Unit 3: Module 3 - Nautical Science (3)

Content Area: **Social Studies**
Course(s):
Time Period: **May**
Length: **5 blocks**
Status: **Published**

Enduring Understandings

Demonstrate a working knowledge of meteorology and how it affects us

Essential Questions

What is the aspects of the science of weather important to naval operations?
What is the significance of weather in history and its importance to understand it?
What are the aspects of the Earth's atmosphere and its significance?

Content

7 Our Atmosphere NS2-M3C7S1 – The Earth's Atmosphere NS2-M3C7S2 – Atmospheric Pressure
8 Clouds and Fog NS2-M3C8S1 – Clouds and Fog
9 Wind and Weather NS2-M3C9S1 – Wind and Weather
10 Fronts and Storms NS2-M3C10S1 – Frontal Weather NS2-M3C10S2 - Tornadoes
11 Weather Forecasting NS2-M3C11S1 – Weather Forecasting

Skills

- The aspects of the science of weather
- The significance of weather in history
- The aspects of the Earth's atmosphere
- The meaning and characteristics of the troposphere
- The meaning and characteristics of the tropopause
- The meaning and characteristics of the stratosphere
- The meaning and characteristics of the ionosphere
- The meaning and characteristics of the exosphere and magnetosphere
- The aspects of atmospheric pressure
- the fundamentals in making the weather
- The aspects in measuring temperature
- The aspects in measuring relative humidity and dew point

- The factors associated with cloud formation
- Know cloud classifications as they relate to cloud types, altitudes, classes and overall appearance
- The three types of low clouds and their characteristics
- the two types of middle clouds
- The three types of high clouds found in our atmosphere
- The factors associated when clouds are at sea
- The formation of rain
- Know the modern rainmaking techniques
- The cloud factors associated with the formation of snow, sleet, hail, frost and dew
- The process of how fog is formed on the Earth's surface as well as hazards in relation to fog formation

Resources

http://www.njrotc.navy.mil/curriculum.html

Naval Science II Maritime History, Leadership, and Nautical Sciences for the NJROTC 3rd Edition

Standards

Reading: Informational Text
RI.9-10.1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly…
RI.9-10.4. Determine the meaning of words and phrases as they are used in a text…

Writing
W.9-10.2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately…
W.9-10.3. Write narratives to develop real or imagined experiences or events using effective technique….

Speaking & Listening
SL.9-10.1. Initiate and participate effectively in a range of collaborative discussions…

Language
L.9-10.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.9-10.4. Determine or clarify the meaning of unknown and multiple-meaning words and…
L.9-10.6. Acquire and use accurately general academic and domain-specific words and phrases…

College, Career, and Civic Life (C3) – Frameworks for Social Studies State Standards**

Dimension 2. Geography

D2.Geo.4.9-12. Analyze relationships and interactions within and between human and physical systems to explain reciprocal influences that occur among them.
D2.Geo.9.9-12. Evaluate the influence of long-term climate variability on human migration and settlement patterns, resource use, and land uses at local-to-global scales.

Dimension 2. History
D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place...

Next Generation Science Standards (NGSS)
HS.Human Sustainability
HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.