SCIENCE GRADE 3 LESSON 1

HSEA HomeSchool Education Academy

Plant Life Cycles

How to use: Print first for the main practice. Then use the device to repeat activities and save progress.

LEARNING OBJECTIVES

1. Describe the stages of a plant life cycle in order
2. Identify the role of seeds, roots, and flowers in plant growth

MINI LESSON

Plants go through a series of changes from a tiny seed to a mature plant that produces new seeds. This repeating pattern is called a life cycle. Every plant follows similar stages, though the speed and appearance of each stage can differ.

Stages of a Plant Life Cycle

1. Seed — the starting point, containing everything needed to grow.
2. Germination — the seed absorbs water, splits open, and a root grows down.
3. Seedling — a young shoot pushes through the soil and tiny leaves appear.
4. Young plant — leaves grow larger, collecting sunlight for food (photosynthesis).
5. Mature plant — the plant reaches full size and flowers bloom.
6. Pollination and fruit — flowers are pollinated and fruit forms around seeds.
7. New seeds — the fruit releases seeds that will start new plants.

Key Parts and Their Roles

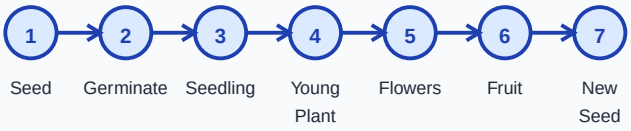
- Roots — anchor the plant and absorb water and minerals from the soil.
- Stem — carries water and nutrients up to the leaves.
- Leaves — make food using sunlight, water, and carbon dioxide (photosynthesis).
- Flowers — attract pollinators so seeds can form.
- Seeds — contain the new plant embryo; start the cycle again.

! Remember: seeds need water, warmth, and air to germinate — they do not need sunlight until the shoot appears.

VOCABULARY

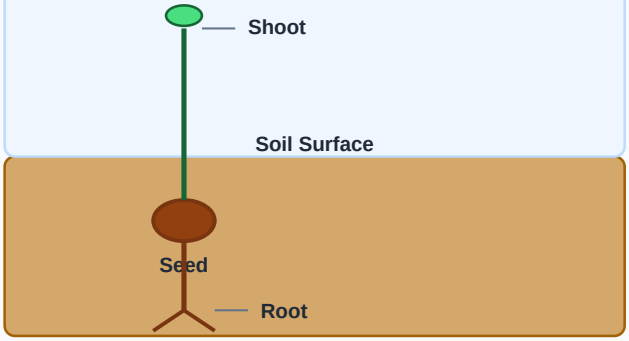
Life cycle	The repeating series of changes a living thing goes through from start to start *e.g. A plant's life cycle begins and ends with a seed.*
Germination	When a seed takes in water and starts to grow a root and shoot *e.g. Germination begins after the seed soaks up water.*
Seedling	A young plant that has just grown out of the soil *e.g. The seedling has two tiny green leaves.*
Pollination	When pollen moves from one flower to another so seeds can form *e.g. Bees help with pollination as they visit flowers.*
Photosynthesis	How leaves use sunlight, water, and air to make food for the plant *e.g. Photosynthesis happens in green leaves during the day.*

Plant Life Cycle



The life cycle repeats as new seeds grow into new plants.

Seed to Seedling



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Photosynthesis	How leaves use sunlight, water, and air to make food for the plant *e.g. Photosynthesis happens in green leaves during the day.*

TRACING PRACTICE

Trace each word, then copy it neatly on the lines below.

MODEL — READ IT

seed

COPY 1

COPY 2

MODEL — READ IT

germination

COPY 1

COPY 2

MODEL — READ IT

seedling

COPY 1

COPY 2

MODEL — READ IT

root

COPY 1

COPY 2

MODEL — READ IT

stem

COPY 1

COPY 2

MODEL — READ IT

leaves

COPY 1

COPY 2

MODEL — READ IT

flowers

COPY 1

COPY 2

MODEL — READ IT

photosynthesis

COPY 1

COPY 2

Tip: As you trace, think about how each word relates to today's topic.

TYPE OR WRITE

Write 3 different words from the list above.

1. .....

2. .....

3. .....

EXERCISES — PUT IN ORDER

Read each event below. Write the correct order number (1, 2, 3…) inside each circle.

- ◯ Young plant grows leaves
- ◯ Fruit contains new seeds
- ◯ Plant matures and flowers bloom
- ◯ Seed germinates and root grows
- ◯ Flowers are pollinated and fruit forms
- ◯ Seedling pushes through soil
- ◯ Seed in the soil

"Flip the page upside down to see the answer key "

Row 1 : 4 Row 2 : 7 Row 3 : 5 Row 4 : 2 Row 5 : 6 Row 6 : 3 Row 7 : 1

EXERCISES — MULTIPLE CHOICE

Circle the best answer.

1. What is the first stage of a plant life cycle?

- ◯ Seed
- ◯ Flower
- ◯ Fruit

2. What process allows a seed to begin growing?

- ◯ Photosynthesis
- ◯ Germination
- ◯ Pollination

3. Which part of the plant makes food using sunlight?

- ◯ Root
- ◯ Stem
- ◯ Leaf

4. What is the role of the root?

- ◯ Absorbs water and anchors the plant
- ◯ Carries out photosynthesis
- ◯ Attracts pollinators

5. What happens after a flower is pollinated?

- ◯ The root grows longer
- ◯ Fruit and seeds form
- ◯ Leaves fall off

6. What do seeds need to germinate?

- ◯ Sunlight, soil, and a flower
- ◯ Water, warmth, and air
- ◯ Fruit, water, and cold

7. Which stage comes after the seedling stage?

- ◯ Young plant grows leaves
- ◯ Germination
- ◯ Pollination

8. What is photosynthesis?

- ◯ The process of seeds sprouting
- ◯ The process of making food using sunlight
- ◯ The process of absorbing water through roots

9. Why do plants produce flowers?

- ◯ To carry out photosynthesis
- ◯ To grow taller
- ◯ To attract pollinators so seeds can form

10. How does a plant life cycle continue after fruit forms?

- ◯ New seeds are released and can grow into new plants
- ◯ The old plant stops growing permanently
- ◯ The roots grow into a new plant

"Flip the page upside down to see the answer key "

1.a 2.b 3.c 4.a 5.b 6.b 7.a 8.b 9.c 10.a

ASSESSMENT

PARENT / TEACHER CHECKLIST

- ☐ Names and orders all seven stages of a plant life cycle correctly.
- ☐ Explains the role of roots, leaves, and flowers in plant growth.
- ☐ Describes what a plant needs to germinate and grow.
- ☐ Connects the concept of fruit to the dispersal of new seeds.