watch a short video on The Solar System. This will be followed by participating in an activity where one stands in the middle representing the sun. Other students, representing planets, will take a certain amount of steps away from the sun showing the orbital comparison.
2	Students will explore the museum while on the OSI and complete materials related to the Planetarium. Main focus will be the sun, moon, planets and constellations. Students will experience a sense of freedom as they explore the museum in groups of six along with a parent chaperone. They will be allowed to roam freely but must stay with their group!	Following the Planetarium presentation, the students will complete an OSI handout related to the sun, moon, planets, and constellations while exploring the Museum.
3	Students will complete a post OSI assessment.	Students will take an assessment piece consisting of OSI related material.
4	Students will participate in a hands on STEM activity. Students will be allowed to pair up or even work in groups of threes. Teacher will provide marshmallows, toothpicks, black construction paper, toilet paper roll, and bendy straws for students to manipulate. Should be lots of fun!	Students will participate in a hands-on STEM activity. They will make Zodiac Constellations using toothpicks and marshmallows. They will also be encouraged to design their own constellation, naming it, and placing it in the night sky. STEM skills utilized include team work, engineering, trial and error, and accuracy. When completed students will make a constellation viewer out of a toilet paper roll and black construction paper.
5	Students will do a measuring activity. This will be a hands-on activity consisting of the use of rulers, pencils, markers, and crayons. The teacher will provide large sheets of butcher paper for the students to draw their planets. They will be allowed to move around the room and even work on the floor if so desired.	Students will complete a measurement activity that is meant to be an assessment in whole inches, halves, and fourths. First they will measure the planet's diameters using an inch ruler. Then they will measure the diameter using (mm). Using large sheets of paper they will construct the planets using either measuring units.
S.A.	Provide an opportunity for students to complete the Summative Assessment Items. These Summative Assessment Items are assessed independently and are separate from instruction and guided or independent practice. In the Student Activities column, describe the Summative Assessment Items that will allow students	Students will take an assessment piece consisting of fill in the blank and short answer. All questions will be pertaining to the sun, moon, and planets.

Approved 5.14.19 Page 12

to demonstrate mastery of the rigor of the standard/components identified as the focus of review, and the context in which the items will be administered.	<p>4 Benchmark I: Know the structure of the solar system and the objects in the universe.</p> <p>1. Describe the objects in the solar system (e.g., sun, Earth and other planets, moon) and their features (e.g., size, temperature).</p>
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		<p>2. Describe the relationships among the objects in the solar system (e.g., relative distances, orbital motions).</p> <p>3. Observe that the pattern of stars stays the same as they appear to move across the sky nightly.</p> <p>4. Observe that different constellations can be seen in different seasons.</p> <p>5. Know that telescopes enhance the appearance of some distant objects in the sky (e.g., the moon, planets).</p>
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Summative Assessment Items and Scoring:

Provide below, at least three Summative Assessment Items for each content area, with answer key(s) and/or scoring rubric(s), clearly describing, for each Summative Assessment Item, components to be scored and how points will be awarded, that together accurately measure student mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review. Mastery of the application of the content and/or skills as defined by the grade-level rigor in the standard identified for review is clearly demonstrated by an identified acceptable score or combination of identified acceptable scores

Assessment:

1. *Space Unit Notes: Attached, scores are 100 divided by the total number of questions. For example: Space Unit Notes have three short answer questions each worth 10 pts. That leaves 70 points. That 70 points is divided by 12, the remaining number of questions. This works out to be 6 points each. 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
2. *Solar System Fact Tiles: Attached, 12 total tiles worth 8 points each. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
3. *Space Unit Test: Attached, there are 27 total questions. 100 divided by 27 equals 3.7 which rounds up to 4 points each. Grading Scale 90-100 A 80-89 B 70-79 C 60-69 D below 60 F*
4. *STEM Activity: This activity will be measured through teacher observations of students. Teacher is looking for STEM qualities namely, team work, engineering, trial and error, and accuracy.*

Name: _____

Space Unit Notes

What is a constellation? _____

Why do constellations never appear to change position in the night sky even though the Earth is revolving around the sun? _____

A _____ is a mobile unit designed to travel across outer space terrain to take photographs and collect samples.

A _____ is made to orbit around in outer space taking photographs.

A _____ safely lands orbiters and rovers to their destinations in outer space.

A _____ is placed in outer space and uses the gravitational of planets/moons to propel itself around while taking pictures.

How do satellites in space help with our daily lives?

Space Unit Notes page 2

Moon:

The moon is also known as a natural _____, that orbits around the Earth every _____ days.

The moon is _____ miles away from the Earth.

The sun's light _____ off the moon in different angles depending on the moon's position as it revolves around Earth.

Moon Phases:

The moon appears bright to us because that part of the moon is lit up by the _____. The bright parts of the moon change to us because _____. When the moon is between the _____ and _____, we cannot see the moon lit which is a new moon.

Draw and label the moon phases in the space below

NAME. _____

Solar System

Cut out the Solar System fact tiles at the bottom of the page. Glue them into the box next to the correct name.

Mars		Mercury		Pluto	
Jupiter		Uranus		Sun	
Earth		Venus		Asteroid Belt	
Saturn		Neptune		Moon	

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second largest planet; sixth planet from the Sun	smallest planet; closest to the Sun	area between Mars and Jupiter with millions of asteroids	hottest planet; second planet from the Sun	largest planet; fifth planet from the Sun	dwarf planet
only planet known to support life; third planet from the Sun	seventh planet from the Sun; spins on its side	a natural satellite that orbits a planet	star that is in the center of our Solar System	cloudy planet; eighth planet from the Sun	red planet; fourth planet from the Sun

Name: _____

SPACE UNIT TEST

1. A _____ is a group of stars that form an imaginary pattern.
a. galaxy b. constellation c. yellow dwarf d. astronaut
2. Stars are made of _____.
a. gases b. rocks c. moon dust. d. craters
3. Explain the heliocentric model of the universe.

4. The moon is a natural satellite and orbits the Earth every _____ days.

5. What type of star is our Sun?

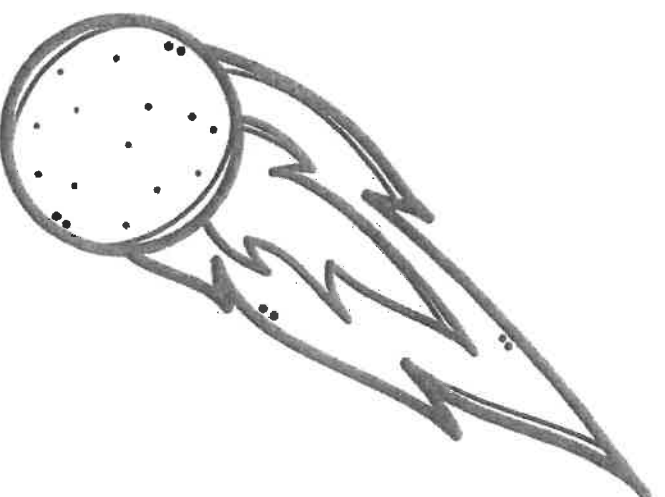
a. giant star b. red dwarf c. blue giant d. yellow dwarf

6. What is the average temperature of the Sun?

a. 1 million degrees b. 100 degrees c. 9,000 degrees d. 800 degrees

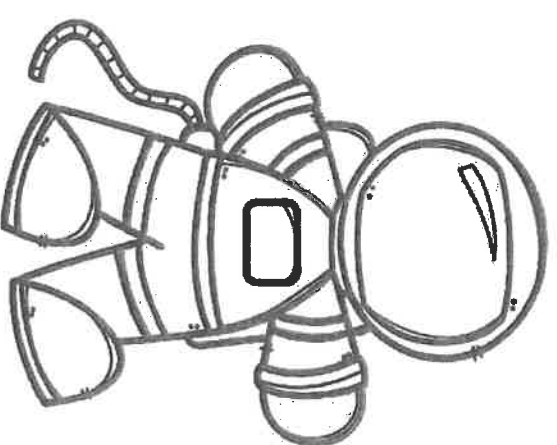
7. Life is not possible on Earth without the _____ and _____ from the sun.

8. How do satellites orbiting in outer space help us with our daily lives?



Space Unit Test page 2

9. True or False: The position of the stars never change in the sky. _____
10. The parts of the moon that we see as bright, are facing and lit by the _____.
a. Earth b. Milky Way c. Sun d. moon
11. Draw and label the 8 moon phases.



12. How far is the moon from the Earth
a. 11,000 miles b. 152,000 miles c. 1 million miles d. 239,000 miles
13. Explain why we have four seasons (summer, fall, winter and spring) on Earth.
14. True or False: Earth is made up of 70% water. _____