Who’s Eating Who?

Strand                  Living Systems
Topic                  Predators and prey
Primary SOL 3.5 The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains. Key concepts include c) predator and prey.
Related SOL 3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which g) questions are developed to formulate hypotheses; j) inferences are made and conclusions are drawn.

Background Information
Food chains are made up of producers, herbivores, carnivores, and omnivores. Energy is transferred from prey to predators. A grasshopper, a consumer, eats grass and is prey to a toad. The toad is the predator. The toad becomes prey as a snake comes along. The snake, once a predator, turns into prey as an owl flies by.

Materials
- Pictures of many animals – make sure that some are herbivores, some are carnivores, and some are omnivores
- Predator and Prey cards (print and laminate to use over again)

Vocabulary
predator, prey

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)
Introduction
1. Prepare the predator/prey cards in advance.
2. Bring the class together. Share pictures of several animals. For each animal, discuss what the animal eats and what might eat the animal. Ask the students if they know what an animal that eats another animal is called. Ask the students if they know what an animal who is the food for another animal is called.
3. Once the students have a good understanding of what a predator is and what a prey is, explain to the class that you are going to play a Predator/Prey game outside.

Procedure
1. Take the students to an area large enough for active movement like the gym or the playground.
2. Tell the students that you are going to tape a picture of an animal to their back. They will not know what animal it is or whether they are a predator or a prey. Tell them they
will be able to ask others in the class one question and the question can only be the kind that has a yes or no answer. Once they ask a person a question, they must ask a different person the next question. The object of the game is for them to figure out which animal they are. If they are a predator, they will then need to find their prey and if they are prey, they need to find the predator for whom they are food. Once they find their match, they sit down. At the end of the game, each pair must be ready to describe who in the pair is the predator and who is the prey.

3. Tape one of the predator/prey cards to each student’s back making sure that they do not see what the card is.

4. Students can ask only yes and no questions of each other to figure out what type of animal they are.

5. After you have played the game a following these rules, switch the cards on the students’ backs, again not letting them see which animal they are. This time, tell students that the game rules are changing. This time, if a student finds out that they are prey, they must try to keep away from possible predators. If the student is the predator they will try to find an appropriate prey, tag them, and say, “I’m a predator and you are my food.” If a prey is tagged by a predator, the pair sits down. Students will play until all pairs are matched.

Conclusion

1. Return to the classroom. Ask students to help define predator and prey. Ask them if one predator could have more than one kind of animal as their prey. Ask them what might happen if all the prey for a predator was gone. Ask them what might happen if there was not a predator for one of the animals that is prey.

Assessment

- Questions
  - Were there other possible pairings that could have taken place?
  - Does every predator have only one prey? Does every prey have only one predator?
- Journal-writing prompts
  - Have students pretend they are eagles. Have them describe what a typical day might be for them.
  - How did the activity make you feel? Does this experience help you understand what animals go through when they are hunting or being hunted?
  - How are prey and predators alike?
- Other
  - Students could take pairs of cards and match them - predator and prey - to show understanding of the relationships.

Extensions and Connections (for all students)

- Examine owl pellets. The students will dissect an owl pellet to recover the bones and hair of the animals that the owl ate. They can also determine the number and kinds of animals, or even reconstruct the skeletal structure of an animal from these remains.
Strategies for Differentiation

- Use the picture cards to match predator and prey or have the students draw new predator/prey cards.
- Have students complete a sort or a VENN diagram showing whether the animal is predator, prey, or both.
## Predator and Prey Cards

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<tbody>
<tr>
<td><img src="image1" alt="Fox" /></td>
<td><img src="image2" alt="Mouse" /></td>
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<tr>
<td><img src="image3" alt="Snake" /></td>
<td><img src="image2" alt="Mouse" /></td>
</tr>
<tr>
<td><img src="image4" alt="Bird" /></td>
<td><img src="image5" alt="Worm" /></td>
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<tr>
<td><img src="image6" alt="Wolf" /></td>
<td><img src="image7" alt="Rabbit" /></td>
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<td>Animal</td>
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<td>Raccoon</td>
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<td>Cricket</td>
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