

Astronomy Unit
Bill Nye the Science Guy
The Moon

Answer the following questions in complete sentences. Be sure to add enough detail to completely answer the question.

1. How long does it take for the moon to orbit the Earth? How many new moons will you see every month? Why?

-approx. 1 month/ one new moon and one full moon during this period

2. What is moon glow?

-moon glow is light that is reflected from the sun to the Earth

-moon rocks are very reflective

3. How do scientists explain the formation of the moon?

-scientists believe that a meteorite hit the Earth's surface and a section of the Earth's crust was propelled into its atmosphere

-the moon remains in the Earth's atmosphere due to the strong force of the Earth's gravitational pull

4. What is the difference between a maria and a crater?

Maria: these are flat shiny dry oceans found on the Earth's surface

Crater: an indentation on the moon's surface caused by a meteorite hitting the Moon's surface

5. What are tides? How does the moon affect the Earth's tides?

-tides are the daily rising of the water in the Earth's oceans caused by the gravitational pull of the moon

-this is a daily event (high and low tides) due to the manner in which the moon revolves around the Earth

6. Draw rough sketches to demonstrate the difference between a solar eclipse and a lunar eclipse.

(i) Solar Eclipse

-moon's shadow cast on the Earth

(ii) Lunar Eclipse

-Earth's shadow cast on the moon

7. What direction does the shadow or the lit part of the moon always travel? Draw a sketch to illustrate your point.

-always right to left

8. How many people have walked on the moon's surface? What was the last spacecraft to land on the moon?

-16 people/ Apollo 17 was the last journey to the surface of the moon

9. What are moonquakes?

-Vibrations on the moon's surface caused by internal tremors

10. What were the famous words said when the Apollo 11 lunar module landed on the surface of the moon? "... the Eagle has landed"

Bonus: What were Neil Armstrong's famous first words when he walked on the moon's surface? "... this is one small step for man and one giant leap for mankind"