

Grade 4 Science  
Week of January 18 – January 22

The Moon, continued

## Lunar/Blood Moon

A **lunar eclipse** occurs when the Earth's shadow falls on the Moon. It is much more common as the Earth is much larger than the Moon and creates a larger shadow in space.

In this situation the eclipse happens when the Earth is between the sun and the Moon. This can only be the case if the Moon is in the full moon phase.



Lunar Eclipses: [https://youtu.be/ UH\\_h99C11Q](https://youtu.be/UH_h99C11Q)

Blood Moon only happens when the earth, sun and moon line up.

A **blood moon** is a full **moon** that coincides with a full **lunar** eclipse and that has an unusually reddish appearance. Note: The **red** colour of a **blood moon** is caused by the diffusion of the sun's light into the shadow cast by the Earth



Blood Moon Explained: <https://youtu.be/uzorkQxyc-g>

## Tides

Anyone who lives in a coastal region can tell you that tidal range, the difference between high tide and low tide is affected by shape of the coastline and the Moon's pull.



Tides Explained: <https://youtu.be/M3hAhNsyf7k>

Gravitational attraction of the moon on earth's watery surface causes the rising and falling of ocean.

This is enough to pull the water toward the Moon causing a high tide on the side of the Earth facing the Moon.



The Moon Tides: <https://youtu.be/rRPtNAA-9UE>

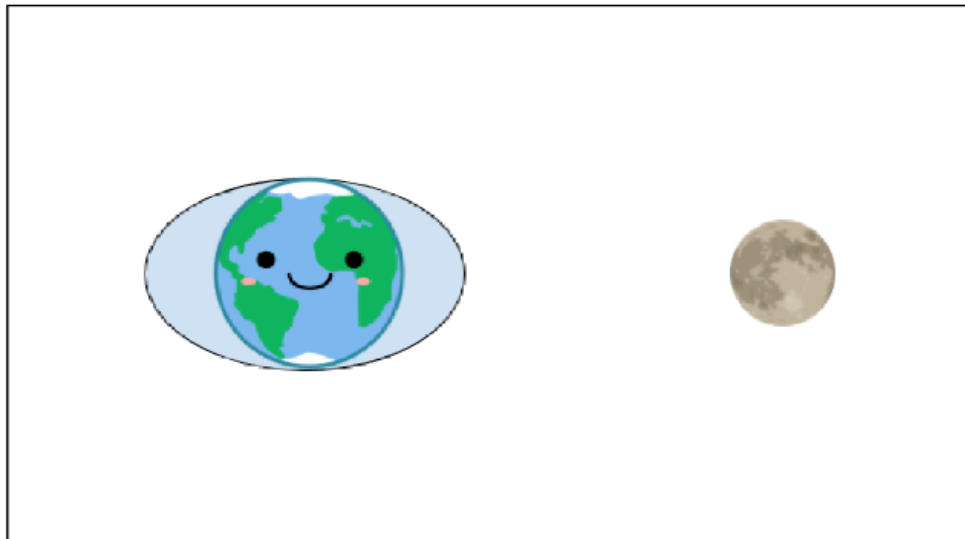
9. A blood moon happens when a \_\_\_\_\_ and a \_\_\_\_\_ happen at the same time.

10. What does a lunar eclipse look like?

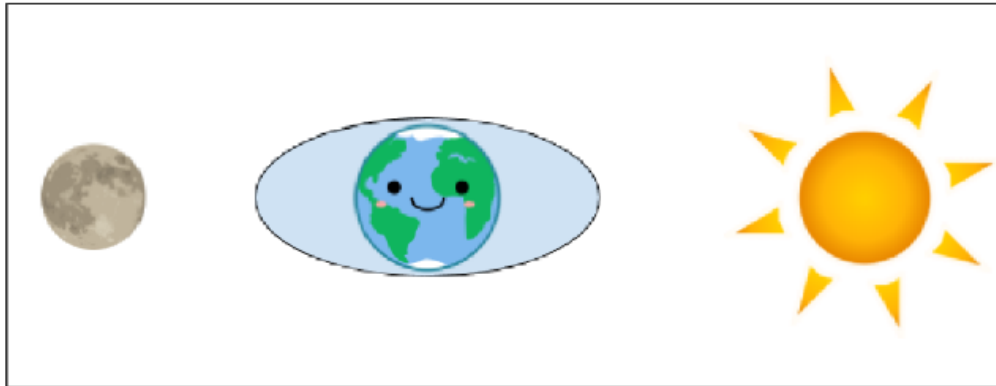
11. The moons \_\_\_\_\_ causes tides.

12. Label if it is where it would be high tide and where it would be low tide below:

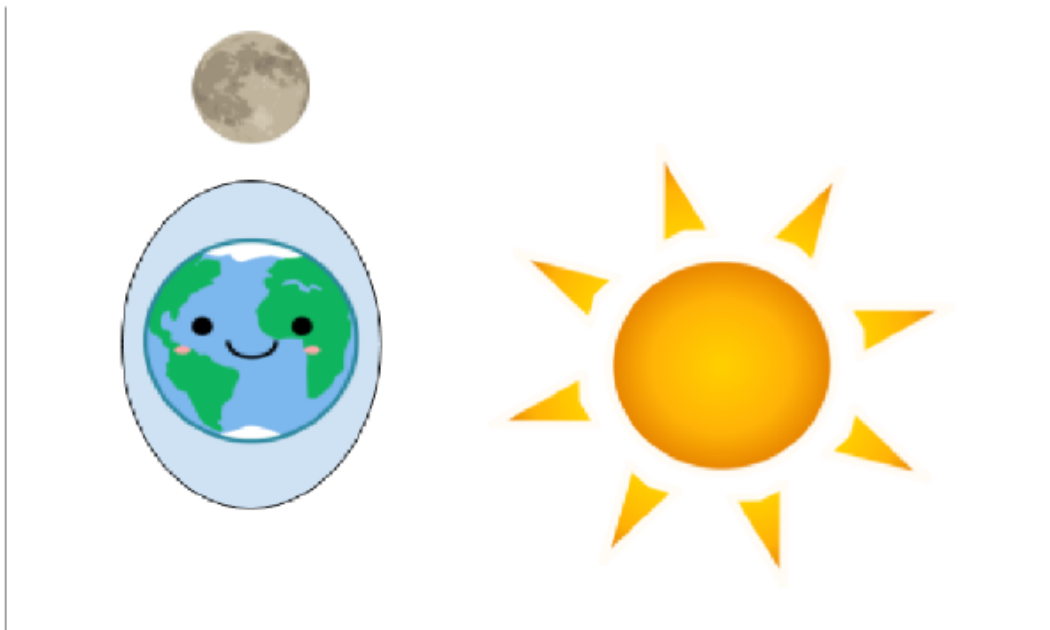
(2 high tides and 2 low tides)



13. The picture below shows an example of tides at their maximum height, this is called \_\_\_\_\_ tide.



14. The picture below shows an example of tides at their minimum height, this is called \_\_\_\_\_ tide.



15. Every day there are \_\_\_\_\_ high tides along the coast.