Grade: 3-5 . Subject: Science



Threats to Sea Turtles



Lesson Duration: 60 minutes

Teacher Information

In this lesson, students will learn about the threats faced by sea turtles and understand the importance of protecting them. They will explore how human activities impact sea turtles and identify ways they can become responsible stewards of the environment.

National Education Standards

 5-ESS3-Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
 Students will learn about the threats facing sea turtles and the habitats they live in, as well as solutions to address these problems.

Objectives

Students will be able to:

- 1. Identify the threats faced by sea turtles.
- 2. Understand the importance of protecting sea turtles for a healthy marine ecosystem.
- 3. Recognize human activities that contribute to the endangerment of sea turtles.
- 4. Suggest actions they can take to help protect sea turtles.

Materials

- Pictures or illustrations of sea turtles
- Chart paper or whiteboard
- Sea Turtle Threats and Solutions Worksheet (provided)
- Books, printed resources or computers with internet access





<u>Warm-up</u> (5 minutes)

- Begin the lesson by displaying pictures or illustrations of sea turtles.
- Ask students if they have seen or heard about sea turtles before and what they know about them.
- Facilitate a short discussion, highlighting the importance of sea turtles in the ocean ecosystem.



Duration: 10 minutes

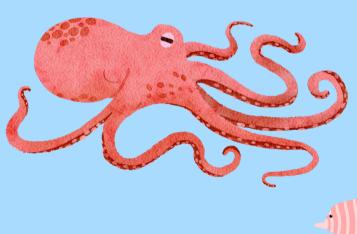
- Explain to the students that sea turtles face various threats.

 Write the word "Threats" on the chart paper or board. Explain that "threats" are things that would make it harder for a sea turtle to live a long healthy life.
- Ask students to brainstorm some threats sea turtles may face in the ocean and on beaches. Write this list on the chart paper or the board.
- Discuss each threat with the students, providing additional information if needed. Some examples of threats include:
 - Plastic pollution: Sea turtles mistake plastic bags for jellyfish and can die from ingestion or entanglement.
 - Ocean pollution: Chemical and oil spills in the ocean can make
 sea turtles sick and kill off the food sources they rely on.
 - Climate change: Rising temperatures and sea levels can affect sea turtle nesting beaches and impact their survival.
 - Habitat destruction: Urban development and pollution can destroy sea turtle nesting areas and feeding grounds.
 - Fishing nets and hook entanglement: Sea turtles can get trapped in fishing nets or accidentally swallow hooks, causing injury or death.
 - Egg collecting: People in some parts of the world collect sea turtle eggs for consumption or sale, reducing the chances of successful hatching.



• Explain to the students why sea turtles are important. Emphasize that sea turtles play crucial roles in many marine ecosystems.

- Examples:
 - Their eggs and hatchlings provide vital nutrients to coastal ecosystems.
 - Sea turtle nests contribute to beach health and stabilization.
 - Green sea turtles mainly feed on seagrass. By grazing on seagrass meadows, they prevent the grass from growing too long and suffocating on itself.
 - Sponges can outcompete coral in coral reefs. By eating sponges, hawksbills help regulate sponge growth.







Duration: 30 minutes

- (Independent/Guided Practice) Assign students in small groups or individually to one of the main threats to sea turtles: plastic pollution, ocean pollution, climate change, habitat destruction, and fishing net/hook entanglement. (Note: Egg collecting should not be assigned due to age suitability.)
- Distribute the Sea Turtle Threats and Solutions Worksheets. Using books, printed resources, or computers, students will research their threat and solutions to this threat. Students should provide details about how their threat impacts the sea turtle's health, food source, and habitat. Have students provide 3 solutions to this threat.
- If time allows, have students share their research with the class.



Protecting and Conserving Sea Turtles

Duration: 30 minutes

- (Independent/Guided Practice) Assign students in small groups or individually to one of the main threats to sea turtles: plastic pollution, ocean pollution, climate change, habitat destruction, and fishing net/hook entanglement. (Note: Egg collecting should not be assigned due to age suitability.)
- Distribute the Sea Turtle Threats and Solutions Worksheets. Using books, printed resources, or computers, students will research their threat and solutions to this threat. Students should provide details about how their threat impacts the sea turtle's health, food source, and habitat. Have students provide 3 solutions to this threat.
- If time allows, have students share their research with the class.



Conclusion (5 minutes)

- Ask students to think of actions they can take to help protect sea turtles and their habitats as part of their daily lives (Example: using less plastic, picking up trash, supporting sea turtle organizations, eating sustainably caught seafood, etc.).
- Summarize the key points discussed throughout the lesson, emphasizing the threats faced by sea turtles and the actions students can take to protect them.
- Encourage students to become responsible stewards of the environment and remind them that even small actions can make a big difference.

Assessment

- Observe student participation and engagement during discussions and activities.
- Review the completed Sea Turtle Threats and Solutions Worksheet to assess student understanding of the threats to sea turtles and the potential solutions to these threats.

Extensions

- Have students create posters or pamphlets about sea turtles and the threats they face, which they can display in the school or community.
- Organize a field trip to a local aquarium, sea turtle rescue center, or marine conservation organization to provide hands-on learning opportunities.
- Invite a local marine biologist or sea turtle conservationist to speak to the class in person or virtually.



Get to Know Sea Turtles

Resources

Threats:

- www.seeturtles.org/sea-turtles-threats
- <u>www.conserveturtles.org/information-sea-turtles-threats-sea-turtles/</u>
- www.seaturtleweek.com/ocean-pollution
- www.seaturtleweek.com/tourism
- www.seaturtleweek.com/entanglement
- www.seaturtleweek.com/climate-change
- www.seaturtleweek.com/pollution
- www.travelersagainstplastic.org/sea-turtles
- www.europe.oceana.org/threats-sea-turtles/

How to Help Sea Turtles:

- www.seaturtleweek.com/help
- www.seeturtles.org/save-the-turtles
- www.fisheries.noaa.gov/feature-story/what-can-you-do-savesea-turtles
- <u>www.defenders.org/sites/default/files/publications/five-things-you-can-do-to-save-sea-turtles.pdf</u>

These materials are provided by Sea Turtle Week. Sea Turtle Week is a campaign of SEE Turtles. SEE Turtles helps save sea turtles through conservation tours, supporting important nesting beaches, working to end demand for turtleshell, helping clean up plastic waste from turtle habitats, educating people about how to help these animals, and promoting inclusivity in the turtle community. For lesson plans, fundraising ideas, online presentations, and field trips, please visit www.seeturtles.org/schools. For more information, please contact Brad Nahill, SEE Turtles Director, at brad@seeturtles.org or 5800-215-0378.





| Threats to Sea Turtles Worksheet |
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| Describe what your threat is. |
| |
| How does this threat impact sea turtles? |
| |
| |
| What are three solutions to this threat? 1. |
| |
| 2 |
| |
| 3 |
| |

Date:_____

Name:____