

Ocean Expert Exchange - Educator Resources

TOPIC: ***Mangrove Research & Conservation***

FEATURED EXPERT: ***Agnessa Lundy of BRON Limited***

TARGETED LEARNING STANDARDS:

ELEMENTARY SCHOOL NGSSS:

SC.3.L.14.1: Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.

SC.4.L.17.4: Recognize ways plants and animals, including humans, can impact the environment.

SC.5.L.17.1: Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

MIDDLE SCHOOL NGSSS:

SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

SC.8.N.4.1: Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.

SC.8.N.4.2: Explain how political, social, and economic concerns can affect science, and vice versa.

HIGH SCHOOL NGSSS:

SC.912.L.17.2: Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.

SC.912.L.17.12: Discuss the political, social, and environmental consequences of sustainable use of land.

SC.912.L.17.13: Discuss the need for adequate monitoring of environmental parameters when making policy decisions.

SC.912.L.17.16: Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.

SC.912.L.17.20: Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

SUPPLEMENTAL RESOURCES:

- Infographic - Perry Institute for Marine Science [Mangrove Manners](#) (K-12 resource)
- Video - The Nature Conservancy [Supporting Our Way of Life](#) documentary (K-12 resource)
- Resource Library - Living Oceans Foundation [Mangrove Education & Restoration](#) (K-12 resource)
- Resource Library - Friends of the Environment [Mangroves](#) (K-12 resources)
- Reading & Activity - Everglades Foundation (EF) [The Mangrove Swamp](#) (Elementary resource)
- 360 Fieldtrip - Odyssey Earth [Field Guide](#) & [Mangrove Fringe 360](#); EF [Datasheet](#) (K-12 resources)
- Lessons & Citizen Sci - Mangrove Detectives [Outbreak Investigation & Secret Agents](#) (Secondary resource)
- Lessons - Everglades Foundation [Amazing Adaptations](#) (Secondary resources)
- Lesson - NOAA Office for Coastal Management [Mapping Mangroves](#) (Secondary resource)
- Lesson - NOAA & NERRS [Estuaries 101: Migrating Mangroves and Marshes](#) (Secondary resource)