***Plant Growth and Development***



**Formative Assessment**

**Tab 5 / Formative Assessment 25**

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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

Which of the following does **not** go through a life cycle?

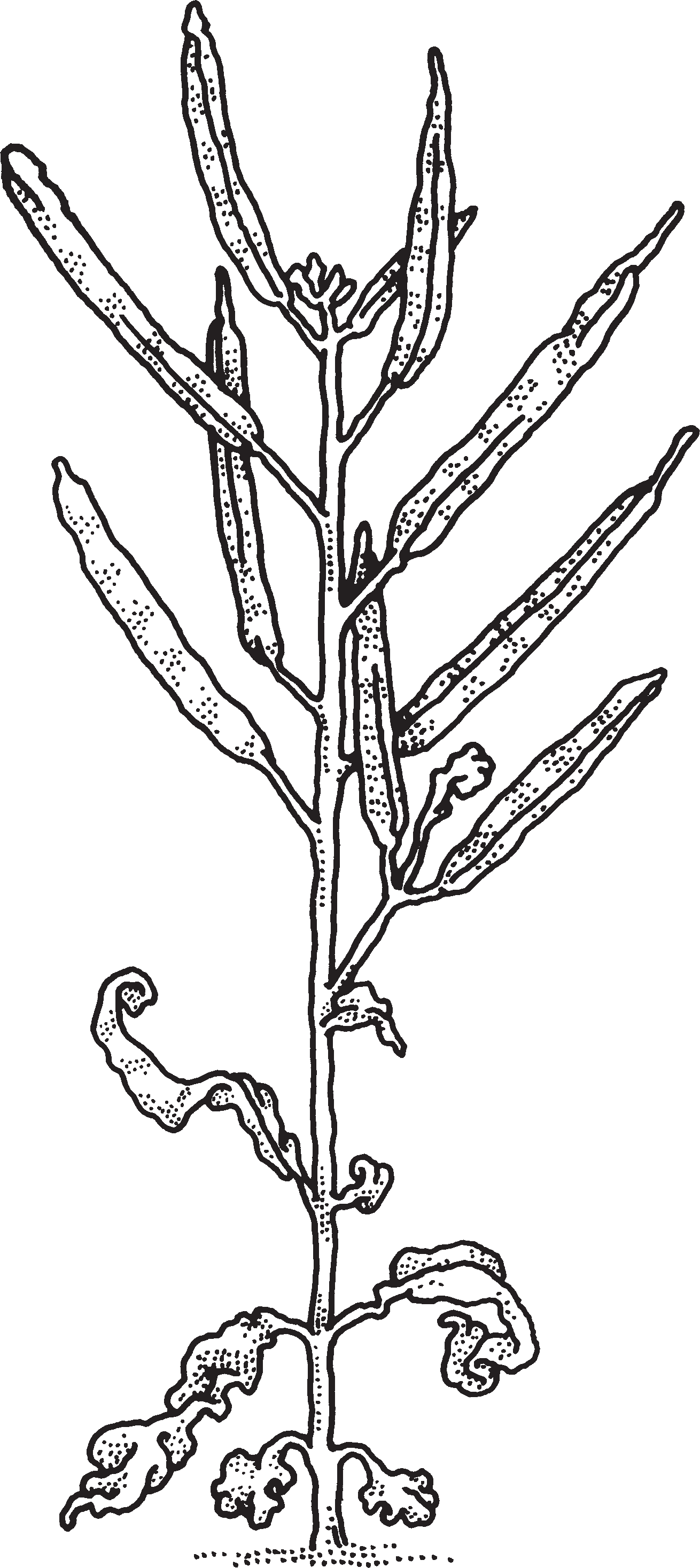
1. A bee
2. Wisconsin Fast Plant
3. A bean
4. A rock

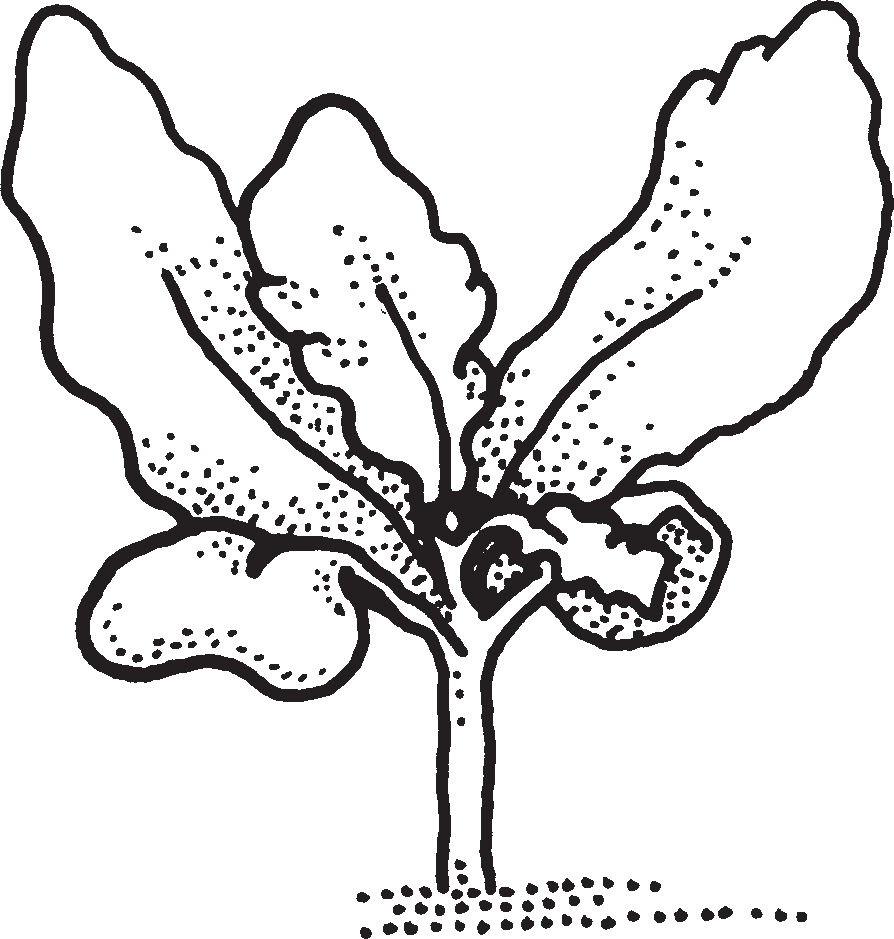
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|  |  | **DISCUSSION** | | | |  |  |
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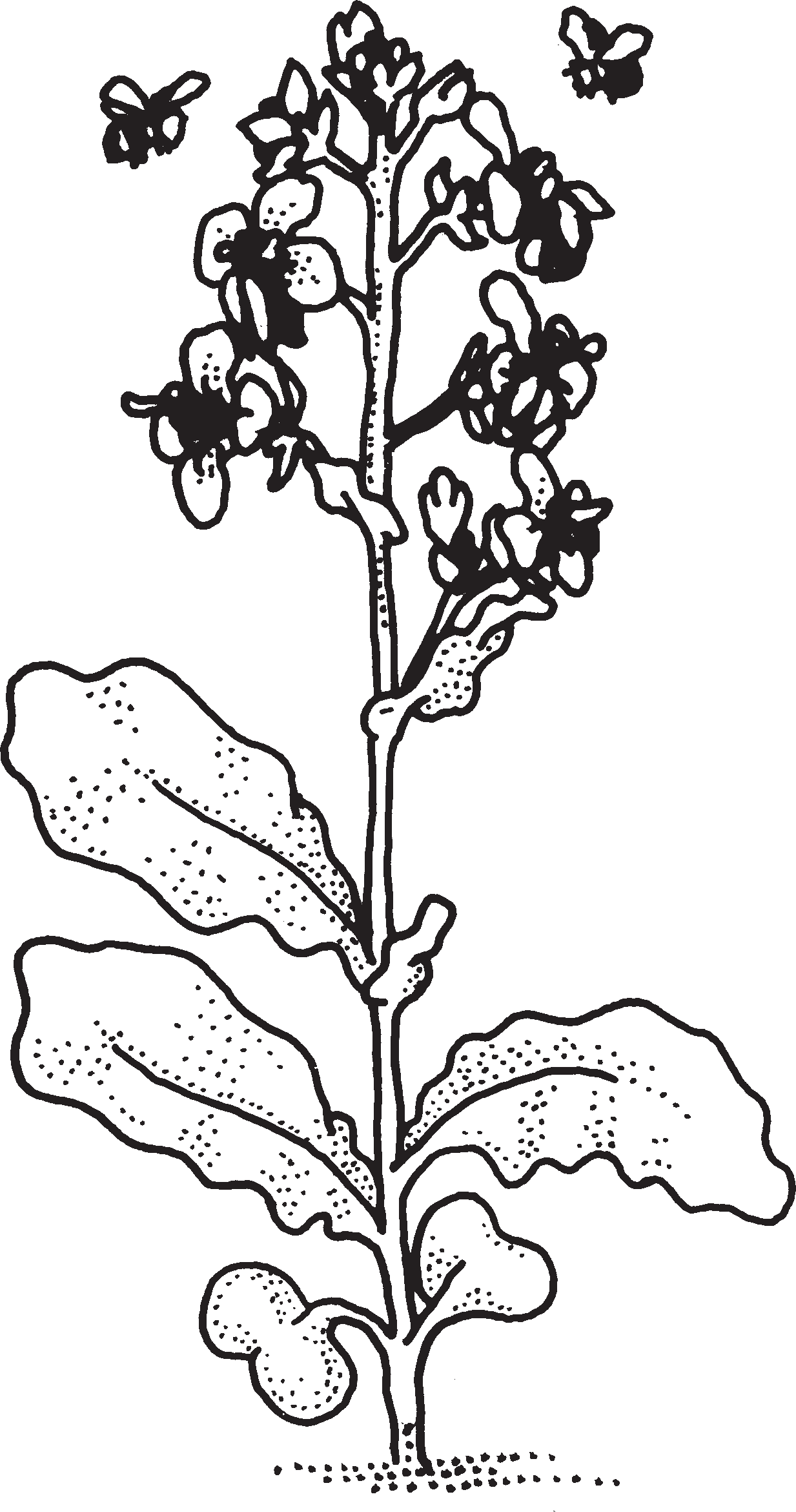
The figure below shows stages in the life cycle of a Wisconsin Fast Plant.

Which stage is missing from this life cycle of the Wisconsin Fast Plant?

1. A plant with pods



1. A flowering plant and bees
2. A seed
3. A plant with flower buds



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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

Measure the line below with a centimeter ruler or centimeter cubes.

Choose the length that best matches that of the line.

1. 17 cm
2. 70 cm
3. 7 cm
4. 700 cm

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|  |  | **DISCUSSION** | | | |  |  |
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Dr. Paul Williams developed the Wisconsin Fast Plant that you are studying. It took him 15 years to make the plant grow as fast as it does! How long does it take the Wisconsin Fast Plant to go through its life cycle?

1. 2 weeks
2. 6 months
3. 2 years
4. 6 weeks

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|  |  | **DISCUSSION** | | | |  |  |
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On the lines below, write sentences that tell about what you used to help your Fast Plants grow. Try to use words from the Word Bank in your sentences.

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| **Word Bank:** | fertilizer pellets | potting mix | planter quad |
| light label | wick  *Brassica* | seeds toothpick | water mat |

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|  |  | **DISCUSSION** | | | |  |  |
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What is the purpose of pollination?

1. It helps the plant make seeds.
2. It helps the plant get moisture.
3. It helps feed the bee.
4. It makes the plant grow taller.

Living things are interdependent; for example, plants depend on bees for pollination.

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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

The Wisconsin Fast Plant is a member of a group of plants called crucifers. *Crucifer* might remind you of the word *crucifix*, or cross.

How many petals are on a Fast Plant flower?

1. 2
2. 3
3. 4
4. 5

Living things are interdependent; for example, plants depend on bees for pollination.

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|  |  | **DISCUSSION** | | | |  |  |
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What attracts a bee to a flower?

1. The flower’s smell.
2. The flower’s height.
3. The flower’s color.
4. The flower’s sound.

Living things are interdependent; for example, plants depend on bees for pollination.

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|  |  | **DISCUSSION** | | | |  |  |
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Read these steps for making a bee stick. Then put them in the correct order by writing the letters on the three lines below:

1. Glue the underside of the bee to the toothpick.
2. Let the glue dry for a few minutes.
3. Put a very small drop of glue on the end of the toothpick.

Step 1 Step 2 Step 3

Living things are interdependent; for example, plants depend on bees for pollination.

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|  |  | **DISCUSSION** | | | |  |  |
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On the lines below, describe how you used the bee sticks to pollinate your *Brassica* plants. Tell why this was an important step in the life cycle of the plants. What might have happened if you did not pollinate the plants?

Living things are interdependent; for example, plants depend on bees for pollination.

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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

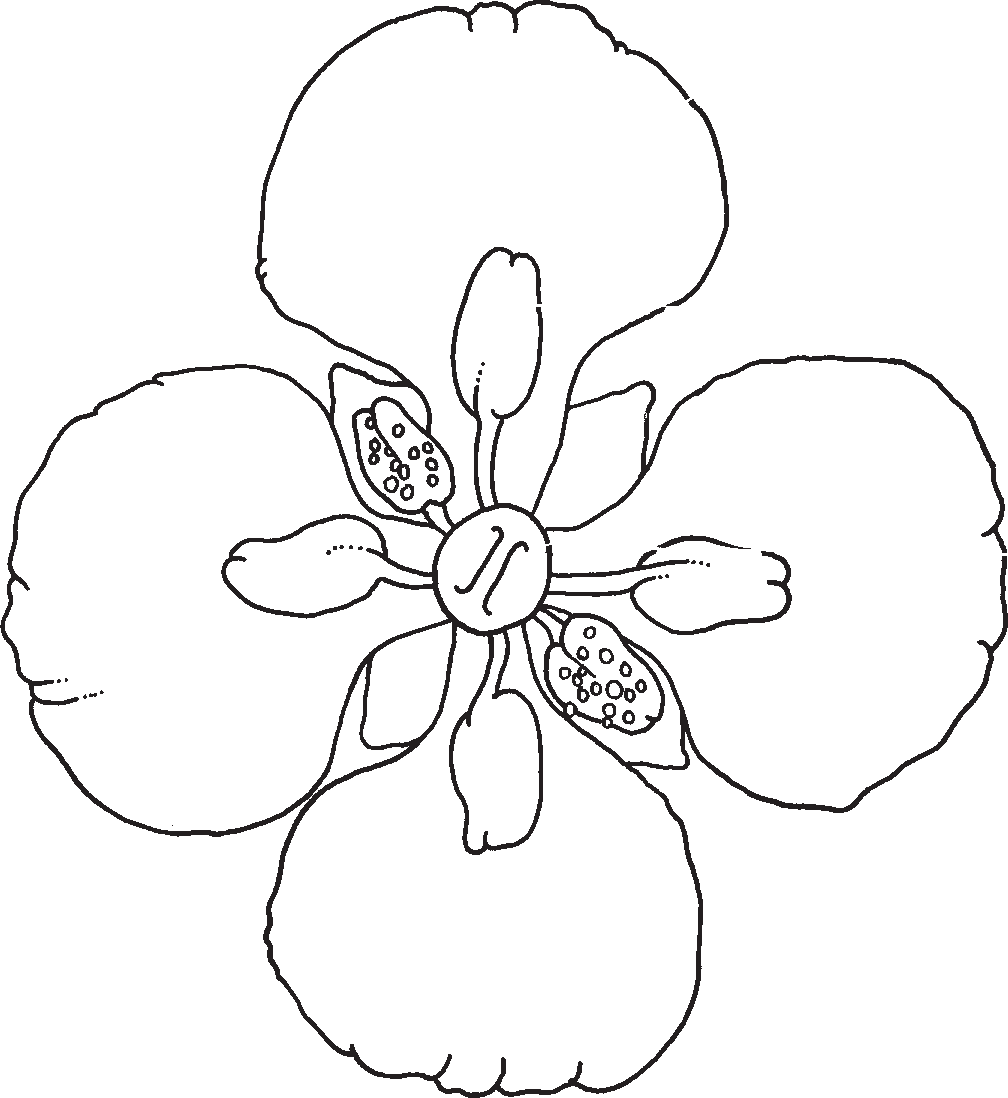
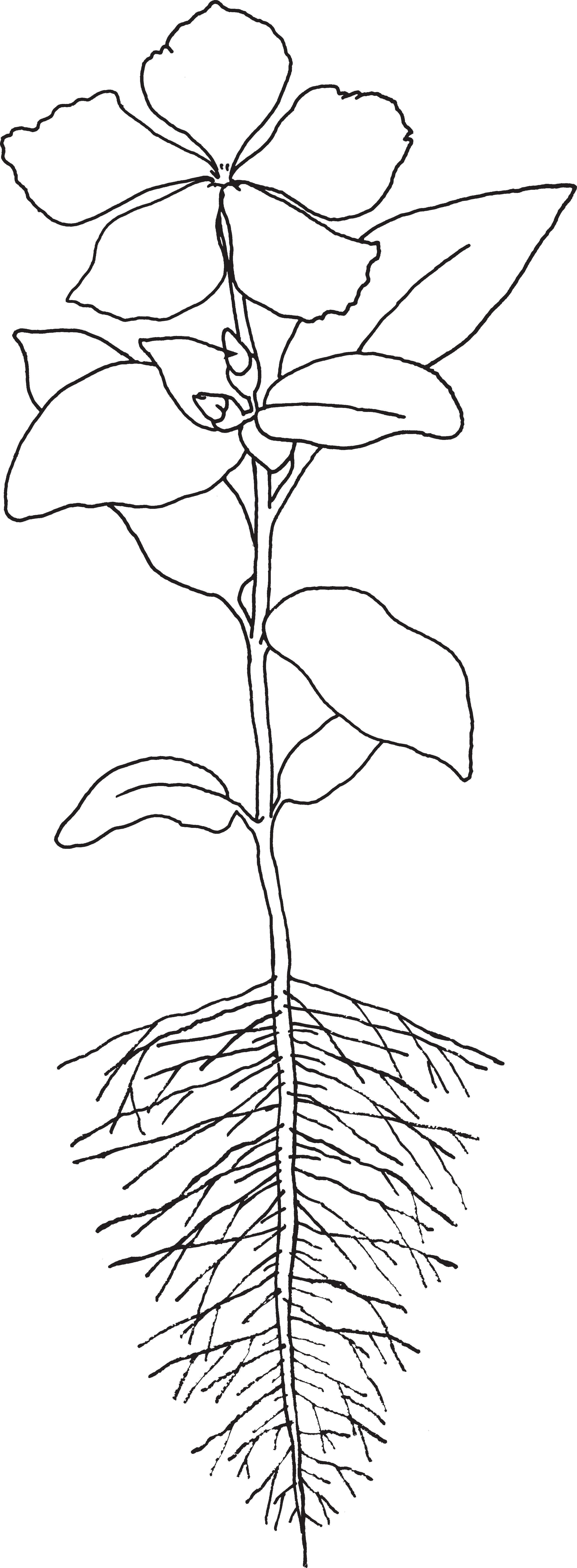
What is one purpose of a plant’s roots?

1. To protect the plant from harm
2. To anchor the plant to the ground
3. To help the plant get moisture
4. To attract bees

Models can be used to identify the structures, functions, and behaviors of living organisms.

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|  |  | **DISCUSSION** | | | |  |  |
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The diagram below shows the parts of a flowering plant. Label as many of its parts as you can. Use the words from the Word Bank.



**Word Bank:**

petal anther

pistil stigma

stem leaf

root pollen

bud seed pod

Models can be used to identify the structures, functions, and behaviors of living organisms.

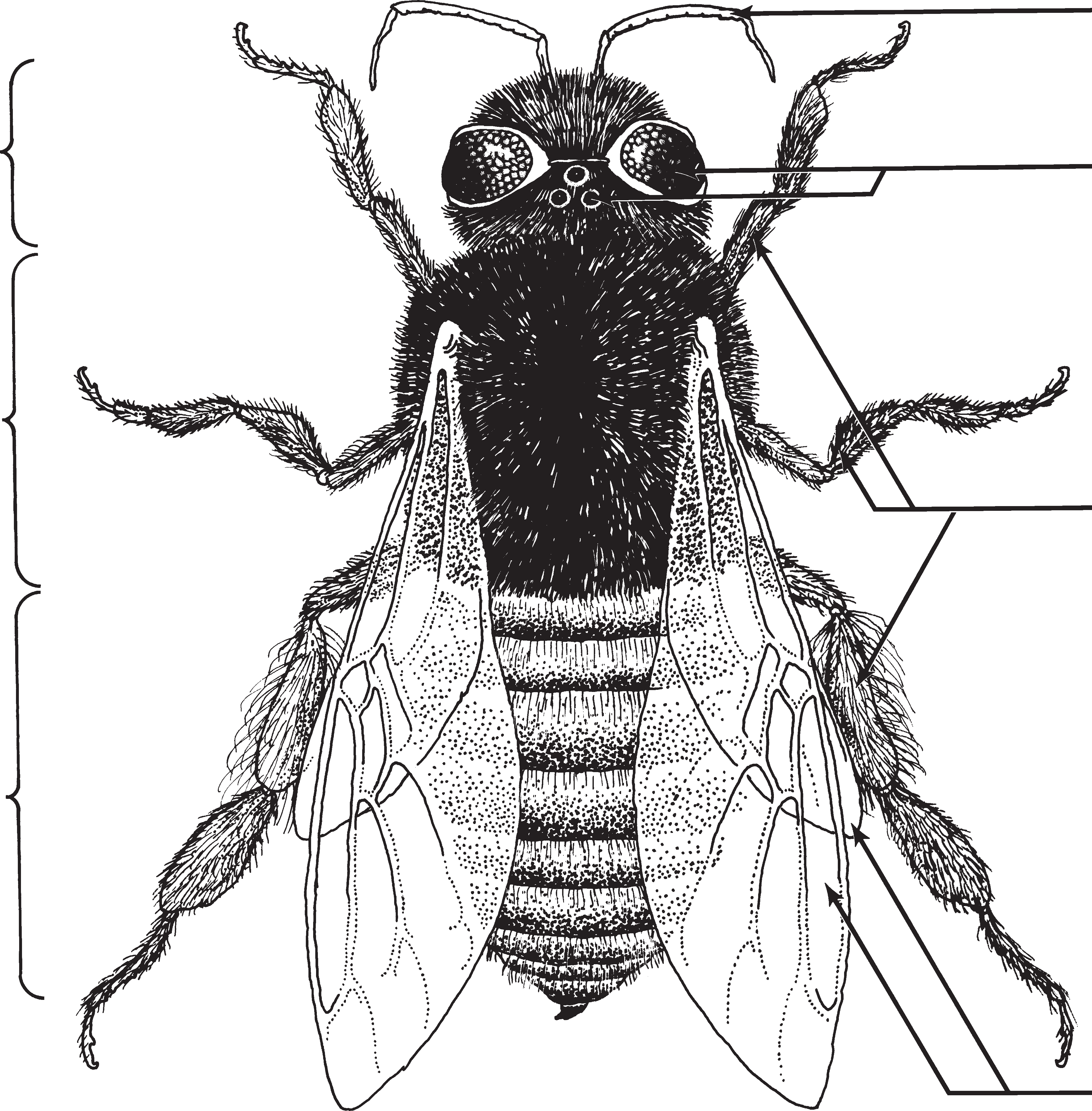
# Question 3.3

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|  |  | **DISCUSSION** | | | |  |  |
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| ctions, | an | d | beh | avior | s |  |  |
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The diagram below shows the body parts of a bee. Use the Word Bank to help you to label all the bee’s body parts.

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| --- | --- | --- | --- | --- |
| **Word Bank:** | head | thorax | abdomen | antenna |
|  | eyes | legs | wings |  |



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| Models | can | be | used | to | identify | the | structures, | fun |
| of living |  | organisms. |  |  |  |  |  |  |

STC™ / Plant Growth and Development Subconcept 3 / Qu

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|  |  | **DISCUSSION** | | | |  |  |
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Choose three body parts from the Word Bank below. Tell how each part helps a bee pollinate a flower.

honey stomach

antenna

eyes

wings

legs

**Word Bank:** hairy body

tongue

Body Part How it Helps the Bee Pollinate a Flower

Models can be used to identify the structures,functions,and behaviors of living organisms.

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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

Use the notebook entry below to answer the question.



1. She lands on a yellow petal.
2. Her body brushes against the sticky anther and pollen sticks to her.
3. Her honey stomach is not full yet, so she is off to another flower.

A student wrote the notes shown above while learning about an organism. What organism was the student studying?

1. Cricket
2. Bee
3. Bird

Records, notes, and graphs help people understand how plants move through the life cycle and what factors affect their growth and development.

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|  |  | **DISCUSSION** | | | |  |  |
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This data table shows how many seed pods developed on three *Brassica* plants. Study the table. Circle the letter of any sentence that is true.

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| Plant | Number of Seed pods on Plant | Number of Seeds per Pod |
| 1 | 17 | 7 |
| 2 | 10 | 8 |
| 3 | 5 | 0 |

1. Plant 3 may not have been pollinated.
2. From 1 seed, plant 2 produces 80 seeds.
3. Plant 2 may not have been pollinated.
4. Plant 2 produced more seeds than plant 1.

Records, notes, and graphs help people understand how plants move through the life cycle and what factors affect their growth and development.

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|  |  | **DISCUSSION** | | | |  |  |
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Use data from this table to make a graph. The Word Bank lists the parts of a complete graph.

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| --- | --- | --- |
| Plant | Number of Seed pods on Plant | Number of Seeds per Pod |
| 1 | 17 | 7 |
| 2 | 10 | 8 |
| 3 | 5 | 0 |

**Word Bank:** axis title key labels numbers

|  |  |  |  |  |  |  |  |  |
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Records, notes, and graphs help people understand how plants move through the life cycle and what factors affect their growth and development.

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|  |  | **DISCUSSION** | | | |  |  |
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Look at the graph. Then circle the letter of any correct sentence.

**Seeds I Ate Today**

Type of Seed

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Corn |  |  |  |  |  |
|  |  |  |  |  |  |
| Lima beans |  |  |  |  |  |
|  |  |  |  |  |  |
| Peanuts |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 |

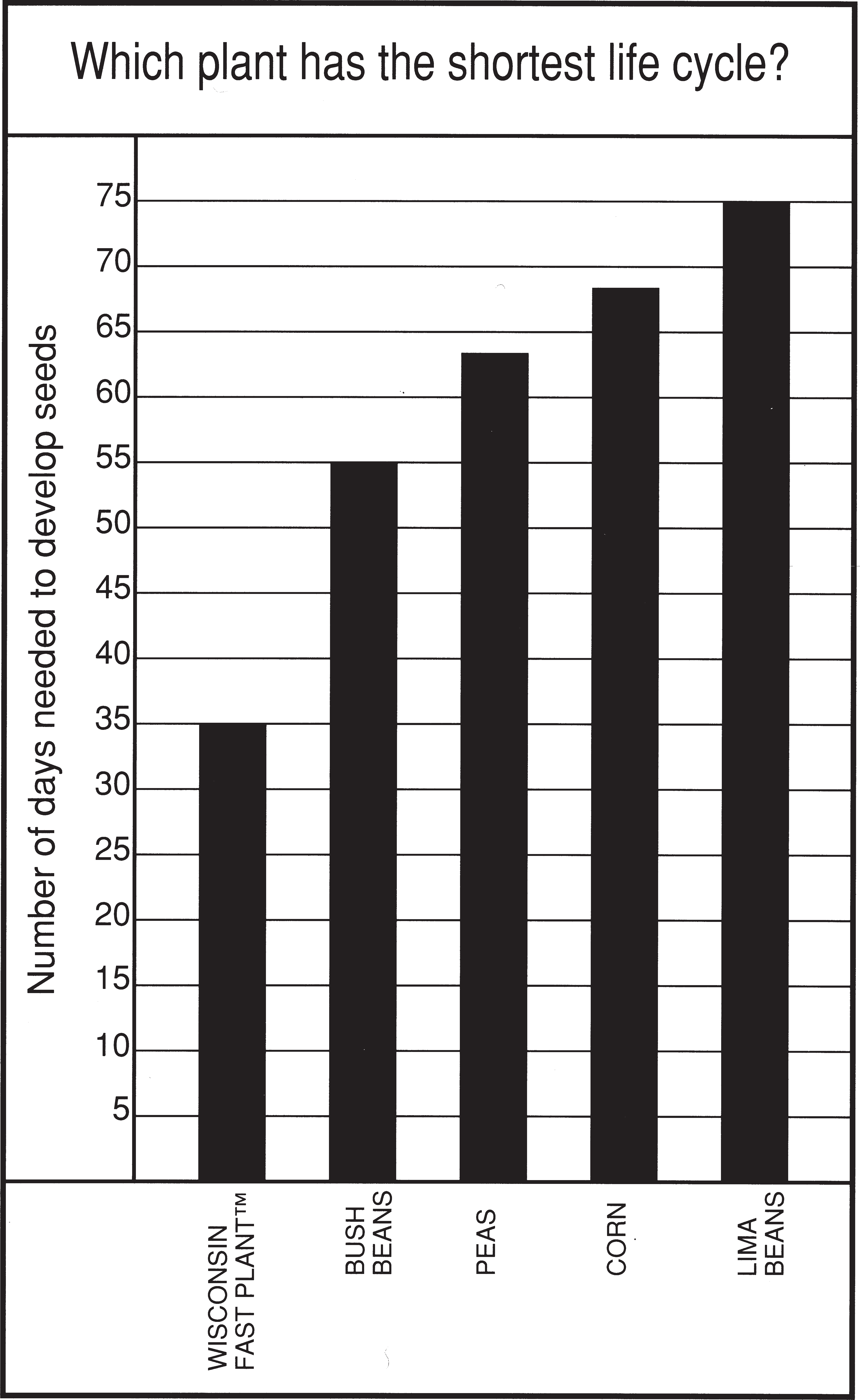
Number of Seeds

1. The graph shows that I ate no lima beans.
2. I ate more peanuts than corn seeds.
3. I ate fewer peanuts than corn seeds.
4. Lima beans are all I like to eat.

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|  |  | **DISCUSSION** | | | |  |  |
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Multiple Choice: Circle the letter of the best answer or answers to the question.

Look at the graph. Then circle the letter of any correct sentence.

1. The graph shows that lima beans grow taller than Fast Plants.
2. It takes about 69 days for corn seeds to develop.
3. Another good title for this graph would be “Which Plant Has the Longest Life Cycle?”
4. If someone planted lima beans in May, they could eat them in June.

Records, notes, and graphs help people understand how plants move through the life cycle and what factors affect their growth and development.