

INVESTIGATION 2 I-CHECK

STRUCTURES OF LIFE

Name _____

Date _____

1. a. Write **X** next to each basic need that a plant must get from its environment in order to grow and complete a life cycle.

- _____ air
- _____ water
- _____ food
- _____ sunlight
- _____ nutrients
- _____ soil



- b. Choose the word that best completes this sentence.

If you give a seed _____, it is likely to start growing.

(Mark the one best answer.)

- A air
- B food
- C light
- D water

2. Write **X** next to each sentence that describes how you can tell when a seed has started to germinate.

- _____ Flowers are beginning to form.
- _____ A root is coming out of one side.
- _____ A leaf and a stem are coming out the other side.
- _____ The seed is swollen.
- _____ The seed coat is broken.

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3. Some plants can grow in water without soil as long as you put _____ in the water.

(Mark the one best answer.)

- A salt
- B nutrients
- C food
- D bleach



4. Which structure of the plant produces the fruit?

(Mark the one best answer.)

- A root
- B cotyledon
- C flower
- D leaves

5. The stage in a plant's life cycle when the seed begins to grow is called _____.

(Mark the one best answer.)

- A rooting
- B seedling
- C germination
- D flowering

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STRUCTURES OF LIFE

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6. a. When a seed begins to grow, why does the root grow first?

(Mark the one best answer.)

- A to collect food
- B to soak up water
- C to let gravity pull it down
- D to push off the seed coat

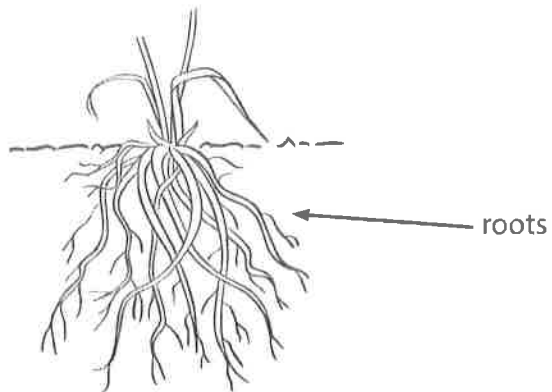
- b. Where does the seed get the food to begin growing the root?

(Mark the one best answer.)

- F the cotyledon
- G the embryo
- H the surrounding soil
- J the air

7. Write **X** next to each sentence that describes a function of roots.

- _____ Roots produce flowers.
- _____ Roots take up nutrients.
- _____ Roots anchor the plant in soil.
- _____ Roots produce seeds.
- _____ Roots take up water.



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8. What does a seed contain that provides energy for germination?

(Mark the one best answer.)

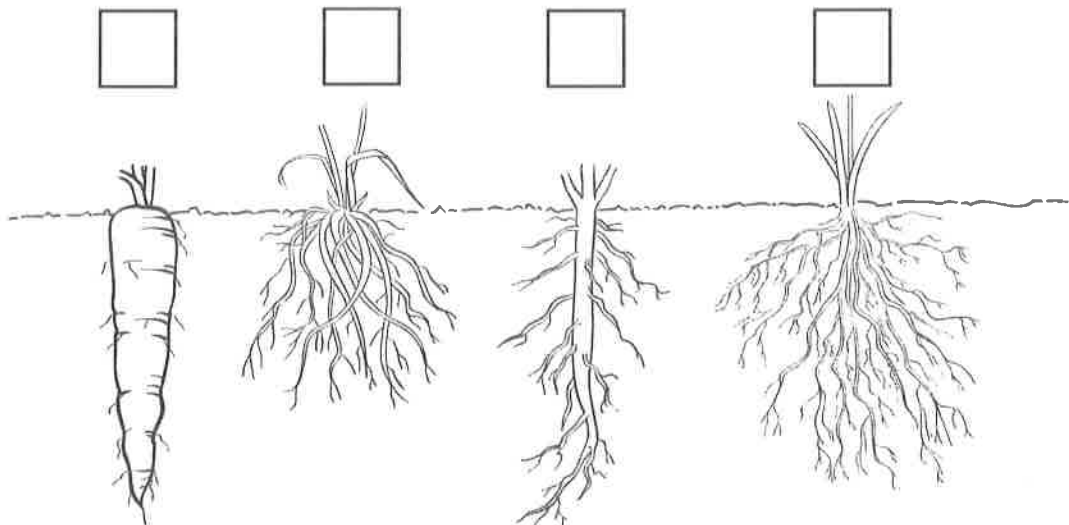
- A water
- B stored food
- C soil
- D sunlight

9. The main function of a plant's flowers is to _____.

(Mark the one best answer.)

- A provide support
- B transport water through the plant
- C make food
- D produce seeds

10. Write **F** in the box above the picture if it is a fibrous root. Write **T** if it is a taproot.



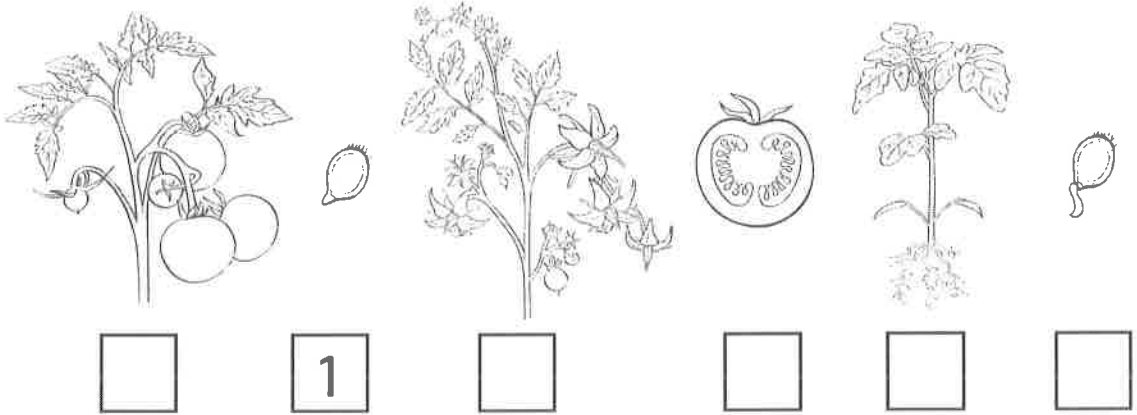
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STRUCTURES OF LIFE

OPEN-RESPONSE QUESTIONS

11. The pictures below show the life cycle of a tomato plant.

a. Number the pictures to show how a tomato plant grows, starting with the seed.



b. Describe what is happening at each stage of the life cycle as you numbered it above.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

(6) _____

Name _____

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OPEN-RESPONSE QUESTION

12. Two students planted bean seedlings in two hydroponic tanks. One student forgot to put nutrients in his tank. After 4 weeks, they measured the bean plants. Their data are shown in the tables below.

Tank 1

Plant	No. of leaves	Leaf color
1	3	light green
2	5	green
3	4	light green

Tank 2

Plant	No. of leaves	Leaf color
1	10	green
2	16	green
3	14	green

Which tank had the nutrients? _____

Why do you think that tank had the nutrients?
