Essential Question:

What are the characteristics of the three different types of turtles?

Lesson Overview:

Students will learn about the characteristics of turtles by looking at pictures and drawing turtles. As a class, you will discuss the characteristics that all turtles share and the special characteristics that make each type of turtle well adapted to its habitat.

Learning Objectives:

By the end of this lesson, students will be able to:

- Draw a turtle.
- Identify the three types of turtles.

North Carolina Standards:

**Kindergarten:**

**Art:**

- K.V.2 Apply creative and critical thinking skills to artistic expression.
  - K.V.2.3 Create original art that does not rely on copying or tracing.
- K.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
  - K.CX.2.2 Identify relationships between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.
  - K.CX.2.3 Understand that artists sometimes share materials and ideas (collaboration).

**Science:**

- K.L.1 Compare characteristics of animals that make them alike and different from other animals and nonliving things
  - K.L.1.1 Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.

**First Grade:**

**Art:**

- 1.V.2 Apply creative and critical thinking skills to artistic expression.
  - 1.V.2.1 Recognize that artistic problems have multiple solutions.
  - 1.V.2.3 Create art from imaginary sources of inspiration.
• 1.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
  o 1.CX.2.2 Identify connections between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.
  o 1.CX.2.3 Differentiate between sharing ideas and copying.

**Science:**

• 1.L.1 Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.
  o 1.L.1.1 Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
  o 1.L.1.2 Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.

**Second Grade:**

**Art:**

• 2.V.2 Apply creative and critical thinking skills to artistic expression.
  o 2.V.2.1 Understand that artistic problems have multiple solutions.
  o 2.V.2.3 Create art from real and imaginary sources of inspiration.

• 2.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
  o 2.CX.2.2 Understand relationships between art and concepts from other disciplines, such as math, science, language arts, social studies, and other arts.

**Third Grade:**

**Art:**

• 3.V.2 Apply creative and critical thinking skills to artistic expression.
  o 3.V.2.3 Create art from realistic sources of inspiration.

• 3.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
  o 3.CX.2.2 Understand how to use information learned in other disciplines, such as math, science, language arts, social studies, and other arts in visual arts.

**Fourth Grade:**

**Art:**

• 4.V.2 Apply creative and critical thinking skills to artistic expression.
  o 4.V.2.1 Identify different successful solutions to artistic problems.
  o 4.V.2.2 Use ideas and imagery from North Carolina as sources for creating art.

• 4.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
  o 4.CX.2.2 Apply skills and concepts learned in other disciplines, such as math, science, language arts, social studies, and other arts, in the visual arts.
Science:

• **4.L.1** Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats
  o **4.L.1.4** Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitat

Fifth Grade:

Art:

• **5.V.2** Apply creative and critical thinking skills to artistic expression.
  o **5.V.2.2** Use ideas and imagery from the global environment as sources for creating art.
  o **5.V.2.3** Create realistic, imaginative, abstract, and non-objective art.

Science:

• **5.L.2** Understand the interdependence of plants and animals with their ecosystem.
  o **5.L.2.1** Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands
  o **5.L.2.2** Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors)

Time Frame:

Preparation: 5 minutes
Activity: 10 minutes
Discussion: 10 minutes

Materials:

• Paper
• Crayons or markers
• Pictures of turtles or turtle models

Supplemental Background Information for Teachers:

Turtles are reptiles, most easily distinguished by their shells. These shells can be hard and bony or soft and leathery. Turtles exhibit characteristics shared by all reptiles: they are cold-blooded, have scales, breathe using lungs, and lay eggs. However, turtles are the only group of reptiles that have both a shell and a beak (instead of teeth). There are over 250 species of turtle, broken into three main groups: land turtles, aquatic turtles, and marine turtles.

Land turtles can also be called tortoises. They spend the majority of their time on land, only occasionally venturing into shallow water. Land turtles tend to have broad, stumpy feet. They
can be herbivores or omnivores. Their shells are usually domed, allowing the animal to hide inside. The only land turtle found in North Carolina is the Eastern box turtle.

Aquatic turtles spend most of their time in the water. Although most aquatic turtles prefer fresh water, this group can also include terrapins. The diamondback terrapin is the only salt marsh turtle in North America. Aquatic turtle shells tend to be less domed than land turtles so they can move quickly through the water. Their feet are typically webbed to allow for better swimming. Aquatic turtles are usually omnivores.

Marine (or sea) turtles are found in the ocean. There are seven species of sea turtles worldwide, five of which can be found in North Carolina. Sea turtles have flattened shells to allow them to swim quickly through the ocean. They do not have feet like other turtles, but instead have flippers. Sea turtles cannot hide in their shells, so must swim away from their predators. Foods that sea turtles eat include crabs, fish, and jellyfish. Only the green sea turtle eats much vegetation as an adult.

Preparation:
Collect paper and markers for each student. Print photos of the three types of turtles. Plastic turtle models will work as well. These can be ordered online from websites such as Acorn Naturalist.

Activity:
1. Give each student a piece of paper and coloring utensils.
2. Have the students draw a turtle. Give no additional instructions.
3. Once the students have completed their drawings, have each student share theirs with the class.
4. On the board, have the students create a list of characteristics all of the turtles shared. Also make a list of the habitats in which each turtle was drawn.
5. Discuss what makes an animal a turtle (shell, scales, beak, etc). Also discuss the different turtle habitats.
6. Next share the pictures of different types of turtles and the characteristics that make them special.
7. Have the students turn their papers over and draw another turtle now that they have studied what makes an animal a turtle.

Summary:
Turtles come in a variety of shapes and sizes. They also live in a variety of habitats. Even though they can be very different, they still share some of the same characteristics: scales, a shell, a beak, coldblooded.
Extensions:

1. Compare the habitats where turtles are found. What makes them similar? How are they different? Do turtles exhibit different characteristics that help them survive in their different habitats? What role does the turtle play in its ecosystem?

2. After designing their turtles, have the students create the correct habitat depending on the characteristics given to the turtle.

3. Plan a visit to the aquarium: http://www.ncaquariums.com/fort-fisher/teachersstudents. Find all three types of turtles on exhibit. What do you notice about their exhibits that fit their adaptations?