

Problem-Based Learning Unit Template

Topic

Oceanography

Goals/Objectives

5.6 The students will investigate and understand characteristics of the ocean environment. Key concepts include the geological characteristics, physical characteristics and ecological characteristics.

Theme

The survival of the marine species is directly related to the characteristics of the ocean

Scenario

Richmond Times Dispatch:

The Carcass of a Sea Monster Swims Into Focus in the James River

The US Fish and Wildlife Service was stunned by the findings of a fisherman on Saturday morning. While surf fishing on Oyster Point, the angler reeled in a heavy catch. To his dismay it was nothing he had ever seen.

"It was just so weird," said Smagala aboard his boat. "The remains of this carcass looked like the sea monsters people used to draw pictures of.

This 6 foot long fish weighed in at 400 pounds. Its scale-less, bluish-black body with a tubelike mouth had five rows of boney plates called scutes.

His description of the decayed carcass has left scientists of the coastal community baffled. With a limited budget, the environmentalists are requesting the help of the

local community to assist in solving this mystery.

The US Fish and Wildlife Service invite the public sector to develop a plan to identify and preserve this mystery organism by exploring the ocean floor, discovering its unique characteristics, observing the movement of the oceans and learning about valuable ocean resources.

Culminating Activity

Students will identify and research the mystery organism and design a plan to keep them from becoming extinct. Students will work in a group to develop a product that reflects their research through a video, power point, poster, or brochure.

Problem Question

What information do scientists need to develop a plan to identify and preserve a mystery marine organism?

Student Role

Students are working as marine biologists to identify a mystery organism.