



The Sun-Earth-Moon System

Sci
G

Name _____ Class _____ Date _____

1 Which of the following is the current and most widely **accepted theory** explaining the **origins** of the **moon**?

- A it formed at the same time as the earth
- B it is a smaller celestial body that was drawn in by earth's gravitational pull
- C a planet-sized object collided with the forming earth and threw out a large chunk of earth
- D the early earth spun so fast that a piece, the moon, flew off of it

3 It is believed that the **moon** is a large **piece of earth** rock that was **broken off** early in earth's history. Why do scientists come to this conclusion?

- A because moon rock and the earth's mantle are basalt
- B because moon rock and the earth's crust are granite
- C because moon rock and most earth



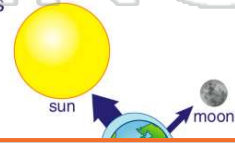
2 Studies of the lunar basaltic rock revealed that the moon is about **4.6 billion years old**. Based on this information, how old do scientists estimate the **solar system** is?

- A 9.2 billion years
- B over 5 billion years
- C 4.6 billion years
- D less than 4.6 billion years



4 **High tides** are caused by _____.

- A the gravitational pull of the sun on the oceans
- B the gravitational pull of the moon on the oceans
- C both a and b



5



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7

- C Neil Armstrong
- D Buzz Aldrin



- A Friendship 7
- B Apollo 11
- C Apollo 13
- D Gemini



9

In 1970, the Apollo 13 lunar landing mission was forced to abandon its plans to land on the moon due to an oxygen tank explosion. With the space capsule **severely damaged**, the crew did not have enough resources to bring the spaceship back to earth on its own. They had to use the force of the **exploding oxygen tank** to push them back to earth.

True or false?

- A true
- B false



10

In September 2005, NASA unveiled a \$100 billion plan to put **humans on the moon** by **2018**. **What is the purpose of NASA's new vision for putting people back on the moon?**

- A to regularly send crews to the moon for a week at a time
- B to use lunar resources like water and minerals to sustain life on the moon
- C to establish a platform for further space exploration
- D all of the above





ANSWER KEY

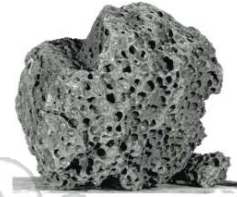
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(C)

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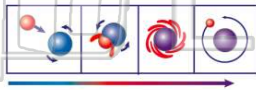
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(C)

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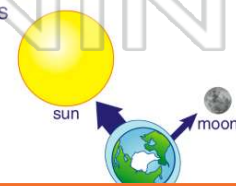
- A** because moon rock and the earth's mantle are basalt
- B** because moon rock and the earth's crust are granite
- C** because moon rock and most earth rock are the same age



(a)

High tides are caused by _____

- A** the gravitational pull of the sun on the oceans
- B** the gravitational pull of the moon on the oceans
- C** both a and b
- D** b only



(C)



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D Buzz Aldrin



- B** Apollo 11
- C** Apollo 13
- D** Gemini



In 1970, the Apollo 13 lunar landing mission was forced to abandon its plans to land on the moon due to an oxygen tank explosion. With the space capsule **severely damaged**, the crew did not have enough resources to bring the spaceship back to earth on its own. They had to use the force of the **exploding oxygen tank** to push them back to earth. **True or false?**

- A** true
- B** false



(b)

In September 2005, NASA unveiled a \$100 billion plan to put **humans on the moon** by **2018**. **What is the purpose of NASA's new vision for putting people back on the moon?**

- A** to regularly send crews to the moon for a week at a time
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- C** to establish a platform for further space exploration
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(d)