

Bill Nye – The Moon – Answer Key

1. Moonlight is really **sun** light.
2. Why does the moon reflect so much light? **The moon reflects a lot of light because moon rocks reflect a lot of light.**
3. Tides are caused by the **moon's gravity**.
4. Why don't we get an eclipse every month? **We don't get an eclipse every month because the orbit of the moon is tilted.**
5. How did ancient astronomers figure out that the earth is round? **They figured out the Earth was round by seeing the shadow of the Earth on the moon during a lunar eclipse.**
6. The moon has 1/6 the gravity of earth.
7. If you weigh 30kg on earth, you would weigh **5** kg on the moon.
8. If you can jump 45 cm on earth, you can jump **270** cm on the moon.
9. How does the gravity of Earth affect the moon? **The gravity of Earth causes moon quakes on the moon.**

The Lunatics "Moon Cycle"

¹I like to watch the moon cycle,

²I like to watch it phase.

³I like to watch the moon cycle,

⁴I like to watch it wax and wane.

⁵The moon has its own gravity,

⁶It makes tides ebb and flow.

⁷And since our orbits are in sync,

⁸Then only one side shows.

⁹I want to see the far side of the moon,

¹⁰But there's no way.

¹¹Cause the only way to see it,

¹²Is to be in outer space.

¹³The darkness moves across the moon,

¹⁴It goes from right to left.

¹⁵I'm learning so much now,

¹⁶I want to be a scientist.

10. What is the meaning of line 4?

The moon becomes more illuminated (towards full moon) and then less illuminated (towards new moon).

11. What is the meaning of lines 5 & 6?

The moon's gravity affects the ocean tides on Earth.

12. What is the meaning of lines 7 - 12?

We can only see one side of the moon because the Earth's orbit and the Moon's orbit are in sync.

13. What is the meaning of lines 13-14?

If you are looking down from the North Pole, you would see the Moon orbiting the Earth, counterclockwise from west (right) to east (left). The moon rises in the east and sets in the west.