



## The Importance of Birds

Birds need **food, water, shelter, and community** to survive. They need to eat, stay hydrated and clean, keep themselves and their young safe, and they need to be able to connect with each other and other species. Think of a bird you've seen near your house and create a **Habitat** with all the things a bird needs to survive. Some examples of backyard birds: crow, dove, scrub jay, house finch, hummingbird, gull.

✓ Food

✓ Water

✓ Shelter

✓ Community

## Web of Life

Each of these birds plays a unique role in the **ecosystem**.  
Discuss each species and identify its role, or **niche**, in the ecosystem.

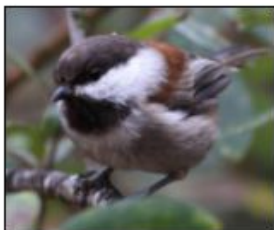


### Red-tailed Hawk

- bird of prey
- keeps small mammal and rodent populations in check
- classic "Hollywood" raptor cry

### Turkey Vulture

- Scavenger
- eats "carion" or dead things
- Nature's clean-up crew



### Chestnut-backed Chickadee

- eats insects and conifer seeds
- plants coniferous trees
- uses animal fur for nesting



### Scrub Jay

- bold personality
- eats insects and nuts
- accidentally plants oak trees!

### Anna's Hummingbird

- eats tiny insects
- loves nectar
- pollinates flowers



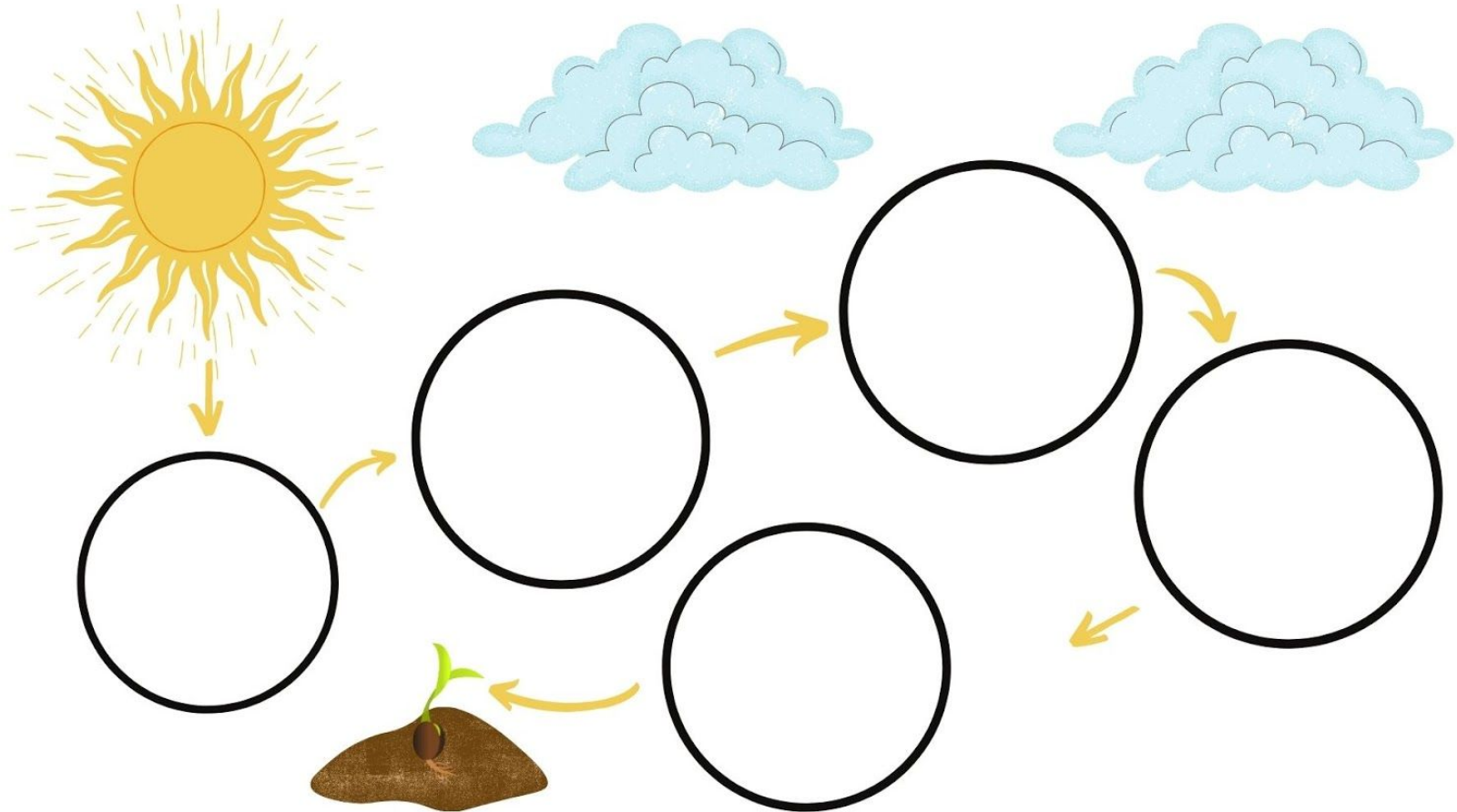
**Identify** the creatures seen in the image below, each have a special **niche** in our **ecosystem**. Draw lines to distinguish the essential relationships that exist between these **organisms** and the other species they rely on for their survival.



*I wonder: What happens if Red-tailed Hawks disappear? What if insects disappear? What if acorns disappeared?*

## Flow of Energy

All living things need energy to survive and that energy originally comes from the Sun. What happens next? In the circles, draw an insect, a plant, a mammal, a bird and a decomposer in the order that they fall in a food chain.



## Match the Beak!

Every species of bird has its own unique set of **traits** and **adaptations** that help it survive. One **adaptation** that is more easily visible are **variations** in the shape of birds' beaks, which indicate the types of food they rely on for survival. Analyze the variations of beaks and draw lines to match each bird with the type of food it would eat, based on the size, shape and function of its beak.



Probing beak:  
Long and thick for  
digging into ground



Tweezer beak:  
Small pointy beak for  
eating small insects



Shredder beak:  
Sharp curved beaks for  
tearing meat



Probing beak:  
Long and thin for  
probing flowers for  
nectar



Cracker beak:  
Short thick beak for  
cracking seeds



## Reflection

Think about your role in the environment. What are some ways you can positively interact with your environment?

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## Vocabulary Sheet

**Adaptation:** to get used to a new environment or to changes in an environment for survival - adaptations can present themselves in living things as biological or behavioral adaptations

**Analyze:** to study something closely and carefully

**Ecosystem:** a community of living things that live and interact with their physical environment

**Essential:** an important and necessary thing

**Distinguish:** to perceive or point out a difference

**Fauna:** Latin word for “animals”

**Flora:** Latin word for “plants”

**Function:** how something is used or useful

**Habitat:** a home to an animal, plant, or other organism

**Identify:** to name

**Niche:** a species' role in the environment in regard to food consumption

**Organism:** individual living things

**Traits:** one or more unique characteristics of a plant or animal (For example: dogs have fur, plants have leaves)

**Variation:** a different form or version of something

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<sup>1</sup> Merriam-Webster, October 2020, <https://www.merriam-webster.com/>



## **Additional Resources**

For exploring birds further, here are some resources for a more in depth look into the bird world. Take this knowledge outside and start wondering what birds are doing around you!

## **Teacher/Parent Resources**

[Feathered Friends Lesson Plans](#) (Credit: The Cornell Lab)

[Bird Behavior Bingo](#) *find Bird Behavior Bingo on pg. 19.* (Credit: Mass Audubon)

[Download Merlin, the free and easy to use Bird Identification app](#) (Credit: The Cornell Lab)

## **Youth Resources and Additional Exploration**

[Bird Song Hero](#) (Credit: The Cornell Lab)

[Download Merlin, the free and easy to use Bird Identification app](#) (Credit: The Cornell Lab)

[Video: Beaks! Bird Feeding Adaptations](#) (Credit: The Cornell Lab)