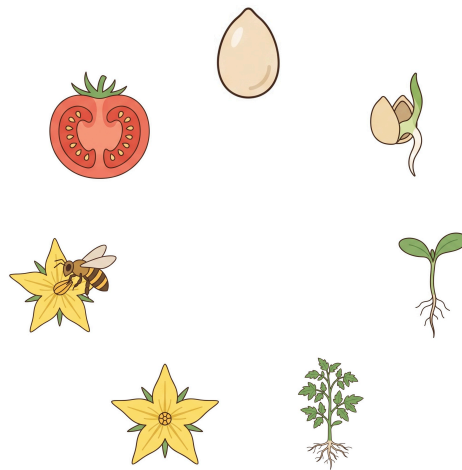


Life Cycle of a Plant

From seed to plant to flower to new seed



7

printable sheets

17

pages

All

answer keys included

Life Cycle of a Plant Teaching Pack

From seed to plant to flower to new seed

How to use this pack. The sheets are in a suggested teaching order: show the labeled diagram, have students label the blank one, then work through the practice sheets and finish with the quiz. Use them all over a week or pick the ones you need. The answer keys are together at the back.

What is inside

1. Teach

Life Cycle of a Plant Diagram 3

2. Label

Blank Life Cycle of a Plant 4

3. Match

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4. Read

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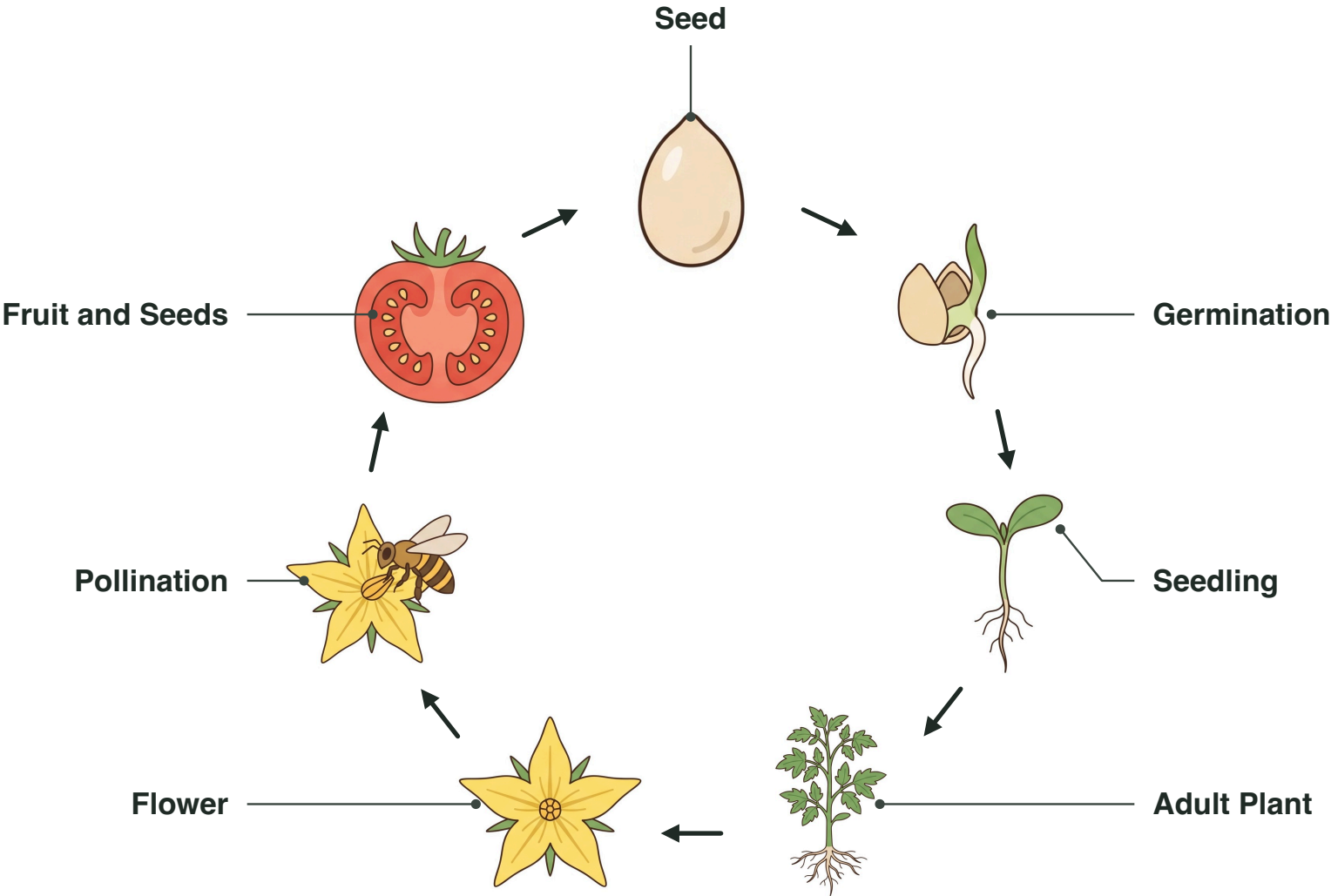
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Answer keys

Every answer key, in the same order 12

More free teaching packs. Photosynthesis, Parts of a Plant and Flower and more at printablescholar.com/teaching-packs/

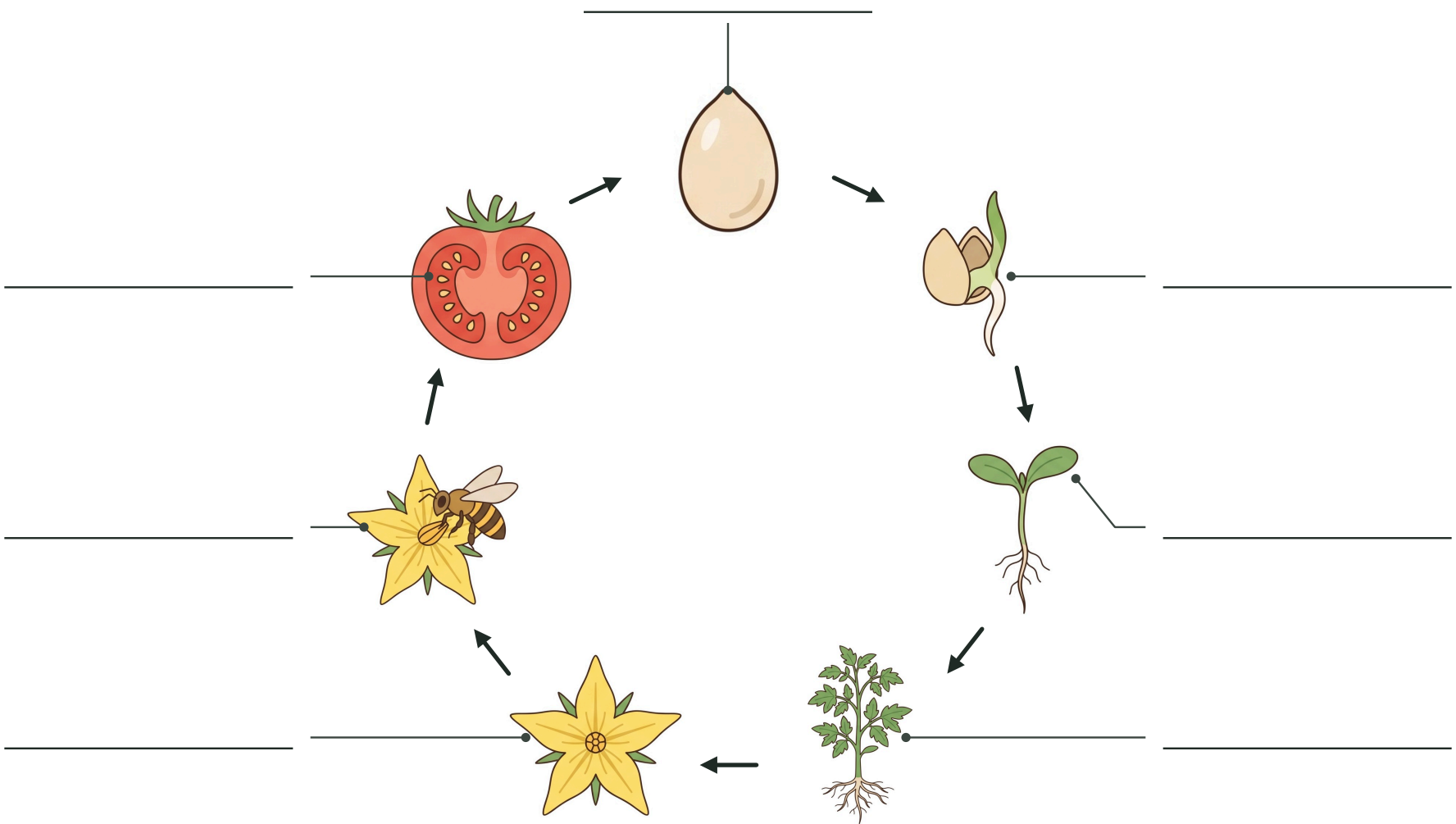
Life Cycle of a Plant



Life Cycle of a Plant

Name: _____

Write the name of each part on its line. Use the word bank.



Word bank

Adult Plant

Flower

Fruit and Seeds

Germination

Pollination

Seed

Seedling

Stages of a Plant's Life Cycle

Use the labeled life cycle of a plant diagram to help you.

Part A. Write the stage that fits each description.

Word bank Adult Plant Flower Fruit and Seeds Germination Pollination Seed Seedling

1. A small young plant opens its first leaves and starts to make its own food. _____
2. Pollen reaches the female part of a flower, often carried by a bee or the wind. _____
3. It holds a tiny young plant and stored food inside a tough coat. _____
4. The flower's ovary swells and ripens. Inside it are the beginnings of new plants. _____
5. The seed takes in water and swells. The first root and shoot push out. _____
6. It blooms on the grown plant. Its male parts make pollen, and seeds form in its female part. _____
7. It is fully grown, with strong roots, a stem and many leaves. _____

Part B. Answer the questions.

1. Why is the life of a plant called a cycle?

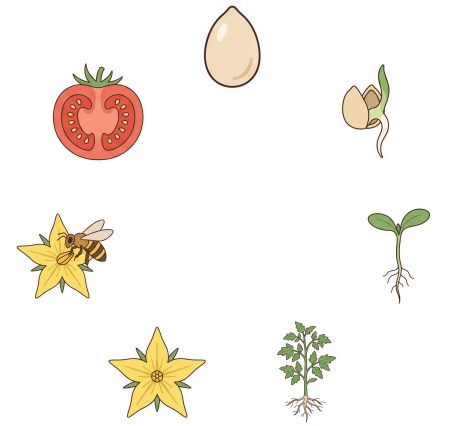
2. A seedling does not need the food stored in its seed anymore. Why not?

3. What would happen if no pollen reached a plant's flowers?

From Seed to Seed

Read the text. Then answer the questions on the next page.

- 1 A tomato **seed** is smaller than a grain of rice. Inside its tough coat are a tiny young plant, called an **embryo**, and a supply of stored food. A seed can wait a long time. It will not start to grow until it has water, oxygen and the right temperature.
- 2 When the seed takes in water, it swells and its coat splits. First a root grows down into the soil. Then a shoot grows up toward the light. This is called **germination**. At this stage the young plant lives on the food stored in the seed.
- 3 Soon the shoot opens its first leaves. Now the plant is a **seedling**. Its leaves use sunlight to make food, so it does not need the food from the seed anymore. With enough light and water, the seedling grows into an **adult plant** with strong roots, a stem and many leaves.
- 4 The adult plant makes **flowers**. Flowers make a fine powder called **pollen**. To make seeds, pollen has to reach the female part of a flower. Bees, other animals and the wind carry it there. This is called **pollination**. After a flower is pollinated, seeds begin to form inside its **ovary**.
- 5 Next, the petals fall off and the ovary grows into a **fruit**. A tomato is a fruit, and the new seeds are inside it. Animals eat fruits and drop the seeds in new places. Wind and water carry other seeds. A seed that lands in a good spot can germinate, and the cycle begins again.



The life of a tomato plant. Start with the seed at the top and go clockwise.

From Seed to Seed: Questions

Go back to the text to find each answer. The paragraphs are numbered to help you.

1. What is this text mostly about?

- ☐ How to cook with tomatoes
- ☐ Why bees visit flowers
- ☐ How a plant grows from a seed and makes new seeds
- ☐ How animals find food

2. What two things are inside the coat of a seed?

3. What does a seed need before it will start to grow?

- ☐ Pollen, petals and bees
- ☐ Water, oxygen and the right temperature
- ☐ Fruit, leaves and wind
- ☐ A stem, roots and flowers

4. Number the steps 1, 2 and 3 to show how a seed germinates (paragraph 2).

- ☐ A shoot grows up toward the light.
- ☐ The seed takes in water and swells, and its coat splits.
- ☐ A root grows down into the soil.

5. Why does a seedling not need the food from the seed anymore?

- ☐ It has stopped growing.
- ☐ A bee brings it food.
- ☐ It is already an adult plant.
- ☐ Its leaves use sunlight to make food.

6. Name two things that can carry pollen to a flower.

7. What does the ovary of a flower grow into?

- ☐ A seedling
- ☐ A fruit
- ☐ A root
- ☐ A leaf

8. How do animals help seeds get to new places?

How Do Seeds Travel?

A seed grows best away from its parent plant, where it has its own light, water and space. Read about each seed or fruit. Write how the seed travels. Some answers are used twice.

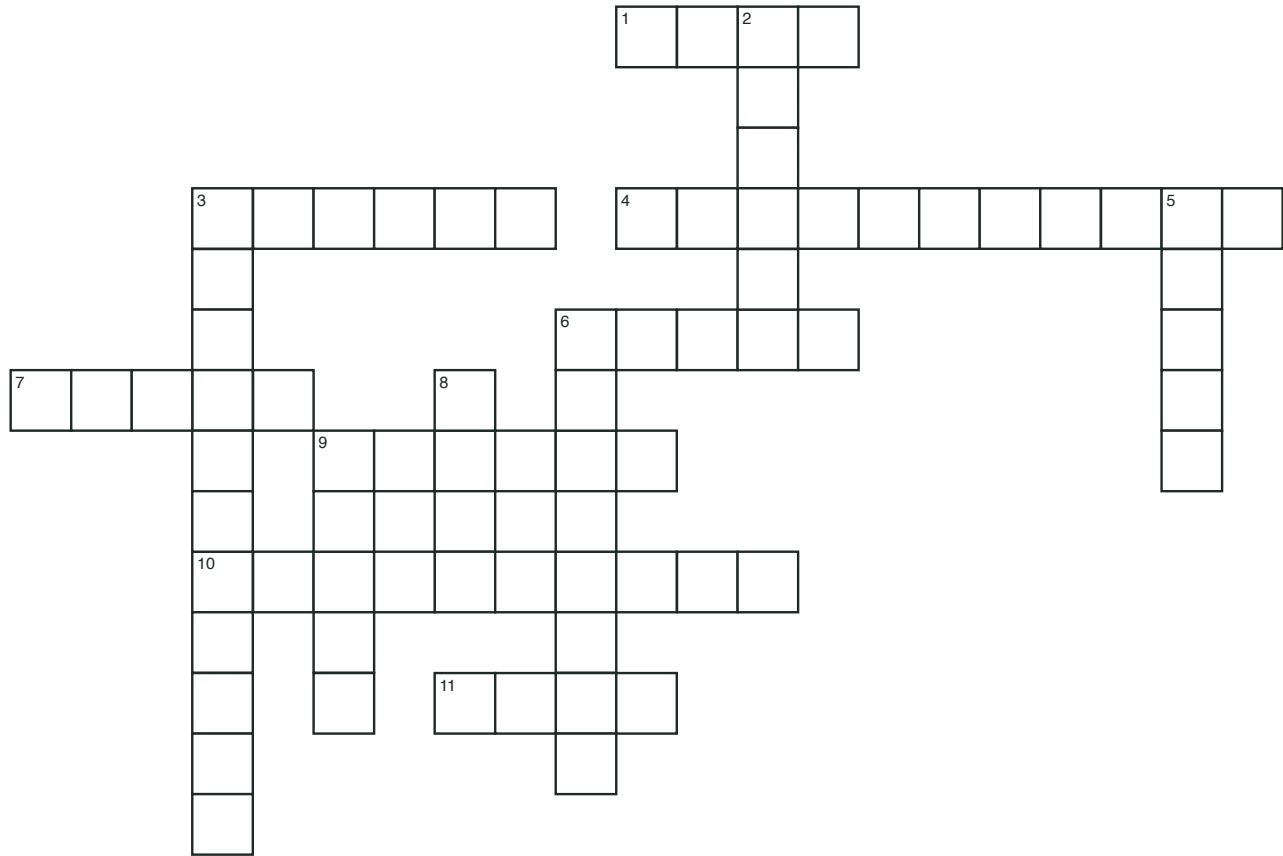
PLANT	ITS SEED OR FRUIT	HOW THE SEED TRAVELS
1. Dandelion	Each seed hangs under a tuft of fluff that is as light as a feather.	_____
2. Coconut	It has a thick, waterproof husk and can float for a long way.	_____
3. Burdock	The seed heads are covered in tiny hooks that cling to anything fuzzy.	_____
4. Cherry	A bird swallows the sweet fruit. The hard pit comes out later in its droppings.	_____
5. Maple	Each seed has a flat wing that spins like a helicopter blade as it falls.	_____
6. Touch-me-not	The ripe pod snaps open at a touch and flings the seeds away.	_____
7. Blackberry	The seeds are inside a juicy berry. They pass through the animal that eats it.	_____
8. Oak	A squirrel hides acorns in the ground to eat in winter. It never digs some of them up.	_____
Word bank Animal fur Buried by animals Bursting pod Eaten by animals Water Wind		

Think about it

Why is it good for a seed to land far from its parent plant?

Life Cycle of a Plant Crossword

Read each clue. Write the answer in the puzzle, one letter in each box. Use the word bank if you get stuck.



ACROSS

1. It holds an embryo and stored food inside a tough coat.
3. A fine powder made by flowers.
4. The stage when a seed swells, splits and starts to grow.
6. The part of a young plant that grows up toward the light.
7. A set of stages that happens again and again.
9. The part of a plant that makes pollen.
10. A fully grown plant with strong roots and many leaves (2 words).
11. Moving air. It carries some pollen and some seeds.

DOWN

2. The tiny young plant inside a seed.
3. The stage when pollen reaches the female part of a flower.
5. The part of a flower where seeds form.
6. A young plant with its first leaves.
8. The first part to grow out of a seed. It grows down.
9. It grows from the ovary and holds the new seeds.

Word bank

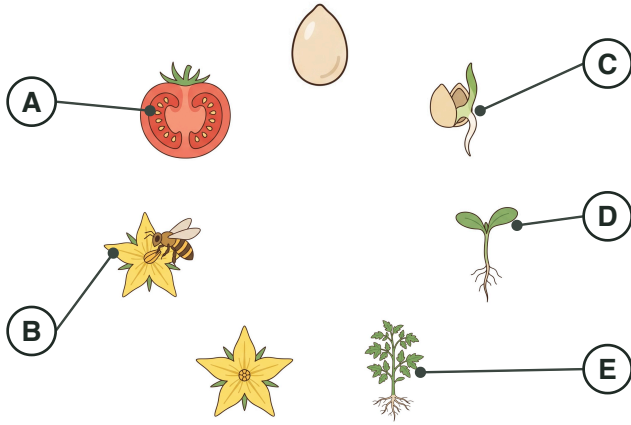
adult plant cycle embryo flower fruit germination ovary pollen
pollination root seed seedling shoot wind

Life Cycle of a Plant Quiz

Score _____ / 13

Show what you know about how plants grow and make new plants.

Part A. These pictures show the life of a tomato plant. Write the name of each stage.



- A** _____
B _____
C _____
D _____
E _____

Adult Plant · Fruit and Seeds · Germination · Pollination · Seedling

Part B. Choose the best answer.

1. What does a seed need before it will germinate?

- ☐ Pollen, petals and bees
- ☐ Fruit, leaves and wind
- ☐ Water, oxygen and the right temperature
- ☐ A stem, roots and flowers

2. Which part grows out of a seed first?

- ☐ A leaf
- ☐ The root
- ☐ A flower
- ☐ The shoot

3. What is a young plant with its first leaves called?

- ☐ An embryo
- ☐ A fruit
- ☐ An adult plant
- ☐ A seedling

4. What is pollination?

- ☐ A seed splitting open
- ☐ Pollen reaching the female part of a flower
- ☐ A fruit getting ripe
- ☐ Roots taking in water

5. Which part of a flower grows into the fruit?

- ☐ The ovary
- ☐ The petals
- ☐ The pollen
- ☐ The stem

6. Why is a plant's life called a cycle?

- ☐ Plants grow in circles.
- ☐ Every plant lives for one year.
- ☐ The stages repeat with each new seed.
- ☐ Seeds are round.

Part C. Write your answer.

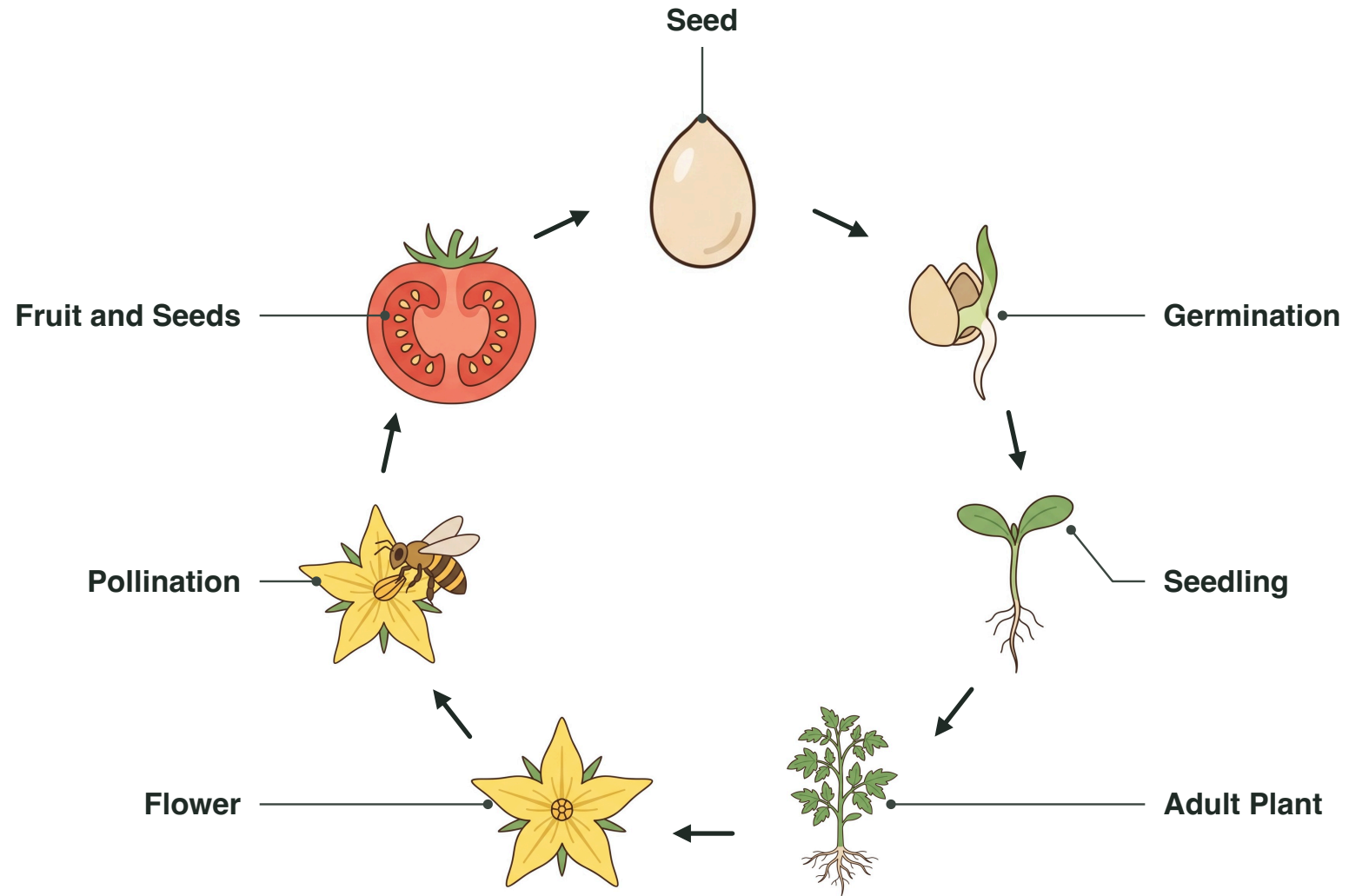
7. Why does a seedling not need the food stored in its seed anymore?

8. Name two ways seeds can travel to new places.

Answer Keys

In the same order as the sheets.

Life Cycle of a Plant: Answer Key



Stages of a Plant's Life Cycle: Answer Key

Answers are in green. Written answers will vary; these are examples.

Part A. Write the stage that fits each description.

Word bank Adult Plant Flower Fruit and Seeds Germination Pollination Seed Seedling

- | | | |
|----|--|------------------------|
| 1. | A small young plant opens its first leaves and starts to make its own food. | Seedling |
| 2. | Pollen reaches the female part of a flower, often carried by a bee or the wind. | Pollination |
| 3. | It holds a tiny young plant and stored food inside a tough coat. | Seed |
| 4. | The flower's ovary swells and ripens. Inside it are the beginnings of new plants. | Fruit and Seeds |
| 5. | The seed takes in water and swells. The first root and shoot push out. | Germination |
| 6. | It blooms on the grown plant. Its male parts make pollen, and seeds form in its female part. | Flower |
| 7. | It is fully grown, with strong roots, a stem and many leaves. | Adult Plant |

Part B. Answer the questions.

1. Why is the life of a plant called a cycle?
It goes around again and again. A seed grows into a plant, the plant makes new seeds, and those seeds grow into new plants.
2. A seedling does not need the food stored in its seed anymore. Why not?
Its leaves have opened, so it can make its own food using sunlight.
3. What would happen if no pollen reached a plant's flowers?
The flowers would not make seeds, so no new plants would grow from them.

From Seed to Seed: Answer Key

Answers are in green. Written answers will vary; these are examples.

1. What is this text mostly about?

- ☐ How to cook with tomatoes
- ☐ Why bees visit flowers
- ☒ **How a plant grows from a seed and makes new seeds**
- ☐ How animals find food

2. What two things are inside the coat of a seed?

A tiny young plant (an embryo) and stored food.

3. What does a seed need before it will start to grow?

- ☐ Pollen, petals and bees
- ☒ **Water, oxygen and the right temperature**
- ☐ Fruit, leaves and wind
- ☐ A stem, roots and flowers

4. Number the steps 1, 2 and 3 to show how a seed germinates (paragraph 2).

- 3** A shoot grows up toward the light.
- 1** The seed takes in water and swells, and its coat splits.
- 2** A root grows down into the soil.

5. Why does a seedling not need the food from the seed anymore?

- ☐ It has stopped growing.
- ☐ A bee brings it food.
- ☐ It is already an adult plant.
- ☒ **Its leaves use sunlight to make food.**

6. Name two things that can carry pollen to a flower.

Any two: bees, other animals, the wind.

7. What does the ovary of a flower grow into?

- ☐ A seedling
- ☒ **A fruit**
- ☐ A root
- ☐ A leaf

8. How do animals help seeds get to new places?

They eat fruits and drop the seeds in new places.

How Do Seeds Travel?: Answer Key

Answers are in green. The last answer will vary; one example is given.

PLANT	ITS SEED OR FRUIT	HOW THE SEED TRAVELS
1. Dandelion	Each seed hangs under a tuft of fluff that is as light as a feather.	Wind
2. Coconut	It has a thick, waterproof husk and can float for a long way.	Water
3. Burdock	The seed heads are covered in tiny hooks that cling to anything fuzzy.	Animal fur
4. Cherry	A bird swallows the sweet fruit. The hard pit comes out later in its droppings.	Eaten by animals
5. Maple	Each seed has a flat wing that spins like a helicopter blade as it falls.	Wind
6. Touch-me-not	The ripe pod snaps open at a touch and flings the seeds away.	Bursting pod
7. Blackberry	The seeds are inside a juicy berry. They pass through the animal that eats it.	Eaten by animals
8. Oak	A squirrel hides acorns in the ground to eat in winter. It never digs some of them up.	Buried by animals
Word bank Animal fur Buried by animals Bursting pod Eaten by animals Water Wind		

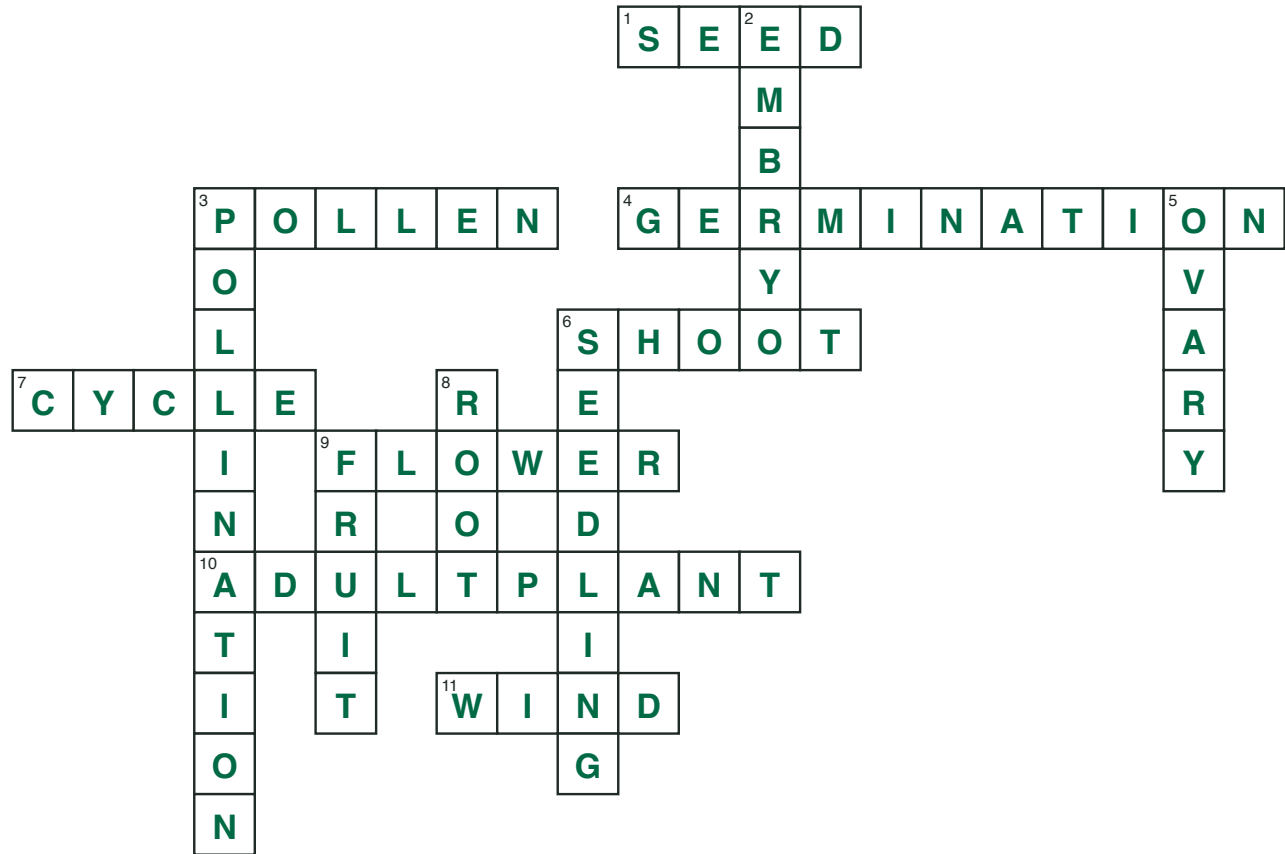
Think about it

Why is it good for a seed to land far from its parent plant?

Answers will vary. Example: It does not have to share light, water and space with its parent, so it has a better chance to grow.

Life Cycle of a Plant Crossword: Answer Key

Answers are in green.



ACROSS

1. It holds an embryo and stored food inside a tough coat.
3. A fine powder made by flowers.
4. The stage when a seed swells, splits and starts to grow.
6. The part of a young plant that grows up toward the light.
7. A set of stages that happens again and again.
9. The part of a plant that makes pollen.
10. A fully grown plant with strong roots and many leaves (2 words).
11. Moving air. It carries some pollen and some seeds.

DOWN

2. The tiny young plant inside a seed.
3. The stage when pollen reaches the female part of a flower.
5. The part of a flower where seeds form.
6. A young plant with its first leaves.
8. The first part to grow out of a seed. It grows down.
9. It grows from the ovary and holds the new seeds.

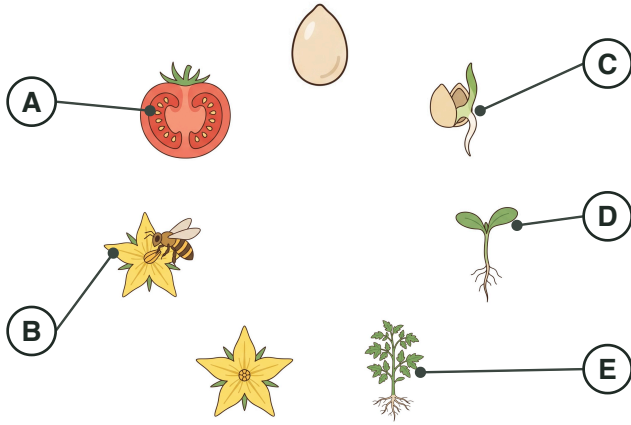
Word bank

adult plant cycle embryo flower fruit germination ovary pollen
pollination root seed seedling shoot wind

Life Cycle of a Plant Quiz: Answer Key

Answers are in green. Written answers will vary; these are examples.

Part A. These pictures show the life of a tomato plant. Write the name of each stage.



A **Fruit and Seeds**

B **Pollination**

C **Germination**

D **Seedling**

E **Adult Plant**

Adult Plant · Fruit and Seeds · Germination · Pollination · Seedling

Part B. Choose the best answer.

1. What does a seed need before it will germinate?

- ☐ Pollen, petals and bees
- ☐ Fruit, leaves and wind
- ☒ **Water, oxygen and the right temperature**
- ☐ A stem, roots and flowers

2. Which part grows out of a seed first?

- ☐ A leaf
- ☒ **The root**
- ☐ A flower
- ☐ The shoot

3. What is a young plant with its first leaves called?

- ☐ An embryo
- ☐ A fruit
- ☐ An adult plant
- ☒ **A seedling**

4. What is pollination?

- ☐ A seed splitting open
- ☒ **Pollen reaching the female part of a flower**
- ☐ A fruit getting ripe
- ☐ Roots taking in water

5. Which part of a flower grows into the fruit?

- ☒ **The ovary**
- ☐ The petals
- ☐ The pollen
- ☐ The stem

6. Why is a plant's life called a cycle?

- ☐ Plants grow in circles.
- ☐ Every plant lives for one year.
- ☒ **The stages repeat with each new seed.**
- ☐ Seeds are round.

Part C. Write your answer.

7. Why does a seedling not need the food stored in its seed anymore?

Its leaves can make food using sunlight.

8. Name two ways seeds can travel to new places.

Any two: on the wind, by water, on animal fur, inside animals that eat the fruit, buried by animals, from a bursting pod.