

OCEAN EXPERT EXCHANGE EDUCATOR RESOURCES

TOPIC - *The Florida Manta Project*

FEATURED EXPERT - *Jessica Pate of the Marine Megafauna Foundation*

RELATED LEARNING STANDARDS

OCEAN LITERACY PRINCIPLES -

Principle #5: The ocean supports a great diversity of life and ecosystems.

Principle #7: The ocean is largely unexplored.

NEXT GENERATION SUNSHINE STATE STANDARDS -

- SC.4.N.1.3:** Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.
- 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.
- SC.6.N.1.5:** Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.
- SC.7.N.1.5:** Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.
- 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.912.N.1.1:** Define a problem based on a specific body of knowledge; pose questions, conduct systematic observations, examine books and other sources of information to see what is already known, review what is known in light of empirical evidence, plan investigations...
- SC.912.N.1.6:** Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.
- SC.912.N.1.7:** Recognize the role of creativity in constructing scientific questions, methods and explanations.
- SC.912.L.12.1:** Discuss the characteristics of populations, such as number of individuals, age structure, density, and pattern of distribution.

SUPPLEMENTAL RESOURCES

- 3D Model & Video Short - ANGARI Foundation, Digital Life & MMF [Giant Manta Ray 3D Model](#) (Grades K-12)
- Reference - NOAA Fisheries [Giant Manta Ray](#) (Grades K-12)
- Lessons - Marine Megafauna Foundation [Manta Rays & Ocean Plastics](#) (Grades 3-5)
- Resource Library - Marine Megafauna Foundation [The Florida Manta Project](#) (Grades K-12)
- Resource Library - Manta Trust [Activities for Younger Children](#) (Grades K-6)
- Lessons - Flower Garden Banks National Marine Sanctuary [Manta Mysteries](#) (Grades 4-8)
- 360 Video - BBC Earth [Our Blue Planet VR | Dive with Giant Manta Rays in Mexico in 3D 360](#) (Grades K-12)
- Video Short - WILD FL [Massive manta rays discovered in South Florida!](#) (Grades K-12)
- Video Short - Animal Planet [Crikey! It's The Irwins | Robert Goes Deep Sea Diving w/Manta Rays](#) (Grades 2-12)
- Video Short - Animal Planet [Giant 10ft Manta Rays Feast on Glowing Plankton \[4:50\]](#) (Grades K-12)
- Documentary - South Florida PBS [ChangingSeasTV | Majestic Mantas](#) (Middle-High School)
- Reading - Phys.org [Manta rays est. shadowy presence in S FL, as global population threatened](#) (Grades 6-12)
- Reading - GOOD Mag [...Woman-Led Conservation Team Is Protecting Giant Gentle Manta Rays](#) (Grades 5-12)
- Reading - National Geographic [Big manta rays found 'right under our nose' off Florida beaches](#) (Grades 5-12)