

1ST GRADE TURTLE BIOLOGY CURRICULAR MATERIAL

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Turtle Unit
1st Grade**

Purpose: The purpose of this unit is to take the methods that are used in a laboratory of molecular and evolutionary ecology and incorporate them into an elementary classroom using different species of turtles as models. Focus is to incorporate Reading with Science and Math (measurement).

* This unit is intended to be an outline of lesson plans for first grade students. I will be trying out this unit in my first grade classroom and intent to use it as a guideline. There may be modifications based on the response of the first graders. Please feel free to modify anything's to fit your curriculums goals. Each lesson is intended to 20-30 minutes long. This unit will be used and an introduction to turtles in the classroom. There will be more lessons as the turtle begins to develop in the classroom. This unit is intended to introduce turtles to first grade students as well as follow the DMPS curriculum guidelines.

Objectives:

- Students will be able to list similarities and differences among different species of turtles.
- Students will demonstrate the ability to formulate a question.
- Students will be able to observe and describe changes in the turtles as they grow (when they have turtles in classroom...not in this unit)
- Students will record data from their observations in a turtle's growth.
- Students will list characteristics that all living things share.
- Students will learn to raise questions and seek answers about the work around them thorough observations and experiments.
- Students will understand animals and plants are classified according to certain characteristics.
- Students will describe the life cycle of a turtle.

Materials:

- Non-fiction/Fiction material on turtles
- Live turtle with tank for its habitat (if possible)
- Science notebook for observation
- Kid gloves for handling of turtles
- Chart paper
- Poster of turtle information (attached at end of unit)
- Measuring tape
- Pencil/crayons

- Internet

Day 1: Introducing turtles (this may need to be broken up into two days)

1. Hand out a piece of blank paper. Begin by asking students (without consulting their neighbor) to draw a picture of a turtle and where they live. Also ask them to draw the turtle's habitat and what kind of turtle they drew. (Do not elaborate on specific turtles). When the students are finished, have them come to the carpet with their paper. The teacher will collect them and give the other students a chance to finish.
2. When the students have all sat down, begin to show some of the pictures to the kids. Discuss what they have drawn that is common in all pictures.
3. Introduce a KWL chart. Begin discussing with the students what they know about turtles (K part). If they are stumped, you may prompt with the following questions (try to allow them to do the thinking from the pictures they drew):
 1. What color did most of you color your turtles?
 2. Where is their habitat located? Remember what you drew?
 3. Do you know any famous turtles?
4. After you have finished that part of the chart, do the same with the W part of the chart (what they want to learn).
5. Review the chart with the students.
6. Discuss with the students that we will begin a unit on turtles. We will study them and eventually have one in our classroom to observe.
7. Show pictures of a snapping turtle, soft shell turtle and a painted turtle. Have students describe characteristics of each turtle.
8. Discuss with the students the importance of identifying plants and animals by their characteristics. Review characteristics of turtles with the children. Tell them when we do our plant unit we will be doing the same thing, and referring to our turtle characteristic poster.
9. Hang them on poster board, and remind students that tomorrow they will be reading more information about turtles to put on their posters.

Day 2

1. Remind students of turtle posters we have hung around the room. Introduce ISU poster. (See attached) Discuss poster with students.
2. Discuss vocabulary words with the students.
3. Read a non-fiction book on turtles. (Check amazon.com for availability. Scholastic also has a few) Read "Look Out for Turtles!" by Melvin Berger. After reading discuss with students the vocabulary words.

4. Have students get out their journals and write the definition on the vocabulary words on a page.
5. After each definition have students draw their version of the vocabulary word (see poster)
6. Finally give students a picture of a real drawing of the vocabulary words to tape into their journal.
7. Teacher will walk around making sure students are working appropriately.

Day 3

1. Remind students of what we read about yesterday. Discuss the nonfiction book we read. Today we will be discussing the difference between a nonfiction turtle book and a fiction turtle book.
2. Ask students what they remember about yesterday's story.
3. Discuss with the students that they will be reading a story of Franklin the turtle.
4. Ask students what they know about Franklin. Is he a real turtle? Why or why not? Have them discuss it with their neighbors and then share as a whole group.
5. Read Franklin the turtle. When finished reading show a picture of Franklin the turtle compared to a real picture of painted turtle.
6. Discuss with the students that we will be making a Venn diagram comparing and contrasting the two.
7. Ask the following questions: How is Franklin different from the turtles that we read about yesterday? Write answers in one circle of the Venn diagram.
8. Ask students how are the real life turtles different from Franklin? Write students answer on the other side of the Venn Diagram.
9. Ask students to think of attributes that are the same between the two turtles. Write them down. When finished discuss the importance of reading non fiction text to get a better understanding of real life animals.
10. Have students make a small venn diagram about an animal in a story and a real animal in real life. Give some examples as a whole. Have students turn in.

Day 4: (two day activity)

1. Begin discussing the importance of taking care of pets. Raise the question of who has a pet at home?
2. Do interactive writing with the students. What do they do to take care of their pets? How does taking care of a dog differ from a cat?
3. Ask students what it would take to take care of a turtle?
4. Watch a short video from Atomic learning of how to take care of a turtle
5. Come back with the students and discuss the importance of what they need.

6. Remind students of the essentials. Is it important to have pretty items in a tank for decoration or cover for the turtle?
7. Have students make a list in their science journal of what they would put in their turtle tank.
8. Students will draw a picture and share with their neighbor.

Day 5 (part two)

1. The teacher will begin reading the classroom book on how to take care of a turtle (purchased on Amazon.) While the teacher is reading they will pause during the story to discuss the most important parts of a turtle habitat. These will be written on chart paper.
2. The teacher will remind students of the importance of taking care of a live animal.
3. Begin to put together the habitat for the turtle with the help of the child.
4. Discuss with students that once our habitat is set up for a while we will bring out turtle into it.

Day 6

1. Now that we have our habitat ready for our turtle, we need to understand the life cycle of a turtle.
2. Read scholastics book life cycle of a turtle.
3. Once they have read the story discuss with the students the cycle they read about in their text. How is this different from other animals they have talked about? What other life cycles can they describe?
4. Show students actual pictures of turtle embryos from lab. Discuss with the students the experiments that were taking place.
5. Show students ISU poster again and focus on the life cycle, incubation time and how temperature affects the turtles.
6. Ask student to go to their desk and journal in their science notebook any ideas or thoughts of what they have seen.

Continuum of lessons

After this introductory unit, students should have a basic understanding of what a turtles needs to survive and how to take care of a turtle in the classroom. It is imperative to continue to read up on turtles with the students and to journal their questions and ideas so that they can continue to learn from this experience. Purchase a hatchling and place in tank. Do this over the weekend or a time when the turtle can get adjusted to its new home. Allow students to see the turtle in its habitat. Have students describe what they see in their journal. Discuss with kids that they will be monitoring the turtle in a science center weekly or bi weekly. (There will be a rotation so that every child will get a chance to touch the turtle at some point if they like, but they may not all

touch it at once or on the same day.) They will measure the turtle, weigh the turtle, take pictures of its carapace and plastron and keep track of this like real scientist (very similar to the lab work done at ISU) During the time the students are taking care of the turtles it is important for them to understand that they must have gloves on at all times while running experiments on the turtles. Their job will be to check the water temperature, and also clean the tank with the help of the teacher. Students will identify the type of food the turtle likes best, temperature etc. The teacher will gather assessment from their notebooks.

Once this experiment has been in progress for a while, the teacher will then be able to incorporate similar experiments in other fields. My class will do an activity similar to this with plants and growing them in the classroom. What do they need to survive? What is their lifecycle?