



TURTLE WEAVING CRAFT

TIME & AUDIENCE LEVEL

- 30 minutes
- K through 3rd grade

VOCABULARY

Carapace
Plastron
Scute
Keratin
Camouflage
Hydrodynamic
Dome-shaped
Semi-streamlined

MATERIALS

Popsicle sticks (any size) or twigs
Markers or paint
Hot glue gun or Elmer's glue
Yarn or string (any color)
Scissors
Optional: Computer

SUMMARY

What makes a turtle a turtle? A shell! All reptiles share certain characteristics, such as having scales and being ectothermic (cold-blooded), but turtles are the only reptile with a shell.

Through a fun and simple craft, learn the importance of a shell to turtles. They use their shells for protection and for camouflage. Each species of turtle has a unique shell with different shapes, patterns, and colors to help them survive in their environment.

OBJECTIVES

- Child will learn about the different parts of a turtle shell
- Child will be able to define why shells are important
- Child will understand each species has a shell that helps it to survive in its environment

BACKGROUND INFORMATION

Turtles are defined as reptiles with shells. While turtles share many other characteristics with other reptiles, shells are unique to turtles.

Even though sea turtles, freshwater turtles, and land turtles all have shells, each shell is unique to help the turtle survive in its environment. Shell shape, pattern, and coloration can vary between species.

A turtle shell is made up of two parts, a top shell and a bottom shell. The top shell is called a **carapace**, while the bottom shell is called a **plastron**. The shell is made of bone, and the spine and ribs are fused to the carapace. The carapace is covered in **scutes**, which are modified scales made of **keratin**. Keratin is a protein and makes up human fingernails and hair. Each species' scutes are colored according to their habitat and provide **camouflage**.

Sea turtle shells are flattened and close together, which gives them a **hydrodynamic** shape, and allows them to move through the water quickly to escape predators. Sea turtles can swim at speeds up to 20 mph for short distances.

Land turtles, such as the Eastern box turtle and the Gopher tortoise, have larger, **domed-shaped** shells. These shells offer more protection and space, which allows these turtles to pull in their head and limbs inside. The Eastern box turtle also has a hinge on its plastron that allows it to completely close up inside of its shell, like a box.

CRITICAL THINKING QUESTIONS

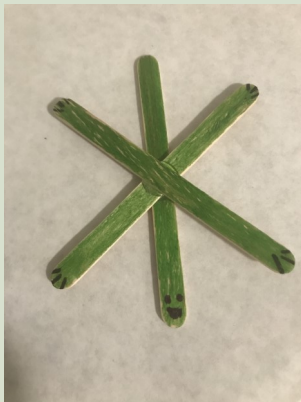
What would happen if turtles did not have shells?

Why can't turtles crawl out of their shell?

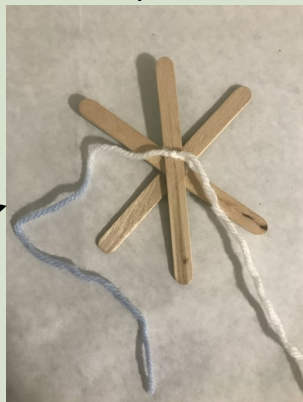
GEORGIA STANDARDS OF EXCELLENCE

SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.

S3L1. B. Construct an explanation of how external features and adaptations (camouflage, hibernation, migration, mimicry) of animals allow them to survive in their habitat



Steps 1-3



Step 4



Freshwater turtles and diamondback terrapins have a **semi-streamlined** shell. These turtles spend some of their time in the water, and some of their time on land. The shell is slightly flattened to allow for easy swimming, but still has space that allows them to retract their head and limbs mostly inside.

Turtle shells might vary widely in shape, color, and pattern, but the purpose of the shell is the same. Shells give turtles protection from predators in their natural environment.

SET UP

Gather and organize all your materials on a table. If using a glue gun, plug it in and place it on a burn resistant/easy to clean surface. Pick a color(s) of yarn/string for the shell. If you do not have popsicle sticks or a hot glue gun, using twigs and Elmer's glue will also work!

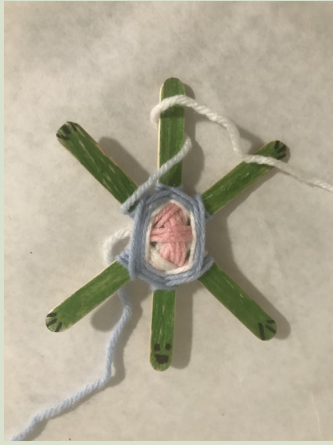
INTRODUCTION

Start by asking children if they know what all turtles have? Explain that turtles are reptiles that have shells, and they are the only reptile that has a shell. Ask them if they know why shells are important? Explain that shells can vary in shape, color, and pattern depending on the species and their habitat. You can look at pictures of different turtles online and talk about the differences between each shell. As you make your turtle, review the different parts of a shell: carapace, plastron, scute, etc.

ACTIVITY PROCEDURE

1. Color 3 popsicle sticks with markers/paint (The example was colored green, but any color is fine!)
2. Add eyes, mouth, and toes to the sticks with marker.
3. Use the hot glue gun to glue the three sticks together.
4. Once the glue has hardened, its time to start weaving! Take a long piece of yarn and tie to the center of the turtle. Wrap it around across the center 2-3 times. Repeat on each diagonal. Leave a bit of excess yarn to tie the last piece of yarn to the first.
5. Once step 4 is complete, lace your yarn over a popsicle stick, wrap it around once, and then place your yarn over the next popsicle stick, and wrap it around... and kept repeating that over and over.
6. If you want to change colors, or run out of string, you can tie another piece of yarn to the previous one.
7. Once you have finished, tie your last piece of yarn to the first piece. If there are any long ends, you can trim them with scissors.
8. Enjoy your turtles!

*Younger children might need some help with starting this craft, but should be able to pick up the weaving pattern.



Step 5



Step 6



Step 7

CONTACT INFORMATION

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WRAP UP/CONSERVATION MESSAGE

Even though shells do a good job at protecting turtles from natural threats, shells are not always able to stand up to man-made threats.

Ask the child if they think shells can protect turtles from boats? Cars?

Boat strikes, for example, are a major reason why we see sea turtles come into the GSTC. Boat propellers are much stronger than the bone of turtle shells, so affected sea turtles often come in with fractured shells.

Turtles who have been hit by cars also frequently come in with broken shells. From April-July, we see many diamondback terrapins cross the road to look for nesting habitat.

Ask if there are ways we can help turtles from getting hit by boats and cars?

Being aware that there are sea turtles in nearshore areas and that turtles may be on the move during certain months of the year can help prevent turtles getting hit and injured. Following boating laws and speed limits when you are out on the water helps our sea turtles.

If you see a turtle trying to cross the road and if you are comfortable and it is safe to do so, you can move the turtle across in the direction it was going. By being aware, we can help turtles keep their shells healthy and strong!

ADDITIONAL IDEAS

1. Use larger or smaller popsicle sticks to create bigger or smaller turtles
2. Have the child draw a habitat for their turtles and have them describe the color, shape and pattern of their turtle as well. Ask them how these characteristics (color, shape, size, pattern) help their turtle survive in its environment.

