

Name :

## MAP Science Test Prep, Unit A Test

### CONSTRUCTED-RESPONSE ITEMS

**Directions:** Type the answer in the square that follow each question.

1. When new plants and animals are introduced into an ecosystem, they can cause changes. Suppose that people bring to an area a type of plant not normally found there. The new plants grow quickly in their new environment.

(a) What is one possible effect of the new plants on the plants that were already growing in the area?

(b) What might happen to herbivores that eat only the plants that were growing there? Explain your answer.

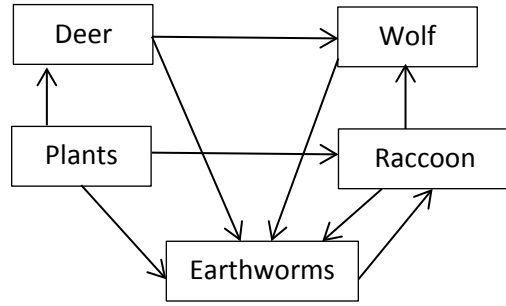
2. A student has a plant sample that is vascular and has seeds. She uses the table below to classify the sample.

	Phylum			
Characteristic	Mosses	Ferns	Conifers	Flowering Plants
Vascular	No	Yes	Yes	Yes
Seeds	No	No	Yes	Yes
Flowers	No	No	NO	Yes

(a) Identify the phyla to which this plant sample might belong.

(b) Suppose the student finds out that her plant sample has no flowers. She narrows her choice to one phylum. To which phylum can she conclude her plant belongs? Explain your answer.

3.



(a) Use the diagram of the food web above to draw a food chain below. Include at least three organisms in the food chain.

(b) Identify each organism in your food chain as a producer, herbivore, omnivore, carnivore, or decomposer.

4.



(a) Classify the leaf in the drawing above as a monocot or a dicot. Explain your answer.

(b) Suppose a disease destroys all the leaves on a plant. What will happen to the plant? Why?

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### SELECTED-RESPONSE ITEMS

**Directions:** Read each question and answer choice. Mark in the circle next to each correct answer choice.

1. What is a main function of a plant's root cells?

Making seeds  
Producing pollen  
Absorbing nutrients  
Storing chlorophyll

2. How are animals different from plants?

Animals have many cells, but plants can have one cell.  
Animals cannot make their own food, but plants can.  
Animals move, but plants do not.  
Animals pass genes to their offspring, but plants do not.

3. Which of the following is true about the legs of arthropods?

The legs are furry.  
The legs are jointed.  
There are always six legs.  
All the legs are attached to the middle part of the arthropod.

4. Which of the following is an example of gravitropism?

Stems bend down when they fill with water.  
Leaves grow toward the Sun.  
Roots grow away from a rock.  
Roots grow down into garden soil.

5. The table shows five levels of classification for a particular animal.

<b>Classification</b>	<b>Characteristics</b>
<b>Kingdom</b> Animals	Many cells; eat other organisms for food
<b>Phylum</b> Chordata	Spinal cords
<b>Class</b> Mammalia	Give milk to their young
<b>Order</b> Carnivora	Eat meat
<b>Family</b> Canidae	Dog-like features

Animals in the Class Mammalia give milk to their young. According to the table, what other characteristic or characteristics do all mammals share?

Eat meat

Spinal cords and eat meat

Eat meat and have dog-like features

Many cells, eat other organisms for food, spinal cords

6. Which structure is found in all adult vertebrates except fish?

Backbone

Scales

Legs

Lungs

7. A student wants to study the differences in structure between red blood cells and white blood cells. Which tool should the student use?

Thermometer

Balance

Microscope

Spring scale

8. Vital lung capacity is the amount of air that a person can blow out after a deep breath. How much lung capacity might a person your age have?

1 liter

15 liters

10 milliliters

50 milliliters

9. Which statement best describes how the circulatory and digestive systems work together?

Particles of digested food move into blood vessels.

Wastes are filtered out of the blood by the kidneys.

Platelets in the blood form blood clots.

The blood picks up oxygen in the lungs.

10. A student wants to compare phototropism in different kinds of plants. He places a fern plant in dim light and an ivy plant in bright light. He gives the plants the same amount of water. He does not move the containers. At the end of one month, the leaves of the ivy have moved more than the leaves of the fern. The student concludes that ivy plants are more phototropic than ferns. Was the experiment a fair test?

No, because a third plant was needed to compare.

No, because the plants were grown in different amounts of light.

Yes, because the plants were given the same amount of water.

Yes, because different kinds of plants were used.