Unit 1 Importance of the Marine Environment

Content Area: **Science**
Course(s): **Marine Biology**
Time Period: **Semester 1**
Length: **2 weeks**
Status: **Published**

Standards

HS-LS2-7	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
HS-LS4-6	Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
HS-ESS3-3	Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.
HS-ESS3-4	Evaluate or refine a technological solution that reduces impacts of human activities on climate change and other natural systems.
HS-ESS3-5	Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
HS-ESS3-6	Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity (i.e., climate change).
HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

Enduring Understandings

The ocean provides resources that have both intrinsic and instrumental value.

Human activities affect the ocean's stability.

Historical contributions and tools used in studying the ocean have been essential to our knowledge of the oceans.

Even with advances in technology there is a deficit in our knowledge of the ocean and its processes.

Essential Questions

Why is largest biome important to our everyday life?

Knowledge and Skills

Knowledge:

Our knowledge and study of the oceans has evolved historically starting with the stone age.

Many early expeditions paved the way for exploration and utilization of the oceans' wealth.

The ocean is a source of many valuable resources that we rely on for our economy as well as basic ecosystem services.

Our current understanding of the ocean is limited by the problem of "shifting baselines".

Many human activities have led to overexploitation of marine resources and degradation of the habitat.

Skills:

Map reading

Interpretation of graphs

Data collection and communication of results

Creating and presenting research on a topic

Assessments

https://docs.google.com/document/d/1wR7bQF-8AQoRrt0g4C3hKja0yjwDjC9_BiAmONWbTcI/edit?usp=sharing

Modifications

https://docs.google.com/document/d/1ODqaPP69YkcFiyG72fIT8XsUIe3K1VSG7nxuc4CpCec/edit?usp=sharing