Earth, Moon Sun Unit Test Study Guide

A proficient student will be able to describe the relative positions of the Earth, Moon, and Sun.

1. What does rotation mean?
2. What does revolution mean?
3. What causes day and night on Earth?
4. What causes a month on Earth?
5. What causes a year on Earth?
6. Of the Sun, moon, and Earth, which ones rotate?
7. Of the Sun, moon, and Earth, which ones revolve, and what do they revolve around?
8. What is an equinox?
9. What is a solstice?

A proficient student will be able to explain how the relative positions of the Earth, Moon and Sun affect phenomena on Earth including: seasons, lunar phases, tides and eclipses

1. What is an eclipse?
2. What is the difference between a lunar eclipse and a solar eclipse?
3. What is the difference between an umbra and a penumbra?
4. Where must you be located to see a total eclipse?
5. Where must you be located to see a partial eclipse?
6. What causes seasons?
7. How and why are seasons different in the northern hemisphere and the southern hemisphere?
8. What is a lunar phase?
9. What causes the phases of the moon?
10. What does waxing mean?
11. What does waning mean?
12. What causes tides?
13. What is a high tide?
14. What is a low tide?
15. Explain what a neap tide is and what causes it.
16. Explain what a spring tide is and what causes it.
17. Why do the planets stay in their orbits?

A proficient student will be able to explain why Earth sustains life while other planets do not based on their properties (including: types of surface, atmosphere, and gravitational force) and location to the Sun

1. Explain why Earth sustains life while other planets do not based on their properties (including: types of surface, atmosphere, and gravitational force) and location to the Sun

A proficient student will be able to summarize space exploration and the understandings gained from them

1. When Sputnik I was launched, what started and who was it between?
2. Who was the first human in space?
3. Who was the first American in space?
4. Who was the first American to orbit the Earth?
5. Who was the first person to walk on the moon?
6. What are satellites, and what is the difference between a natural satellite and an artificial satellite?
7. What is the International Space Station and why is it important?
8. What is a space probe?
9. What is a rover?
10. What is a space shuttle?
11. Describe the “Great Observatories” (Hubble Space Telescope, the Chandra X-ray Observatory, the Spitzer Space Telescope, and the Compton Gamma Ray Observatory)
12. Describe the Fermi Gamma Ray space telescope.
13. What is a space spinoff? Name a few.