

SCIENCE·3D

WEST COAST WHITE SHARK

In this packet, sample student answers are provided in **red** and notes to teachers are in **blue**.

This **Explore Your Backyard** activity has students investigate how people solve environmental problems in their local communities. It aims to get students thinking about how different communities go about solving these problems and the challenges that they face in their own backyards. If possible, pair this activity with a field trip or time outside. Visiting a local environmental restoration project or inviting a city planner to the class could provide additional real-life context. Encourage your students to reach out to local officials or scientists who are responsible for developing or implementing solutions. For the project, you can assign students to create a poster or presentation. Group work is encouraged, but the assignment could be completed individually.



HOW PEOPLE SOLVE ENVIRONMENTAL CHALLENGES



The coastal oceans of California used to be very polluted. However, people identified the problems and worked to make governments change laws. Scientists and engineers developed solutions. Now, populations of white sharks, their prey, and other marine species are thriving again. Around the world, people are trying to solve major environmental issues. They are attempting to help their local environments and improve communities for people.

For example, in Costa Rica, some cities are finding ways to make sure that there are pathways of trees where animals like sloths can thrive in urban areas. This allows the animals to move where they need to. The city is cleaner and healthier with all the trees. Animals and plants can survive, even around many people.



YOUR ASSIGNMENT:

1. **Research** an environmental issue that affects your local area. It can be a relatively small issue, like restoring a natural habitat or protecting an endangered species. It can also be a big issue like sea level rise or a changing climate. You can conduct your research online or email local officials, scientists, or engineers.

2. **Create** a poster or presentation that covers the following topics:
 - a. Description of the problem
 - b. How the problem changed the environment
 - c. How the problem affects animals and/or plants
 - d. How the problem affects people
 - e. How government is involved in solving the problem
 - f. How scientists and/or engineers are involved in solving the problem
 - g. How the problem is being solved
 - h. Any disagreements about how to solve the problem

3. **Present** your poster or presentation to the class.

Extend the Lesson: Have students complete a writing assignment to compare and contrast the solutions to at least two problems that were identified by the class.

Extend the Lesson Further: Have individual or groups of students choose a country. Make sure that all continents except Antarctica are represented in the list of countries. Instruct each group to conduct online research to learn about environmental challenges in their assigned country. Have them create a presentation that 1) describes the challenge; 2) describes the impact of the challenge on nature; 3) describes the impact of the challenge on people; 4) describes how people are working to solve the challenge. Solutions can include both local and international efforts.