

LESSON PLAN: Predator and Prey

An Elementary Science Lesson Plan Designed For Group Inquiry Based On The 5E Inquiry Model

GRADE LEVEL: 4th, Level 4 inquiry

SCIENCE CONCEPT (the Main Idea or Enduring Understanding):

2. All organisms need energy and matter to live and grow. As a basis for understanding this concept

RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS:

b. Students know producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.

LEARNING OBJECTIVES:

Students will define predator and prey relationships.

EVALUATION IDEAS:

(A) Summative – The summative assessment is the written findings of their report. Examine if the student has a clear understanding of what makes an animal prey or a predator.

(B) Formative – During the group exercise where students are brainstorming predators or prey, go around to each group and see what is on their paper. Ask them why they think that animal is either prey or predator.

CONCEPTUAL BACKGROUND:

You should know: a predator is an animal that hunts and eats another animal; prey is something that is hunted and eaten by another animal. You can be both at once.

Snakes are a great example of an animal that is both predator and prey.

Sharks and Minnows is a game of tag. Kids have to run to one end of about half a basketball court to the other end. If the kid, or kids, who are it have to start in the middle and tag the “Minnows” as they run by. If the kids or “Minnows” are tagged they join the shark’s side but they can move. You will be playing a version of this. Google it if you’re still confused.

VOCABULARY:

Predator
Prey

LESSON IMPLEMENTATION PLAN:

ENGAGE – Take the kids outside and play a little game (sharks and minnows if you know it) except call it Snakes and Squirrels. Have students who are “snakes” say “Boy am I hungry, I guess I should catch myself some food.” At that moment all the “squirrels” have to run to the other side of whatever field you’re playing on (make sure to mark the lines but don’t give students too far to run). All the students who got tagged are now baby snakes. They can’t move but they can tag people as they run by. Every time a student is caught say something along the lines of “Oh no the predator got another prey. Now there are more baby snakes!” You can mix it up by exchanging predator and snake or prey and squirrel.

EXPLORE – What do us as humans eat? Do any of you hunt or have parents who hunt? How about going fishing? What kind of animals do we eat? Have students pair and share their ideas briefly. Have a few students share (great opportunity for ELL’s to participate). What do we call an animal that hunts other animals for food?

Predator, that’s right (you can hint to what you were saying during the game).

However...Are there any animals that hunt us? So if they are the predator... then we must be the... students answer PREY!

Now have students get together in groups (even numbers of groups are best) and brainstorm all the predators or prey, each group should focus on one, they can think about. Have students compare with an opposite group. Do they see any similarities?

EXPLAIN – Have students watch the predator prey relationship video here. <http://www.youtube.com/watch?v=vZynrBA91fY>. Ask students “can we differentiate predator and prey?” Try to lead them into defining the characteristics of the two terms. Make two lists on opposite sides using giant sticky notes or a board. Let the students create their own definition of each.

ELABORATE – Tell students they are going to investigate the predators and prey they would find in their back yard. They are to present their findings in a one to two page write up. They can investigate any number of animals they want. They can describe them; they can look them up online or in a book for example. They can do any number of predators or prey. The only requirement is that it has to have something to do with predator and prey.

EVALUATE –

- (A) Summative – The summative assessment is the written findings of their report. Examine if the student has a clear understanding of what makes an animal prey or a predator.
- (B) Formative – During the group exercise where students are brainstorming predators or prey, go around to each group and see what is on their paper. Ask them why they think that animal is either prey or predator.

DIFFERENTIATION PLANS:

Behavioral for Student A – If the student can't behave and is disrupting the other students make him or her do their own brainstorm. If he is willing to promise to behave you can let him back into a group. During the game allow this student to pick whether they want to be "it." If he or she can't play well then he or she can sit with you and call out people who got caught.

Cognitive for Student B (advanced) – This student has to include an animal that is both hunting its' prey and being hunted by a predator. A great example is a snake hunting a mouse but at the same time an eagle is hunting the snake. He or she then has to present this multi-tiered relationship to the class.

Cognitive for Student C (slower) – This student can stick to writing half a page to one page.

Affective for Student D (emotional) – Tell this student that they are the referee during the game. They have to make sure that none of the baby snakes move. Or they get to sit with you.

Language Demands for Student E (no English) – Put this student in a group that speaks their language and allow that group to brainstorm in their native tongue. They then get to share the different words for their animals with the class. During the writing assignment let them write it in their native tongue if they can't write it in English.

Language Demands for Student F (little English) – Ask this student to share their native language's word for predator and prey. Also give this student clear examples of animals that are completely prey or completely predator. Have this student complete the second worksheet with you before they begin their investigation.

Language Demands for Student G (More English) – Have these students create a personal dictionary. This can be used for multiple lessons. They should add the vocabulary to their personal dictionary and write what the word means in a way they understand it. This can be in English or their native tongue.

LIST OF MATERIALS (PER GROUP):

Pens/Pencils/Crayons

Large sheets of Paper or Sticky notes for their group food web.

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

Recommended reading: *Snakes* by Trudi Strain Trueit.