



## **Fun in the Forest**

### **3rd-5th Grade**

*This lesson is written to be completed independently  
and is recommended for children in grades 3-5.*

In this Lesson Plan, kids will read more about the forest by listening to and reading books, making a nature journal, and exploring the library's databases! This Lesson can be simplified or made more complicated as desired.

This lesson contains activities that have been connected to Missouri Learning Standards using the Missouri Department of Elementary and Secondary Education (DESE) guidelines. Although these lessons have been connected to a state learning standard, they are not intended to replace the educational curriculum provided through public, private, or at-home learning.

To access videos and databases, click on the hyperlinked text in the lesson plan. An active Christian County Library card is necessary to access select activities. For help, email [youthservices@christiancountylibrary.org](mailto:youthservices@christiancountylibrary.org) or call your local community branch.

## 1. Introduction to the Lesson

- a. The forest is full of things to learn about. In this lesson plan you will study rocks, plants, animals, and more!
- b. Print out the documents and handouts to have ready for the lesson and gather any needed supplies.
- c. Use Handout A to write down some things you know about forests and some things you would like to learn. (You will complete Handout A at the end of this lesson.)
  - i. DESE Standard: Reading 1.A.a., Reading 1.C.a, Reading 2.A.e., Writing 3.A.a

## 2. Create a Nature Journal

- a. Create a nature journal with at least 20 pages.
  - i. A nature journal can be anything you want it to be and can be made in so many different ways. You can make your own journal from papers, fabrics, string, and yarn, or you can use an empty notebook and decorate it with your favorite natural items. Handout B has a few pictures of nature journals that other people have created.
- b. Find a quiet spot to sit outside or if it's too wet or cold find a window facing the outdoors. Draw what you see. Under your drawing write down your observations.
  - i. Observations- things that you learned by using your five senses to pay very close attention to something.
  - ii. Ask yourself questions like: Are there any animals outside? What are they doing? How many plants do you see? What do they look like right now?
    1. DESE Standard: Science PS1.A, Health HPE1.A.

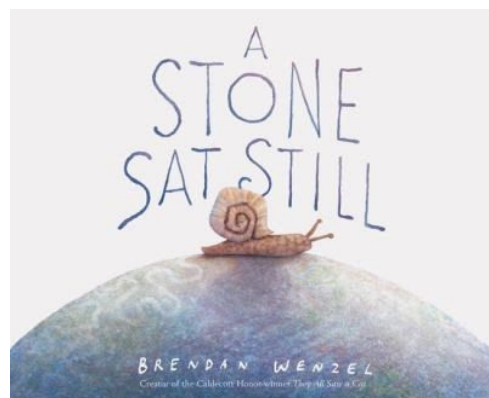


## 3. Study Rocks (and minerals)

- a. Go outside and gather 10 different rocks. Try to look in different areas so that they will have different sizes, shapes, and colors.
- b. Write "ROCKS" on a blank page of your nature journal.
- c. Sort your rocks by size. How many big rocks do you have? How many small rocks? Are any of the rocks medium sized? If you

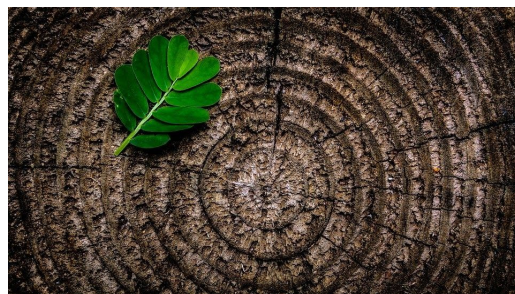
have a kitchen scale you can weigh the rocks. Do you think the biggest rock will be the heaviest? Draw pictures of your rocks and write your observations down on your rock page.

- d. Use Explora to learn more about rocks! Go to [christiancountylibrary.org](http://christiancountylibrary.org) , click on research. Scroll down to “Explora Elementary” and click on the link. Search for the word “Rocks”. Look through the books, articles, and videos to answer the questions on Handout C. After you’ve answered the questions cut out the rocks on Handout C and paste them into your nature journal. *(If you don’t have access to the internet, check out a book about rocks from your library to do your research instead.)*
- e. Listen to [A Stone Sat Still by Brendan Wenzel read by a librarian](#), or go to [coolcat.org](http://coolcat.org) to put it on hold and read yourself.
  - i. DESE Standard: SCIENCE  
K.PS1.A.1, 4.ESS1.C1, 2.PS1.A.1,  
K.NS.A, K.3.A.a, 1.3.A.c, 2.3.A.a,b,c



#### 4. Forest Plants

- a. Write the word “PLANTS” on a blank page of your nature journal.
- b. There are all kinds of plants in the forest, but they all grow in basically the same way. Most plants have roots, a stem/trunk, leaves, and bear fruit. Use the pictures on Handout D to help you draw and label a plant that is in your home or yard on the plant page in your nature journal.
- c. Have you ever wondered how tall a tree is, but you don’t know how to measure it without something really tall? Find out a way to measure the approximate height of a tree without taking your feet off the ground using Handout E. Draw a picture of the tree you measured in your nature journal and record it’s height.
- d. A tree grows a new layer every spring and summer. The layer in the spring grows quickly and is a lighter color. The layer added in the summer grows slower and darker. Find a stump in your yard or a park. Draw a picture of the stump you





found with all of its rings. Count only the dark rings to see how old that tree was when it was cut down.

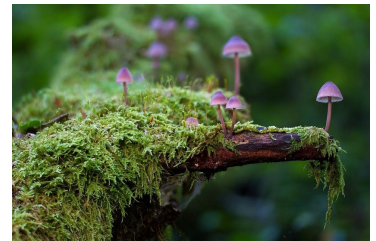
- e. Optional: Collect leaves and sticks that are in your yard. Use a tape measure or a ruler to measure the leaves and sticks you found. Write down your measurements in your nature journal. Sort the leaves and sticks by size. Which leaf is the longest? Which stick is the longest? Use a plant identification app or book to find out what tree the leaf came from.
- f. Optional: Dendrochronology is the scientific method of dating tree rings. Watch [this video](#) and check out Handout F to learn more about reading a tree's rings.
- g. Optional: Watch a seed grow. Place a pumpkin seed or bean seed in a ziplock bag next to a damp paper towel. Tape it to a window. Make sure the window doesn't get frosty in the winter, or get too hot in the summer. Keep the paper towels damp, but not soaking wet. Watch as your seed grows roots and sprouts. Draw pictures or take notes of the process in your nature journal. For an example or more instructions check out [this website](#).



- i. DESE: 3.GM.B.1 2.LS2.A.1 3.LS1.B.1

## 5. OPTIONAL: Moss Terrarium

- a. Mosses are small, seedless plants that usually grow in damp, shaded places. More than 10,000 types of mosses grow in the world. Mosses can grow on dirt, trees, and rocks!
- b. Make a Moss Terrarium using the instructions on Handout H. If you have a magnifying glass use it to study the mosses up close. Draw a close up picture of some moss in your nature journal. What did it feel like? What color was it?



- i. DESE: 2.VA:CR.1.B.3, 3.CR.A.3

## 6. Forest Animals

- a. Do some research on animal homes. You can find a book at your local library, check out an ebook on Hoopla, or find a variety of sources on Explora Elementary.
- b. Make a replica of an animal home like a birds nest, a foxes den, or a beavers lodge. Use sticks, rocks, leaves, grasses, and mud or clay to create your replica. Draw a picture of the den you created in your nature journal. What type of animal lives inside. Why is this home perfect for the animal that lives there?
- c. Optional: An ecosystem is made up of all of the living and nonliving things in an area. You can't add or take away anything from an ecosystem without having an effect on everything else around it. Take a look at the forest food chain and food web on Handout G. Then, find a food chain with living things in your yard. Use a page in your nature journal to draw the food chain that you found.
- d. Optional: Check out these [live cams](#) on explore.org of animals in their homes.
  - i. DESE: 5.LS2.B.1, 5.PS3.D1



## 7. OPTIONAL: Humans in the Forest

- a. Before you venture into the great outdoors make sure you know the bare minimum that humans need to survive. You probably know that humans need air, shelter, water, and food to survive, but do you know what things are the most important in a survival situation? More than anything people need air to survive. Breathing is your first priority. Second, is shelter. You cannot move around to meet other needs if you are too cold or too warm. The next thing you need in a survival situation is clean drinking water. Lastly, you need safe food to keep you going. Print off Handout I to take with you if you go on a hike or add it to your backpack for a hike in the future.

- b. Try this special version of hide and seek. You will need one person to hide and one person to seek. You can play it in your house or outside. First, study the trail signs on Handout J. Then, gather sticks, rocks, or pebbles to mark your path. Next, agree on an amount of time that the “hider” has before the “seeker” starts looking for them. The person who is hiding will use trail signs to mark the path they took to their hiding place. This game works best if you take lots of twists and turns. After the set amount of time has passed, the “seeker” will follow the trail signs to find where their friend is hiding. Pick up the trail markers and play again but switch jobs.
- c. Put together a basic first aid kit. Here are some things you might want to include: bandages in all sizes, antiseptic wipes, gauze, thermometer strips, triple antibiotic ointment, lip balm, cotton swabs, burn cream, small scissors, nail clippers, tweezers, and stickers. Want to add more to your kit? Check out Washington Trails Association’s [hiker’s first aid kit list](#).
- d. Optional: Build a fort! Be creative and use what you have to build a fort. Look at Handout J for ideas to make with a tarp outside or a large blanket inside.
- e. Optional: Test out your internal compass. You will need an adult, a compass, a friend or two, and a place to walk. Try to find a path or trail with lots of twists and turns. Have your adult hold the compass. Before you start to walk, have your adult use the compass to show you which way is north. Then start walking. After you have gone around a few twists and turns stop and guess which way is north. Then check if you were correct with the compass. Continue your walk and stop a few times to make your guesses. Did you end up getting better at finding north the more you walked? What did you use to “find your bearings” or decide where you were?
- f. Optional: Have an adult help you build a fire or use an oven to bake these delicious Campfire Orange Muffins. Recipe on Handout K.
  - i. DESE: MU: Cr1A.Ka



➤ **Explore more! Here are some optional links for more learning and fun!**

- If you enjoyed this lesson go to [christiancountylibrary.org](https://christiancountylibrary.org) to check out our other Lessons with the Library.  
<https://christiancountylibrary.org/lessons/>
- Do some rock testing -  
<https://rainydaymum.co.uk/testing-of-rocks/>
- Learn about purifying water with a solar still -  
<https://worldwaterreserve.com/potable-water/purification/how-to-make-a-solar-still/>
- Go birdwatching with these bird identification apps -
- <https://www.learningonlineblog.com/2018/04/02/bird-identification-apps-for-bird-watching/>
- Check out these plant identification apps -  
[https://www.learningonlineblog.com/2018/07/23/plant-identification-apps-for-nature-studies-and-science-lessons/?utm\\_medium=social&utm\\_source=pinterest&utm\\_campaign=tailwind\\_tribes&utm\\_content=tribes&utm\\_term=402943178\\_13442544\\_217159](https://www.learningonlineblog.com/2018/07/23/plant-identification-apps-for-nature-studies-and-science-lessons/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=402943178_13442544_217159)

➤ **Learning Standard**

**g. The learning standards attached to each activity can be found at the following links:**

- i. [Missouri Learning Standards/Missouri Department of Elementary and Secondary Education \(DESE\)](#)

## **Fun in the Forest Introduction**

What are some things that you know about the forest?

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What things would you like to learn about the forest?

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What is something new that you learned in this lesson plan?

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Which activity was your favorite?



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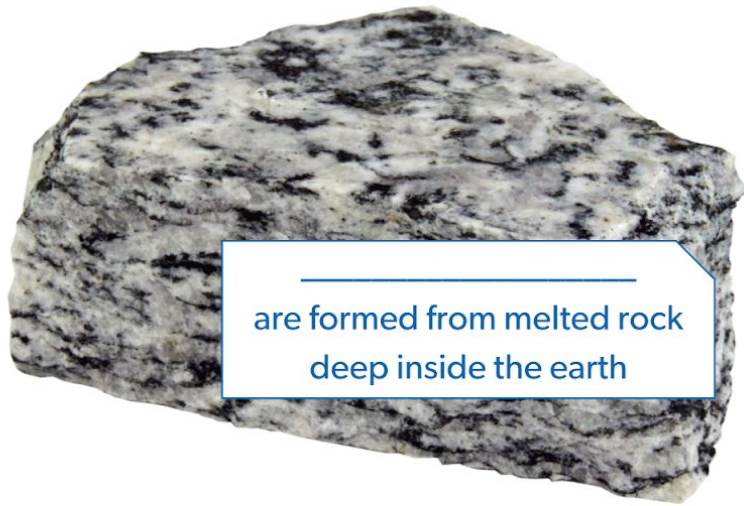
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Handout B

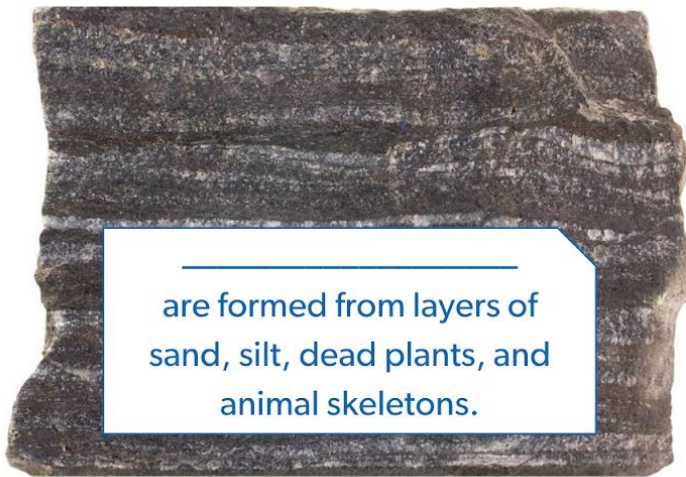
**Nature Journal Inspiration**



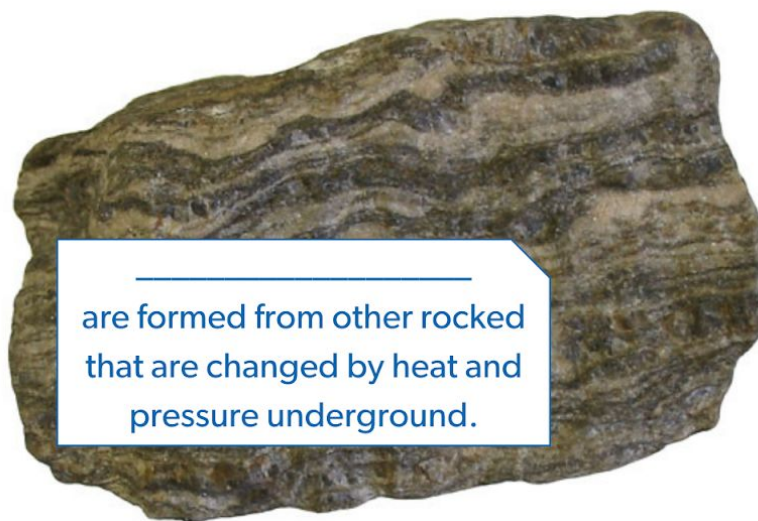
## Types of Rocks



are formed from melted rock  
deep inside the earth



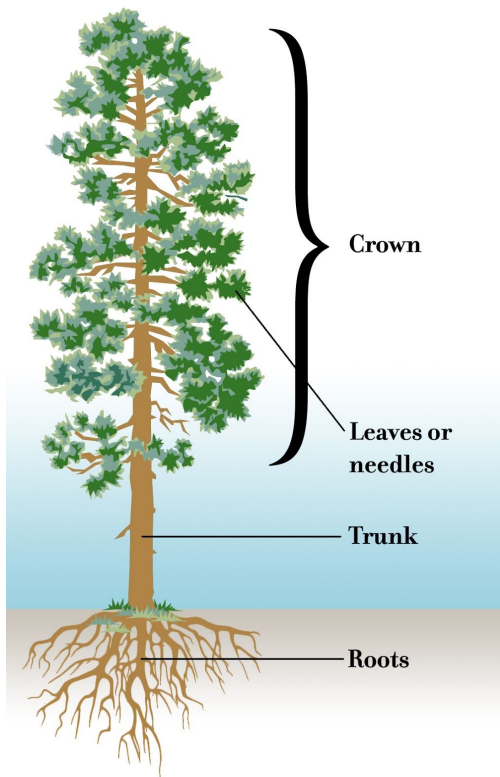
are formed from layers of  
sand, silt, dead plants, and  
animal skeletons.



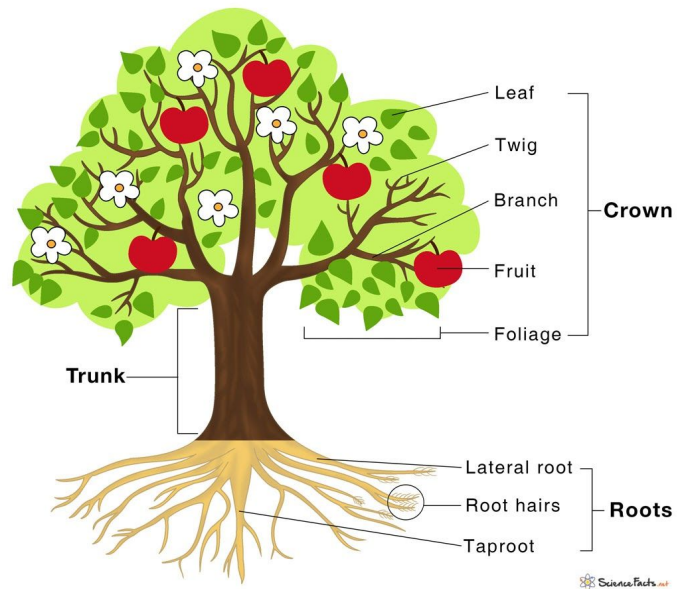
are formed from other rock  
that are changed by heat and  
pressure underground.



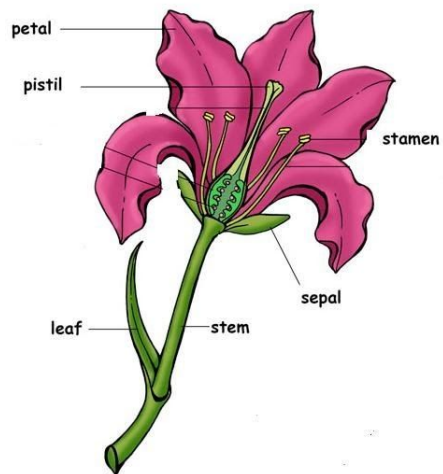
## Parts of a Plant



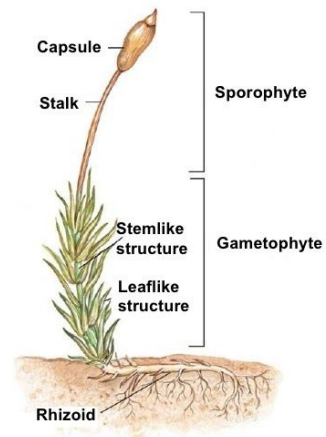
## Parts of a Tree



## The Parts of the Flower



## • The Structure of a Moss



### **Measuring a Tree's Height**

For this activity you will need

- A partner
- A pencil
- A measuring tool (like a yard stick or tape measure)
- A tree

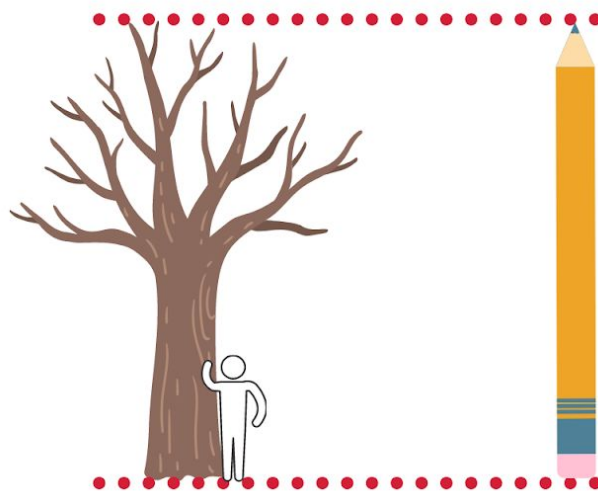
STEP 1: Choose a tree to measure.

STEP 2: One person stays next to the tree.

The other person holds the pencil and walks away.

STEP 3: Every few steps, the pencil holder should hold the pencil vertically (up and down) to compare it to the height of the tree.

STEP 4: When the bottom and top of the pencil line up with the bottom and top of the tree, the pencil holder should stop moving. (See image below.)

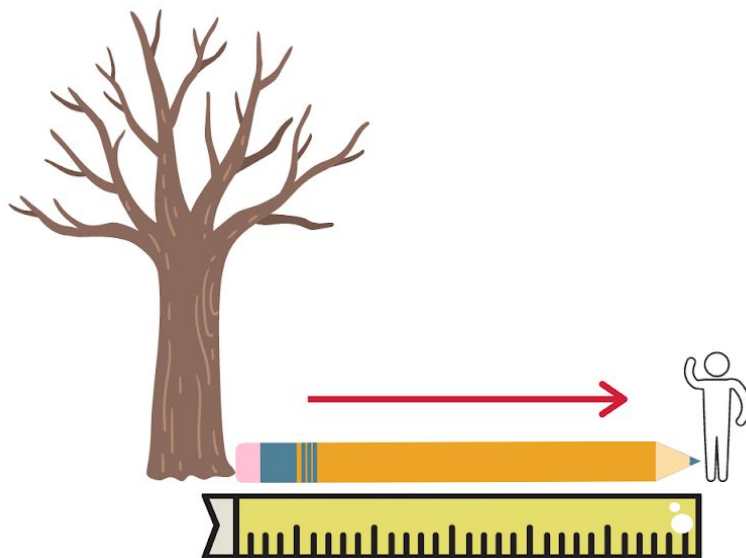




STEP 5: Now the pencil holder will turn the pencil horizontally with the eraser at the base of the tree. (Make sure not to move!)

STEP 6: The pencil holder will direct their partner to move away from the tree. Have them continue to move until they look like they are at the point of the pencil. (See image below.)

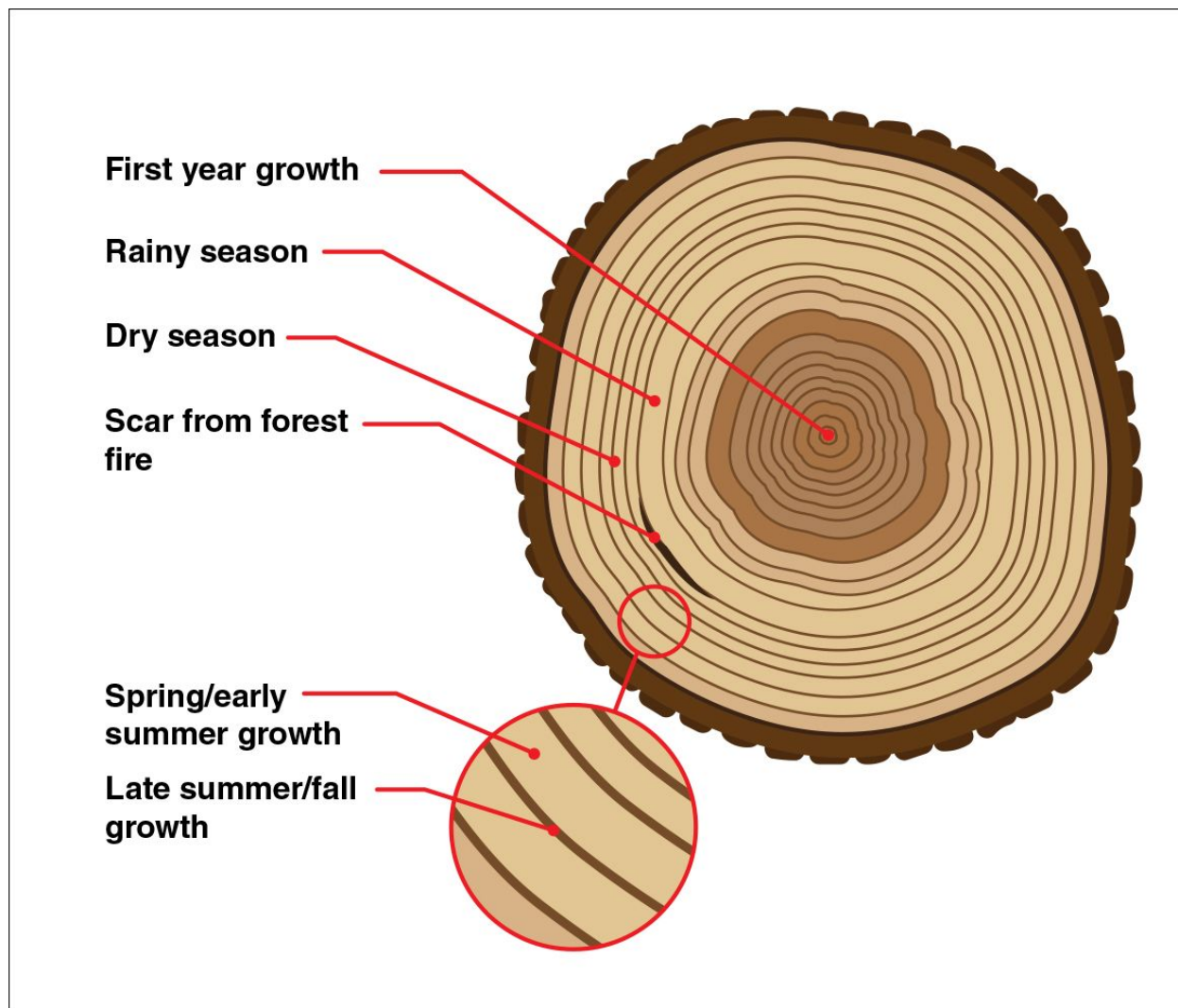
STEP 6: Have the partner stay where they are. The pencil holder will now measure the distance between their partner and the tree.



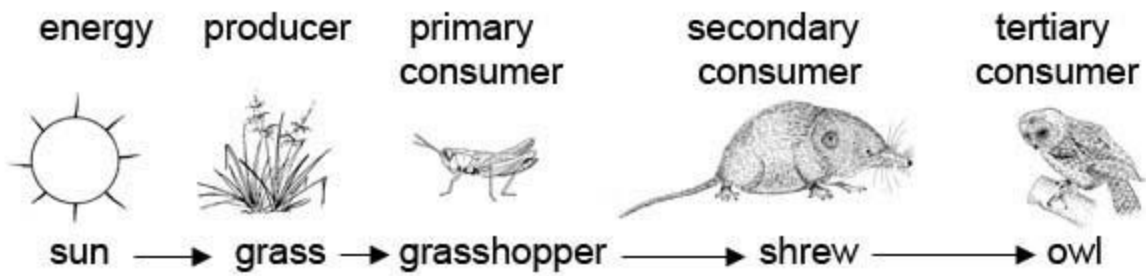
STEP 7: This measurement is the approximate height of the tree.

TREE HEIGHT: \_\_\_\_\_

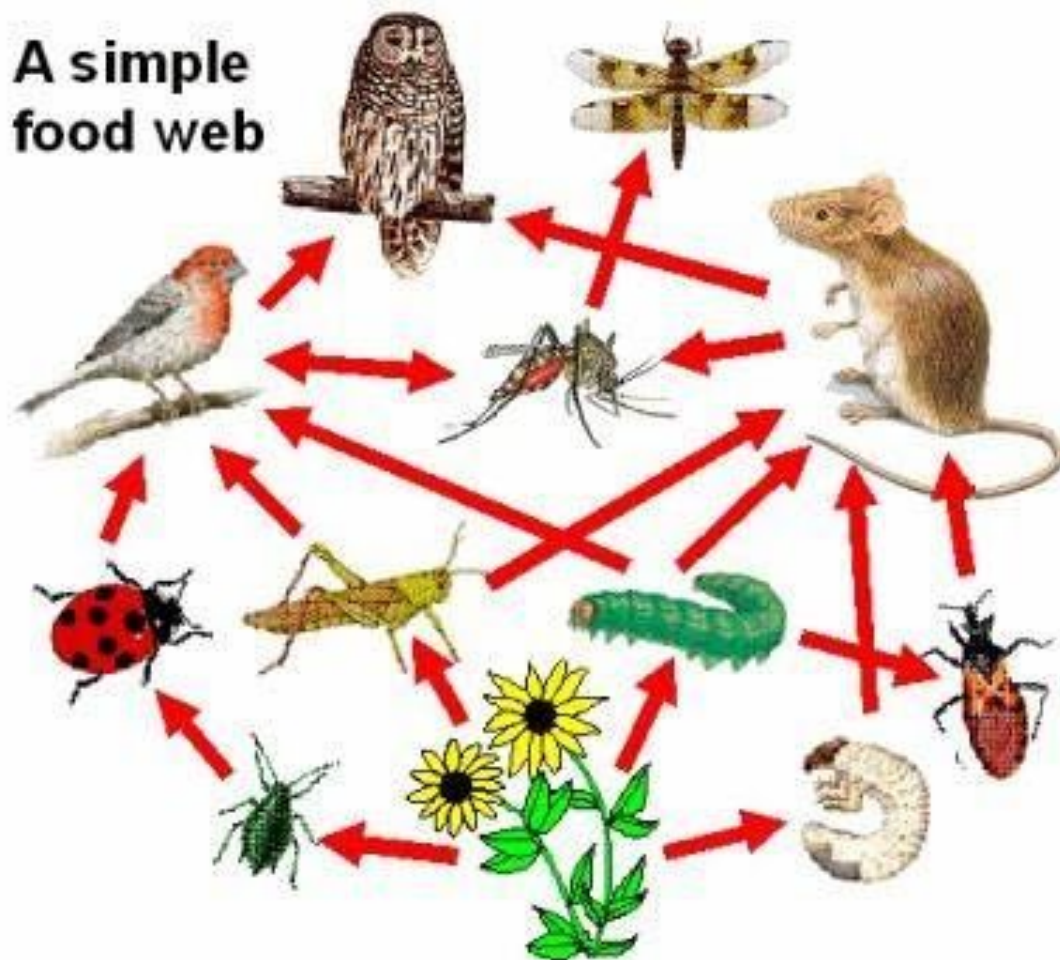
## Reading Tree Rings



**A Food Chain** shows one path of energy.



**A Food Web** shows multiple paths of energy.



## *Make a Moss Terrarium*



1. Find a clear plastic or glass container that can be your terrarium. The container can be large like a mason jar or small like a baby food jar.
2. Place small rocks or aquarium gravel in the bottom of your container.
3. Add dry moss over the rocks.
4. Put soil over the dry moss and level it gently.
5. Find different mosses from around your yard. Check near trees and rocks. Carefully remove a section of moss. Keep them damp while you are searching.
6. Lay your moss on top of the soil and pat it down.
6. Include some fun extras like animal figures, action figures, sticks, or small rocks.



# WHAT HUMANS NEED TO SURVIVE

1ST YOU NEED AIR



2ND YOU NEED SHELTER



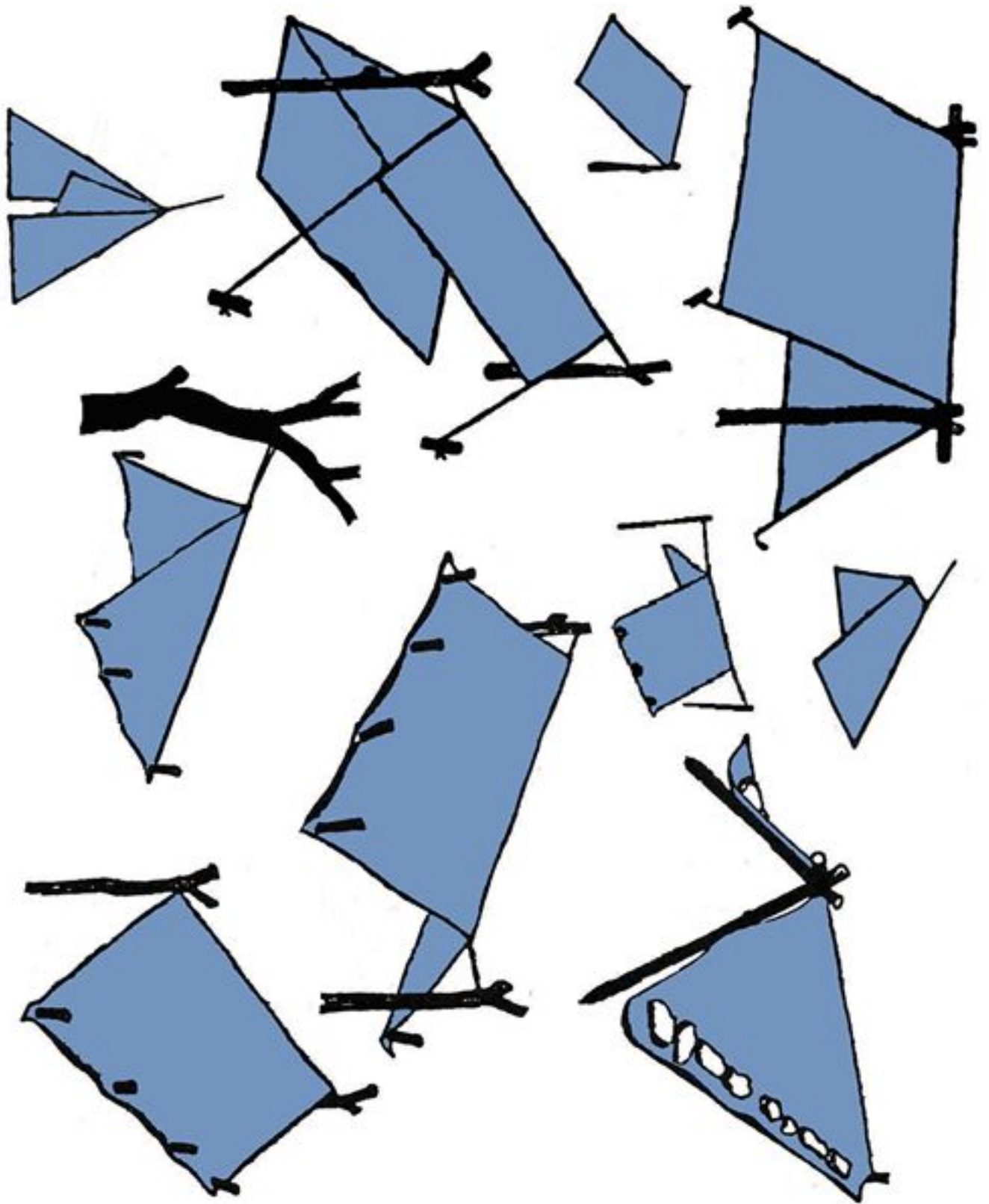
3RD YOU NEED WATER



4TH YOU NEED FOOD







# CAMPFIRE BLUEBERRY-ORANGE MUFFINS

## INGREDIENTS

- Muffin Mix
- Orange or Clementine
- Aluminum Foil

## DIRECTIONS

- Prepare the muffin mix according to the instructions on the bag.
- Have an adult have you start a campfire or preheat the oven to 450 F.
- Cut the orange in half and use a spoon to scoop out the fruit. You can eat this now or save it for later.
- Fill half of the orange with muffin mix. Put the other empty half on top.
- Wrap in three layers of aluminum foil.
- Toss into fire or oven for 10 minutes. Have an adult turn them every couple of minutes.
- Take them out of the fire or oven and let them cool.
- Once cool, unwrap the orange, open it up and enjoy your treat.