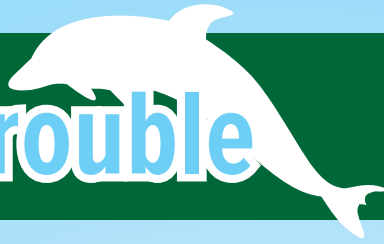


# Wheel of Trouble



## Goal:

Make a wheel that shows why some sea turtles are endangered.

## Objective:

Explain why some sea turtles are endangered.

## Grade Level:

2-6

## Subject Areas:

science

## Materials Needed:

- Pictures of sea turtles
- Pictures of land-dwelling turtles (optional)
- Copies of the Wheel of Trouble page
- Crayons or markers
- Lightweight paper plates at least 9" (23 cm) in diameter
- Scissors
- Glue
- Tape
- Construction paper (optional)
- Paper fasteners

## Time to Complete:

30-45 minutes

## Introduction

Many sea turtles are endangered for a lot of the same reasons that other species are in trouble, including over collecting, habitat loss, and pollution. By using sea turtles as an example, younger children can learn about the variety of problems that affect many endangered species. Before you begin, make eight triangular patterns, following the directions under "Getting Ready" below. Then start the activity by showing the kids pictures of sea turtles and talking about their natural history. (For general information about sea turtles, see "Turtle Talk" below). Now tell the kids that most sea turtles are endangered or threatened. Explain to the kids that they will be learning why these animals are in trouble by making a special "wheel of trouble." Then give each child a copy of the Wheel of Trouble page, two paper plates, scissors, glue, a paper fastener, and crayons or markers. Also hand out the triangular patterns you made earlier and tell the kids to share them. Then have them follow the directions at the bottom of the page to make a "wheel of trouble."

## Getting Ready

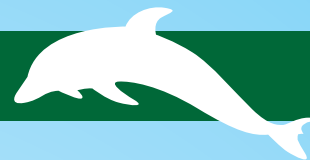
1. Cut out the circle on the Wheel of Trouble page and tape it to the back of a paper plate. (Don't use too much tape because you will eventually be removing the circle.)
2. Cut out each segment, making sure you don't cut along the outer edge (see diagram). After cutting out each pattern, remove the paper pieces. (You will end up with four separate segments.)
3. Repeat this with another plate and copy of the Wheel of Trouble page, (or use the pattern pieces to cut out four more segments from another plate). Eight pattern pieces should be enough to get a group of 25 started.

## How to Make the Wheel of Trouble

1. Color the pictures on the Wheel of Trouble page, then cut out the circle along the solid outer line.
2. Glue the circle on the back of a paper plate.
3. Lay the triangular pattern on the back of the other paper plate so that the edge of the pattern meets the edge of the plate. Trace it and cut out the shape. (When one child finishes using a pattern piece, he or she can pass it on to someone else).
4. Place the cut-out plate on top of the plate with the pictures and push a paper fastener through the center of both plates. (If you're using thick paper plates, you may have to first poke a hole through the plates with a scissor or a pen).

As the kids turn the top or bottom plate, each of the four pictures will appear in the cut-out space. Explain that these pictures illustrate

# Wheel of Trouble



the four major problems sea turtles face. Have the kids turn their wheels to picture A, then use the information under “Trouble for Turtles” to talk about each of the problems. After your discussion, have the kids draw a picture of a turtle on their top plate and write the title “Why Sea Turtles Are in Trouble”. You can also have the kids cut legs, a head, and a tail out of construction paper, and tape them to the bottom of the plate to make the wheel look like a turtle (see diagram).

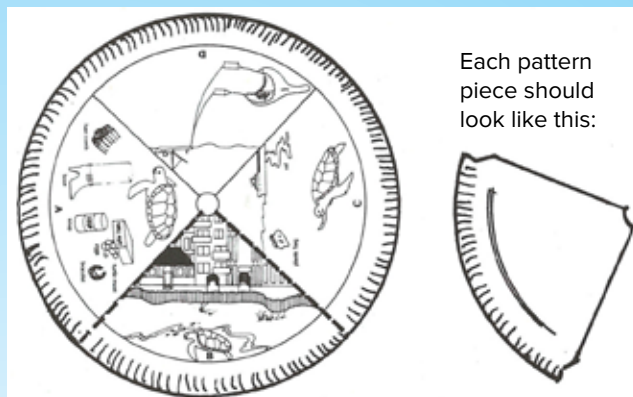
## Trouble for Turtles

**A. Meat, shells, skin, and eggs:** Overharvesting is a major problem for sea turtles. They are killed for their beautiful shells (which are made into jewelry), for their skin (which is tanned and used to make boots, belts, shoes, and bags), and for food (people eat their meat and eggs and use the cartilage to make soup).

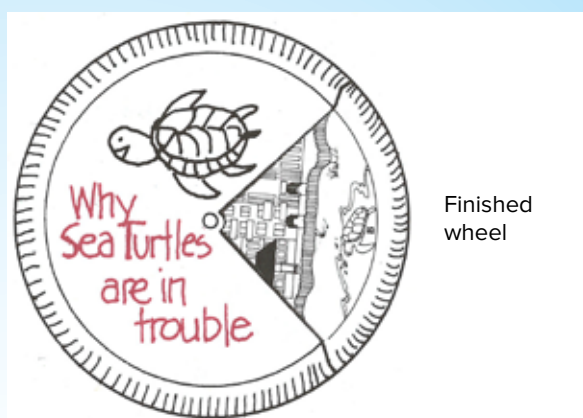
**B. Changing beaches:** Development is another problem for sea turtles. In many areas, people have built homes, roads, motels, and other types of development on the beaches where sea turtles nest. Turtles don't usually lay their eggs in these built-up areas, but if they do, the hatchlings have problems. Most turtles hatch at night and instinctively head for the ocean. Many scientists think the hatchlings may be guided by the brightness of the sky over the water. But on developed beaches, the newly hatched turtles may be mistakenly guided to the bright lights of buildings. These hatchlings often dry up in the sun the next day or get eaten by predators.

**C. Pollution:** When plastic garbage is dumped into the oceans, it can cause big problems for many sea turtles. That's because turtles may mistake floating plastic bags for jellyfish and swallow them. They can't digest the plastic, and if it blocks a turtle's esophagus, the animal will slowly starve. Other forms of pollution such as oil, tar, and poisonous chemicals released into the oceans, are also dangerous, especially for young turtles.

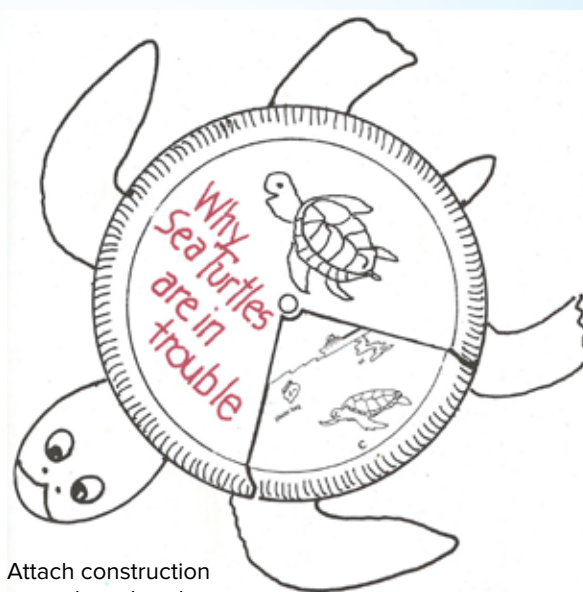
**D. Fishing nets:** Every year, some sea turtles drown when they are accidentally caught in shrimp nets. To help solve this problem, some shrimpers are now using Turtle Excluder Devices (TED's) that fit inside shrimp nets and release the trapped turtles.



Each pattern piece should look like this:

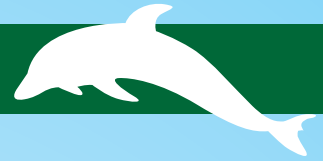


Finished wheel



Attach construction paper legs, head and tail.

# Wheel of Trouble

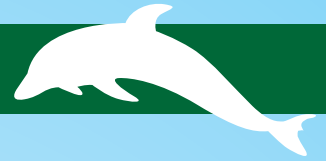


NOTE: The five sea turtles listed below are all affected by these four problems. But some problems are more severe for certain species. For example, hawksbill turtles are overhunted for their shells and eggs. But because they live in areas where shrimp fishing is not a big business, they are rarely caught in fishing nets. For simplicity, we didn't include which problems affect each species.

## Turtle Talk

- The Kemp's ridley, Pacific ridley, loggerhead, green, and hawksbill sea turtles are all threatened or endangered. The following facts apply generally to these five turtles.
- Live in warm oceans around the world
- Eat jellyfish, sponges, crabs, fish, and/or plants, depending on the species
- Size can range from 3 – 4 feet (.9 – 1.2m) and weight can range from 100 – 350 pounds
- May live as many as 70 years
- Have paddle-shaped flippers that help them move through the water and streamlined shells that reduce water resistance (compare to pictures of land turtles with high-domed shells and clawed feet)
- Lay their eggs on sandy beaches; use their back flippers to dig deep holes in the sand where they lay up to 100 eggs
- Eggs hatch in about two months
- Many young turtles are eaten by birds, crabs, fish, and other predators
- Adult turtles have only two enemies – sharks and people!

# Wheel of Trouble



## The Wheel of Trouble

