



Snippets of Science from Fermilab

LS 1 Engage

WHAT MAKES SOMETHING LIVING OR NON-LIVING?

Challenge: We think it is easy to say that something is living or not. What do you think are the differences between something that is living and non-living? Are there also similarities between them?

Goal: Use your observation skills to investigate your outdoor space (environment) and learn about the characteristics of things that are living and non-living.

Fermilab Connection: Fermilab ecologists and scientists use defined characteristics to agree upon anything they study from subatomic particles to living things.

Preparation

Through this thread of learning activities, find a safe, preferably outdoor, space in which you can observe the living world around you through the use of your senses. How will you record what you notice?

Procedure

1. Learn about the characteristics of living and non-living things with these resources:
Living and Nonliving Things for Kids: Life Science for Children:
<https://www.youtube.com/watch?v=bWBrusCmX4>
Living and Non Living Things for Kids Cosas Vivas y No Vivas en Inglés Niños:
<https://www.youtube.com/watch?v=b7rMHN aB548>
Living Things by Patricia Armentrout:
<https://www.getepic.com/book/14359677/living-things> (Try accessing online through Epic! or use your public library.)

2. Apply what you learned by observing your own outdoor space.
3. Collect data as you observe your own environment and record your findings, just like a scientist. List things that are either living or non-living based on the characteristics you learned about through the resources.

Use the log sheet to find things in your environment and categorize them as either living or non-living.

GRADE LEVEL
Grades 2–8 with modifications

MATERIALS

- Student page
- Pencil or crayons
- Log Sheet

Discussion Questions:

1. Did you observe any living things that you have not noticed before?
2. What are some other ways you could collect information to know what is living and non-living?
3. Think about the relationship of things that are living and non-living; how might they rely on each other?
4. Can you think of places you may have read about or places you have gone where you have seen other living things? Think about the characteristics of the things you have in mind; how do you think these characteristics are dependent on the location you would find them?
5. Are there non-living things that could fool you as a living thing?
6. What other senses will you use to observe your environment?