

Cycles of Change

Read closely to trace plant and animal life cycles.

SC.2.L.16.1 "Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Number the bean plant stages 1 to 4 and the butterfly stages 1 to 4. Underline words that tell how each living thing changes, so you can follow both life cycles.

Two Cycles, Two Changes

- ① A bean plant begins as a seed. When the seed gets water and warmth, its coat opens. A tiny root grows down into soil. Next, a shoot grows up. Leaves open and help the young plant make food.
- ② The bean plant grows taller and may make flowers. After pollen reaches a flower, a bean pod can grow. The pod holds new seeds. When the pod dries, the seeds can be planted and begin the bean plant life cycle again.
- ③ A butterfly begins as an egg on a plant. A caterpillar hatches and eats leaves as it grows. Then it forms a chrysalis. Inside, its body changes. An adult butterfly comes out, drinks nectar, and lays eggs.

2 ANSWER WITH EVIDENCE Use the passage

1 Name the first stage of the bean plant life cycle and the first stage of the butterfly life cycle.

2 Put these butterfly stages in order: adult butterfly, chrysalis, egg, caterpillar.

3 Explain how a bean plant can start its life cycle again after it makes a pod.

3 YOUR TURN Your own words

Choose a plant or animal not named in the reading. Draw three major stages of its life cycle in order in the panels. Label each panel, then write one sentence telling how the last stage helps the cycle begin again. First observe the actual stage photographs your teacher displays: four bean stages and four butterfly stages. For each set, put the photographs in life-cycle order on your table. On extra paper record each photograph label, its stage and one feature you can see; explain one change between neighboring stages. Use the passage to help connect the observed stages, and identify where new seeds or eggs begin the next cycle. Then draw your chosen different plant or animal below.

PART 1 • READ AND MARK

Number the bean plant stages 1 to 4 and the butterfly stages 1 to 4. Underline words that tell how each living thing changes, so you can follow both life cycles. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name the first stage of the bean plant life cycle and the first stage of the butterfly life cycle.	The bean plant begins as a seed. The butterfly begins as an egg.
2	Put these butterfly stages in order: adult butterfly, chrysalis, egg, caterpillar.	Egg, caterpillar, chrysalis, adult butterfly.
3	Explain how a bean plant can start its life cycle again after it makes a pod.	The pod holds seeds. When the pod dries, the seeds can be planted and begin the life cycle again.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1: Apple seed. Panel 2: Apple seedling. Panel 3: Mature apple tree makes apples with seeds. The seeds can grow into new apple trees.

Accept stage names and descriptions that match the passage, including equivalent wording such as seed coat opens or seed starts to grow. For Your Turn, accept any accurate ordered life cycle with three major stages, clear labels, and a sentence explaining how new seeds or eggs continue the cycle. Before class, teacher must provide eight clear actual photographs (not word-only cards): bean seed, sprouting bean, leafy seedling, and mature bean plant/pod with seeds; butterfly egg, caterpillar, chrysalis, and adult butterfly. Label images A-D within each set, verify their identities and make visible features large enough for each child to inspect. Give caption/context help if a small egg or seed is unclear. Require actual ordering and eight recorded visible features, plus one change for each set; adult may read/scribe. Accept bean seed/sprout/seedling/mature seed-bearing plant and butterfly egg/caterpillar/chrysalis/adult, with cycle links to new seeds/eggs. Features might include seed coat, root, leaves, pod; egg, larval body, chrysalis casing, wings. A photograph set supports stage observation but does not show one individual growing in real time; no such completion claim. Preserve the separate apple model and own different-organism panels.