



Backyard Biodiversity

Lincoln City Nature Challenge

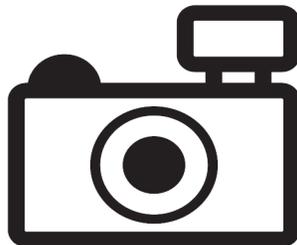
Using the iNaturalist app, you and your family can search for biodiversity (variety of life) in your own backyard. You will collect and analyze data, draw conclusions, and then share your findings with family and friends.

What you need:

- Mobile device with iNaturalist app download
- Or science notebook/digital camera

Get Prepared:

- Visit the website to learn more about iNaturalist. <https://www.inaturalist.org/pages/getting+started>
- Download the iNaturalist mobile app if you will be using it for this activity.
 1. Setup login
 2. To join the City Nature Challenge, tap on "More" and then "Projects." Next, tap the magnifying glass to search for a specific project and type in City Nature Challenge 2020: Lincoln, NE. You may also choose to use the app without joining a specific project.



Note to Teachers:

This activity is intended to support the following Nebraska College and Career Ready Standards for Science:

- SC.7.7.3 Gather, analyze and communicate evidence of interdependent relationships in ecosystems.
- SC.7.7.3.A Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. NE ecosystems
- SEPs: Planning and carrying out investigations; analyzing and interpreting data



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What You'll do:

1. Think about what you know about the biodiversity of your backyard or neighborhood. What species of plants or animals have you seen?
2. Using the iNaturalist website and/or app, look for any data that already exists near your home. Are any of the species that have been seen in your neighborhood unfamiliar?
3. For this activity you will be collecting data using iNaturalist to document the species that you can find in your neighborhood. If you are using a notebook to record data, it will also be helpful to record your observations with a camera. This may allow you to research and more specifically identify your sightings.
4. Log onto iNaturalist on your mobile device or prepare your notebook to record species that you observe. If you are using iNaturalist, practice taking a photo of an individual plant or animal and sync it to iNaturalist. You may then practice identifying the species and completing the entry on your observation.
5. Create an inventory of the species in your backyard or neighborhood using your mobile device to take photos of individual organisms. If you are using a notebook, create your inventory by recording your sightings in your notebook (and with photos on a digital camera if available.)
6. Analyze your data. What kinds of organisms (living things) did you observe? Did you see any species that you did not expect to see? What were they? Did you observe more diversity of plants or animals? Where there more vertebrate or invertebrate species of animals? Make a prediction about the number of species you would see if you repeated your observation in a month/two months? Collect data in a month/two months to check your prediction.
7. Now that you have collected data on the biodiversity in your neighborhood you can use iNaturalist to compare that data to other sites. Using the iNaturalist website, compare your data to the data collected beyond your neighborhood. This could be other parts of Lincoln and Lancaster County, other parts of Nebraska, other states, or even locations in other countries.

