Circulate with Critters

Hands-on/interactive stations
30 - 35 minutes, 10 - 15 minutes for each station

Station #1
Use the resources listed to determine the following information about Yellowfin Tuna and record the information on the worksheet:

- Normal geographic range
- Normal temperature range
- Optimal temperature range

Fishbase - Yellowfin Tuna
Comfort Temperatures
Monterey Bay - Yellowfin Tuna
Seafood Species Guide - Yellowfin Tuna
Atuna- Yellowfin Tuna

Study the Near Real Time satellite image of the Gulf Stream current. Based on the Yellowfin profile information gathered, can you identify possible areas of the ocean where Yellowfin Tuna may be? **Note:** It may be helpful to use a blank Northern Atlantic Coastal Map or a Hurricane Tracking Chart.
Current Gulf Stream Image

How does temperature influence the presence of Yellowfin?

Station #2
What temperature do you like the water to be when you swim?

Go to Rutgers Coolroom (http://www.thecoolroom.org) and select "Swimmers, Surfers, and Divers".

Obtain the current temperature and wave height at Tuckerton.
Based on the real time temperature information, and the surf height, do you think it will be a warm and safe day to go to the beach?

Select another beach, obtain the sea surface temperature and determine if it would be a good day to go to that beach?

- Cape Cod
- Cape Hatteras
- Chesapeake Bay

You might want to check the traffic sites to see if you will ever get there!

- New York

- Philadelphia
- Cape Cod/Boston
- Cape Hatteras
- Washington D.C.

What influences human water-based recreation? Do they vary from person to person?

Station #3
Jellies are drifters, meaning that their movement is largely at the mercy of the tides and currents in the water. Today, a large group of moon jellies (sting) was found at 39:30 N 74:00 W.

Concentrations of moon jellies are usually found in the temperature range of 9 – 19°C (but they can withstand temperatures as low as -6 and as high as 31°C).

Access the Coolroom Sea Surface Temperature data (http://www.thecoolroom.org/boaters/boat_sst.htm) and determine if the temperature of the water might effect the moon jellies?

Access the Coolroom CODAR data (http://www.thecoolroom.org/boaters/boat_codar.htm) and determine where the jellies might move?

Would it be a good idea to hit the beach to swim?

What factors influence the presence of jellyfish?

Build your own Jelly NY Aquarium Jellies Exhibit http://www.alienstingers.com	Discovery Channel – Science of the Deep - Movie – Salps – Mid Water Mysteries

Critter Worksheet # 3	**Hands-on Stations**

Station #1
How does temperature influence the presence of Yellowfin?

Station #2
What temperature do you like the water to be when you swim?

Obtain the current temperature and wave height at Tuckerton.

Based on the real time temperature information, and the surf height, do you think it will be a warm and safe day to go to the beach?

Select another beach, obtain the sea surface temperature and determine if it would be a good day to go to that beach?

What influences human water-based recreation? Do they vary from person to person?

Station #3
Current Sea Surface Temperature

Determine if the temperature of the water might effect the moon jellies?

Where might the jellies move?

Would it be a good idea to hit the beach to swim (safe from jellies)?

What factors influence the presence of jellyfish?