STEMscope

6th Grade Science

Answer Key

**Reading Science-Gravity – 6.2 Patterns of Motion 4-8**

1. B
2. C
3. C
4. A
5. C

**Multiple Choice Assessment- 6.2 Patterns of Motion 4-15**

1. D
2. C
3. C
4. A
5. C

**Reading Science- The Sun- 6.3 The Solar System 4-22**

1. B
2. A
3. B
4. D
5. B

**Content Connection Video Questions –The Birth of Our Solar System--4-29**

1. The solar system formed from a giant spinning cloud of gas and dust.
2. Our Sun was formed because the core of the spinning cloud grew under the influence of gravity and became denser and hotter. As more material was added to the core, the spinning cloud increased in speed and flattened into a disk. Eventually the increasing temperature generated enough energy to trigger nuclear fusion.
3. The force that caused rocks to stick together and eventually form our planets is called mutual gravity in a process known as accretion.
4. The "rocky planets" are Mercury, Venus, Earth and Mars. Some characteristics of "rocky planets" are that they have metal cores and are made of heavier material.
5. The "gas giants" are Jupiter, Saturn, Uranus, Neptune. They formed because ice and lighter materials (gasses) were attracted by gravity to become the gas giants.

**Multiple Choice Assessment- 6.3 The Solar System**

1. B
2. D
3. A
4. C
5. A

**Reading Science- Rotation and Revolution – Earth Sun, and Moon System. 5-6**

1. C
2. B
3. A
4. D
5. D

**Science Today Video Questions – Earth, Sun, and Moon System**

1. Models will vary but should show the Moon between the Sun and Earth.

Description: A solar eclipse occurs during the day when the Sun gets blocked by the Moon.

1. Where you are located on Earth will change how the eclipse appears to you. If you move a few hundred miles, the angle of your location changes, thus making the appearance of the eclipse change as well.
2. Eclipses occur in cyclical patterns. Scientists measure the orbits of both Earth and the Moon to determine their precise locations. They can use math, such as algebra and geometry, to show when Earth, the Sun, and Moon will line up for an eclipse.
3. A lunar eclipse occurs when Earth passes between the Moon and the Sun and Earth’s shadow obscures the Moon or a portion of it. A solar eclipse occurs when the Moon passes between Earth and the Sun, blocking all or a portion of the Sun. Both involve the movement of the Moon and Earth in relation to the Sin’s location. However, a lunar eclipse occurs at night and. Solar eclipse occurs during the day.

**Content Connection Video Questions – What are Eclipses—Earth, Sun, and Moon System 5-11**

1. The Sun is 400 times farther away and bigger than our Moon.
2. We experience lunar and solar eclipses because the Sun and Moon look the same size in the sky.
3. A lunar eclipse happens when the Earth passes between the Moon and Sun.
4. A solar eclipse happens when the Moon passes between the Earth and Sun.
5. A lunar eclipse can be seen from Earth during a full moon and a solar eclipse can be seen during a new moon. Both occur about once every 18 months.
6. The first contact of a solar eclipse looks like a bite being taken from the Sun.
7. During a solar eclipse, animals go to sleep and plants close up; this is because they think it is night.

**Multiple Choice Assessment- Earth, Sun, and Moon System**

1. C
2. A
3. D
4. B
5. D