

Meeting Trees by Scott Russell Sanders

Geography: Our story does not give the specific location of the story. However, we can make an educated guess as to the general location. The trees and animals mentioned are common to the eastern United States. The author's note at the end tells us that this story represents one walk among the hundreds that he took with his father when he was young. Scott Russell Sanders grew up in Ohio in the Ohio River Valley. Make a story disk and place on an appropriate state. Choose Ohio or perhaps choose another eastern state if you've already covered Ohio.

Social Studies -- Father/Son Relationships: Scott and his father seem to share a special, close relationship. They did woodworking together and took walks together. Scott's father taught him about trees and played games with him. He shared and passed on his love of trees to his son. The author wrote this story as a way to say thank you to his father, for the many walks they took together and for sharing his love of trees. Ask your student to tell you about a person in his life with whom he shares a special relationship.

Writing Project: Have him write a story (or narrate for you to write) to give to that special person, as a way of saying thanks for that person's time and love.

Social Studies -- Uses of Trees: Scott and his father used a board from a walnut tree to make a stool for Scott's grandmother. Scott mentioned that his father made his bed and dresser and desk and that he also made his tree house and some wooden toy trucks. What else do we get from trees? We get paper, fruit (apples, cherries, bananas, pears, peaches), nuts (pecans, walnuts, almonds), spices and flavorings (cinnamon and maple syrup), instruments (guitars, violins, woodwinds), shade, oxygen. Don't forget that animals get homes!

Field Trip: Visit a wood shop and a lumber company.

Occupations -- Dendrologist: A scientist who studies trees is called a *dendrologist*. While Scott and his father were not actual dendrologists, they did study trees very closely. They ran their fingers over the bark, traced the outline of the leaves,

studied the nuts and fruits of the trees, etc. By doing so, Scott and his father learned a great deal about trees. They knew trees the same way they knew friends- "*by their character, their shapes and habits, by where and how they lived. All of that knowledge added up to love.*" (From the author's note at the end.) Tell your student he is going to be a Junior Dendrologist this week.

Language Arts -- Similes: This story has many examples of similes (use *like* or *as* or *seems* to describe.) Go over several with your student. Point out how the similes can help him remember which tree is which! Have him make up his own similes.

smooth gray bark *like* the skin of a hippo
leaves shaped *like* tulips
patchy *as* an old quilt
willow leaves are *like* feathers
leaves of redbuds are *like* valentine hearts
sassafras has leaves *like* mittens
sweetgum leaves look *like* zigzag stars
leaves of white oaks curve up and down *like* roller coasters
maple seeds come spinning down *like* propellers
elm seeds skitter down *like* confetti
buckeye seeds turn shiny and brown *like* the eyes of a deer
leaflets all lined up on their twigs *like* cross-ties on a railroad track

Language Arts -- Word Choice: Mr. Sanders uses words like "*birds twittering, squirrels chattering, and wind whooshing*" "*minnows flickering.*"

The author's choice of words really helps us visualize the scenes. Stories would be very boring if we did not use strong words. Think about which sounds better: the words the Mr. Sanders used or "birds singing, squirrels making noise, and wind blowing." Which word choices help you visualize it? Help your child understand that there are different ways of saying the same thing, and that some ways are better, stronger, more precise.

Activity: Have your student make better word choices for word *walk*. Perhaps: meander, glide, saunter, amble. Now have him try the word *big* or *said*. Now have

him use more precise words for the following sentence: *The small fish swam in the water.* There are many possibilities, but perhaps something like: *The tiny fish darted through the muddy creek.* Have your student try other words or other sentences, until he understands that using stronger words helps a reader visualize better.

Writing Activity: Have your student brainstorm to come up with some strong word choices and then have him use one or two in a sentence.

Language Arts -- Poetry Tie-in: Joyce Kilmer was an American poet who lived 100 years ago. Before he was killed in World War I, he wrote a very famous poem entitled *Trees*. Have your student write or memorize and then recite the poem.

Trees

I think that I shall never see
A poem lovely as a tree.
A tree whose hungry mouth is prest
Against the sweet earth's flowing breast;
A tree that looks at God all day,
And lifts her leafy arms to pray;
A tree that may in summer wear
A nest of robins in her hair;
Upon whose bosom snow has lain;
Who intimately lives with rain.
Poems are made by fools like me,
But only God can make a tree.

With an older student, you may wish to discuss *anthropomorphism*.

Anthropomorphism is when a writer applies either animal or human qualities to an inanimate object. In the case of the poem *Trees*, Joyce Kilmer gave human qualities to the tree. The tree has a mouth and hair, looks up at God, raises its leafy arms to pray, etc. Have your student write something using anthropomorphism. (e.g. The craggy-faced mountain with the snow white hair looked down upon the others.)

Art -- Nature Journal: Give your student a sketchbook (or make one by three-hole

punching copy paper and putting a pretty cover on it and tying yarn through the holes). Let your child draw different trees, leaves, fruit, and animals he sees. Let him study a leaf, a twig, and a pinecone up close and draw it.

Art -- Bark & Leaf Rubbings: Remove the paper from a couple of crayons (maybe brown for the bark and green or fall colors for the leaves). Gather several sheets of plain white paper (printer/copy paper works great). Have your student hold the paper onto a tree and gently rub the crayon (lengthwise) over the left side of the paper. An impression of the bark will come through. Next take a leaf from the same tree and lay it under the right side of the same sheet of paper and do a leaf rubbing in the same manner. Write the name of the tree on the paper with its rubbings. When possible, have the student include the similes used in the story. Repeat with several trees--each on a separate sheet of paper. Punch the papers, make a pretty cover, and tie yarn to hold it together to make a pretty tree book.

Math -- Circles, Circumference, Diameter, and Pi π :

Gather supplies: paper, yarn, a drinking glass or similar object for a small circle, a small bowl or similar object for a medium circle, and a large bowl or similar object for a large circle.

Ask your student to name the shape of a tree's trunk (circle). Tell your student that today we're going to learn something very special about circles. Draw a circle on the board.

The *circumference* of a circle is a measurement of the outside edge of the circle. If your student has already learned about perimeter, tell him that circumference is like perimeter, only we have a curved object and not a straight one. If we draw a straight line across the middle of the circle, that is called the *diameter* of a circle. Measuring the diameter is easy because we can just use our ruler. But how are we going to measure the circumference? Discuss ideas. Praise him if he comes up with the idea laying a string/yarn around the circle.

Have your student carefully trace an upturned glass on a piece of paper. Help him draw a line straight across the middle of the circle. Take a piece of yarn and lay it

around the edge (the circumference) of the drawn circle. Carefully cut it to the correct size. Now take the cut yarn and lay it out flat. Have your student measure it. Record the measurement. Take a new piece of yarn and place it over the middle line (the diameter). Cut it to size. Have your student measure it and record the measurement on a piece of paper.

Now have your student take his diameter string and use it to measure the circumference string. It should take a little more than three times.

Now repeat the process two more times using the two bowls (medium and large). Your student record all of his information. It should take a little more than 3 diameter lengths to equal the circumference.

Help him understand that no matter what size the circle is, that when you use that circle's diameter, it will always take a little more than three diameters to equal the circumference.

Didn't God make circles special! How cool! When man discovered this nifty little trick, he gave it funny name: *pi* which is said just like the dessert we eat (pie). Write the pi symbol on the board π and explain that we use that symbol to represent a little more than 3.

Have him answer the question on the worksheet. (Answer: It always took the same number of diameters to make the circumference, a little more than 3.) Have him draw the π symbol at the bottom and label it as pi.

With an older student (one who has been introduced to decimals already) you may wish to explain that pi is a number that, when carried out to 5 digits, stands for 3.14159. Also discuss how the numbers after the decimal place NEVER repeat!!! (That makes it an irrational number.) Pi Day.org claims that pi had been carried out (with the help of computers) to the 51 billionth place and it still does not repeat!!! Wow!

Math go-along book: *Sir Cumference and the Dragon of Pi* by Cindy Neuschwander
Find a unit study for this book on Homeschool Share.

Note: If you are doing this unit during the time period that includes March 14th

(3/14, 3-14, or 3.14), you may wish to wish your student Happy Pi Day and serve him a little more than three rings (circles) of *pine*apples for breakfast, snack, or dessert! Could also serve any kind of *pie* (if you make a two-crust pie, take out a bit of the crust dough and form it into the shape of pi and place on the top crust before you bake it).

Health / Safety: Before going out into the woods, be sure you and your child know how to identify Poison Ivy, Poison Oak, and Poison Sumac. Poison Ivy generally has 3 leaves and grows more in Eastern States. Its new growth is often tinged red and its leaves turn red in fall. Poison Oak also has 3 leaves (which resemble an Oak tree's leaves). It grows more in Western States. Poison Sumac has 7 to 13 leaves, each having a red vein. It likes to grow in swampy, wet areas.

Another plant, Jewelweed, often grows near Poison Ivy and the juices of it will help sooth your skin if you do get Poison Ivy. So if you get into Poison Ivy, look around for Jewelweed, open the stems, and rub some of the juices on. Indians used it not only for Poison Ivy, but also mosquito bites. It is also known as Touch-Me-Not. (You may wish to pick several stems and place them in a freezer bag for later use.)

Also be sure your student knows not to put Pokeweed berries in their mouth!

Learn the Poison Ivy Poem:

Leaves of three? Let it be!
Berries white? Take flight!
A hairy rope? Don't be a dope!

Two myths about these plants.....*I've touched it before and didn't break out, so I'm immune to it* and *It's dead, so it's OK to touch*. Neither statement is true. You can develop an allergy to anything at any time in your life. And the poison in these plants can last up to 5 years, even if the plant is dead.

Science -- Woodland Animals: Several are mentioned in the story. Here is a list:

Swallowtail Butterfly

Owls
Bats
Mice
Robin
Squirrels
Crayfish
Minnows
Argiope spider--black & yellow (garden spiders)
Luna Moth Caterpillar
Cedar Waxwing (not mentioned in story but shown on page with the squirrel and deer)

Have your student choose a couple animals that he is less familiar with to research, draw/color, and learn more about.

Classification & Writing Activity: Have your student classify and then write out the list of the animals mentioned in the story in his best handwriting. Or, if you are keeping an index card file for animal classification (as recommended in *Five in a Row*), add any animals not currently on file. Use the cards to classify the animals from the story in various ways.

Science -- Trees: Several are mentioned in the story. Here is a list:

Walnut	Willow	Elm
Dogwood	Redbud	Mulberry
Beech	Sassafras	Holly
Yellow Poplar	Red Pine	Buckeye
Shagbark Hickory	White Pine	Persimmon
White Birch	Sweetgum	Black Walnut
Sycamore	White Oak	Northern Red Oak
Wild Cherry	Maple	Southern Red Oak

Writing Activity: Make an alphabetized list of those mentioned in the story. Or have the child use this form to note where these trees would fall within a dictionary.

Classification & Writing Activity: Discuss with your student that just like animals, trees can also be classified. They are either an *evergreen* or a *broadleaf*. Most

evergreen trees--the ones whose seeds are inside cones--are also known as *conifers*. Evergreens do not have leaves that drop each fall. Instead they usually have thin needles. Broadleaf trees have flatter, wider leaves. And they usually have leaves that drop in the fall and new ones that grow in the Spring. Trees that drop their leaves in the fall are known as *deciduous* trees.

Parts of a Tree:

The upper part of the tree is called the *crown* or the *canopy*.

The *trunk* is the main support for the tree.

The *branches* (or *limbs*) come out of the trunk.

The *roots* are usually underground and are how the tree gets its food and water.

The *bark* is the outer protective part of the trunk.

The *inner bark* (or *phloem*) carries the food to the other parts of the tree.

The *cambian* is a single layer of living cells between the inner bark and the sapwood. The cambian makes the inner bark and the sapwood.

The *sapwood* is between the cambian and the heartwood. Each year, the cambian makes a new layer of sapwood and this is what makes the rings that we count to get the age of a tree. The sapwood carries water and some nutrients to the tree.

The innermost part of a tree is called the *heartwood*. It is the core of tree. It is old, dead sapwood and it is very strong.

Oak Trees:

If desired, use the printables provided to learn more about oak trees.

Identification Activity: Discuss with your child about how we identify trees. We use the bark of the tree, the shapes of the leaves, the fruit they give, etc. to help us figure out the kind of tree we are looking at. Go for a walk in the woods and "meet trees." Study the bark. Look at the leaves. Is there any fruit? Use these to help you identify the tree. Take along the storybook or a field guide. Or come back and use one of these websites to help you identify.

If you can, go out into the woods several times, until you can play the same game

that Scott and his father played (asking your student to find a particular tree by describing something about it.) Remember to use some of the similes from the story! Do this during different seasons as well.

One thing I like to do is collect a nice specimen of various kinds of leaves. Snip off any stems. Take these somewhere to be laminated. This is especially nice if you can use the thicker laminating plastic. Cut around the shape of the leaf, but leave a decent edge so as not to have any open air pockets. Then use a Sharpie and write the name of each tree on each leaf. They can then be used like flash cards to help your child learn to identify by leaves.

Field Trip: Go to a Nature Center or an Arboretum and have a guide tell you about the different trees and how to identify them.

Opening and Closing Pinecones

pinecone

oven preheated to 250 degrees

Bucket of cold water

Place the pinecone in the bucket of cold water. Check your pinecone in an hour. Has it made any changes? Record what you observe on a sheet.

Place the pinecone in an oven that has been preheated to 250. Check your pinecone in an hour. Has it made any changes?

Record what you observe. If you find a seed deep inside your pinecone, why not plant it and grow a tree inside?

Bible

There are many trees mentioned in the Bible. Choose one or two to discuss with your child.

The Tree of the Knowledge of Good and Evil: Read Chapters 2 and 3 of Genesis. This tree was in the middle of the Garden of Eden, from which it was forbidden of Adam and Eve to eat.

The Tree of Life: Mentioned in Genesis 2:9 and Rev. 22. The fruit of this tree gives everlasting life.

Cedars of Lebanon: Mentioned over 70 times in the Bible.

Tree of Jesse: The family tree of Jesus. (If you do a Jesse Tree for Advent, discuss it now.)

"*The Tree*" another name for The Cross of Calvary. (Acts 13:29, 1 Peter 2:24)

Have your older student research one of these Biblical trees further and write about he has learned.

Memory verse:

Psalm 1: 1-3

Blessed is the man
that walketh not in the counsel of the ungodly,
nor standeth in the way of sinners,
nor sitteth in the seat of the scornful.
But his delight is in the law of the LORD;
and in his law doth he meditate day and night.
And he shall be like a tree planted by the rivers of water,
that bringeth forth his fruit in his season;
his leaf also shall not wither;
and whatsoever he doeth shall prosper.

Singing Hills and Mountains and Clapping Trees?!?: Did you know that the Bible mentions a time when the trees will clap and the hills and mountains will sing?!? Read Isaiah 55:12.

For ye shall go out with joy,
and be led forth with peace:
the mountains and the hills shall break forth
before you into singing,
and all the trees of the field shall clap their hands.

Other Ideas and More Resources

Leaf Paintings: You can choose to put leaves down on a paper and the splatter

paint over and around it, so that when you carefully take the leaves off you have an outline of the leaf in white (or whatever color your paper is). Or you can put the paint directly on the leaf and place it on the paper and when you carefully take the leaf off, you have a colored leaf shape. When my youngest was in preschool, they painted the leaves and placed them on a white t-shirt and then splatter painted around them. When that was dry, they used a Sharpie and wrote the names of each tree on their leaves. They also did the back of the t-shirt. This could be a fun end-of-unit activity...and a great souvenir for your unit!



Edible Forest Plants: Discuss edible forest plants and use some in cooking. Enjoy some sassafras tea or make a hickory nut cake.

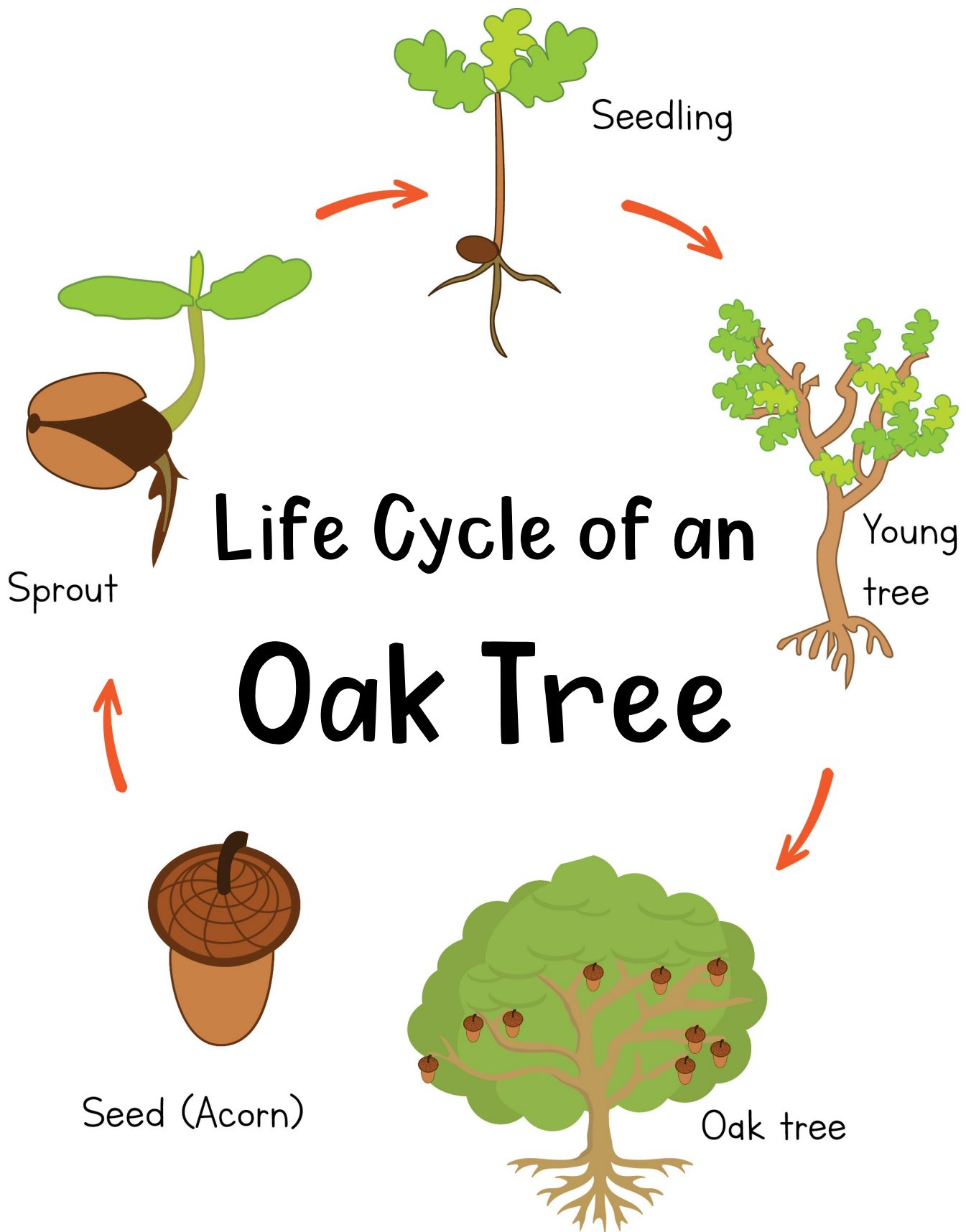
Plant a tree seedling! Arbor Day is the last Friday of April, but you can plant one anytime except winter (though the best time is Spring and Fall)

State Trees: Each state has its own special tree. Have your student make a list of states he likes and look up and write down what each state's tree is.

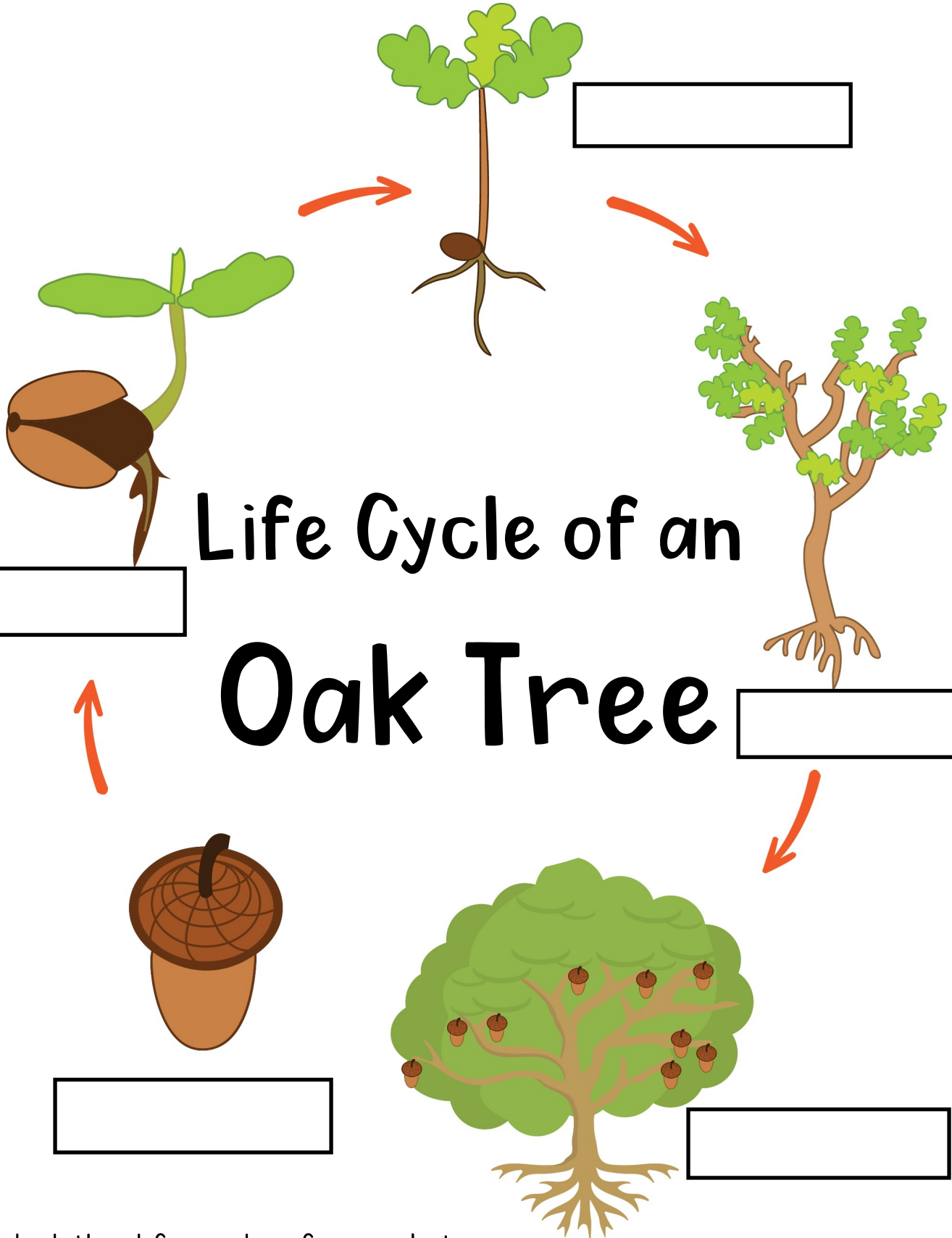
More Tree Math: Have your older student research to learn how a tree's age can be determined without cutting it down and counting the rings (hint: use the tree's diameter.) Also have him research to learn how the height of a tree can be found without climbing the tree and sending a tape measure down to the ground (hint: shadows or yardsticks or hypsometer).

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Life Cycle of an Oak Tree



Life Cycle of an Oak Tree

Label the life cycle of an oak tree.

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Acorn Observations

Directions: Gather acorns and complete the activities.

Find the biggest acorn.

Draw it.



Find the smallest acorn.

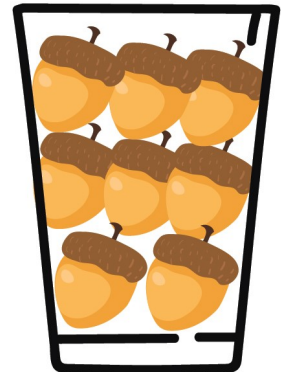
Draw it.



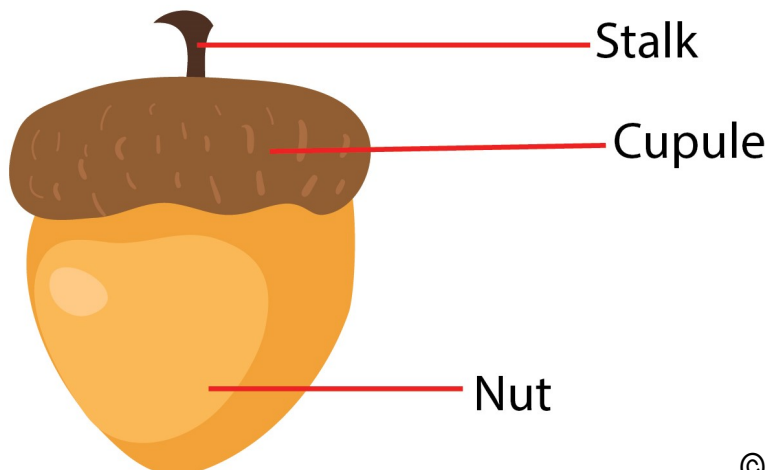
Can you make a pattern?



How many acorns fit in a glass?



Can you find the different parts of an acorn?





Acorn Word Find

A	C	O	R	N	B	G	V	H	A
H	E	A	M	K	P	P	L	A	U
R	O	K	W	Q	A	P	O	T	Y
S	Q	U	I	R	R	E	L	N	L
T	U	N	J	F	X	N	U		
D	B	R	O	W	N	S	T		
I	E	D	N	H	C				

Find these words:

ACORN

BROWN

SQUIRREL

HIDE

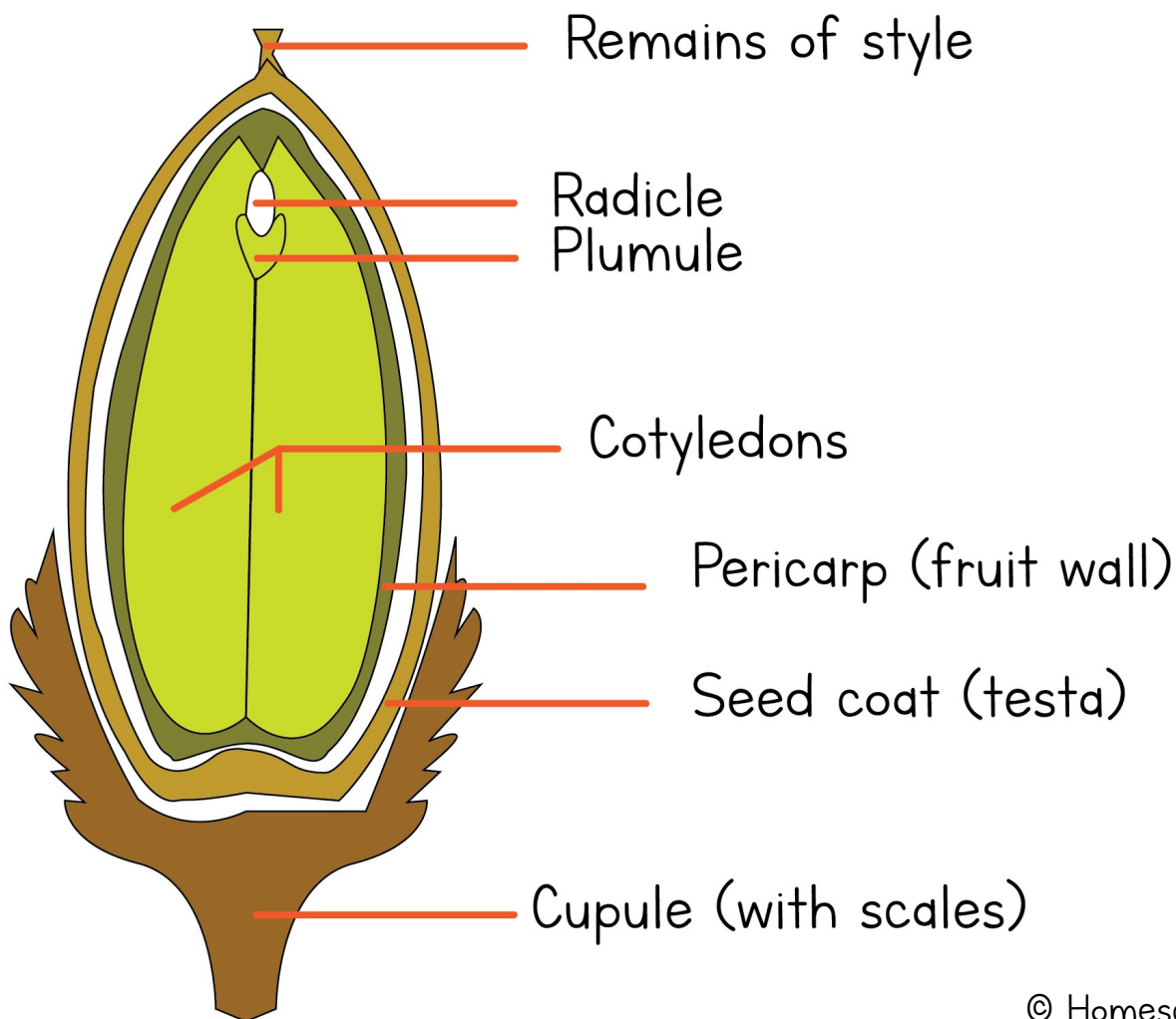
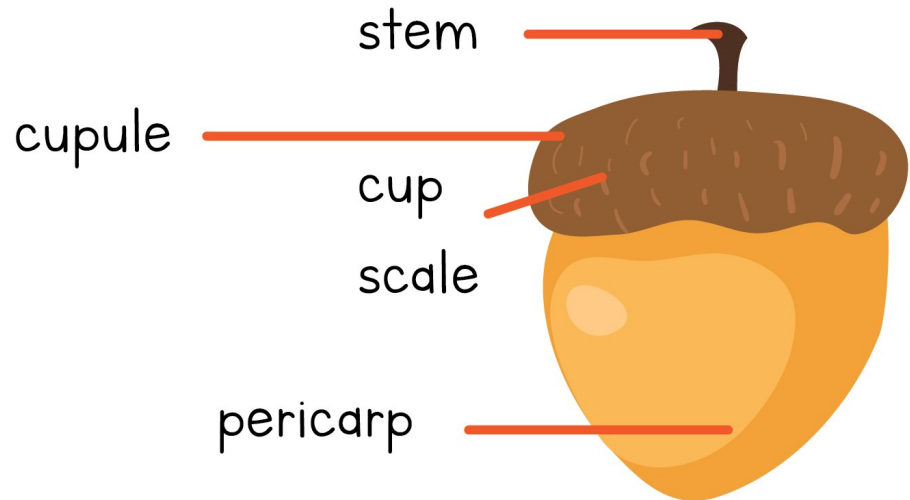
TOP

OAK

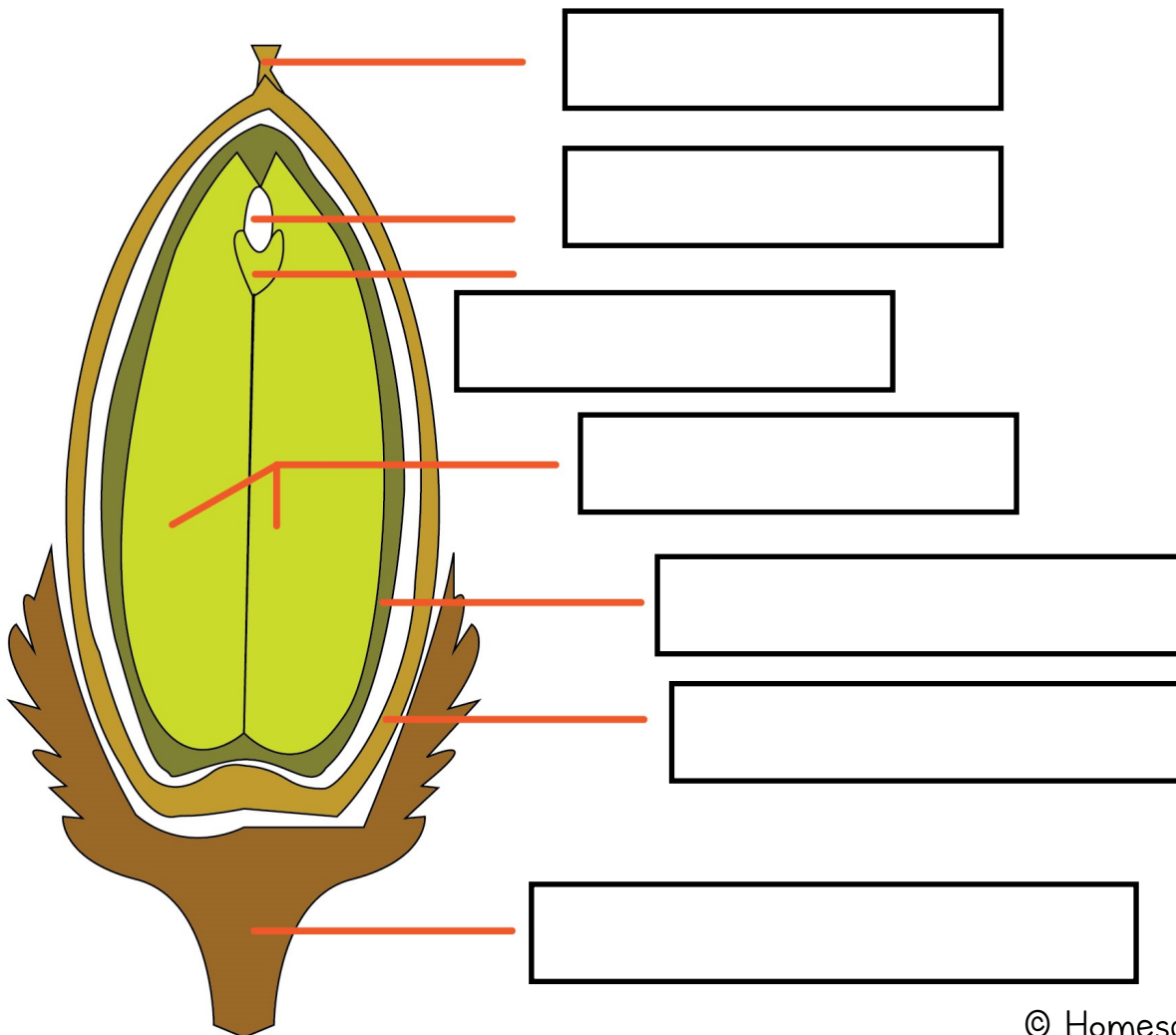
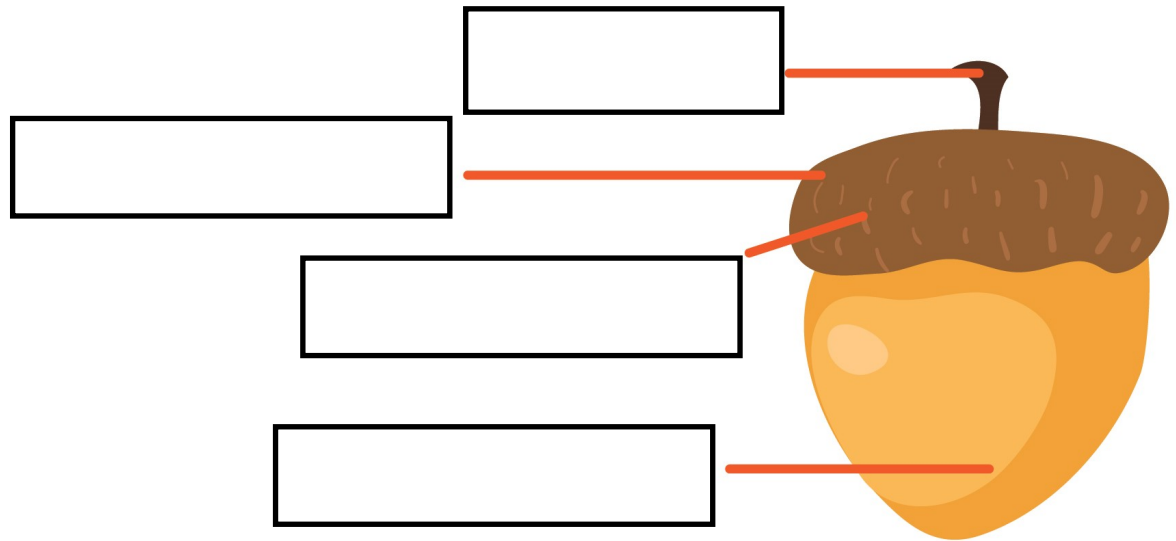
NUT

HAT

Acorn Anatomy



Label an Acorn



Oak Seedling

