



ZAC NEWTON INVESTIGATES Spectacular Space

Zac and friends learn about space through visits with Neil Armstrong, Edmond Halley, Nicolaus Copernicus, Annie Jump Cannon, and Edwin Hubble.

What did you learn?

QUESTIONS

- Mercury is one of the four planets of what group?
 - Rocky planets
 - Bumpy planets
 - Minor planets
 - Flat planets
- Ancient people named which planet for the Roman goddess of love?
 - Saturn
 - Venus
 - Jupiter
 - Neptune
- The rings around Jupiter are made of what?
 - Iron
 - Dust
 - Ice
 - None of the above
- Which scientist showed that Earth orbits around the sun?
 - Neil Armstrong
 - Johann Bode
 - Nicolaus Copernicus
 - Annie Jump Cannon
- Can you explain why the sky looks blue on Earth?
- Can you explain why astronauts wear space suits on the moon?

TRUE OR FALSE?

- | | |
|--|--|
| _____ 1. The pull of gravity on Earth is stronger than that on the moon. | _____ 4. Pluto is less solid than the gas giants. |
| _____ 2. The solar system is made up of the sun along with all the planets and other things that orbit it. | _____ 5. Edmond Halley became the first person to walk on the surface of the moon. |
| _____ 3. Neptune is the biggest planet in our solar system. | _____ 6. Annie Jump Cannon developed a system of classifying different types of stars. |

ANSWERS

- 1. a. Rocky planets.** According to page 20, we know that, "Mercury is one of the four planets called rocky planets." So, the correct answer is A.
- 2. b. Venus.** According to page 24, we know that, "... ancient people named Venus for the Roman goddess of love." So, the correct answer is B.
- 3. b. Dust.** According to page 32, we know that, "Jupiter's rings are made of dust." So, the correct answer is B.
- 4. c. Nicolaus Copernicus.** According to page 47, we know that Copernicus believed that, "... the sun is at the center and that Earth and the other planets orbit around it." So, the correct answer is C.
- 5.** According to page 11, we know that, "On Earth, the sky looks blue because of the air. When sunlight strikes the air, the air scatters it, bouncing light off in different directions. More blue light is scattered to the surface than any other color. That's what makes the sky look blue."
- 6.** According to page 15, we know that astronauts wear space suits "[to] keep them alive. They need air to breathe, because there's no atmosphere. The suit provides that. It also keeps the astronauts warm, because it's freezing cold on the moon. And, it protects them against harmful rays from the sun."

TRUE OR FALSE? ANSWERS

- 1. True.** According to page 16, we know that, "... the pull of gravity [on the moon] is much weaker than on Earth's surface." So, the correct answer is True.
- 2. True.** According to page 18, we know that, "The solar system—that's what we call all the planets and other things that orbit our particular star, the sun." So, the correct answer is True.
- 3. False.** According to page 29, we know that, "That's Jupiter, the biggest planet in our solar system." So, the correct answer is False.
- 4. False.** According to page 38, we know that, "... Pluto is made of rock and ice, so it's more solid than the gas giants." So, the correct answer is False.
- 5. False.** According to page 92, we know that Neil Armstrong "became the first person to walk on the surface of the moon." So, the correct answer is False.
- 6. True.** According to page 93, we know that Annie Jump Cannon's "greatest achievement was to develop a system of classifying different types of stars." So, the correct answer is True.