

Ocean Expert Exchange - Educator Resources

TOPIC: *Underwater Archaeology*

FEATURED EXPERT: *Dr. Frederick Hanselmann of the University of Miami*

TARGETED LEARNING STANDARDS:

ELEMENTARY SCHOOL NGSSS:

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.

MIDDLE SCHOOL NGSSS:

SC.6.N.1.5: Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.

SC.6.N.2.3: Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.

SC.8.E.5.10: Assess how technology is essential to science for such purposes as access to... remote locations, sample collection, measurement, data collection and storage, computation, and communication of information.

SC.8.N.1.6: Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations...

SS.8.A.1.7: View historic events through the eyes of those who were there as shown in their art... and artifacts.

HIGH SCHOOL NGSSS:

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.2.4: Explain that scientific knowledge is both durable and robust and open to change. Scientific knowledge can change because it is often examined and re-examined by new investigations and scientific argumentation...

SUPPLEMENTAL RESOURCES:

- Reading - The Dear Surprise [So You Want My Job: Underwater Archaeologist](#) (Middle-High School)
- Video - University of Miami [Exploring Shipwrecks in the Caribbean](#) (Grades 4-12)
- Video - National Geographic [Exploring Ancient Spring in Texas](#) (Grades 4-12)
- Videos - NOAA Ocean Today [Shipwrecked](#) (Middle-High School)
- Lesson - NOAA [Be A Shipwreck Detective!](#) (Elementary-Middle School)
- Lesson - NOAA NMS [Mock Shipwreck: An Exercise in Maritime Archaeology](#) (Elementary-Middle School)
- Lessons - NOAA Ocean Exploration & Research [Exploring the Submerged New World](#) (Grades 5-12)
- Lessons - Florida Aquarium [Underwater Archaeology Curriculum Project](#) (Grades 1-12)
- Lessons - Global Foundation for Ocean Exploration [Valor in the Atlantic Teacher Resources](#) (Grades 4-12)
- Resource Library - NOAA Ocean Today [Adventures of a Maritime Archaeologist](#) (Grades 4-12)
- Resource Library - NOAA Ocean Exploration & Research [Marine Archaeology](#) (Grades 5-12)
- Resource Library - NOAA Monitor National Marine Sanctuary [For Teachers](#) (Grades 2-12)
- Resource Library - NOAA National Center for Coastal Ocean Science [Living Shipwrecks 3D](#) (Middle-High School)
- Reference - NOAA Florida Keys National Marine Sanctuary [Shipwreck Trail](#) (Middle-High School)