

Volunteer instruction sheet for grades K, 1 or 2

The TEKS (Texas Essential Knowledge) for science grades K, 1 and 2 are very similar for life sciences.

Emily Ann wanted to align the classroom presentation with the science TEKS

§112.12. Science, Grade 1, Beginning with School Year 2010-2011.

(b) Knowledge and skills.

(2) Scientific investigation and reasoning.

(A) ask **questions about organisms**, objects, and events observed in the natural world;

(B) plan and conduct simple descriptive investigations such as ways objects move;

(C) **collect data and make observations** using simple equipment such as hand lenses, primary balances, and non-standard measurement tools;

(D) **record and organize data using pictures, numbers, and words**; and

(E) **communicate observations**

(4) Scientific investigation and reasoning. The student **uses age-appropriate tools and models to investigate the natural world**. The student is expected to:

(B) **measure and compare organisms and objects using non-standard units**.

(5) Matter and energy. The student knows that objects have properties and patterns.

(A) classify objects by observable properties of the materials from which they are made such as **larger and smaller**, heavier and lighter, **shape, color**, and texture; and

(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the **life cycles** that occur. The student is expected to:

(A) sort and classify **living and nonliving things based upon whether or not they have basic needs and produce offspring**;

(B) analyze and record examples of **interdependence** found in various situations such as terrariums and aquariums or **pet and caregiver**; and

(C) gather evidence of **interdependence among living organisms** such as energy transfer through food chains and animals using plants for shelter.

(10) Organisms and environments. The student knows that organisms resemble their parents

(C) compare ways that young animals resemble their parents; and

(D) observe and record **life cycles of animals**

Suggested teaching strategy (numbers and letters found at the end of each item tells which TEK it addresses—see above listed TEKS)

1. Discuss living versus nonliving. Bring a rock for nonliving and compare to living. So, what is the caterpillar? How do we know? It grows, it needs food, moisture and when it grows up into a butterfly it will lay eggs that will hatch into caterpillars like these you have brought today 9A

2. Go over life cycle of butterfly and what they will see in the coming days. 10D
People have a life cycle too. Do you look like a newborn baby? Are you growing? How do you know you are growing? Are you as big as your Mom? Your Mother and Father are adults. Just like a butterfly is an adult caterpillar. Will you ever be as big as your Mom? 10C
Someday you may have a baby who will go through a life cycle getting bigger and growing into an adult to eventually have babies.

3. Role play the life cycle

Squat down to be an egg

Wiggle around on the ground to be a caterpillar----MOUTHS EATING CONSTANTLY

Stand up straight a perfectly still for a chrysalis

Open arms for wings and gently move around 10D

4. Caterpillars eat plants, but do other animals eat caterpillars? Yes, birds, lizards, some wasp larvae. **The** color of the caterpillar helps protect them from predators. Butterflies provide food for other animals too. They are part of the **food chain**. 9C

5. Follow up worksheet Discuss how scientists make observations and record their data. You will be making your observations and recording it. Have each child put their name on their chart and draw a line as long as the caterpillar. In another box a few days later the teacher will have them draw another line as long as their caterpillar. Is it bigger? Repeat every 2 days. until it forms a chrysalis. Have students color the chrysalis and the butterfly and draw little eggs. 2C, 2D, 4B and 5A **TEACHERS DO THIS**

<http://www.amazon.com/Scholastic-Reader-Level-2-Butterflies/dp/0439206367> good book from Christine Byrnes on butterflies