

Subject Areas:

Science- 3. Compare characteristics of organisms, including growth and development, reproduction, acquisition and use of energy, and response to the environment. (DOK 2)

c. Life cycles of various animals to include complete and incomplete metamorphosis.

Math- 4.MD.4 Make a line plot to display a data set for measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots.

ELA- RI.4.6 Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

Vocabulary: life cycle, life span, metamorphosis, incomplete metamorphosis, complete metamorphosis, nymph, molts, pods, exoskeleton, egg case, mate, migrate

Essential Questions:

1. What is necessary for life?
2. Are all organisms important?
3. What are the different ways in which plants and animals use energy?
4. How does metamorphosis help a species survive?
5. How does a mealworm grow and change?

Set: TW introduce Prometheus (our Bearded Dragon pet) and live mealworms (raised to feed dragon). TW take Prometheus out of cage and bring out live mealworms and show to students allowing them to pet dragon and hold mealworms & beetles. SW have time to dig for various mealworms and watch beetles. TW ask students to see if they can find any mealworm eggs.

I do: TW present the following question to access prior knowledge “What do all living things have in common?” and “What is the difference between a life span and a life cycle?” TW explain that the word “cycle” refers to a continuous process with no beginning or end and “span” refers to duration or distance and has a beginning and an end. TW write “birth, growth, reproduction, and death” in a circle map on the board. SW use prior knowledge to fill in circle map.

We do: SW then create a line plot and graph data on the length of 10 mealworm larva by measuring $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ to an inch in length from a ruler.

You do: T&SW complete the first bubble in the double bubble map together. SW use as information in our C/C writing. SW be given a rubric to assist in their writing assignment. SW complete double bubble map comparing/contrasting both life cycles and then a paragraph comparing and contrasting the bearded dragon from the mealworms. (Lower Students will have bubble partially filled with highlighted words to help them).

Closure: SW write an exit ticket on one new thing they learned from today’s lesson.