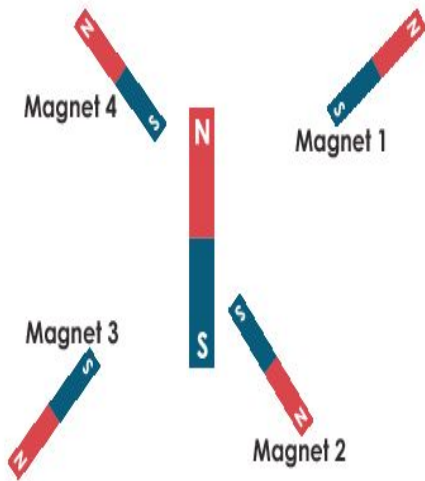


1.

### Placement of Four Bar Magnets in Magnetic Field



The diagram shows the placement of four bar magnets within the magnetic field of a larger bar magnet.

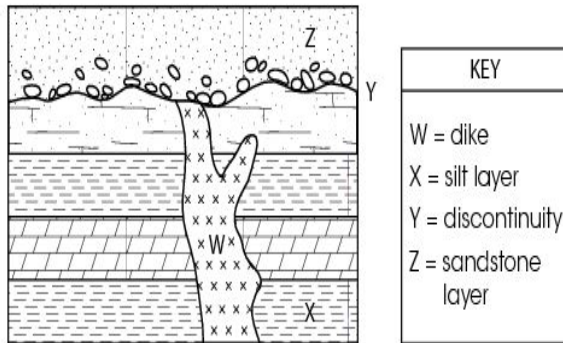
Which bar magnet will experience the greatest magnetic attraction?

- (A) Magnet 1
- (B) Magnet 2
- (C) Magnet 3
- (D) Magnet 4

2.

The picture below shows a geologic cross-section of rock layers in a specific area.

### Geologic Cross-section



Feature W represents a dike. Choose two other labeled features/layers in the geologic cross-section and identify their relative age with relation to dike W. Support each answer with specific information about the cross-cutting relationship from the cross-section. (No credit will be awarded for just choosing two labeled features/layers).

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3.

In the Western Hemisphere, crocodiles can be found only as far north as southern Florida. Crocodiles require warm temperatures to survive. The average annual temperature for southern Florida is  $76^{\circ}F$ . However, crocodile fossils and fossilized subtropical plants have been found in parts of western Colorado, where the average annual temperature is  $53^{\circ}F$ .

Which statement explains why crocodile fossils are found in western regions of the United States but living crocodiles are not?

- (A) Crocodiles used to live in cold climates but adapted to warm climates.
- (B) The climate changed, and crocodiles could not survive in this region.
- (C) Crocodiles migrated from Florida to Colorado, where they died.
- (D) A glacier carried crocodile bones from Mexico to Colorado.

4.

A geologist hiking through the woods in Ohio finds rocks containing fossils in a stream bank. The fossils look similar to animals currently living in the ocean.

Which conclusion should the geologist make based on the discovery of these fossils?

- (A) The fossils washed upstream from the ocean.
- (B) Animals that live in streams today lived in oceans long ago.
- (C) The area of the woods and stream was an ocean long ago.
- (D) The area with the stream will become part of the ocean in the future.