FOCUS
Maritime Archeology & Mapping

GRADE LEVEL
4-6 grade physical and social science

VIRGINIA STANDARDS OF LEARNING
(Math) 4.5, 4.6, 4.11, 4.13, 4.15, 4.17, 5.3, 5.8, 5.11; (Science) 5.1c,e, 6.2, 6.11; (Virginia Studies) 1a,d; (Art) 5.4, 5.5, 5.7; (Physical Science) 1, (Humanities/Sciences) 6.7

FOCUS QUESTION
Why is the USS Monitor protected?
Why should underwater archeological sites be preserved?
How do archaeologists map underwater sites?
What can we learn about a shipwreck site based on the location of artifacts?

LEARNING OBJECTIVES
Students will have an understanding of plotting coordinates on graphs
Students will learn to incorporate informative reading selections
Students will locate and plot Monitor artifacts and describe their significance

MATERIALS
- Pencils
- Images of artifacts to discover (visit http://monitor.noaa.gov/imagery/welcome.html for images)

PREPARATION
1. Lay out activity materials before students arrive in classroom.
2. Introduce students to the Monitor and the Merrimac (also known as the CSS Virginia) before the activity. More information on the ships and the Battle of Hampton Roads can be found online: http://monitor.noaa.gov and http://monitorcenter.org

TEACHING TIME
One 45-55 minute class period

AUDIO/VISUAL MATERIALS
Power Point or overhead projector to show students artifact images

SEATING ARRANGEMENTS
Students can work in teams of 2, or this activity can be done individually

KEY WORDS
Archaeology- the study of human cultures through the recovery, documentation and analysis of material remains and environmental data, including architecture, biofacts, human remains, and landscapes
Artifact- A human-made object, such as a tool, weapon or ornament, especially those of archaeological or historical interest
Monitor Merrimac/Virginia
Battle of Hampton Roads
Monitor National Marine Sanctuary
Turret- In current military terminology, 'turret' usually refers to a rotating weapon
platform. The Monitor’s turret was the first
turret ever constructed
Bow- the front end of the ship
Stern- the back end of the ship
Port- the left side of the ship
Starboard- the right side of the ship

BACKGROUND INFORMATION
This activity is based on the surveying
techniques that archeologists used to plot
where artifacts are found on shipwrecks.
The shipwreck site of the USS Monitor was
located in 1974. The wreck was designated
our nation’s first national marine sanctuary
in 1975. The National Oceanic and
Atmospheric Administration (NOAA)
protects a one-nautical mile column of water
around the shipwreck. The wreck lies
upside down in 230 feet of water 16.1 miles
off the coast of Cape Hatteras, North
Carolina.

Tell students that archaeologists are like
detectives. They search for evidence and
analyze clues to reach a conclusion.
Students will not only map the artifacts into
their site plan, but they will use their
deductive reasoning skills to answer
questions about the wreck specific to their
observations. To thoroughly understand
some of these concepts, please visit the
following website resources for reference:
http://www.cyberpursuits.com/archeo/uw-
arch.asp
http://www.culture.gouv.fr/culture/archeosm
/en
http://www.pophaus.com/underwater

LEARNING PROCEDURE
1. Define archeology for the students,
and discuss the difficulties of
working on an underwater site and
trying the find the location of
artifacts as well (time limit, lack of
communication and variable sea
states). Explain how each group must
work in teams to document and
locate the artifacts.

2. Have students read the Naval Battle
Between the Monitor and the
Merrimac mock newspaper aloud to
familiarize them with the
significance of the Monitor.

3. Identify the shipwreck location of
the Monitor for the students (a
detailed map of the Monitor in the
context of the Graveyard of the
Atlantic can be found online
http://sanctuaries.noaa.gov/pgallery/a
tlasmaps/monitor.html)

4. Pass out copies of the Mapping the
USS Monitor artifact worksheet ,
Monitor site plan (or blank grid
paper if you prefer your students to
create their own site plan), and
pencils

5. Explain to the students that their site
plan consists of letters and numbers
and can be used like the game
Battleship

6. Have students identify the bow,
stern, port and starboard locations of
their site plan as well as the turret.
Discuss with the students that the
shipwreck site of the Monitor looks
very different from the images of the
Monitor before it sank because the
Monitor sank upside down and the
rotating gun turret fell off the ship in
the process

7. Using the artifacts sheet, have the
students carefully plot the artifacts
into their site plan

8. As each artifact is plotted show the
students images of these artifacts and
discuss why certain artifacts were
found in specific locations on the
shipwreck site
EXTENSIONS

1. Have the students discuss or write a short essay describing their two favorite artifacts and where they believe additional artifacts will most likely be found.

2. Have the students draw a picture of their favorite artifact. Archaeologists keep a visual record of artifacts discovered by taking photos of them and drawing them.

FOR MORE INFORMATION

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CREDIT

If reproducing this lesson, cite NOAA’s Monitor National Marine Sanctuary and provide the following URL for more information
http://monitor.noaa.gov/publications/welcome.html