

Plant vs. Butterfly Life Cycle

Objective:

Students will create and compare models of the life cycle of a butterfly and a bean plant. They will observe and note the differences and similarities between the two life cycles.

Materials:

- Bean seeds (like lima beans)
- Small pots or cups with soil
- Water
- Butterfly life cycle chart or pictures (egg, caterpillar, chrysalis, butterfly)
- Chart paper or whiteboard
- Markers
- Drawing paper and crayons or colored pencils
- Journals for observations

Part 1: Plant Life Cycle**Ask a Question:**

Start with, "How does a plant grow?" and "What changes do you think a seed goes through to become a plant?"

Plant the Seeds:

Give each student or group a small pot or cup with soil. Have them plant a bean seed about 1 inch deep in the soil. Water the seeds lightly.

Observe and Record:

Over the next week or two, have students observe their bean seeds each day. Encourage them to write down what they see and draw pictures in their journals. As the seed sprouts, they can note the growth stages: seed, sprout, seedling, and mature plant.

Discuss the Plant Life Cycle:

As a class, create a plant life cycle chart on chart paper or the whiteboard. Draw and label the stages: seed, sprout, seedling, and mature plant with flowers or leaves. Discuss what plants need to grow (water, soil, and sunlight).

Part 2: Butterfly Life Cycle**Ask a Question:**

Ask, "How do butterflies grow and change?" and "What do you think happens from an egg to a butterfly?"

Show the Butterfly Life Cycle:

Display a butterfly life cycle chart or show pictures. Explain each stage: egg, caterpillar (larva), chrysalis (pupa), and adult butterfly. You can read a short book or watch a video about the butterfly life cycle to give students more information.

Draw the Life Cycle:

Have students draw the butterfly life cycle in their journals. Encourage them to include arrows to show the cycle and label each stage.

Show the Butterfly Life Cycle:

Display a butterfly life cycle chart or show pictures. Explain each stage: egg, caterpillar (larva), chrysalis (pupa), and adult butterfly. You can read a short book or watch a video about the butterfly life cycle to give students more information.

Draw the Life Cycle:

Have students draw the butterfly life cycle in their journals. Encourage them to include arrows to show the cycle and label each stage.

Part 3: Compare and Contrast

Create a Venn Diagram:

Draw a large Venn diagram on the board. Label one circle Bean Plant and the other Butterfly. Have students discuss with a partner what they noticed about each life cycle.

Compare and Contrast:

As a class, fill in the Venn diagram with observations. For example:

Bean Plant Only:

- Grows from a seed
- Stays in one place
- Needs soil to grow

Both Plant and Butterfly:

- Goes through stages of growth
- Starts small and grows bigger
- Needs water

Butterfly Only:

- Hatches from an egg
- Can move around
- Goes through a chrysalis stage

Draw the Models:

Have students create their own comparison models on drawing paper. They can draw the life cycles side-by-side with labels, or create their own Venn diagram.

Discussion Questions:

How are the life cycles of plants and butterflies the same?

What is different about the way plants and butterflies grow?

Why do you think all living things have life cycles?

Conclusion:

Explain that plants and animals both go through changes as they grow. Even though the life cycles are different, both plants and butterflies have stages that help them grow into adults. This experiment helps students understand that all living things have life cycles that are unique!