



# LESSON PLAN

## ANIMAL GROUP BEHAVIOR GRADES 3-5

### SUMMARY

Students observe animals in person and through video to explore different types of group behavior and different animal group sizes. Students use observations as evidence to support scientific arguments about group behaviors.



**3-LS2-1** Construct an argument that some animals form groups that help members survive.

Science & Engineering Practices	Connections to Classroom Activity
<p><b>Engaging in Argument from Evidence</b> Construct an argument with evidence, data, and/or a model.</p>	<ul style="list-style-type: none"> <li>• Students observe ant behavior and use observations as evidence as to whether or not ants work together or independently.</li> </ul>
Disciplinary Core Ideas	Connections to Classroom Activity
<p><b>LS2.D: Social Interactions and Group Behavior</b> Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size (Note: Moved from K-2)</p>	<ul style="list-style-type: none"> <li>• Students observe multiple examples of animals being part of various sized groups to obtain food, defend themselves and cope with changes.</li> </ul>

## Crosscutting Concepts

### Cause and Effect

Cause and effect relationships are routinely identified and used to explain change.

## Connections to Classroom Activity

- Students discuss the reasoning behind various animals' group behavior in terms of causes and effects.

## DURATION

Multiple short periods of recording observations over several days before one 45-minute class period.

## PRE-ASSESSMENT QUESTIONS

Please see Discussion Questions located under the video. These can be discussed as a group or answered individually in student science notebooks.



## ENGAGE

Use the DIY Activity to create your own classroom ant farm just like Zoë's from the video (students can help or this can be completed ahead of the lesson). Ideally, make enough ant farms so that there is at least one per each group of about 6 students. Allow students to observe the ants.



## EXPLORE

Ask students: Do you think ants work together as a group or does each ant work alone? Challenge students to observe the ants' behavior. They can specifically watch for behavior pertaining to building homes/tunnels, eating, and drinking. Students should record their observations in words or drawings in their science notebooks.



## EXPLAIN

After several days of watching and recording observations, lead a discussion in which students explain whether they think ants work together or separately, and why. They must provide evidence (observations) to back up their claim. You may want to allow students to research the topic prior to or after the discussion.

## MATERIALS

- Science notebooks
- Pencils

### DIY Activity Materials

- Two different-sized plastic containers with lids, the smaller should fit inside the larger.
- Sand
- BBQ skewer
- Apple
- Water
- Tube of ants (order online for less than \$5)
- Pin



## ELABORATE



### WATCH THE *GENERATION GENIUS ADAPTATIONS* EPISODE AS A GROUP.

Follow the students' discussion by watching the Generation Genius Animal Adaptations video, which both provides some explanation of the ants' behavior, as well as elaborates on other animals that exhibit group behavior. Discuss some of the animals' behavior in terms of cause and effect. For example, the threat of predators caused the meerkat to stand on its hind legs and stand sentry, and the effect of this behavior was safety for the rest of the group.



## EVALUATE

Allow students to choose their favorite animal discussed in the video or in class (i.e. ants, bees, wildebeest, meerkat, lions, flamingoes, etc.) and explain verbally or write in their science notebook about how that type of animal uses group behavior, why, and what evidence they saw that supports that idea.



## EXTENSIONS

Have students think about local animals that exhibit group behavior and create a short video segment in the style of Generation Genius about that type animal and its group behavior.

