

Life Cycles

Lessons 3–5



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Life Cycles

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Life Cycle of a Bean Plant



seeds



A seed sprouts.
Roots grow down.

- ▶ The life cycle of a plant starts with a seed.
- ▶ A tiny plant and some food are inside a seed.
- ▶ The plant uses the food as it starts to grow.
- ▶ First, roots grow. Roots take in water.



- ▶ Then, a stem grows up toward the light.
- ▶ Leaves and more stems grow.
- ▶ Last, the plant makes seeds.
- ▶ The seeds may grow into new plants.

Flowers, Fruit, and Seeds

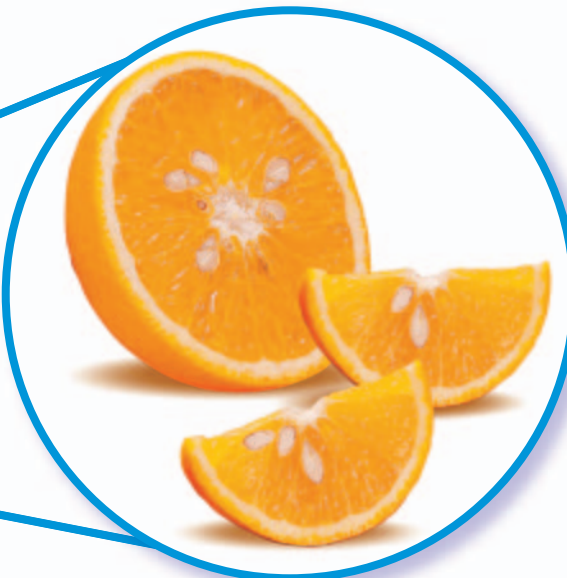
- Some plants have flowers.
- Part of each flower becomes a fruit.



- The fruit grows around the seeds.
- It holds and protects the seeds.
- A new life cycle begins.



■ flowers on an orange tree



■ fruit and seeds of an orange tree

Life Cycle of an Oak Tree



1

acorn



2

tiny oak tree

- An oak tree's life cycle begins with a seed.
- The seed is in a hard fruit, or acorn.
- Like other plants, the seed sprouts.
- The new plant looks like a small oak tree.



3

fully grown oak tree

- ▶ Over time the tree gets taller. Flowers grow.
- ▶ Part of each flower becomes a fruit.
- ▶ The life cycle begins again.

Plants Look Like Their Parents

- Parent trees pass on characteristics, or traits.
- So, a new plant grows to look like its parents.



young orange tree



older orange tree



fir trees

Plants Look Different



sweet pea plants

- Plants may look like one parent or the other.
- Plants of one kind may grow in a group.
- With more plants, there are more differences.
- See all the colors of flowers on these plants.

Plants and the Environment

- ▶ The environment affects plants.
- ▶ Water is part of the environment.
- ▶ A plant may get the water it needs.
- ▶ If not, it may not grow to look like its parents.



▶ corn with
enough water



▶ corn without
enough water



growing toward the light



plants without enough light

- ▮ The light in the environment affects plants.
- ▮ It may affect the health of a plant.
- ▮ Or, it may affect what a plant looks like.
- ▮ Plants grow toward the light.

Gravity



- ▮ Gravity affects plants.
- ▮ The roots of a plant always grow down.
- ▮ The stem always grows upward.
- ▮ This is because of gravity.

Touch



morning glory vine

- Touch affects some plants.
- Some vines curl around things they touch.
- Mimosa leaves close if they are touched.



mimosa leaves

Temperature

- The temperature affects plants.
- Some plants grow better when it is warm.
- Others grow better when it is cool.
- Temperature also affects seeds.

■ Lilac plants need cold winters. ▼



Soil

- Soil affects plants.
- Plants get nutrients from soil.
- The soil may have nutrients a plant needs.
- Nutrients are things plants need to grow.
- If not, the plant may not grow well there.



🔊 **Vocabulary**

- 🔊 **characteristics, p. 8**
- 🔊 **flower, p. 3**
- 🔊 **fruit, p. 4**
- 🔊 **nutrients, p. 15**
- 🔊 **roots, p. 2**
- 🔊 **seed, p. 2**
- 🔊 **stem, p. 3**

Think About the Reading

-  **1.** What new ideas do you have after reading this book?
-  **2.** What can you do to learn more about your new ideas?

Hands-On Activity

-  **1.** Soak some bean seeds overnight. The next day, split the seeds open. Observe the tiny plant inside.
-  **2.** Draw a picture of what you see. Label the tiny plant.

School-Home Connection

Tell a family member what you have read about plants. Talk with the family member about the different kinds of plants near where you live.