

Totally Trees

Grades: Early Elementary (K-2)

Key Words and Definitions

LIFE CYCLE	A series of changing stages in the life of a living thing, starting from its birth to its death
SEEDLING	The sprout from the seed of a plant
DECOMPOSITION	The process of organic matter, something that used to be living, breaking down, or decaying
PINECONE	The seed dispersal method for pine trees (other conifers may use cones for seed dispersal, though only cones from pine trees are called pinecones)
DENDROCHRONOLOGY	The study of what a tree's rings tell us about the tree's life and history

Pre-Field Trip Activity: Tree Life Cycle

One 20-minute session; pre-visit

Learning Objective

Students will learn how to think cyclically about the life of a tree by collaborating as a class to create a diagram.

Materials

- Printed cutouts of a tree life cycle (linked in resources), enough for the class
- Glue sticks
- Paper
- Colored pencils/crayons

Procedure

1. As a class, draw the life stages of a tree on the board—seed, seedling, young tree, adult tree, decaying tree or log. No need to put them in order yet!
2. Hand out pieces of paper and cutouts of different tree life stages. You can print copies of the tree life cycle diagram linked in the resources, then cut out each stage.
3. Give students a minute or two to put the cutouts at their tables in order, just guess first. You can then go over the life cycle as a class, putting each step in order on the board (use arrows to show the direction of the steps). Ask if the cycle should be a straight line or a circle. Could a decaying tree help new seeds grow?
4. Next, ask the class what the tree needs to get from one step to the next. How does a seed know when to sprout? Draw symbols on top of the arrows at each step to represent the main factors that trigger each change. This will be water and sunlight for seeds to seedling to tree. For the decomposing log and standing snag, you can draw a little worm to represent the decomposers helping the tree decay.
5. Tell students that they should keep an eye out during their time at Wave Hill to see if they can find all the stages of a tree's life cycle during our hike, as well as everything the tree needs to survive and grow.
6. Allow students to glue the life cycle, in a circle and in order, onto their pieces of paper. They can then color their pictures in, and add the symbols representing sun, water and decomposers!

Resources

 [Tree Life Cycle Diagram](#)

Post-Field Trip Activity: Tree Ring Painting

One 20-minute session; post-visit

Learning Objective

Students will make observations and ask questions about why tree rings are a useful source of information about trees, and will demonstrate their creativity and curiosity about tree rings using paint.

Procedure

1. While we were at Wave Hill, we saw trees that had fallen, and had either started to decay or were repurposed as benches or trail markers. We had lots of thoughts and guesses about what happened to the big log we saw—how did it fall and why? Now we can learn a little about a tool that can be used to tell us more about trees.
2. Show students the picture of tree rings listed in the resources. Ask what they notice about the inside of the tree. How many rings can they count? What do they think these rings tell us about the tree?
3. Say that every ring on a tree represents one year of growth. If they were trees, they would have the same number of rings as they have years of age!
4. If you'd like and have a digital board or screen available in the classroom, you can show the video in the sources to the class, which has more detailed information about tree rings.
5. Students can now use what they learned to create art. Hand out several varied sizes of plastic cups, along with pieces of string, paper, and paint (feel free to just use cups or just use string if you want to keep supplies simple).
6. Dip the ring of a cup in paint, then press it onto the paper. Choose a smaller cup with a smaller ring and do the same thing, pressing the painted rim inside the first circle. Continue like this to create concentric tree circles.
7. If using string, shape the string into a circle shape, narrowing or widening depending on the desired size of the ring. Dip the string into paint and press into paper, creating a circular imprint.
8. Tell students to experiment with the string and cups, demonstrating how to place circles inside one another. They can make as many rings on their paper as they like, or they can aim to make the number of tree rings match their age!
9. Students can use different colors of paint for each ring, or they can choose one consistent color. Once their artwork dries, they can add color in between rings using crayons or colored pencils!

Sources

 [Tree ring art | Celebrating Child & Home \(thingstoshareandremember.com\)](https://www.thingstoshareandremember.com)

Resources

 [Tree ring video: Life as a Tree! - YouTube](https://www.youtube.com/watch?v=...)

 [Tree rings | Annual growth rings on a tree stump | Bill Kasman | Flickr](https://www.flickr.com/photos/billkasman/)



Scan for a page with all links

Materials

- Cups of various sizes
- String
- Pieces of paper
- Paints