



CAWTHRON
The power of science®

Seaweed 2019

#9 Natural Resources

Level 3/4 Teacher Information

Message: What do we use the ocean for?

Resources are limited

By the end of this lesson the students will be able to-

1. Realise what the ocean does for us
2. Identify the resources we use
3. Discuss why our natural resources should be protected

NZ Curriculum-

Science- Planet Earth and Beyond – Earth systems

Explore and describe natural features and resources

Nature of Science- Understanding about science –

Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.

<http://marinebio.org/oceans/ocean-resources/>

The ocean is one of Earth's most valuable natural resources. It provides food in the form of fish and shellfish—about 200 billion pounds are caught each year. It's used for transportation—both travel and shipping. It provides a treasured source of recreation for humans. It is mined for minerals (salt, sand, gravel, and some manganese, copper, nickel, iron, and cobalt can be found in the deep sea) and drilled for crude oil.

Food

Transportation, travel, shipping

Recreation

Mined

Drilled

The ocean plays a critical role in removing carbon from the atmosphere and providing oxygen. It regulates Earth's climate. The ocean is an increasingly important source of biomedical organisms with enormous potential for fighting disease

The ocean and the atmosphere work together to create weather

Despite the fact that our planet is 70 percent water, it's easy to take for granted the many ways that the ocean keeps us alive. The ocean provides much of the air we breathe, the food we eat, the water we drink and the climate that surrounds us.

The complex ocean systems that produce these benefits—from currents and photosynthesis to food chains—are often chaotic and unpredictable at smaller scales, but at large scales they come together in a balanced way to ensure that life can thrive.

The ocean is resilient, and it will provide for us unless we forget about its vital role at the center of the biggest challenge of our time – how to meet the enormous resource demands of a rapidly growing global population without destroying the natural systems that sustain us.

Water demonstration

<https://www.calacademy.org/educators/lesson-plans/earths-water-a-drop-in-your-cup>