



TEACHER'S GUIDE

GLE# Science As Inquiry (LS-E-C1)
Kindergarten Science As Inquiry (LS-E-B1)
First Grade Science As Inquiry (SI-E-A3, A5 & B4)

Objectives: Observe life cycles and describe changes (insects)

Materials: A copy of the butterfly life cycle [provided] for each student, a paper plate, a copy of the pattern for butterfly life cycle mobile (provided), a coffee filter, a clothes pin, 1 black pipe cleaner, natural dyes (instructions included), live caterpillars and habitat (phone to order 1-800.live.bugs), sugar water, and cotton balls.

Introduction: Read Moby Pincher's Special Easter Party to the students and let them act out the story. Discuss Mayhaw Berries, Huckleberries, and the Sassafras tree. Explain that the students will make a butterfly using the natural dyes taken from these plants that grow in their environment. Discuss the life cycle of the butterfly explaining that they will be able to observe the caterpillars develop into butterflies in the classroom during the next few weeks.

Procedure: (a) Order caterpillars from Insect Love call 1-800-live-bug. (b) Place caterpillars in an area where the students can observe them but instruct them against moving the container they are housed in as this will harm the caterpillars. (c) Have the students record the life cycle of the butterfly on a chart as it occurs. (d) Transfer the cocoons into a habitat and continue to observe as the butterfly emerges from the cocoon. (e) Place cotton balls soaked with sugar water in the bottom of the habitat as a food source for the butterflies.

Closing: Teacher will instruct the students on how to make a chart of the life cycle of the butterfly (pattern included). Each student will make a chart and describe the changes that they observed.

Enrichment: Provide dyes in a small container and give each student a white coffee filter and let them dip the corners into the different dyes. When dry, gather the filters in the middle and into the slit on the clothespin and add pipe cleaner for antennae and make a butterfly. (see attached diagram and dye material sheet)

Assessment: Teacher will check the students charts and let each child make a butterfly life cycle mobile (pattern included). Teacher will let children compare the life cycle of the butterfly, tadpole and mealworm (pictures of life cycles included) with a discussion of the observed changes.