Gray Lady Down



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Lesson Plan

OBJECTIVE: Students discover the effects of pressure on objects and humans at extreme ocean depths, and discuss how that affects submarine travel.

MATERIALS:

• Gray Lady Down Activity Sheet (Page: 3)

PROCEDURE:

- 1. Brainstorm with the class about what it's like to go to sea on a submarine.
 - How would their lives at sea be different? the same?
 - What would be the best part of living underwater? the worst?
 - How long would they want to stay underwater?
 - How do they think air/water pressure would affect them?
- 2. Distribute Gray Lady Down activity sheet for students to read.
- 3. Discuss the differences between the *Thresher* and *Scorpion* tragedies in small groups using the questions at the end of the activity sheet as a guide.
- 4. Optional: Rent and watch *Gray Lady Down* with your class before doing this activity.

MUSEUM LINK: learn more about *Thresher* during your visit to The Albacore Museum.

Activity Sheet

BACKGROUND: One of the most terrible things the crew of any Navy ship can hear is that a sister ship is lost at sea. Based solely on her operating configuration as an undersea vessel, the situation may be the worst for a submarine. Since the exact number and location of American submarines worldwide is secret, the actual code for a lost sub is classified. However, in the 1970s, the phrase "Gray Lady Down" was used as the title of a movie about efforts to rescue a nuclear submarine that was down or unable to return to the surface.

The movie was fiction, but there are two tragic instances of submarine losses under unknown circumstances. In separate incidents, *Thresher* and *Scorpion* went down with no survivors. The hulls were later discovered at depths far beyond those the boats and crew could survive.

There is a certain romance to life at sea and an element of danger in every sea voyage. To preserve and protect crew and material, all Navy vessels must be in close-to-perfect operating condition before they are cleared to get underway. But even then there are no guarantees. Two of the saddest chapters in the history of the U.S. Navy chronicle the unexplained loss of *Thresher* and *Scorpion*, two nuclear submarines on routine assignments.

USS Thresher

The mission began as a routine deep-dive test, but the crew of the USS *Skylark* knew something was wrong. Their test submarine had barely reached her assigned test depth when static-filled underwater telephone transmissions from far below told them things were going wrong, very wrong.

On April 10, 1963, the nuclear submarine USS *Thresher* (SSN-593) and submarine rescue ship USS *Skylark* (ASR-20) journeyed to the cold waters 200 miles east of Massachusetts for deep-diving testing. Only fifteen minutes after reaching her test depth, *Thresher* notified *Skylark* that she was "experiencing difficulties." Within moments, *Skylark*'s crew heard a noise "like air rushing into a tank" and then there was silence. Frantic efforts to reestablish contact with the sub failed. *Thresher* was down with all hands, which included a crew of 112 and 17 civilian technicians on board to observe the testing. A hastily arranged search group found only bits of debris and a pair of gloves. After four months of searching, the bathyscaph *Trieste* located broken parts of the sub in over 8,000 feet of water. The photos taken by *Trieste* in August of 1963 are all that is known of *Thresher*'s fatal accident.

USS Scorpion

The story of USS *Scorpion* (SSN-589) is a little different, because no observers witnessed this loss. *Scorpion* played a vital role in the development of nuclear submarine warfare tactics by participating in different testing exercises in the 1960's. She was operating with the 6th Fleet in the Mediterranean Sea in May 1968. On May 21, 1968, *Scorpion* with her crew of 99 last reported their position about 50 miles south of the Azores. The sub was reported overdue at Norfolk, VA six days later. In October 1968, the research ship *Mizar*, located *Scorpion*'s splintered hull in 10,000 feet of water 400 miles southwest of the Azores. Although information and pictures collected by the Navy and *Trieste* record the site and wreckage, no reason for the loss has been recorded. There were no survivors.

Discussion Questions

- 1. How are the two submarine tragedies different? the same?
- 2. Explain the role of *Trieste*. Why was it important for the Navy to photograph the wreck sites?
- 3. Think about why the sinking of a nuclear submarine might be particularly dangerous.
- 4. What other ship wrecks do you know about and how are they different from *Thresher* and *Scorpion*?