

# UNIT 11: Moon *at a glance*

## WORDS

LEVEL 1	LEVEL 2	LEVEL 3
Air Backpack Dark Earth Full Hide Moon Night Smooth Yawn	Breathe Footprints Human Miles Million Orbit Phases (Moon) Planet Shade Spacesuit Travel	Astronaut Chalky Gravity Satellite Solar System Spacecraft Waning Waxing

## SUGGESTED BOOKS

Expository	Narrative
<i>The Moon</i> by Melanie Chrismer <i>The Moon Book</i> by Gail Gibbons	<i>Moonday</i> by Adam Rex

## DRILL AND PRACTICE

- ❖ BINGO
- ❖ Memory

## CONCEPTUAL ACTIVITIES

- ❖ Phases of the Moon (cookies)
- ❖ Phases of the Moon (flashlight)
- ❖ Moon Myths
- ❖ Moon Silhouettes

## COMMON CORE STANDARDS FOR SCIENCE

K	Strand 5 Physical Science, Concept 2 Position and Motion of Objects: PO 1. Describe spatial relationships (i.e., above, below, next to, left, right, middle, center) of objects.
1	Strand 6 Life Sciences, Concept 2 Objects in the sky: PO 3. Describe observable changes that occur in the sky, (e.g., clouds forming and moving, the position of the Moon).
2	Strand 2 History & Nature of Science, Concept 2 Nature of Scientific Knowledge: PO 1. Identify components of familiar systems (e.g., organs of the digestive system, bicycle).

## MOON: WORDS AND DEFINITIONS

LEVEL 1 WORDS	DEFINITION
Air	What we breathe
Backpack	A bag that you wear on your back
Dark	Little or no light
Earth	The planet where we live
Full	Filled all the way
Hide	In a place where we can't see
Moon	The big round object that you see shining at night
Night	When it is dark and people sleep
People	Boys, girls, men, and women
Smooth	Something that feels flat, no bumps
Yawn	Mouth wide open and you stretch

LEVEL 2 WORDS	DEFINITION
Breathe	Bring air in and out with your mouth and nose
Human	A person
Miles	A long distance
Million	Many, many, many
Orbit	Go around something in a circle
Footprints	What your foot makes when you walk in sand
Phases (moon)	Different times and shapes of the Moon
Planet	A large object that orbits the sun
Shade	Dark that is made when light is blocked
Space suit	Clothes that astronauts wear
Travel	Move from one place to another

LEVEL 3 WORDS	DEFINITION
Astronaut	A person who rides in rockets
Chalky	Looks white, dry and rough
Crater	A round hole in the ground, made by being hit with something
Gravity	Force that pulls things down to the ground
Satellite	What goes around and around something
Solar System	The sun and all the planets
Spacecraft	Vehicle for travel in space
Waning	To become thinner and smaller
Waxing	To become thicker and bigger

dark



little or no light

smooth



something that feels flat,  
no bumps

air



what we breathe

backpack



a bag that you wear on your back

full



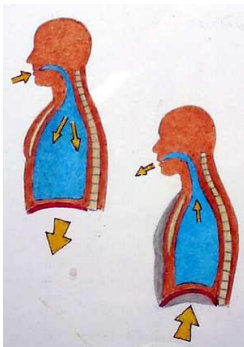
filled all the way

Earth



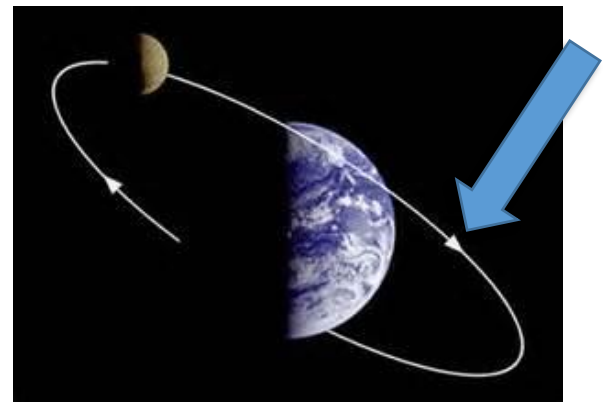
the planet where we live

breathe



to bring air in and out with  
your mouth and nose

orbit



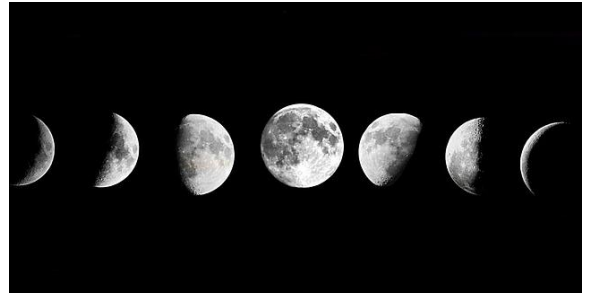
go around something in a circle

footprint



what your foot makes when  
you walk in sand

phases



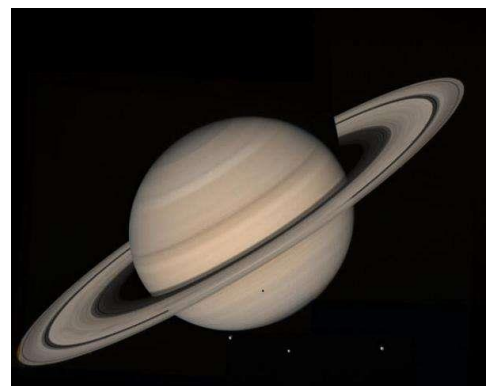
different times and shapes  
of the moon

space suit



clothes that astronauts wear

planet



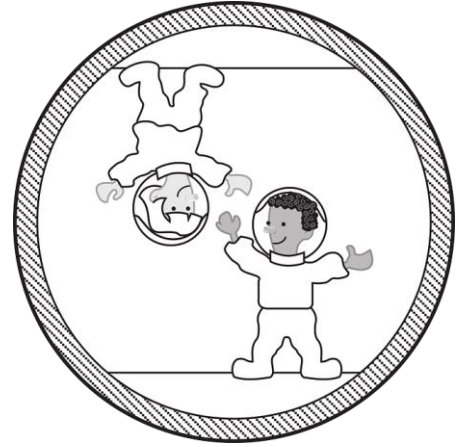
a large object that orbits the sun

## Solar System



the sun and all the planets

## gravity



the force that pulls things down to the ground

## satellite



what goes around and around something

## spacecraft



a vehicle for travel in space

astronaut



a person who rides in rockets

chalky



looks white, dry, and rough

hide



in a place where we can't see

moon



the big round object that you see shining at night



night



when it is dark and people sleep

people



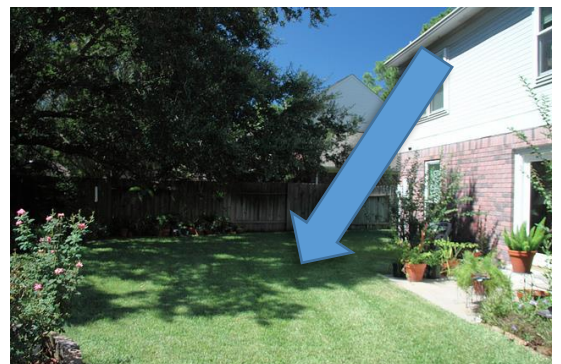
boys, girls, men, and women

human



a person

shade



dark that is made when light is blocked

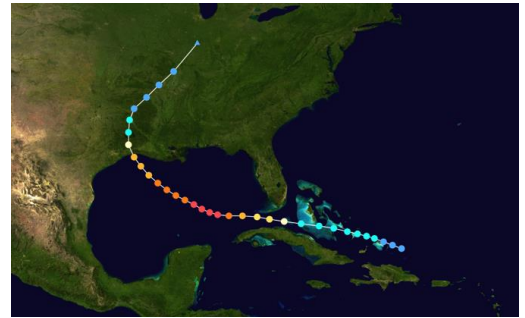


yawn



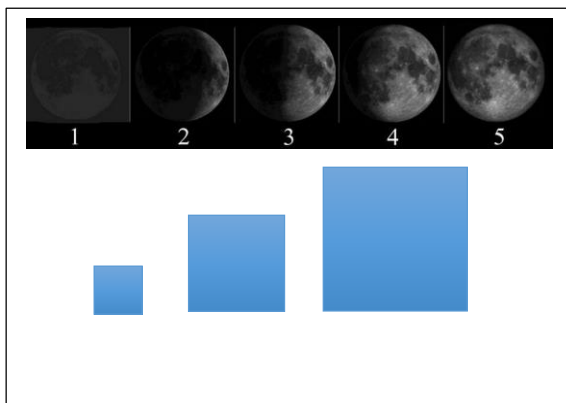
mouth wide open and you stretch

travel



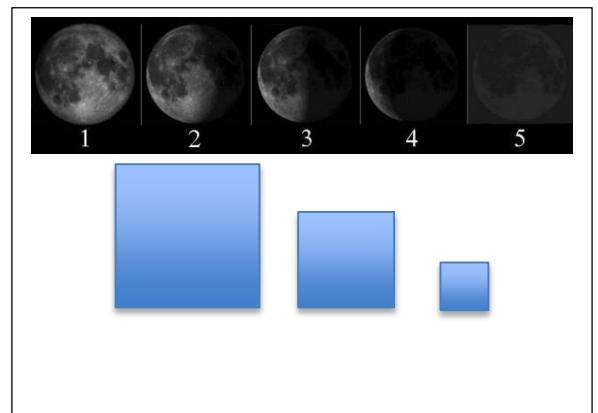
move from one place to another

waxing



to become thicker and bigger

waning



to become thinner and smaller

million



many, many, many

miles



a long distance

## MOON: ASSESSMENTS

WORD	PRE-INTERVENTION SCREENING	POST-INTERVENTION ASSESSMENT
<b>LEVEL 1</b>		
Air		
Backpack		
Dark		
Earth		
Full		
Hide		
Moon		
Night		
People		
Smooth		
Yawn		
<b>LEVEL 2</b>		
Breathe		
Human		
Miles		
Million		
Orbit		
Footprints		
Phases (moon)		
Planet		
Shade		

Space suit		
Travel		
<b>LEVEL 3</b>		
Astronaut		
Chalky		
Gravity		
Satellite		
Solar System		
Spacecraft		
Waning		
Waxing		

## MOON: INTERACTIVE BOOK READING QUESTIONS

Before reading the book, place each question on a sticky note and place it on the corresponding page.

Book 1: <i>The Moon</i> by Melanie Chrismer			
Reading	Pg #	Question type	Question
1	10	Relate	How do you think you would feel going up in a rocket?
1	17	Abstract	Do you think it would be hard to walk on the surface of the moon?
1	21	Competence	Which picture shows the full moon?
2	9	Competence	How many planets do you see in this picture?
2	13	Relate	Why would you like to be an astronaut?
2	19	Abstract	What do you think it would feel like to walk on the moon?

Book 2: <i>Moonday</i> by Adam Rex			
Reading	Pg #	Question type	Question
1	2	Relate	Where have you seen the full moon?
1	9	Abstract	What would you really need to do to walk on the moon?
1	26	Competence	Would the moon fit in the car?
2	13	Competence	Why is everyone sleeping in school?
2	19	Abstract	Why do you think all the people are yawning?
2	21	Relate	What would you do if the moon was so bright you couldn't sleep?

**Book 3: *The Moon Book* by Gail Gibbons**

Reading	Pg #	Question type	Question
1	4	Competence	What is the moon made of?
1	11-13	Relate	Which is your favorite phase of the moon? Why?
1	25	Abstract	How could we learn about the moon if astronauts had not landed on the moon?
2	8-9	Competence	How long does it take the Moon to orbit the Earth?
2	15-16	Relate	Have you ever seen a solar or lunar eclipse?
2	23	Abstract	What do you think an “unmanned spacecraft” is? Why would we send that up to space first?



# MOON: CONVERSATION PROMPTS

Use the space provided to script an anticipated conversation with your student.  
Consider the following:

- What will you do if the student responds with only one word?
- What will you do if the student responds off topic?
- What will you do if the student doesn't respond at all?

**Prompt 1: Would you want to walk on the moon like some astronauts have? Why or why not?**

Materials needed: a picture of Neil Armstrong walking on the moon

Turn	Script	Conversational Strategy
Teacher		
Student		
Teacher		
Student		

**Prompt 2: In the winter time, night time is longer than day and in the summer time, day is longer than night. Which do you like better, a long day or a long night? Why?**

Materials needed: Time lapse video - the difference between winter and summer in Finland <https://www.youtube.com/watch?v=nTjyt-6hJQw>

Turn	Script	Conversational Strategy
Teacher		
Student		
Teacher		
Student		

**Prompt 3: Have you ever been to the ocean and noticed the tide rising and falling? Sometimes you have to be there all day to see that happen, but it is really cool! What do you think you might see when the tide is low?"**

Materials needed: picture of high tide and low tide at the same location

Turn	Script	Conversational Strategy
Teacher		
Student		
Teacher		
Student		

## MOON: DRILL AND PRACTICE

Activity: Memory	
Purpose	To provide practice on the target vocabulary words and definitions multiple times.
Objective	The child will express target words and definitions in response to the teacher prompts.
Materials	<ul style="list-style-type: none"><li>• 2 Sets of target words</li></ul>
Procedure	<ol style="list-style-type: none"><li>1. Review the words and definitions.</li><li>2. Mix up both sets of target words and place them face down on the table.</li><li>3. Player 1 turns one card over, says the word, and gives the quick definition. Then, Player 1 turns over a second card, says the word, and gives the quick definition. If they match, Player 1 keeps the pair.</li><li>4. Then, it is Player 2's turn.</li><li>5. Players take turns until all the matches are made.</li></ol>

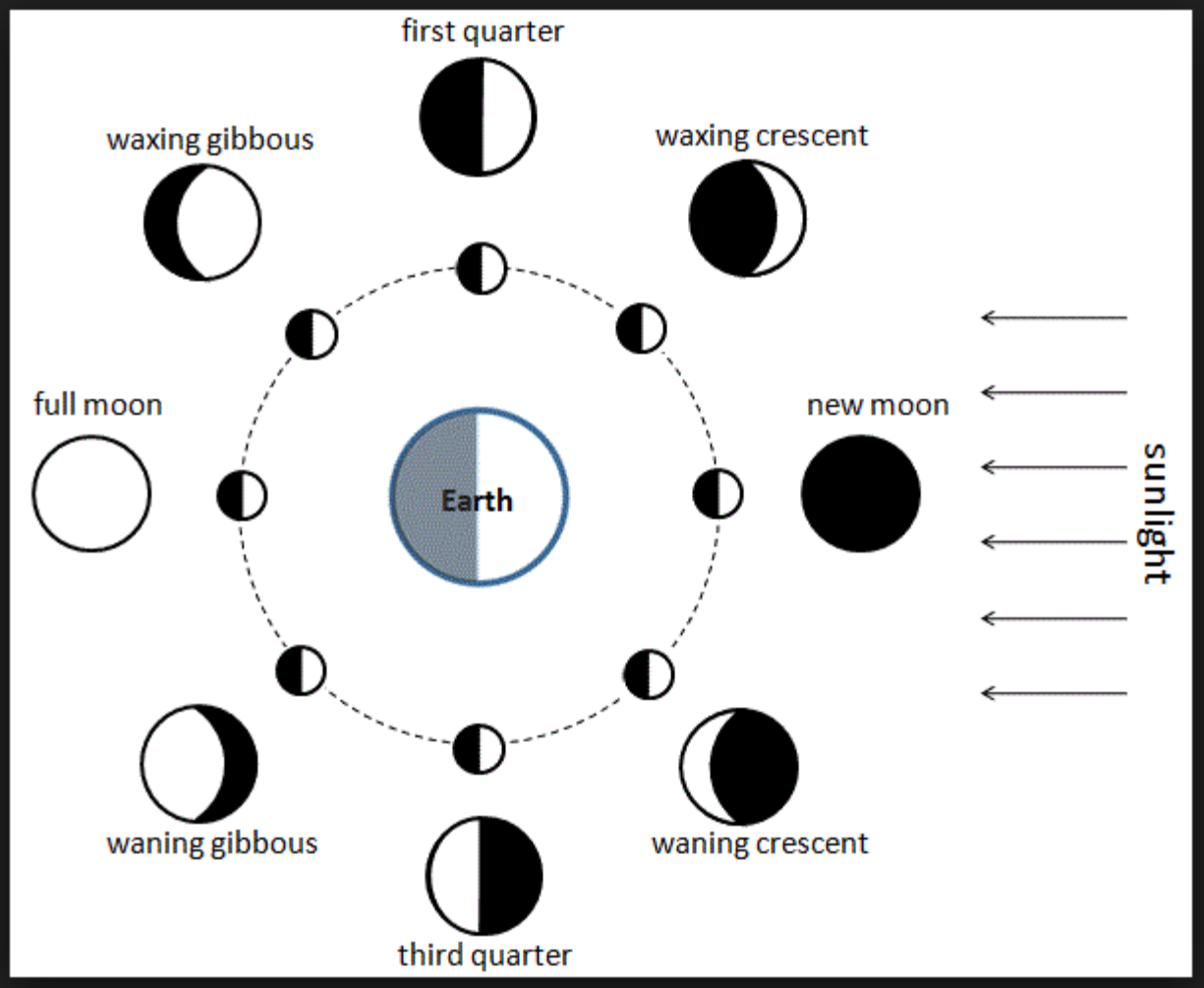
ACTIVITY: BINGO	
Purpose	To provide practice on the target vocabulary words and definitions multiple times.
Objective	The child will express target words and definitions in response to the teacher prompts.
Materials	<ul style="list-style-type: none"><li>• BINGO cards</li><li>• Markers</li><li>• Vocabulary Cards</li></ul>
Procedure	<ol style="list-style-type: none"><li>1. Print out BINGO cards or make BINGO cards by gluing pictures of the vocabulary words on the BINGO template. If you are working in a group, each card should have the pictures and free spaces in a different order.</li><li>2. Review the words and definitions for target words.</li><li>3. Each player takes a turn picking a vocabulary card from the pile. The player says the word and the definition for that word. Each player marks that word on his card with a marker.</li><li>4. Continue taking turns until one player gets a BINGO with all the words in a row, diagonally or a blackout.</li></ol>

	<b>FREE</b>	

## MOON: CONCEPTUAL ACTIVITIES

### ACTIVITY: Phases of the Moon with a Flashlight

Purpose	To engage the student in a conversation about the topic while engaging in an activity.
Objective	Child will express target words and definitions in response to teacher prompts.
Materials	<ul style="list-style-type: none"><li>• One flashlight or lamp without the shade</li><li>• Large ball for the Moon</li><li>• Picture of different phases of the moon</li></ul>
Procedure	<ol style="list-style-type: none"><li>1. Talk about the different phases of the moon with the picture and how the moon looks different from the earth on different days</li><li>2. Put the picture of the earth on the table and talk about the Earth being a planet. The Earth orbits the sun and at different times of the month casts a shadow on the moon. The moon doesn't change; it just looks different because the position of the moon.</li><li>3. Explain that the student is going to be the Earth, the ball will be the moon and that the light from the flashlight is going to be the light from the sun.</li><li>4. Have the student hold both balls and turn off the lights. The teacher shines the light and the student turns in a slow circle with the ball extended. There is always half of the ball in shadow but the way the moon looks changes as it goes around the Earth.</li><li>5. Conversation: Talk about the different phases.</li></ol>



ACTIVITY: Phases of the Moon with Cookies	
Purpose	To engage the student in a conversation about the topic while engaging in an activity.
Objective	Child will express target words and definitions in response to teacher prompts.
Materials	<ul style="list-style-type: none"> <li>• 4 Chocolate Sandwich Cookies</li> <li>• Plastic knife</li> <li>• Napkins</li> <li>• Picture of the Earth</li> <li>• Picture of Moon Phases around the Earth</li> </ul>
Procedure	<ol style="list-style-type: none"> <li>1. Talk about the different phases of the moon with the picture and how the moon looks different from the earth on different days.</li> <li>2. Put the picture of the earth on the table and talk about the Earth being a planet. The Earth orbits the sun and at different times of the month casts a shadow on the moon. The moon doesn't change; it just looks different because of the shadow from the Earth.</li> <li>3. Take apart one cookie so that the white filling is all on one chocolate wafer and the other chocolate wafer has nothing on it.</li> <li>4. Look at the picture of the phases of the moon and talk about what phase the cookie with the filling looks like and what phase the cookie without filling looks like.</li> <li>5. Have the student place the cookie on opposite sides of the Earth.</li> <li>6. Open another cookie and cut the filling in half. Place half of the filling on one chocolate wafer and the other half on the second wafer.</li> <li>7. Look at the picture of the phases of the moon and talk about what phase the cookies look like now.</li> <li>8. Place the cookies on the opposite sides of the Earth, between the full moon and the new moon.</li> <li>9. Optional: Continue with additional cookies making the additional phases.</li> </ol>



ACTIVITY: Moon Myths	
Purpose	To engage the student in a conversation about the topic while engaging in an activity.
Objective	Child will express target words and definitions in response to teacher prompts.
Materials	<ul style="list-style-type: none"> <li>• <i>The Moon Book</i> by Gail Gibbons</li> <li>• Paper</li> <li>• Crayons or markers</li> <li>• construction paper</li> <li>• tissue paper</li> <li>• cotton balls</li> <li>• glue</li> <li>• tape</li> </ul>
Procedure	<ol style="list-style-type: none"> <li>1. Reread moon creation stories (pg. 6-7) in <i>The Moon Book</i></li> <li>2. Go to the website:  <a href="http://www.windows2universe.org/mythology/planets/Earth/moon.html">http://www.windows2universe.org/mythology/planets/Earth/moon.html</a>  and read or skim through some of the ancient myths about the moon.  Suggested: <ol style="list-style-type: none"> <li>a. Algonquin: Full Moon Names</li> <li>b. Maori: Rona</li> <li>c. Inuit: Anningan</li> <li>d. Chinese: Heng-o</li> </ol> </li> <li>3. Ask student to create a new story about the moon, a myth or a creation story. As you can see from the website, most myths and stories about the moon have a picture to go with it. Ask student to think about a picture or symbol for her story.</li> <li>4. Using the arts and craft materials, have student create a picture or symbol for her moon story. You should create one as well as a model.</li> <li>5. If student has a difficult time starting, ask questions about the Moon that might help him/her create a story or image. For example, "How do you think the Moon was made?" or "How does the moon connect to the oceans? How can we create a story about that?"</li> <li>6. Conversation: "My Moon picture shows _____. I created this because _____. Tell me about your Moon picture."</li> <li>7. After the conversation, have student write a brief (2-3 sentence) caption for her moon story picture.</li> </ol>

ACTIVITY: Moon Silhouettes	
Purpose	To engage the student in a conversation about the topic while engaging in an activity.
Objective	Child will express target words and definitions in response to teacher prompts.
Materials	<ul style="list-style-type: none"> <li>• <i>Moonday</i> by Adam Rex</li> <li>• black construction paper</li> <li>• coffee filter</li> <li>• white or yellow tissue paper</li> <li>• glue or tape</li> <li>• scissors</li> </ul>
Procedure	<ol style="list-style-type: none"> <li>1. Turn to the page in <i>Moonday</i> where the full Moon is in the backyard. Show examples of Moon silhouette pictures. Explain what a silhouette is (an outline or shape of something).</li> <li>2. With black construction paper, cut out the shapes of a full moon. Around this shape you can also cut out shapes of small stars.</li> <li>3. On one side of coffee filter, draw silhouette.</li> <li>4. When done with drawing on coffee filter, glue to one side of the full Moon cut out. Glue tissue paper to stars on same side.</li> <li>5. Place silhouette near a light source to illuminate and emphasize silhouette.</li> <li>6. Conversation: <ol style="list-style-type: none"> <li>a. "What kind of silhouette did you draw on Moon?"</li> <li>b. "I drew <u>(example)</u> on mine because _____. Why did you put that on yours?"</li> </ol> </li> </ol>