

NOTES

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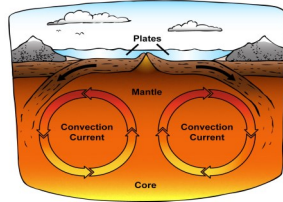


ANSWER KEY

Geology & Earth Science

Earthquakes

Modeling Convection Currents, Quakes, and Plates: What happens when stress and tension build up along a fault line?



earthquakes

Shaky Sediments: **Liquefaction** is when water-saturated sediment temporarily loses strength and acts as a fluid during an earthquake.

Geology

Shake and Break Down: Two types of weathering include chemical and **physical**.

Rock Detective: What type of rock did you discover?

Answers may include **calcite, granite, limestone, pumice, quartz, and talc.**



Space Science

Dark Room #1

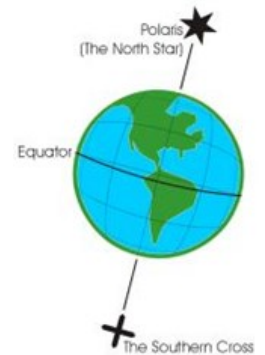
The Fabric of Space-Time: What holds planets in orbit around the Sun?

Gravity

Moon Dance: An object spinning around on its axis is **rotating**. An object circling around another object is **orbiting**.

Time of the Seasons: What causes seasons on Earth?

The tilt of the axis.



Main Room

Cooking up Comets: Name two ingredients that make up comets.

Ice, frozen gases, rocks, dust, organic material

Meteorite Impact!: Name two variables that affect the size and shape of a crater.

Size of meteorite, speed, angle of impact

How Big is the Moon?: The Moon is much **bigger** / **smaller** than Earth and the Sun, but it can still block the Sun during a total **so-**
lar / **lunar** eclipse because of perspective. (Circle one)



Space Science

Main Room

Pocket Solar System: Name the planets in our solar system in order of their distance from the Sun:

- | | |
|------------|------------|
| 1. Mercury | 5. Jupiter |
| 2. Venus | 6. Saturn |
| 3. Earth | 7. Uranus |
| 4. Mars | 8. Neptune |

Working in Space: Circle the reasons that astronauts must wear protective spacesuits and gloves:

- A. It is cold in space
- B. There is no oxygen in space
- C. The spacesuit provides protection



Jumping on Jupiter: Our weight changes on other planets because each planet has a different mass which affects its gravity.



Exercise like an Astronaut Do objects weigh more on

Earth or the Moon?

Earth

Geology & Earth Science

Geology continued

Fossil Discovery and Formation: What is the evidence of past life preserved on Earth?

fossils

Volcano Loco: Which volcano erupts most violently? (Circle one)

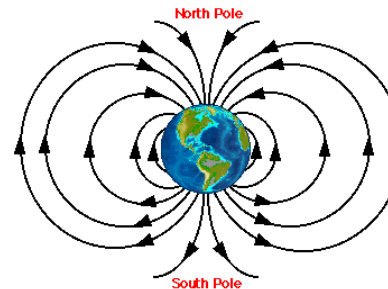
Cinder Cone

Composite Cone

Shield Cone



Magnetism



Exploring Magnetic Field Lines:

Magnets have an invisible force field known as a magnetic field.

Dirt's not Dead: What do you call the small organisms that live in the soil?

microbes

Weather & Climate

Air Pressure

Air is Everywhere: Air moves from areas of **high** pressure to areas of **low** pressure.



Stubborn Balloon: Does hot air or cold air take up more space?

HOT AIR or COLD AIR? (Circle one)

Cartesian Divers: (Circle One) **TRUE** or **FALSE**: Molecules of gas compress easier than molecules of liquid.

Weather

Cloud in a Bottle: What causes clouds to form? Circle all that apply.



Air Pressure Condensation Water

Kissing Balloons: Blowing between the balloons creates a low pressure system which brings them together and results in what type of weather?

stormy



Thermal Spirals: What causes air to rise?

heat

Updrafts in Action: What two things are needed to create large hail?

Very strong updrafts and super cooled water droplets

Weather & Climate

Weather continued

Lightning Room: Lightning is an example of **Static** electricity.



The Rumbling Road: Which travels faster, **LIGHT** (lightning) or **SOUND** (thunder)?

Climate

Freak out! Is Tahoe weirding? According to the data, which date range experienced a higher frequency of weather and storm events?
2000-2019

Mini Greenhouse Effect: What greenhouse gas is released in this experiment?

Carbon dioxide



Rising Sea: Is sea ice melting in the Arctic or Antarctic leading to rising sea levels?

Antarctic

Investigating Albedo: What absorbs more heat, dark pavement or a snowy glacier?

Dark pavement