



WOW - Watersheds, Oceans & Wetlands

No matter where we live, the actions we take impact critical ecosystems as water travels throughout our watersheds, filtering through our diminishing wetlands and into our majestic struggling oceans. Through behavior change, creative design and innovative technology the future stewards of this planet can improve the health of these critical systems.

Schools can choose to implement any of the three pathways under WOW: Watersheds, Oceans or Wetlands. Separate requirements for each pathway along with tools and resources can be found on the next few pages.





WOW - Oceans

[Climate Change](#) | [Pollution](#) | [Carbon Sink](#) | [Gyres](#) | [Acidification](#) | [Plastics](#) | [Wildlife](#) | [Bycatch](#) | [Overfishing](#) | [Invasive Species](#) | [Careers](#)

Whether we live near the coast or hundreds of miles away, our world's oceans provide [goods and services](#) we all rely on. ([NOAA](#))

- The ocean produces over half of the world's oxygen and stores 50 times more carbon dioxide than our atmosphere.
- Many medicinal products come from the ocean including ingredients to help fight cancer, arthritis, Alzheimer's disease and heart disease.
- The ocean helps to regulate our climate and weather patterns by constantly transporting heat from the equator to the poles.
- 76 percent of all U.S trade involves some form of marine transportation.

Beyond the goods and services our oceans provide they are also home to well over a million species. These include aquatic habitats as diverse as those found on land, from coastal tide pools to coral reefs and kelp forests to deep ocean trenches. There are over 100 marine species listed as endangered or threatened under the Endangered Species Act, each playing a critical role in their niche and larger food web.

There are several [challenges that face our oceans](#), below are the top five that are of biggest concern.

1. Overfishing
2. Coastal pollution
3. Habitat destruction
4. Acidification
5. Warming

What can schools do? Education is key to understanding the science, economics and culture related to these issues. Through education, awareness and experience our hope is that students will be empowered and moved to action that will have lasting positive outcomes.

Driving Questions

- ✓ How can we, as students concerned about marine wildlife, make an impact even if we live far away from the coast?
- ✓ How can we, as marine biologists, raise awareness about the needs of endangered and threatened marine species?
- ✓ How can we, as commercial fishermen and women, reduce the impact we have on marine ecosystems?
- ✓ How can we, as marine scientists, engage the community on coastal resilience projects?



TOOLS AND RESOURCES

[Top 10 Tips](#) | [Fast Facts](#) | [Standards Alignment](#) | [Sample Action Plan](#) | [Oceans Audit](#) | [Resources](#)