

As you complete this flexible learning path form, please delete all green text. Then make sure your text is always left-justified.

Blue Boxes are for General Lesson Information
Purple Boxes are for Student Opportunities and Learning
Green Boxes are for Teacher Opportunities and Learning

Links to learn - November 11
Teaching - November 18
Assessment Day - November 23
Fieldtrip - December 7

PART ONE

Lesson Subjects:

Science, Reading/Language Art, Art

Grade Level:

Grade 4

Type of Lesson: Check all that apply.

Is this path going to be for:

☒ Small-Group(s)

☒ Whole Group

☐ Individual

☐ Centers/Stations

☐ Cooperative Learning

☐ Direct Instruction

☐ Other

Goal(s):

Students will be able to identify and label the phases of the moon.

Students will be able to explain why the moon looks different on different days.

Standard Identifier	Standards:
4.ESS.1	Investigate how the moon appears to move through the sky and it changes day to day, emphasizing the importance of how the moon impacts the Earth, the rising and setting times, and solar and lunar eclipses.
4.RF.5	Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.
VA:Cr3.1.4a	Revise artwork in progress on the basis of insights gained through peer discussion.
4.W.2.1	Write legibly in print or cursive, forming letters and words that can be read by others.

Standard Identifier	Objectives:
4.ESS.1 & 4.W.2.1	By the end of the lesson the students will be able to discuss and write legibly the different ways the moon looks throughout the month and why it has different shapes.
4.RF.5	By the end of this lesson the students will be able to confidently read and understand the phases of the moon by reading popcorn, "The Faces, or Phases of the Moon."

VA.Cr3.1.4a	By completing the "Moon Phase Strip," students will be able to compare their artwork in small groups and discuss what the differences are and why the small changes in drawings are important.
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PART TWO

Need to Know:

Students need to know how the moon's appearance changes on different days. They need to know that the moon's shape does not actually change, it is just the way we see it.

Prerequisite Skills:

Fine motor skills- scraping and holding a pencil
Fine motor skills- handwriting (write sentences)
Reading skills- reading at fourth grade level
Social skills- communicating and working with peers

Prior Experience/Learning Necessary:

Students will need to have previous knowledge in reading and vocabulary comprehension.

Students will need to have learned how to properly hold a pencil and write.

Students will need to know how to work with others.

Learner Profiles

What do you know about the learners?	Names, accommodations, interests, and learning styles
What do you need to know about the learners that you do not already know?	What do they know about the moon? Where do they live, if they have the visibility of a clear night sky safely?
What areas of interest fit with my topic?	Space, Planets, Earth's Moon, & the Sky
With your knowledge	If we have a gluten-intolerant student, with

of the learners, what safety concerns will you address and how will you address them?	this knowledge we will also have gluten free oreos available. They will also need to make sure that their hands are clean before working with the oreos by using hand sanitizer.
With your knowledge of the learners, what behavioral concerns do you need to address and how will you address those?	Being 4th grade learners, there is a potential of them eating the oreos before the end of the lesson. With this knowledge, oreos won't be handed out until it is time for them to start the activity. The coloring might not be well done, with this we will ask them to do their best coloring skills. The scissors might become dangerous if they aren't properly cutting what they should be. We will address this issue if they aren't doing what they should be by removing scissors and doing the cutting they need. Students might use glue in a poor manner, if they do we will address this by assisting them with helping them glue.
How will you learn the names of your learners?	When the students are placed into small groups we will read their names off the class list, giving us the opportunity to place their face with their name.
What accommodations and/or modifications may be needed for the learners?	Some students might need assistance in handling oreos, so pair those students with other students that have mastered fine motor skills and assure extra hand sanitizer. Some students might not be confident in their reading skills, so we will ask for volunteers to read.



PART THREE

Content Resources	
I will read:	https://www.wartgames.com/themes/science/moon.html https://www.amazon.com/Faces-Phases-Moon-Astronomy-Childrens-ebook/dp/BO739VSGS4/ref=tmm_kin_swatch_O?_encoding=UTF8&qid=1635427690&sr=8-3
I will listen to:	https://www.youtube.com/watch?v=vt_LtIJyISQ
I will watch:	https://www.youtube.com/watch?v=B-b4XvuQoTY
I will research:	http://www.if.ufrgs.br/~fatima/trabalhos/fasesdalu/7-2-2.pdf
Additional:	https://solarsystem.nasa.gov/moons/earths-moon/lunar-phases-and-eclipses/
Simulations to use:	https://sepuplhs.org/middle/third-edition/simulations/moon_phase_simulation.html
Games to play:	https://matchthememory.com/BESLclass
Online resources to use:	https://www.moongiant.com/phase/10/28/2021/
Physical Resources to use:	Paper templates such as oreo paper for students to set Oreos on. A coloring page for the students to color the phases of the moon. A crossword for students to do at home. A matching worksheet as an assignment. A calm down activity of coloring an astronaut.
Additional:	https://www.studystack.com/flashcard-2507130

PART FOUR

Opportunities for:	
Curiosity to be peaked	Students will be able to question how the sun influences the 8 phases of the moon and how that will affect the view on the Earth.
Self-Motivation	Students will be able to eat Oreos once they have finished the activity.
List questions you will ask that will create interest, curiosity, and motivation.	What shape do you think the moon will be tonight, and why? Do you think the clouds, rain, or lighting storms have anything to do with the shape of the moon? What myths have you heard about the moon?
Collaboration	Students will work with another student during their activity.
Creativity	The students will be able to color the phases of the moon as they orbit around the Earth at different times so they have a visual aide for the Oreos.
Critical thinking	The students will have to look at the worksheet and figure out the moon's phases based on where the sun is.
Communication	Students will participate in reading a book during the lesson. The students will also have to communicate with their small group they are being paired in.
Vocabulary Development	The students will learn all 8 phases of the moon by being able to match the phases with the vocab words and their correct names to expand their vocabulary. We will use a PowerPoint and a song to teach children.
Learner management of the learning process	Students will create their own visual display of the moon phases with Oreos by themselves by using the templates that we will be giving them during the lesson. They will manage their process by building their models. They are able to visualize the phases

	of the moon and learn from seeing it in front of them.
Learner documentation of the learning process	By asking the students the name of the moon phases at the beginning of the lesson compared to asking the students the name of the moon phases at the end, the students will be able to document their growth by naming more phases. The teacher will take note of their prior knowledge and their knowledge after the assessment. This will be done during the review of the assessment.
Question development	The students will be able to ask questions on why the sun rotates and changes the way the moon appears to us on Earth.
Active exploration	The students will be engaged in sculpting the 8 moon phases from Oreos along with labeling the correlating phase.
Differentiation for individual learners	<p>The students will be able to visually watch an example of the moon's phases by seeing a demonstration.</p> <p>The students will auditorily be able to hear a song discussing the phases of the moon.</p> <p>The student will be able to kinesthetically be able to shape the Oreos to the phases of the moon.</p>

Opportunities for:	
Development of behavior management skills	The teacher will learn redirection strategies, helpful students, and what students struggle with maintaining attention.
Use of open-ended questions. List at least <u>six</u> open-ended questions.	<p>What shape was the moon?</p> <p>I remember that the moon has 8 different phases with 8 very different shapes. What were some of those shapes?</p> <p>Why do you think the moon would appear to us as having different shapes?</p>

	<p>Do you think the sun affects the shape of the moon? Why do you think this might be?</p> <p>Does anyone know how many phases there are in the moon's phases?</p> <p>What are some names of the moon's phases?</p> <p>Which moon phase is your favorite? Why?</p>
Teamwork	<p>The students will work in a group to write the name of each moon phase on the line and draw the moon phases.</p> <p>The teachers will use the oreo activity as a teamwork skill by assisting every group when needed.</p>
Skill development	<p>Teachers will learn multitasking by helping students while simultaneously keeping track of other students that need assistance, how to manage time properly with making sure each student has the right amount of time for given assignments, and organization skills.</p>
Leadership skill development	<p>The teacher will learn how to be able to control the classroom by keeping the students engaged and seeing what rules they respond best to. They will learn this because they will ask a command and take mental notes of responses. The teacher will also learn that showing examples helps the students understand the teachers expectations.</p>
Problem Solving	<p>The teacher will learn how to respond to errors in their worksheets by asking the group for clarification. The teacher will keep the children on task by seeing when they are struggling or when there is too much downtime.</p>



PART FIVE

Materials/Equipment/Supplies:

List everything that will be used in the completion of this lesson. Identify how many of each item will be necessary and place the items in the correct category below. Add additional cells as needed.

<u>Consumable</u>	<u>Non-Consumable</u>	<u>Electronic</u>
Four family size pack of Oreos	Crayons	Computer
Hand Sanitizer	Pencil	"There was an old Astronaut who swallowed the Moon" book
"Oreo Template"		Powerpoint
"Moon Phase Strip"		Song
Astronaut Coloring Page		
Crossword Puzzle		
Popsicle sticks		

Vocabulary

New moon,	Waxing Crescent	First Quarter
Waxing Gibbous	Full moon	Waning Gibbous
Last Quarter	Waning Crescent	Lunar Eclipse
Phases	Sphere	Transform
Conjunction	Illuminated	Narrow

Procedure & Dialogue:

EVERYONE CLAPS 8 TIMES

Ali- Asks the introduction question, "does anyone know why we clapped 8 times?" "It has to do with the moon, because it has 8 phases to it" "What do you see in the sky at night? Does anything move in the sky? Does the shape of the moon change from one night to another?"

Brylee: "When the moon changes shapes on different days this is referred to as the moon's different phases. The moon has 8 different phases it goes through." Today we are going to discuss what the 8 phases are!

Kaitlyn: What do you think the names of the phases are? We have a fun video introducing the 8 phases, let's see if you got any right!

***play video, https://www.youtube.com/watch?v=vt_LtIJyISQ ***

Kannin: Did any of the phases stand out to you? ***pause for at least 10 seconds for answers*** Which one was your favorite?

Ali: My favorite phase is the full moon. It is a good excuse to howl at the moon, but also because it is big and bright! Let's all take a minute and howl at the screen! ***students where you at can we get a handclap***

Kannin: ***turns on PowerPoint and begins telling why the phases of the moon are important begins slideshow***

Group: Splits slideshow then leaves on slide 14.

<https://docs.google.com/presentation/d/1FYjcNgaiep6begTIIh8bZ7zKUVRqJ3XY/edit?usp=sharing&ouid=107935904839034146471&rtfpof=true&sd=true>

Kaitlyn: ***passes out coloring phase template before they break into pairs***

Brylee: Wow everyone you seem like experts! We are going to break you into partners of 2 to see what you know! ***Take a mental note of how many students we have, cut in half and initiate counting around the room to make the pairs*** You can use the screen as reference!

Ali: ***TRANSITION: puts them in groups by counting off***

Kaitlyn: ***wait until they transition*** Whoever is sitting on the left, will come get the crayons? Whoever is on the right, will you please come get the papers? You and your partner are going to color the correct phases with the correct name.

Kannin: When you and your partner finish, come up to us and we will check your work. Then we will give you a piece of paper, a set of oreos, and a popsicle stick.

Brylee: DO NOT EAT THE OREOS, yet!


Ali: You are going to label the phases in the correct order with your partner then gently open your oreo and begin to use the popsicle stick to carve the cream the correct shape. Be sure to discuss with your partner when the different phases happen. When you are done and you get it checked by us, you get to eat your creation until the other groups are done!

Kannin: * after around 15 mins check the students progress* "It looks like everyone is done so it is time for us to move on, everyone clean up your work space and *TRANSITION: demonstrate how to moonwalk and have student moonwalk to the front* to the front of the room and we are going to read a fun story!

Brylee: Everyone make a BIG circle and go ahead and sit criss-cross applesauce and catch a bubble in your mouth.

Ali: We are going to pass the book around and read using the book, "There was an Old Astronaut Who Swallowed the Moon." Written by Lucille Colandro and Illustrated by Jared Lee. I am going to start and then the person next to me will read the next 2 pages and pass it to the person next to them! *Ali begins book*

Kannin: You may stand up and go back to your seat. *pause time* For the rest of the time we are going to color an old astronaut similar to the one we just read about. You can color it however you want! (CLOSURE)

Transition Times:	Transition Management Methods:
Whole group to partner activities, making art projects (However many students (24), have students count 1-12 around the room and matching numbers are the pairs of students)	Moon walk to find partners. 
Partners to whole group, (Head to the front of the room to do popcorn reading)	Tiptoe to the front of the room

Checkpoints: When?	Checkpoints: How?
At the end of the Google slideshow	Showing pictures of the phases and having them respond with the

At the end of "phases of the moon coloring template"	name
When they return their homework	Having them come up to us as we check them off
Official Assesment	Grading their homework for spelling and correctness
	Matching paper for correctness

Summative Assessment:

They will be assessed by being given the "Moon Phases Coloring Paper" and completing the assignment.

- The students will discuss the moon phases and how they work in partners then legibly write about their favorite and least favorite moon phase. ***Flip on back***

The student will be assessed by seeing how fluently they read out loud. They will receive a passing grade if they attempt to read the section given.

- By the end of this lesson the students will be able to confidently read and understand the phases of the moon by reading popcorn, "The Faces, or Phases of the Moon."

The students will be assessed by seeing if they willingly cooperate in their small groups.

- By completing the "Moon Phase Strip," students will be able to compare their artwork in small groups and discuss what the differences are and why the small changes in drawings are important.

FINAL ASSESSMENT:

The students will be assessed by seeing if they can match the term and definition by being separated. Half will have the term and the other half of the students will have the definition then with a piece of yarn they will have to find the matching answers by holding each side of the yarn. Then will cut and glue the correct phases as they go.

Rubric:

The rubric will be applied after class as a grading tool.

<https://docs.google.com/document/d/1CxaZY4l3cebB5r32xeNqi7c>

balmCZYn9/edit?usp=sharing&ouid=102414541616379381614&rt_pof=true&sd=true

