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# **MEAP SCIENCE GRADE 5 WINTER 2005 RELEASED ITEMS**

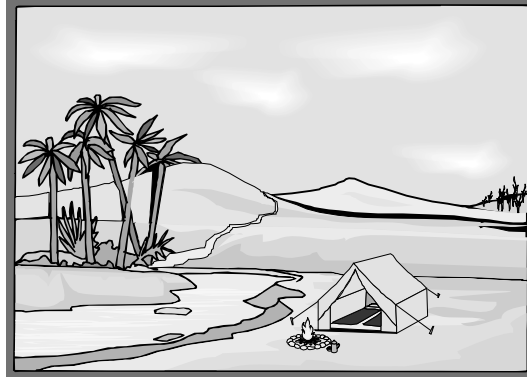
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Use the following information to answer questions 3 through 5.

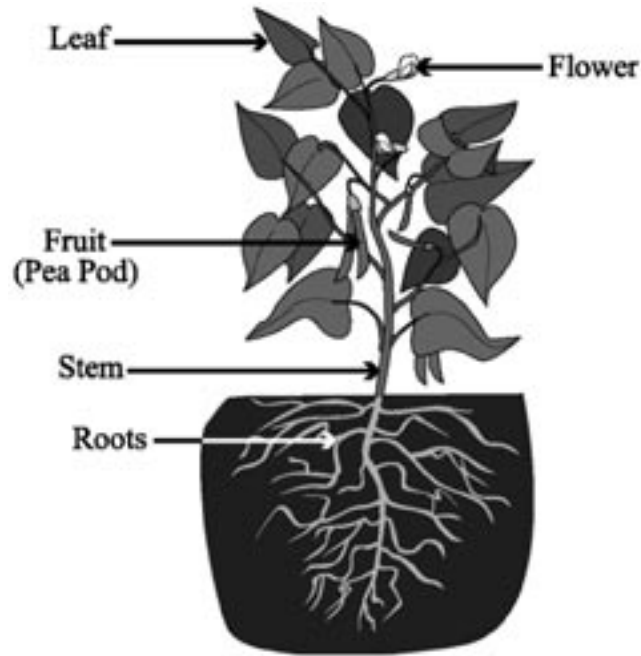
Leo and his family are camping in an area close to one of California's deserts. Leo notices that there are high mountains far to the west and flat plains far to the east.



- 3 Weathering by wind and rain changes the features of any landscape over time. Which of the following will most likely happen to the area over time?
- A Nothing will happen.
  - B The river will reverse its flow.
  - C The mountains will become smaller.
  - D An ocean will form in the flat plains.
- 4 Which of the following is Leo most likely to find in the desert?
- A seashells
  - B wetlands
  - C sand dunes
  - D glacial valleys
- 5 What information **CANNOT** be learned from studying an animal fossil?
- A the age of the animal
  - B how much the animal weighed
  - C how long ago the animal lived
  - D the number of offspring the animal had

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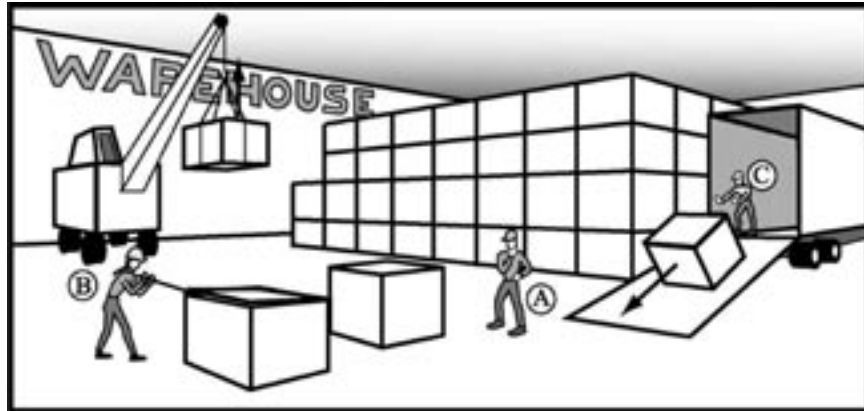
Use the following information to answer questions 18 through 21.



There are over 265,000 known species of plants on Earth. These plants are divided into groups based on their characteristics. The pea plant above belongs to a group of plants called seed plants.

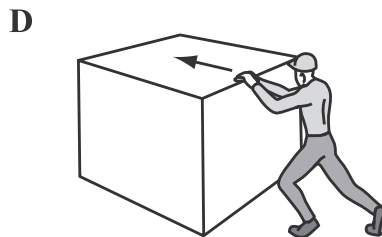
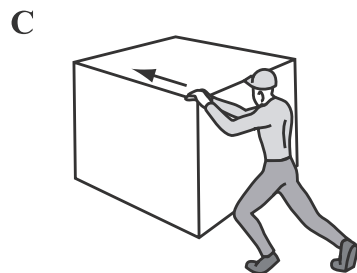
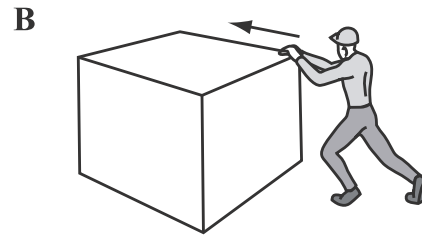
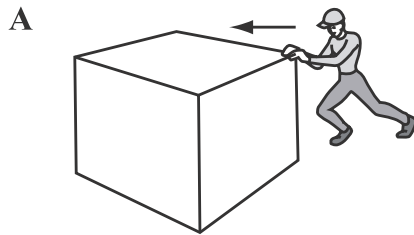
- 18** A plant's stem
- A supports the plant.
  - B produces seeds for the plant.
  - C anchors the plant in the soil.
  - D absorbs water and minerals from the soil.
- 19** Which of the following is required in order for seeds to germinate?
- A soil
  - B light
  - C water
  - D oxygen
- 20** Plants produce their own food. In which part of the plant is *most* of its food produced?
- A leaf
  - B fruit
  - C stem
  - D root
- 21 Constructed-Response**  
**(3 points)**
- Plants are important to human beings in many ways.
- Identify three different ways that human beings use plants.

Use the following information to answer questions 40 through 43.



In a typical warehouse, like the one shown in the diagram above, workers use different methods to move large boxes from one place to another. Answer the following questions about handling large boxes in a warehouse.

40 Worker A wants to push a heavy box. Which of the following diagrams shows the best place for him to use force if he wants to move the box in a straight line?



41 Worker B pushes a crowbar under the lid to open the box. How is the crowbar being used?

- A as a lever and as a pulley
- B as a wedge and as a lever
- C as a lever and as an inclined plane
- D as a wedge and as an inclined plane

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42 What force is working against the box as the crane lifts it into the air?

- A effort
- B friction
- C gravity
- D distance

**43 Constructed-Response (3 points)**

Using the diagram of the warehouse, respond to the following:

- Identify the force that is created between the box and the ramp when the box is pushed on the ramp.
- Describe two ways to reduce this force.

