



# READING RINGS

## Grade Level

K-8

## Length of Lesson

45 minutes

## Objective

Students will be able to read a wood slice to determine the age of a tree and any significant life events the tree went through,

## Materials

- Wood slices (tree cookies) to show (optional)
- White paper plates
- Pencils

## Standards

### NGSS

K.ESS2-1, 1-LS1-1,  
2-LS2-1, 2-LS4-1,  
3-LS1-1, 3-LS4-1,  
3-LS4-4, 4-LS1-1,  
MS-LS1-5

## Lesson Summary

This lesson challenges students to use math and critical thinking skills to analyze the life of a tree, as well as asks them to reflect on their own life and creatively create a wood slice of their life.

*This lesson is adapted from a lesson from Project Learning Tree.*

## Suggested Sequence of Events:

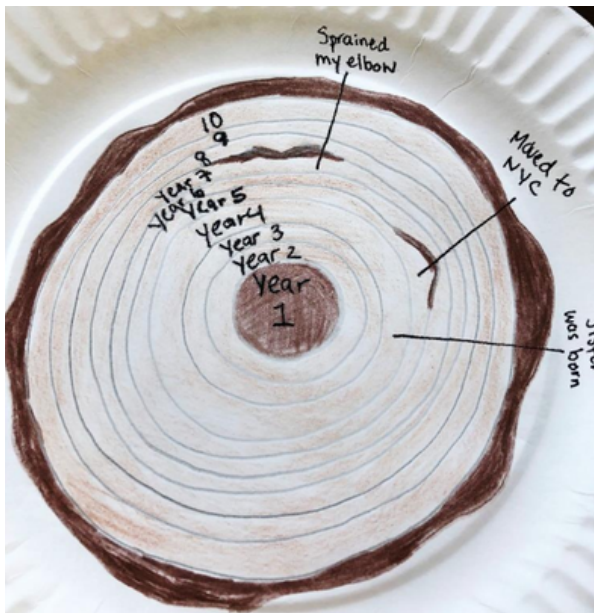
1. Read Zee Grows a Tree by Elizabeth Rusch to gain student interest.
2. Complete the activity following the procedures:
  - Pass out the wood slices (tree cookies) to students, if available, or copies of the sample wood slices in this lesson plan.
  - Without prior knowledge of reading tree rings, have students guess verbally how old they think the trees are.
  - Teach students how to count tree rings to determine the age of a tree when it was cut down. (*ex. - a tree with 16 rings was 16 years old when it was cut down*)
  - Show students examples of how tree rings can vary based on life experiences: (*examples in Educator Resources*)
    - Narrow rings indicate a dry year or insect attack.
    - Wide rings indicate a wet year.
    - A scar that seems to be cutting through multiple rings indicates that there was a branch there that died and fell off and the trunk eventually grew around the scar.
    - A scar that runs along the partial perimeter of a ring (or multiple rings) indicates there was a forest fire that damaged the tree during those year(s).
  - Pass out a student worksheet to each student and ask them to examine the trees pictured.
  - Check student work. Facilitate a class discussion.
  - Pass out a paper plate to each student. Have them create their own “tree cookie” with the same number of rings as they are years old. Encourage them to include bumps or spots where significant life events happened (a move, a new sibling, etc.), just like would be shown on a tree.
  - Have students share their plates with the class if they are comfortable.

# TEACHER RESOURCES

## Reading Tree Rings Examples



## Paper Plate Tree Cookie Example



This 10-year-old student is depicting her life on this tree cookie, and identifying three significant life events with scars or wider rings.

## Extension Ideas

- Learn about trees in agriculture with the IAITC [Tree Zine](#).
- Explore different species of trees and what they are grown or harvested for.
- Learn about forest succession.
- Research the oldest trees in the world.
- Read the IAITC [Farm Bites](#) on various tree species: Christmas Trees, Pecans, Peaches, and Maple.
- Go to [agintheclassroom.org](http://agintheclassroom.org) to contact your County Ag Literacy Coordinator for free classroom sets of our Ag Mags.



Science

# READING RINGS

## STUDENT WORKSHEET

Name: \_\_\_\_\_



Age of Tree: \_\_\_\_\_  
Significant Life Events:



Age of Tree: \_\_\_\_\_  
Significant Life Events:



Age of Tree: \_\_\_\_\_  
Significant Life Events:



Age of Tree: \_\_\_\_\_  
Significant Life Events:



Science

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## ANSWER KEY

Name: \_\_\_\_\_



Age of Tree: 14  
Significant Life Events:

**None**



Age of Tree: ~48  
Significant Life Events:

**Forest fire at  
~18 years old**



Age of Tree: 25  
Significant Life Events:

**Possible dead  
branch, ~17-23 yrs**



Age of Tree: 12-14  
Significant Life Events:

**Dead branch starting  
at ~9-11 yrs**