

For Creative Minds

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Moon Observations

The months as we know them (January, February, etc.) are **solar**, based on how many days it takes the earth to revolve around the sun, roughly divided by twelve. A **moon-th**, or **lunar (moon) month**, is based on how long it takes the moon to orbit around the earth.

The **phases** (shapes) of the moon change according to its cycle as it rotates around the earth, and the position of the moon with respect to the rising or setting sun. This cycle lasts about 29 ½ days.

A (moon) month starts on “day one” with a **new moon**. The sun and the moon are in the same position and rise and set together. We can't see the new moon.

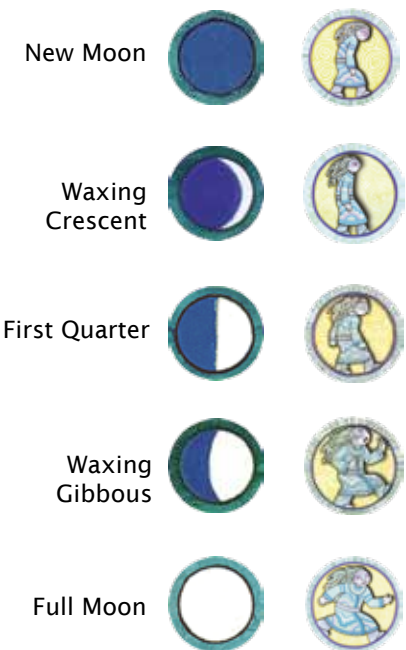
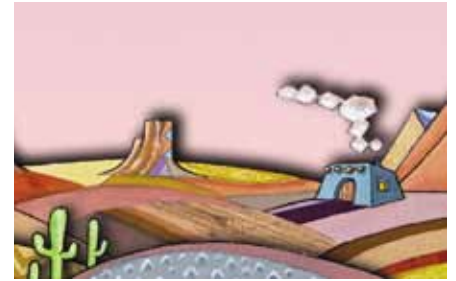
The moon rises and sets roughly 50 minutes later each day.

The moon appears to “grow” or it **waxes** each day from a new moon to a full moon. The waxing moon's bright side points at the **setting sun** and can be seen in the late afternoon on a clear day.

A **crescent moon** is between new and half (less than half full), and may be waxing or waning.

The **half-moon waxing** or **first quarter moon** occurs about a week after the new moon. The moon is a quarter of the way through its rotation, but it looks “half full.” The first quarter moon is highest in the sky when the sun sets.

A **gibbous (fat) moon** is between half and full (more than half) and may be waxing or waning. As it approaches full, the moon appears to be getting bigger and is visible in the east in the afternoon.

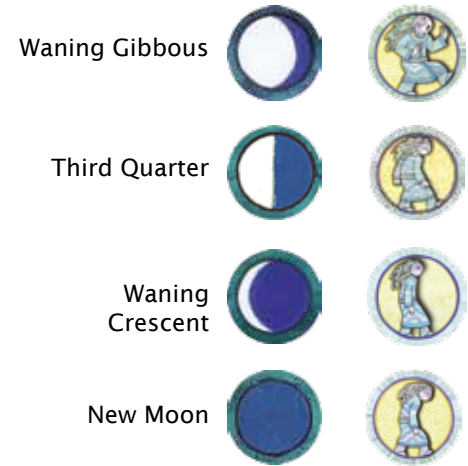


About two weeks after the new moon, the **full moon** rises when the sun sets and sets when the sun rises. The full moon reaches its highest point in the sky at midnight.

The moon appears to get smaller, or to **wane**, after the full moon. The bright side of the moon points to the rising sun.

The half-moon waning is also called the **third-quarter moon** because it is three-quarters of the way in its rotation around the earth. The third-quarter moon is highest in the sky when the sun rises and can be seen in the morning on a clear day.

As the moon approaches its new moon phase once again, its sliver (or crescent) is visible in the eastern sky just before sunrise, then after the new moon, in the western sky just after sunset.

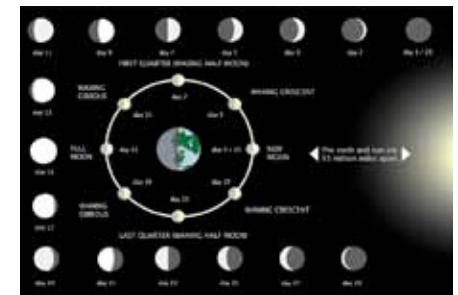
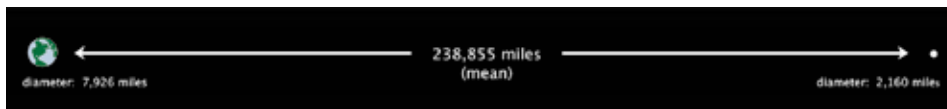


A Lunar Project


















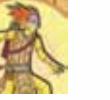
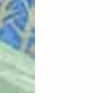
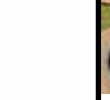
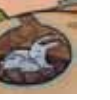

Look up the moon-rise in your newspaper, in an almanac, or on the Internet. Mark the new moon as “day one” on a calendar. Each day, keep your eyes open to see whether you see the moon. Draw a picture of what it looks like on your calendar. Do this for one full lunar month.

What is a “blue moon”?

The phrase “once in a blue moon” means something that happens occasionally or not very often. A blue moon happens when there are two full moons in one calendar month. For example you might have a full moon on the 1st or 2nd of a given month and then another one on the 30th or the 31st. The second full moon is the blue moon.



Native Americans kept track of the seasons by naming each of the full moons. Different tribes had different names based on their lifestyles or surroundings. See if you can figure out why the tribes used these names and which part of the country these tribes might have lived in. Check the links at www.ArbordalePublishing.com for the answers.

									
	January	February	March	April					
	 <p>Wolf Moon Old Moon</p>	 <p>Snow Moon Hunger Moon Opening Buds Moon</p>	 <p>Worm Moon Crow Moon Crust Moon Maple Sugar Moon</p>	 <p>Grass Moon Planter's Moon Fish Moon</p>					
	May	June	July	August					
	 <p>Flower Moon Budding Moon Corn Planting Moon</p>	 <p>Strawberry Moon Rose Moon</p>	 <p>Buck Moon Thunder Moon Sturgeon Moon Green Corn Moon</p>	 <p>Fruit Moon Barley Moon</p>					
	September	October	November	December					
	 <p>Sap Moon Harvest Moon</p>	 <p>Harvest Moon Hunter's Moon Falling Leaves Moon</p>	 <p>Frost Moon Beaver Moon</p>	 <p>Long Nights Moon Cold Moon</p>					
									

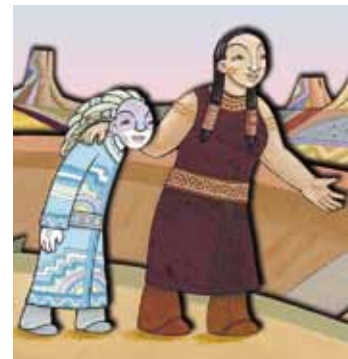


How to Deal with Bullies

In this story, the sun bullies the moon. A bully is someone who hurts other people either physically or verbally. Sometimes the bully acts this way to get something or to feel important. Usually bullies feel bad about themselves, and they act out their angry feelings on others.

If someone bullies you, you may need the help and support of your friends, just as the moon does in this story. Here are some ideas to help you deal with a bully:

- Try to avoid the situation or place where you are being bullied, or try to avoid being alone.
- Don't show anger or fear; that is exactly what the bully wants. Try to keep a neutral expression, to laugh, or to make a joke if you can.
- Ask the person to leave you alone and then walk away.
- Talk about the problem with your best friends. Maybe they have some ideas for you. For example, a friend might tell you that the kid who annoys you also mistreats other people. Or your friend might tell you how he or she handles the bully.
- It is very important that you talk to your mother, father, grandparent, teacher, principal, or the school's counselor about the problem, especially if someone in your class frequently hurts your feelings, threatens you, or physically attacks you. Nobody deserves to be treated badly by others. It is not tattling to talk to an adult about a bully.
- Consider taking a class in self-defense. There are many classes for young people in karate, judo, or other martial arts. Such training can give you self-confidence and teach you how to block blows and frustrate attackers.
- A group of kids may help you to stand up against bullies and to find a way to prevent bullies from hurting anyone else.
- Remember that one person's insults or punches do not make you a bad person. Think about your friends and family members who like and care about you. If someone bullies you, tell other people about it until someone helps you.



Thanks to Laura Goldberg, PhD, Child Psychologist, Newburyport, MA for her help with this section.