

MARINE CONSERVATION LESSON PLAN

LESSON OBJECTIVES

- To gain a better understanding of what encompasses marine life and be able to name at least 5 marine species
 - To have each student realize at least one action he or she can do to help the environment
 - Vocabulary: Marine Life, Conservation
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LESSON STANDARDS

The lessons may be adapted to various levels based on the student's development

- **California Common Core State Standard Identifiers**
 - o K-ESS3.3 – Grade K, Science (CA NGSS), ESS3.C Human Impacts on Earth Systems, ETS1.B: Developing Possible Solutions
 - o 2-LS4-1 – Grade 2, Science (CA NGSS), LS4.D Biodiversity and Humans
 - o 3-LS4-4 – Grade 3, Science (CA NGSS), LS4.D Biodiversity and Humans
 - **California Environmental Principles and Concepts**
 - o **Principle II** The long-term functioning and health of terrestrial, freshwater, coastal, and marine ecosystems are influenced by their relationships with human societies.
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INSTRUCTIONAL TIME: 45 minutes - 1 hour

- INTRODUCTION/OBJECTIVE – 10 minutes
- LESSON FACTS – 15 minutes
- HANDS-ON ACTIVITY – 10-15 minutes
- ACTIVITY PAGES (INDEPENDENT) – 5 – 20 minutes
- REVIEW – 5 minutes

Use our blog posts at <https://exploremarinelifelife.com/educational-posts/f/healthy-oceans-healthy-humans?blogcategory=Conservation> and activity guides at <https://exploremarinelifelife.com> to help you find facts, discussion topics, and worksheets for your lesson plans.

If you have any questions or comments, please reach out to us at exploremarinelifelife@gmail.com

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LESSON MATERIALS

- Paper and writing instruments – pencils, pens, or crayons
 - OPTIONAL: Photo/website featuring any marine life, including animals, fish, or coral reefs
 - OPTIONAL: Printed activity page(s) for independent work
<https://exploremarinelife.com/activities>
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LESSON PLAN AGENDA

INTRODUCTION/OBJECTIVE - Explain the lesson plan agenda and dive right in!

1. When your students hear the word “marine life” what do they think of?
 - a. Write down the list - Examples: Whales, dolphins, fish, sharks, rays, seaweed, ocean, coral, crabs, lobsters, penguins, sea horses, turtles, otters, eels, sea urchins
2. When your students hear the word “marine life” what colors and attributes come to mind?
 - a. Write down the list – Examples: Multi-colored, green, brown, black, orange, blue, red, etc.; striped, camouflage, spiny, sticky, stinging, translucent
3. What do your students like the most about marine life?
4. How do your students interact with marine life?
 - a. Write down a list
 - i. Examples: Aquariums, movies, touch tanks, ocean or lake visits, vacations

LESSON FACTS – Discuss what marine life is, the importance, and how to preserve it

1. Background and types of marine life
 - a. Over 70% of our Earth is water. Of that 70%, almost 97% of that water is from our oceans.
 - b. Our oceans are beautiful and the home to a vast array of sea creatures.
2. The reasons healthy marine life and oceans are important
 - a. Regulates the Earth's climate and weather by moving heat from the equator to the poles. Without the ocean, most parts of our continents would be too hot or too cold for people to survive.

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- b. The ocean produces about 50% of the world's oxygen. Oceans have phytoplankton, which are the ocean's trees, that create oxygen. That oxygen is released into our atmosphere.
 - c. The ocean and marine life absorb human-created carbon dioxide, keeping us healthy.
 - d. The ocean provides a lot of food for people to eat, both from fish and plants, such as seaweed.
 - e. Sponges and other marine algae have special properties that scientists use to help develop medicines to fight disease.
 - f. The ocean helps the economy by providing jobs through tourism, fishing, and ocean-based activities.
 - g. The ocean and our beach provide emotional/psychological benefits and restful properties
3. How each person can take small steps to conserve and help marine life
 - a. Reduce the use of single-use plastics
 - b. Decline a plastic straw
 - c. Eat sustainably sourced seafood
 - d. Recycle used fishing line
 - e. Help keep our beaches clean
 - f. Select ocean-friendly sunscreen without harmful chemicals
 - g. Educate others

HANDS-ON ACTIVITY – Interactive activities to reinforce lesson facts

1. Create your own marine species
 - a. It has been believed that 90% of the deep ocean has not been explored and as many as one million species may be undiscovered. Create your own marine species considering the following attributes:
 - i. Is it mammal, invertebrate, fish, turtle?
 - ii. Size
 - iii. Shape
 - iv. Color/Pattern
 - v. Does it have eyes? What do they look like?
 - vi. Where is its mouth located?
 - vii. Does it have teeth? How many and what do they look like?
 - viii. What does it eat?
 - ix. How does it protect itself (ink, stinger, venomous bite)
 - x. Where does it live?
 - xi. How long does it live?
 - b. Draw a picture of your marine species
 - c. Name your marine species

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2. OPTIONAL: Learn about the sand dollar. Have a scavenger hunt around your home to find as many items around your home that resemble a sand dollar.

ACTIVITY PAGES – Activities for all ages

1. Raise Your Hand Activity at <https://exploremarinelifelife.com/activities>
2. OPTIONAL: Have your student draw a sand dollar shape on a piece of paper and create a sand dollar design in the middle
3. OPTIONAL: Read a book about marine life

REVIEW – Wrap up the lesson

1. Ask open ended questions to find out what the students have learned about marine life
 - a. What types of marine life are your favorite?
 - b. Is there a particular type of marine life you want to learn about in another lesson?
 - c. How do you think you can help marine life?
 - d. What one thing do you want to focus on to help marine life?
2. Discuss a marine life activity to do when the safer-at-home directive is lifted

SUMMARY

Assess the lesson plan, student engagement, and improvement opportunities for the next lesson