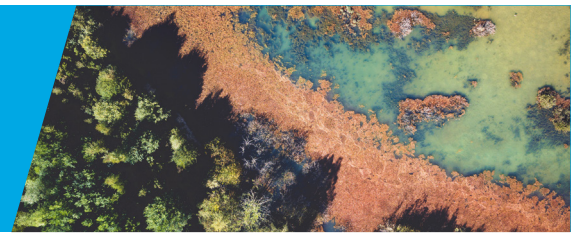


CURIOSITY AT HOME

IMAGINARY ECOSYSTEM



An ecosystem is made up of all the living and non-living things in a given area, as well as the relationships between those things. In this activity, create an ecosystem for select animals that includes both living and non-living factors.

MATERIALS

- Pictures/drawings of animals, toy animals or stuffed animals. This activity works best with 5-6 animals.
- Recycled and craft materials (string, paper towel rolls, construction paper, cardboard box, scissors, glue, tape, old magazines with nature photos, etc.
- Something to draw with.
- Your science notebook or piece of paper

PROCEDURE

- Gather about 6 animals.
- Pick one animal. This will be the animal you build a home for.
- In your science journal, describe or draw a place for your animal to live. An ecosystem includes all the living and non-living things, so be sure to include the living and non-living things your animals needs to stay alive. What will it eat? Where will it find shelter?
- Using recycled materials and found objects, build the ecosystem for your animal to live. You might use crumpled up paper to represent rocks, get creative!
- Now that you've built your ecosystem for your animal, move your animal through it. Where does it spend its time? Does it have things to eat and drink? Are there other living things for your animal to interact with?
- Pick a new animal, and place it in the ecosystem you created. Will it survive there? Why or why not? Add as many of the animals you gathered as you like.
- As you add more animals, what changes can you make to your ecosystem to make a good home for them?

DID YOU KNOW

Scientists call the living things in an ecosystem “biotic factors” and the non-living things “abiotic factors”. Since all the biotic and abiotic factors in an ecosystem are connected, changing one thing about the ecosystem can impact far more factors than you'd expect.



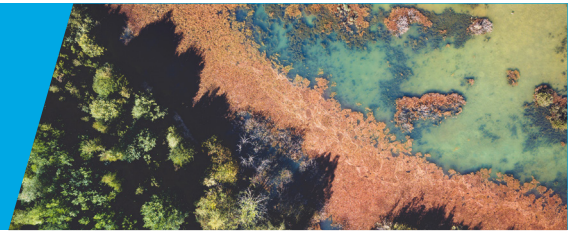
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K–2 GRADE EXPLORATION

Here are some questions you can explore together.

- Do all ecosystems look the same? Do all your animals live in the same area? Why not?
- Play pretend and act out a story about a new animal moving in to your ecosystem. Does it get along with the other animals? What does it use for food and shelter?
- Do people live in ecosystems? What other things would you count as part of your ecosystem?



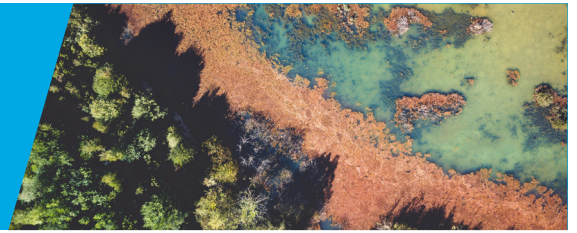
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3–5 GRADE EXPLORATION

Explore the following questions and write your observations in your science notebook.

- Choose a few animals in your ecosystem that use the same resource. How might the different animals in your habitat interact with each other?
- Look at the ecosystem you've made. In your science notebook, make a list of all the biotic (living) and abiotic (non-living) things in this ecosystem. Consider what each animal eats and drinks, what creatures it has to compete or cooperate with, and where it spends its time.
- Choose one of your creatures and imagine it's transported to a different ecosystem. Would it still be able to get all the resources it needs? Write down two places you think your animal would be able to do well, and two where it would struggle.
- If you look at your own neighborhood as an ecosystem, what other animals and things are in that ecosystem?



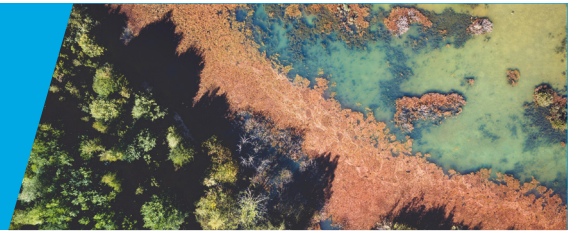
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6–8 GRADE EXPLORATION

Explore the following questions and write your observations in your science notebook.

- Look at the ecosystem you've made. In your science notebook, make a list of all the biotic (living) and abiotic (non-living) things in this ecosystem. Consider what each animal eats and drinks, what creatures it has to compete or cooperate with, and where it spends its time.
- Introduce a major change to your habitat (for example: add or remove a species or resource, or alter the climate). How might the different organisms living there adapt to this change? Which ones would have an easy time adapting, and which would struggle to do so?
- Did any of your species change in a way that might impact the other organisms living here?
- Think of your town as an ecosystem. Make a web or diagram of as many interactions between biotic and abiotic factors in your ecosystem as you can think of.



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