HOMEROOM

Classroom Activities:

Observing & Measuring Trees

In this activity, students observe the characteristics of trees in their community and think about why we should take care of them.

An important step in engaging students in eco-action is spending time experiencing nature. Trees have a key role in our ecosystem. This activity gives children the chance to stop, observe the world around them and deepen their understanding about the interconnectedness of life on earth.



GRADE LEVEL: **K-3**

LEARNING OBJECTIVES:

- Compare different ways to measure trees
- Identify reasons trees should be taken care of
- Observe and compare trees in different habitats
- NGSS: 2-LS4-1; 3-LS4-3; 3-LS4-4

IN THIS ACTIVITY, STUDENTS WILL:

- Observe and measure trees
- Reflect on why trees are important for the eco-system

MATERIALS:

- Materials to measure trees (see suggestions below)

Set Up

Find a nearby wooded area, park or trees in the school yard. Select several trees (3 or 4) to measure based on predetermined criteria. If you can, have students observe trees in two different habitats, a cooler, wetter forest and a warmer, drier, more open forest or park. Here are some suggestions:

The biggest tree in the schoolyard
Trees at a nearby wooded area or park
Trees of varying sizes
Trees of varying species

Collect different tools to measure trees. Here are some suggestions:

Standard metric measuring tapes (soft)
Masking tape and felt-tip markers for writing numbers
Connecting links (e.g. chain links)
Paper clips, connected together
Rope/jump rope

Instructions

1. Take the students outside and have them observe the trees. Ask:

- What do they see?
- What do they hear?
- What do they feel?
- What do they smell?
- How do they feel?

2. Next, have them focus on your chosen trees. Ask them which one they think is the biggest and the smallest. Ask them what are other ways they can describe how trees look the same or different.

3. Explain that you are going to measure the trees and that they can use which ever tools they would like.

- Show them the measuring tools
- Remind them which trees to measure

4. Give the students 10 minutes to measure the different trees individually, in pairs or in small groups.

Results and Discussion

Once the observation period has finished, return to the classroom. Have the students share their observations and compare their measurements.

Then, discuss the following questions:

ABOUT THE ACTIVITY

1. How did you measure how big the trees are? The circumference?
2. Was it easier to measure the height or the width?
3. How can we compare the trees?
4. What did you do if the measurement tool was not long enough to wrap around the tree trunk?
5. Did you see lots of different trees or did the trees look the same?
6. Describe the trees in area A. Describe the trees in area B.

GOING FURTHER

1. What do trees need to grow?
2. Are bigger trees older than smaller trees?
3. Why do you think some trees grow bigger than other trees?
4. Which tree did you like the most and why?
5. Did you see any tree seeds or nuts? What are some ways trees can spread to new areas?
6. Why do you think some trees grow better where it is colder or wetter and some grow better where it is warmer or drier?
7. Why are trees important for people and animals? (OPTIONAL: Explain about greenhouse gases and carbon sequestration (see resources)).
8. Why should we take care of trees?

Next Step

ADD COMMUNITY

- Invite a local arborist to answer questions and to demonstrate some of the tools and resources they use in their everyday job. Ask them to point out any problems that trees might face in the schoolyard (e.g. the quality of the soil, the need for watering, mowers cutting too close to trees, etc.)
- Invite an Indigenous Elder to share traditional knowledge and practices (e.g. tapping maple trees for syrup).

ADD WILDLIFE

- Look for critters who live in and among trees.

ADD EXCITEMENT

- Find a tree game
- Learn How to Identify a Tree's Age
- Arborist for an hour

ADD AN EARTH RANGERS MISSION FOR HOME

Mission: Just 1 Tree

References

Identify a Tree
https://treebee.ca/identify-a-tree/
Identification tool – asks questions

https://www.itreetools.org/tools/tree-identification-tools

https://www.inaturalist.org/