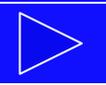




LEOPARD!





100

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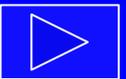
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**What *Planet* are
you from???**
(Questions about the Solar System)



Space Odyssey

Questions about the Universe



Rock & Roll!

(Questions about Earth's surface and below)



Drops of Atmo Spheres

*(Questions about the Spheres of
Earth)*



Hot, Hot, Hot

(Questions about Heat Transfer)



Sunshine on a Cloudy Day

*(Questions about Weather and
Climate)*



Abby reads that light travels almost 900,000 times faster than sound. She also knows that it takes light from the Sun about 8 minutes to reach Earth. Why does it take light from the Sun so long to reach us on Earth when it is traveling so fast?

- A. Light slows down as it travels through space.
- B. It is difficult for light to pass through Earth's atmosphere.
- C. Light from the Sun travels a vast distance before it reaches Earth.
- D. Most of light from the Sun is absorbed by different objects in space.



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- B. They travel in elliptical orbits.
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Neptune is the farthest planet in our solar system and it has thirteen identified satellites. Pluto is considered a dwarf planet and has only three satellites. Why is Pluto classified as a dwarf planet and not a regular planet like Neptune?

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- B. Pluto has less gravity than Neptune.
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- B. Saturn has a ring system around its equator
- C. Earth is hotter than Saturn is
- D. Saturn is a gaseous planet

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What is responsible for holding galaxies together?

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An astronomer using a telescope observes a star that is a similar color as our Sun. She infers therefore, that the star and our Sun have similar sizes and surface temperatures. What else can the astronomer conclude about the star?

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B. The star is a relatively cool star

C. The star is hotter than most other stars in our galaxy

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Which term describes
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- B. Galaxy
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Which of the following statements describes how long it takes for wind to wear away the solid rock of a mountain?

- A. Whenever wind moves against the solid rock of a mountain, a little bit of the rock is worn away, even if you cannot see it.
- B. Wind can wear away the solid rock of a mountain, but it would take about a hundred years or more to cause any change to the mountain, no matter how small.
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Earth's core is composed of two separate layers.

What is the difference between these two layers?

- A. One is made of iron and one is made of zinc
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Tectonic plates move because of convection currents that occur in the mantle. What is the best way to describe these convection currents?

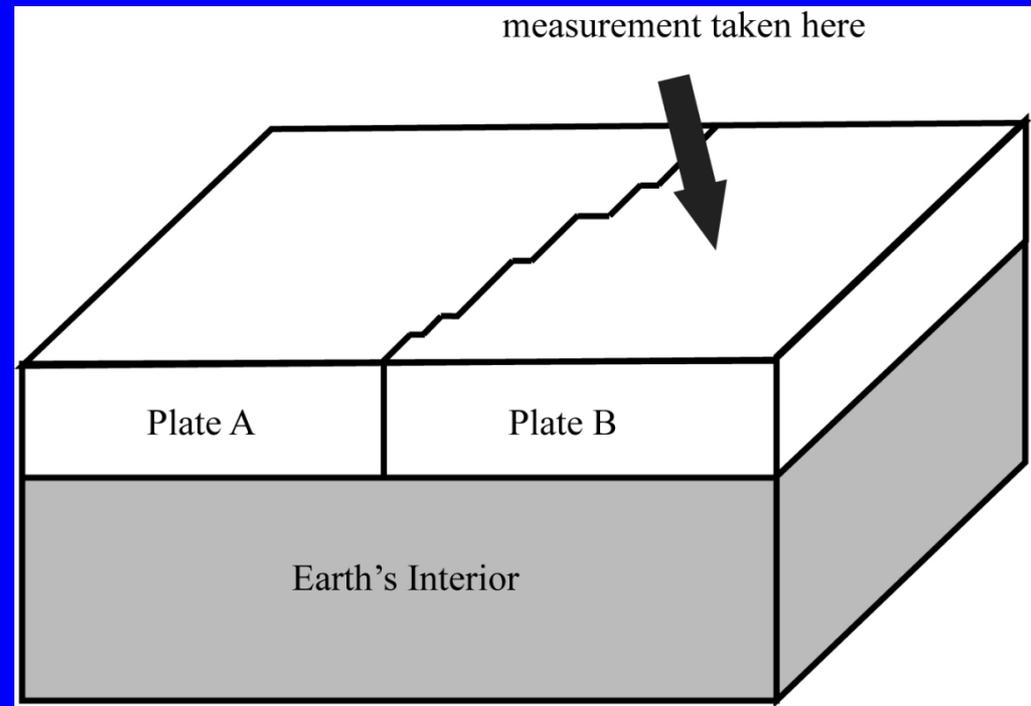
- A. Energy is transferred through materials in direct contact
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- C. Energy is transferred as electromagnetic waves
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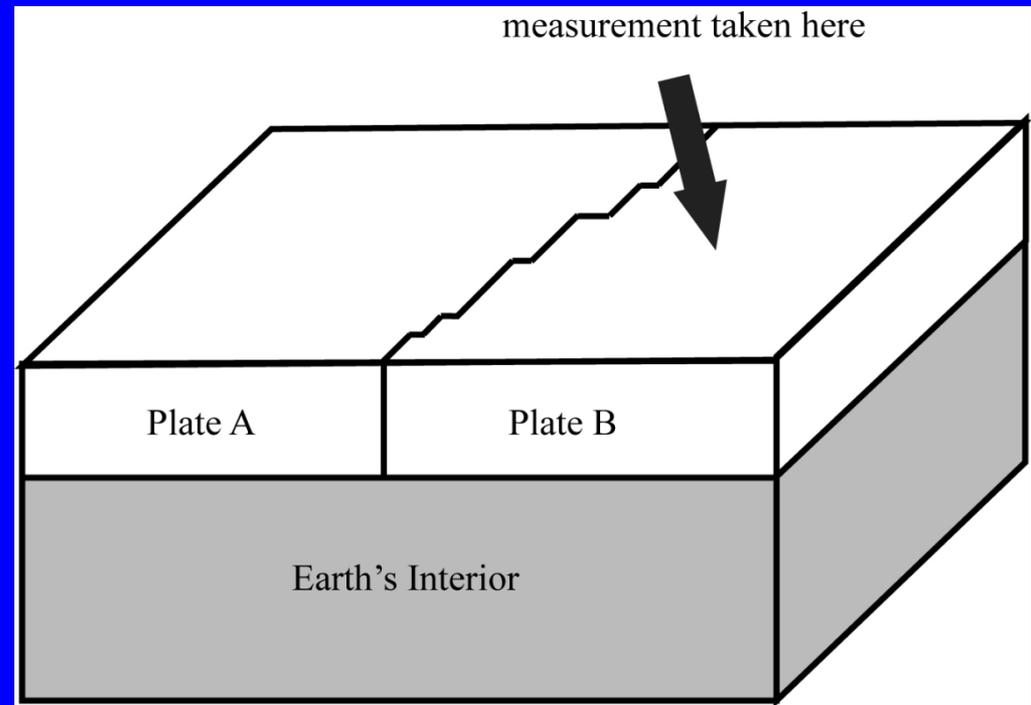
A scientist measured the thickness of one of earth's plates. Which of the following could be the scientist's measurement if she measured the thickness near the middle of the plate?

- A. Six inches
- B. Six feet
- C. Sixty feet
- D. Sixty miles

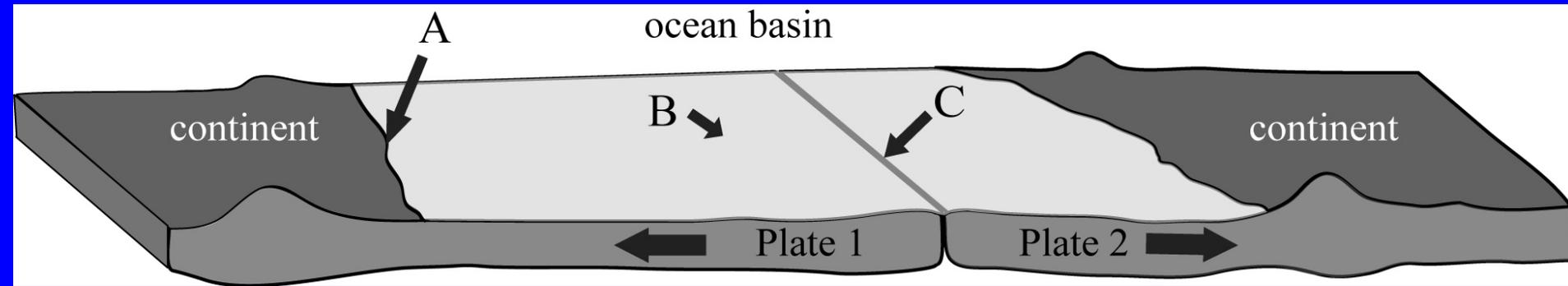


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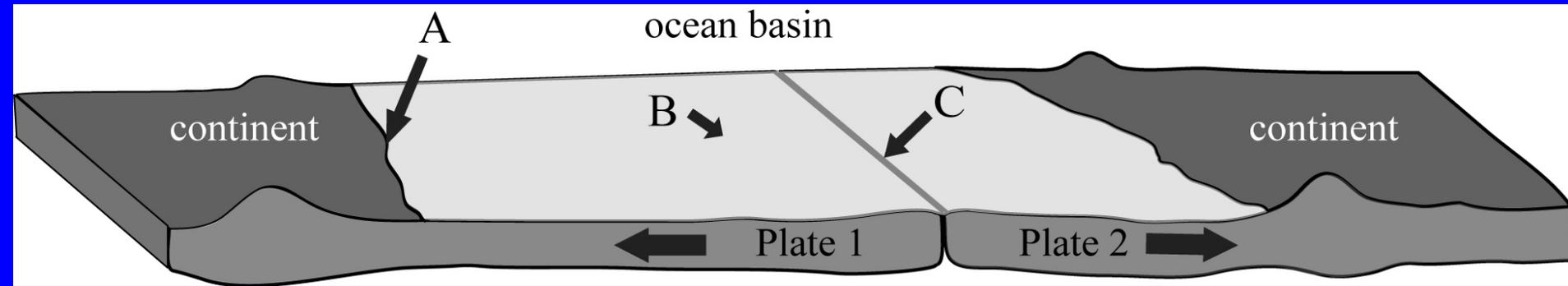


Based on the diagram below, which letter indicates a place where *new* plate material is forming?



- A. At the boundary of the continent and ocean basin
- B. In the middle of the ocean basin
- C. At the boundary where the two plates are pulling apart
- D. No new plate material is forming anywhere shown in the diagram.

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How are clouds related to water vapor and water droplets?

A. Water vapor in the air condenses to form tiny water droplets, and these water droplets make up clouds.

B. Water vapor in the air makes up clouds, but water vapor does not condense to form tiny water droplets that make up clouds.

C. Water vapor in the air condenses to form tiny water droplets, but the water vapor and water droplets do not make up clouds.

D. Water vapor in the air stays in the air as water vapor.

The water vapor does not make up clouds, and it does not condense to form tiny water droplets.

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Which of the following affects the amount of water vapor in the air as air moves over the surface of the earth?

A. Both the amount of liquid water beneath the air and the temperature of the air affect the amount of water vapor in the air.

B. The amount of liquid water beneath the air affects the amount of water vapor in the air, but the temperature of the air does not.

C. The temperature of the air affects the amount of water vapor in the air, but the amount of liquid water beneath the air does not.

D. Neither the amount of liquid water beneath the air nor the temperature of the air affects the amount of water vapor in the air.

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Earth's atmosphere contains several different gases necessary for life. Which of the following environmental hazards does the atmosphere protect us from?

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What we think of as our weather is found primarily in which layer of the atmosphere?

- A. thermosphere
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When energy from the Sun hits the air above land, the air warms and rises. Along the coast, cooler air above the ocean flows toward the land to replace the rising warm air. Which of the following best describes these processes?

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Heat transfer occurs

A in many directions.

B both from warm objects to colder ones and from cold objects to warmer ones.

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These photos show the sun at two different positions in the sky above a lake: One shows the sun high in the sky and one shows the sun lower in the sky. In both positions, nothing blocks the sunlight from reaching the whole lake. Would sunlight warm the lake by different amounts when the sun is at different positions in the sky?



- A. Yes, because the position of the sun changes the angle at which sunlight hits the lake, which determines how much the lake is warmed by sunlight
- B. Yes, because the position of the sun changes the distance that sunlight must travel to reach the lake, which determines how much the lake is warmed by sunlight
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The Sun's energy influences climate in different ways on Earth. How does the Sun's energy most directly influence the amount of precipitation in a climate?

A. It drives the water cycle, which determines precipitation

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Visitors to Florida sometimes complain about the high humidity. What does humidity indicate?

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- B. The air pressure
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Eliana measures the outdoor temperature each day for a week at exactly 3:00pm. The temperatures she records are all between 25°C and 30°C. Eliana concludes that the climate of her area is tropical. What is the most important thing missing from her study which would help verify that her conclusion is accurate?

A. She would need to check the temperature more often during the day.

B. She would need to record the precipitation as well as temperature.

C. She would need to study the temperatures over a longer period of time.

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The jet stream usually stays too far north to affect Florida's weather. What is the jet stream?

- A. The spinning of the air in the same direction as Earth's rotation
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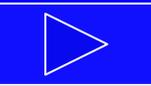
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FINAL
LEOPARD!



FINAL
CATEGORY:
Nature of
Science



Experiment vs Investigation

- Melanie and Brody want to find out whether wooden bats or metal bats allow baseballs to travel farther.
- Melanie asks five different people to hit ten balls with each type of bat and she measures the distance each ball travels.
- Brody researches the physical properties of the pine wood and the aluminum metal and then estimates the possible distance a ball could travel with a given force.

Which student conducted an experiment and which student conducted an investigation? Explain your answer.



Experiment vs Investigation

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Melanie conducted the Experiment

Brody conducted the Investigation

Experiment: Controlled test of a hypothesis

Investigation: Collection of information

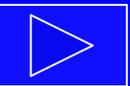




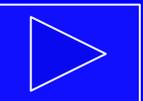
DAILY DOUBLE



TIE MAKER

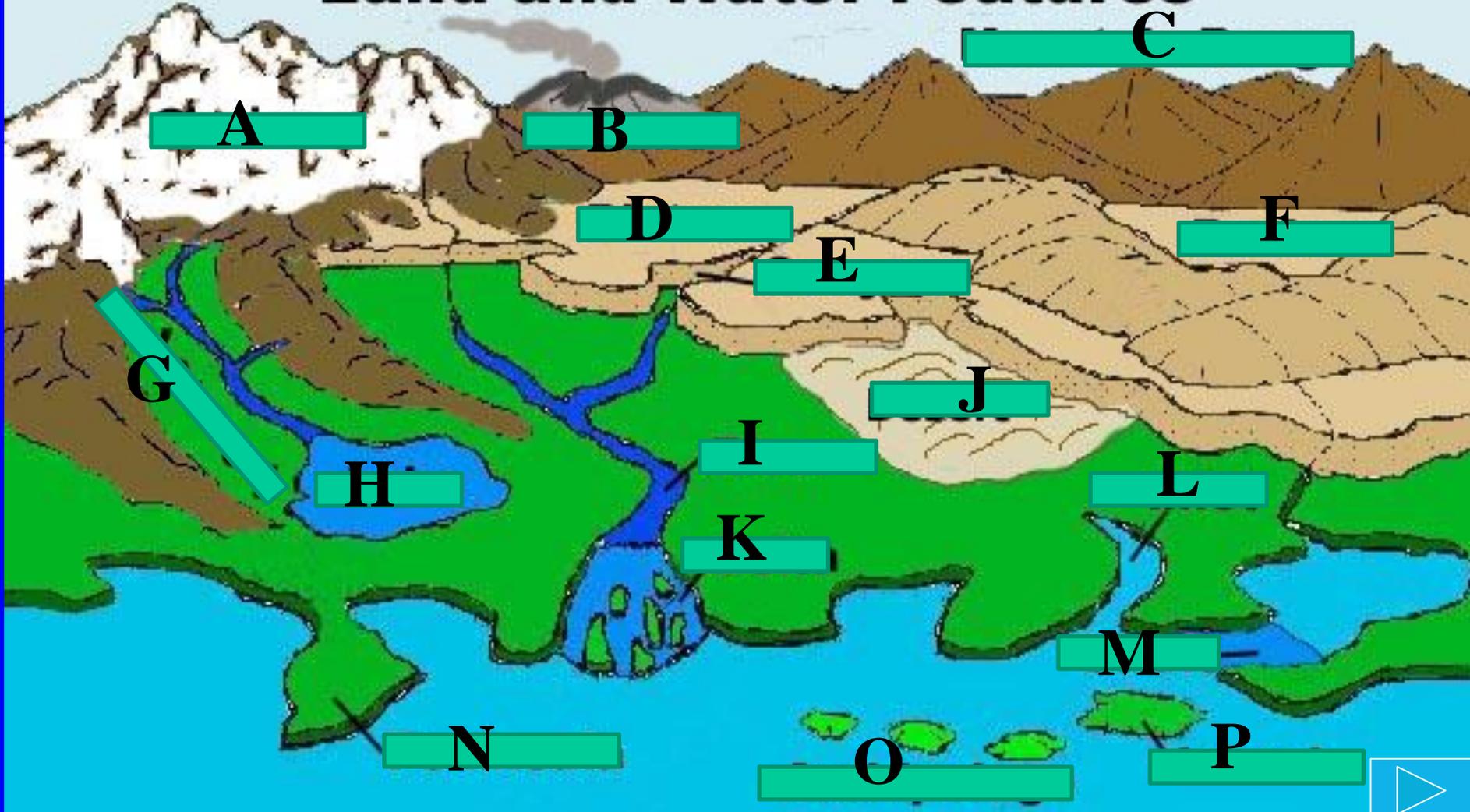


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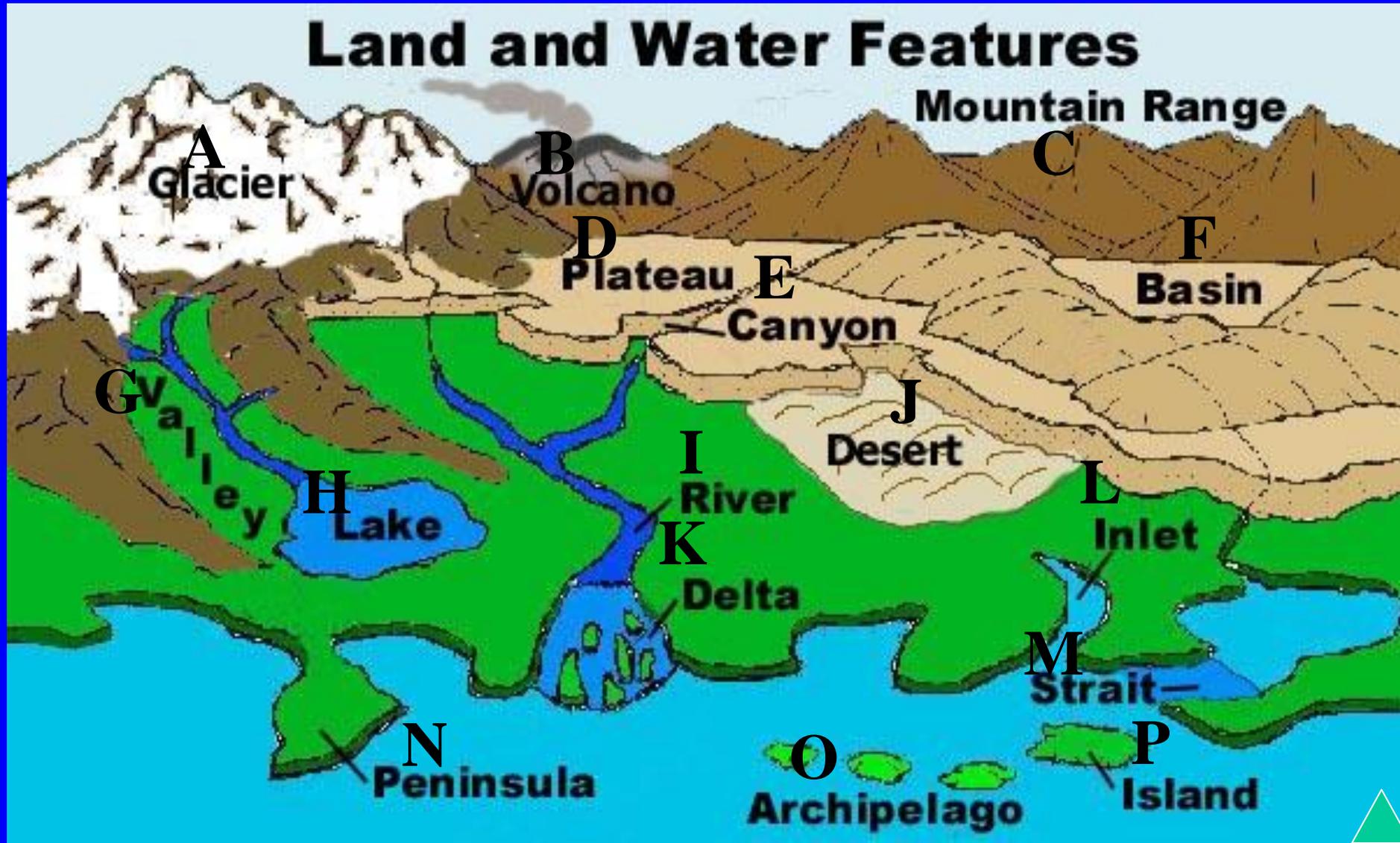


How many landforms can you name?

Land and Water Features



How many landforms can you name?



Q: Atomic #44; Infra-____; 1st letter
of Albert's last name?

A:

1. Atomic #53
2. First letter of word that means, “atoms chemically combined”.
3. Longest wavelength of visible light.
4. First letter of negatively-charged sub-atomic particle.
5. Number of protons in Beryllium.
6. First letter of the *genus* of a common house-pet.
7. Atomic #6.
8. Atomic #85.

Bellwork: Answer True or False

1. Science is a system of beliefs.
2. Most scientists are men because males are better at scientific thinking.
3. Scientists rely heavily on imagination to carry out their work.
4. Scientists are totally objective in their work.
5. The scientific method is the accepted guide for conducting research.
6. Experiments are carried out to prove cause-and-effect relationships.

7. All scientific ideas are discovered and tested by controlled experiments.

8. A hypothesis is an educated guess.

9. When a theory has been supported by a great deal of scientific evidence, it becomes a law.

10. Scientific ideas are tentative and can be modified or disproved, but never proved.

11. Technology preceded science in the history of civilization.

12. In time, science can solve most of society's problems.