Title: Construct an argument that some animals form groups that help members survive

Objective:
Construct an argument that some animals form groups that help members survive.

Preloading:
Vocabulary: predator, prey, carnivore, herbivore

ELD Focus:
Peer teaching, vocabulary preloading, direct experiences, wait time

Introduction (15-20 minutes):
Whole Group—One HSE speaking to class
Introduce yourself and your group to the class. (have investigators sit in middle of table)

Boys and girls today we are going to explore animal groups. I have seen animals travel and live in groups. I wonder why they do this? Take 3 or 4 responses, repeat student answers.

One reason they make groups is to help find food or keep from being another animal’s meal.

Now back in your classroom you guys spoke about what prey and predators are. Briefly, go over the graphic for this vocabulary.

Also, it’s important to know that herbivores only eat what? Plants …...and carnivores eat mostly what? Animals (meat)

Remember the 3 Little Pigs…….who was the carnivore in the story? Wolf  Who were the herbivores in the story? Pigs  (display graphic)

Project slide with animal images that are in the sort below. As the group matches on the board summarize what they are doing on the slide so everyone can see.

On the board I have some animal and food pictures. I’d like to match up the animal to the food that it might eat. Be careful, sometimes an animal can be another animal’s food source.

Spend just a few minutes completing the matching……it’s okay to have a rabbit eating a plant and then a coyote eating the rabbit. As the group works it out on the board, summarize on the slide.

Now boys and girls I want you to talk to the people around you about this……Would you expect a herbivore to be prey or predator? Be sure that you tell them why you think this way.

Share a couple of ideas and be sure they explain why they thought this way.

In the 3 Little Pigs, who was the predator? And the pigs were going to be the wolf’s what? Prey.
Introduction (cont.)

Alright, now we’re going to build some cool puzzles to see how groups of humans or people can help the members survive.

Let’s break up into our groups. Group A over there.......... 

Individual HSEs speaking to one group.

Introduce yourself to the group, use their names if possible

Now boys and girls, first we are going to have only the “doer” build the puzzle to see how working as a single human would work.

But I want all of you to make a plan to build the puzzle. Fill in the recording sheet with what your plan would be to build the puzzle if you had to build it yourself.

Allow a few minutes for kids to design their plan.

As investigator works puzzle, others flip over puzzle pieces, but HSE works with recorder.

Now, data collector, I’ll need you to time 3 minutes. Doer you have 3 minutes to work on the puzzle. Ready, Go

As Investigator works, ask rest of group appropriate questions...ex: how do meerkats work together?

Encourage the group to observe the way the doer is working the puzzle. Ask them how his/her way is different than their plan.

Okay, 3 minutes has passed. Good job doer!

Group we need to count up the number of pieces that were put in the puzzle. Recorder, record the data for a single human.

Good job doer!! So we saw how one human built the puzzle.

Now we are going to work as a group to build the puzzle. Now first I want your group to make a plan on how to best build the puzzle.

Allow a few minutes for the group to discuss and record their plan. Ask questions like, “how is the plan different than your one person plan?” “What extra resource allows you to make a different plan?

Disassemble puzzle and mix pieces!

Okay Data Collector set the timer for 3 minutes. Recorder and Data Collector don’t forget you can help build the puzzle too.

Now try to follow your plan.......ready go.

Alright, 3 minutes has passed, Good Job group.

Now let’s count up the pieces that were put in the puzzle. Recorder write down the data for the group of humans.

After recording on data table on board ask final question on recorder sheet.
Reporter, take the data and write it on the board in the front of the class. (table example slide 6)

Now one HSE speaking to the class:

Okay, everyone look at the data we created. How did you finish this sentence.
We noticed that ________________________________.

Share a few of their sentences.

Why did most or all of you complete more of the puzzle in a group? What written evidence is there that this allowed groups to complete more?

So we saw how working in groups can help humans complete a job or task.

Can anyone think of a kind of animal that might stay in groups to help them survive?

Take some ideas and use a follow-up question “How does being in a group help them survive?”

I have an awesome example of a type of animal using a group to help themselves survive.

They’re penguins! Watch this movie clip!

Play “March of the Penguin” clip. (on website resource page)

How did you like that? As I was watching, I noticed some ways that those penguins used a group to survive.

What did you guys notice how the group would help them survive?

(protecting the chicks, staying safer from predators, staying warm, etc.)

3-LS2-1 Construct an argument that some animals form groups that help members
Activity - 15 minutes

_I can think of a lot of animals that live in groups to help them survive. What do animals need in order to survive? Food, water, shelter, and space_

_This next activity is really awesome. We get to witness, through video, herbivores and carnivores trying to survive in the wild._

_Now this really happened……..it has a good ending!

Ask the students to raise right hand and make this promise: _I promise to remember this video has a good ending._

_I’m going to show you the video and I’ll stop in places to discuss what we’ve seen. Ready!!_

Start video (on website-resources), video will pause at 1:43, 2:38, 4:41 and at end for discussion.

Cycle through video and questions - be sure to use strategies to get more information out of students.

Wrap-up (5-10 minutes)

One HSE speaking to the whole group

Wow, what an exciting event that must have been to see in real life!

Let’s talk about the different types of animals in the video. For each animal we will answer these questions: (display graphic with these questions)

1. Who was more successful, the crocodile or the group of lions?
2. Why wasn’t the crocodile successful?
3. If the crocodile was in a group, how would it have been more successful?
4. Why were the lions more successful than the crocodile?
5. Would you rather live alone or in a group? Why?

Extra Activity if needed…

Hangman with lesson vocabulary—ask for definition

3-LS2-1 Construct an argument that some animals form groups that help members
One Human: My plan to build the puzzle is to first ________________________________
_________________________________________________________. Then, 
_________________________________________________________. Finally, 
_________________________________________________________.

One Human: Our group put _______ pieces of the puzzle in place.

Group of Humans: Our group’s plan to build the puzzle is to first _____________

_________________________________________________________. Then, 
_________________________________________________________. Finally, 
_________________________________________________________.

Group of Humans: Our group put _______ pieces of the puzzle in place.

When we looked at our data we noticed that ________________________________

_________________________________________________________.

_________________________________________________________.

3-L52-1  Construct an argument that some animals form groups that help members
<table>
<thead>
<tr>
<th>Group</th>
<th>Doer Puzzle pieces completed</th>
<th>Group Puzzle pieces completed</th>
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<th>3-LS2-1</th>
<th><strong>Materials List</strong></th>
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<td><strong>Construct an argument that some animals form groups that help members survive</strong></td>
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<td>✓</td>
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<td><strong>Introduction –</strong></td>
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<td>Projector - images (desert, farm, building - earthquake damage, ) last slide (timer)</td>
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<td><strong>Experiment -</strong></td>
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<td>2</td>
<td>Puzzles, 100 Piece</td>
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<td>3</td>
<td>Scratch paper—for individual plans for each student</td>
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<td>4</td>
<td>Recording sheets – for recorder in groups</td>
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<td>Vocab. Graphics</td>
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<td>Question Graphic</td>
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<td>7</td>
<td>3 Little Pig Graphic</td>
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<td>8</td>
<td>Animal-food matching cards</td>
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<td><strong>Extension -</strong></td>
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3-LS2-1 Construct an argument that some animals form groups that help members survive
Student Sheet

Carefully read or listen to the questions. Be sure you read and think about all choices before picking one.

1. Which choice below is the best example of animals living in a group in order to eat?
   - Grizzly Bear eating salmon fish in a river.
   - A herd or group of deer watching for predators.
   - A colony of ants digging tunnels.
   - A lion pride or group hunting a zebra.

2. In the video at Kruger Park, which animal was acting by themselves or alone?
   - lion
   - crocodile
   - water buffalo
   - none of these

3. In our puzzle experiment, what evidence proved that living in groups can be helpful?
   - The number of pieces completed were the same for the doer and the group.
   - The number of pieces completed were more for the group than the doer.
   - The number of pieces completed were more for the doer than the group.
   - The puzzles were different so it is hard to compare.

4. What choice below is an example of a predator and its prey in nature?
   - a bird and a worm.
   - a tiger and a field of grass.
   - a fox and a rabbit.
   - both A and C.

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