1st Grade **30-45 minutes**

PREDATOR OR PREY?

Oregon Science Content Standards:
1.1 Structure and Function: Living and non-living things have characteristics and properties.
1.1L.1 Compare and contrast characteristics among individuals within one plant or animal group.
1.3 Scientific Inquiry: Science explores the natural world using evidence from observations.
1.3S.1 Identify and use tools to make careful observations and answer questions about the natural world.
1.3S.2 Record observations with pictures, numbers, or written statements.
1.3S.3 Describe why recording accurate observations is important in science.

Ocean Literacy Essential Principles:
5. The ocean supports a great diversity of life and ecosystems

Goals:
- To introduce students to predator prey interactions
- To introduce the concept of making a hypothesis or educated guess
- To introduce some rocky shore animals

Concepts:
- A predator is an animal that eats another animal
- A prey is an animal that is eaten by another animal
- Some animals can be both predators and prey
- A hypothesis is an educated guess of what may happen in an experiment

Materials:
1 sunflower star
Numerous cockles (or scallops)
1 octopus
Few shore crabs
2 Sea cucumbers
2 urchins
Containers to hold animals
Cold seawater
Coolers
Bubblers
Predator/prey worksheet
Overhead or projection of predator/prey worksheet

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Lesson Plan:

1. As the students and discuss what a predator is and what a prey is.
2. Ask the students for examples of predators and prey for land, then rocky shore animals. Name two animals and ask which is the predator and which is the prey.
3. Ask if predators have eaten all the crabs in the world. Discuss how prey animals avoid their predators (hiding/camouflage, fight/defend, run away).
4. Introduce the word hypothesis and what it means (an idea of what will happen or how something will work based on everything they already know…not a random guess). Go through a hypothesis sheet w/ pairs of animals and have students make a hypothesis as to which of each pair of animals is the predator (circle it).
5. Divide the class into two groups. Show one group a predator prey demonstration while the other students (with adult help if possible) work on their worksheets. Alternate groups for each demonstration (usually 3 demonstrations -- e.g. sunflower star vs. cockle, sunflower star vs. sea cucumber, sunflower star vs. urchin, octopus vs. shore crab). Before the interaction, ask which animal they hypothesize to be the predator. After the interaction, ask whether the prey hid, fought, or ran away. The students then discuss what was observed and put the name of the prey under the correct heading of how the prey avoided its predator (hiding, fighting, or running away). For each demonstration the students repeat the above process.
6. As a class, discuss which animals were predators and which were prey and the reactions of the prey. Compare predictions with results.

Assessment: The predator/prey worksheet and class discussion.

GK12 Fellow: Maya Wolf

Reflection:

The kids loved this. They came away with a very clear understanding of predator and prey, and different ways prey can protect themselves.

Except for the crabs with the octopus (which happened very quickly), I did not allow the interaction to end in mortality.

It is important to make sure the cockles are not closed at the start of the demonstration (give them time in water to open).

Predator or Prey

Junior Scientist _____

Which animal is the predator? (Circle)

1. sea urchin	sunflower star
2. cockle	sunflower star
3. anemone	shrimp
4. sunflower star	sea cucumber
5. shore crab	octopus
6. octopus	seal

How do prey avoid their predators?

Hide

Fight

Run Away