Coral Reef Ecology Project

Sunshine State Standards:

SC.912.L.17.2- Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.

SC.912.L.17.9- Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.

SC.912.L.17.13- Discuss the need for adequate monitoring of environmental parameters when making policy decisions.

SC.912.L.17.20-Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

SC.912.L.17.8- Recognize the consequences of the losses of biodiversity due to catastrophic events, climate change, human activity, and introduction of invasive non-native species.

SC.912.L.17.5-Analyze how population size is determined by births, deaths, immigration, emigration, & limiting factors (biotic & abiotic) that determines carrying capacity.

SC.912.L.17.4-describe changes in ecosystems resulting from seasonal variations, climate change, and succession.

Tasks:

1. Research Paper (2 typed page, 12 font, double spaced, Times Roman).
    a. coral reef biology
    b. diseases
    c. 5 benefits of coral reefs.
    d. 5 ways humans threaten coral reefs
    e. how coral reefs are protected & monitored.
    f. List 10 abiotic conditions that affect Florida coral reefs
    g. List 20 biotic species that live in Florida coral reefs by feeding type (see page 71). This will ensure a good variety of organisms. Use common names, but be specific. Ex. Loggerhead turtle.
2. Front of Poster
    a. Create a food web with abiotics and biotics listed above. Draw arrows showing the energy flow. See page 75.
    b. Create a Pyramid of Energy for biotic species on same poster (lower, right corner). See page 77-78.

http://www.teachertube.com/viewVideo.php?title=Coral_Reef_Ecosystems_Project&video_id=40481

http://www.sciencedaily.com/releases/2008/10/081013142545.htm Brink of extension/reefs

http://www.epa.gov/region9/water/oce/coralreefs.html Coral reefs & invasive species info