



Parts, Purposes, and Complexities of Living Things

The purpose of this activity is for educators to investigate the parts, purposes, and complexities of living things. The activity was adapted from the Parts, Purposes, and Complexities routine developed by Project Zero, a research center at the Harvard Graduate School of Education.



Key Concepts

- Structure and function
- Characteristics of living things
- Variation and diversity in living things

Materials and Setup

- Materials to document in different ways (for example, drawing paper, drawing materials, construction paper, glue, pipe cleaners, clay, paint)
- Small containers to collect samples of living things (optional)



10–15 minutes



Small groups



In-person or virtual professional learning

Activity Instructions

If living things have been provided for you, skip the “Nature Walk” and move on to the “Documenting Parts” instructions.

Nature Walk

- Find a partner.
- Identify living things in the outside area near you. For example, you might find a flower, a vine, or an ant. You might make a list or take photos of the different living things you find.



- With your partner, choose one of the living things—or a photo of the living thing—to bring back with you. The more parts of the living thing you can preserve the better for this activity. For example, you might find a weed and bring back the entire weed including its roots, stem, leaves, and flower.
- When you return from your nature walk, discuss the different living things you found with other teams at your table.

Documenting Parts

- Observe and document the different parts of the living thing you have collected.
- You can document in different ways. For example, you might draw pictures to represent the different parts, make a list or a chart, or create a diagram and label the parts. Other ways to document might include video recordings or sculptures.

Considering Purposes

- Record the purpose of each part. What does it do? How does it support the living thing?
- If you brought back a plant, you might take apart the different parts of the plant to learn more about its parts and purposes.
- If you do not know the name or purpose of one of the parts, you might use the internet to do some research and learn more about your living thing.

Think about Complexities

- Document the ways the living thing is complex.
- How do the parts work together?
 - ◇ What questions do you have about this living thing?

Reflect and Discuss

With your table group, share the documentation of the parts, purposes, and complexities of the living thing you have collected. You might discuss the following questions:

- How are the living things that others investigated similar to or different from the living thing that you investigated?
- What questions do you have about the living things others documented?
- What do you value about the way others documented their living things?

