

3-LS2-1 Ecosystems: Interactions, Energy, and Dynamics

Students who demonstrate understanding can:

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

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Engaging in Argument from Evidence

Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).

- Construct an argument with evidence, data, and/or a model.

Disciplinary Core Ideas

LS2.D: Social Interactions and Group Behavior

- 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*).

Crosscutting Concepts

Cause and Effect

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

Observable features of the student performance by the end of the grade:

1	Supported claims
	a Students make a claim to be supported about a phenomenon. In their claim, students include the idea that some animals form groups and that being a member of that group helps each member survive.
2	Identifying scientific evidence
	a Students describe* the given evidence, data, and/or models necessary to support the claim, including:
	i. Identifying types of animals that form or live in groups of varying sizes.
	ii. Multiple examples of animals in groups of various sizes:
	1. Obtaining more food for each individual animal compared to the same type of animal looking for food individually.
2. Displaying more success in defending themselves than those same animals acting alone.	
3. Making faster or better adjustments to harmful changes in their ecosystem than would those same animals acting alone.	
3	Evaluating and critiquing evidence
	a Students evaluate the evidence to determine its relevance, and whether it supports the claim that being a member of a group has a survival advantage.
	b Students describe* whether the given evidence is sufficient to support the claim and whether additional evidence is needed.
4	Reasoning and synthesis
	a Students use reasoning to construct an argument connecting the evidence, data and/or models to the claim. Students describe* the following reasoning in their argument:
	i. The causal evidence that being part of a group can have the effect of animals being more successful in obtaining food, defending themselves, and coping with change supports the claim that being a member of a group helps animals survive.
ii. The causal evidence that an animal losing its group status can have the effect of the animal obtaining less food, not being able to defend itself, and not being able to cope with change supports the claim that being a member of a group helps animals survive.	