

# Tree-mendous 2<sup>nd</sup> GRADE

## Trees



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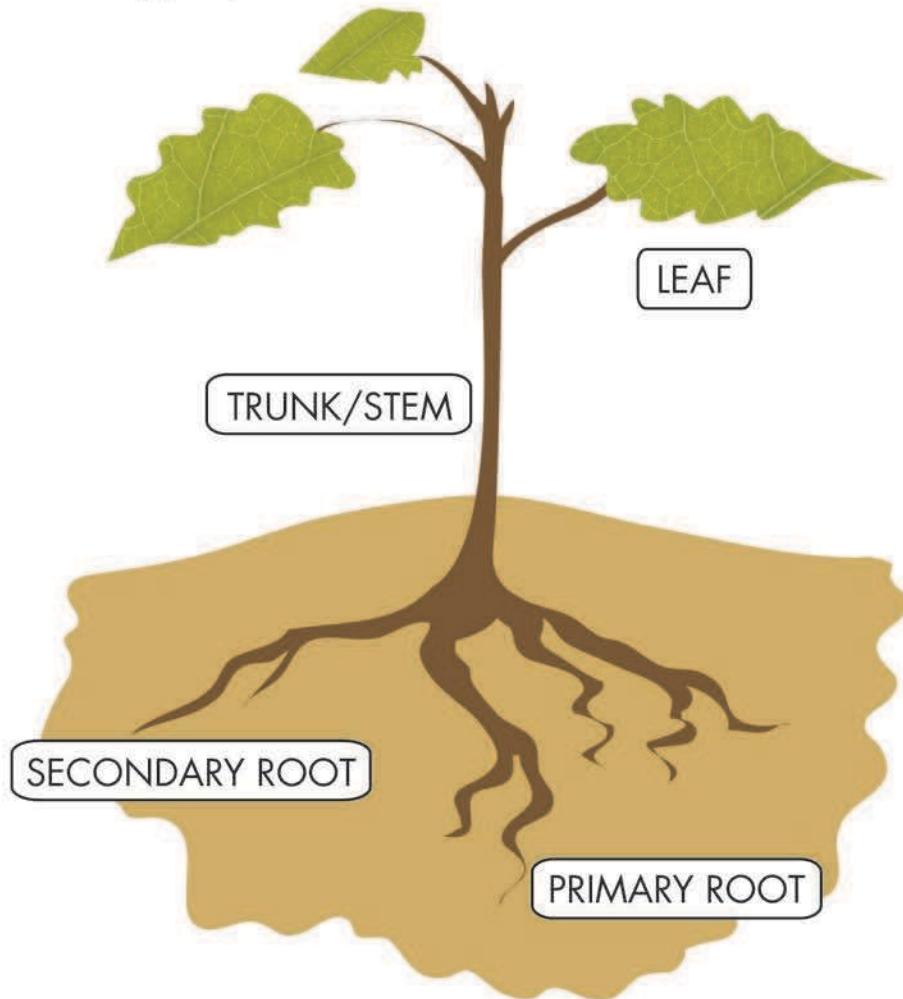
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*Certificate of Completion*

## Parts of a Tree

Trees have different parts that serve their own special functions. The **primary root** of the tree is the thickest. It holds the plant in the soil and takes in water and nutrients.. The **secondary root** branches from the primary root. It helps support the tree, and also takes in water and nutrients from the soil. A tree's **leaves** use light and energy from the sun to make sugar and carbon dioxide to feed the plant. Lastly, the stem or **trunk** keeps distance between the leaves and the soil while carrying nutrients from the roots to the upper parts of the tree.



I take in lots of water from the soil and hold the tree firmly in place. I am the...

I keep distance between the leaves and the soil, while delivering food. I am the...

I use light and heat to make food for the rest of the tree. I am the...

I assist the larger root in supporting the tree, as well as taking in water. I am the...

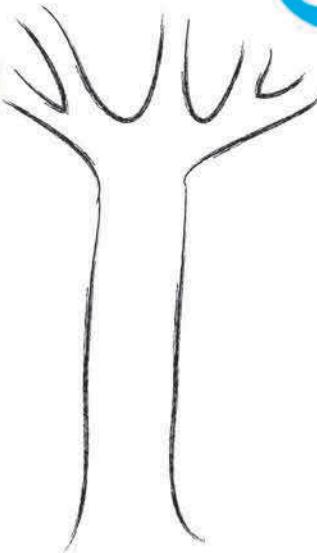
## HOW TO DRAW A TREE

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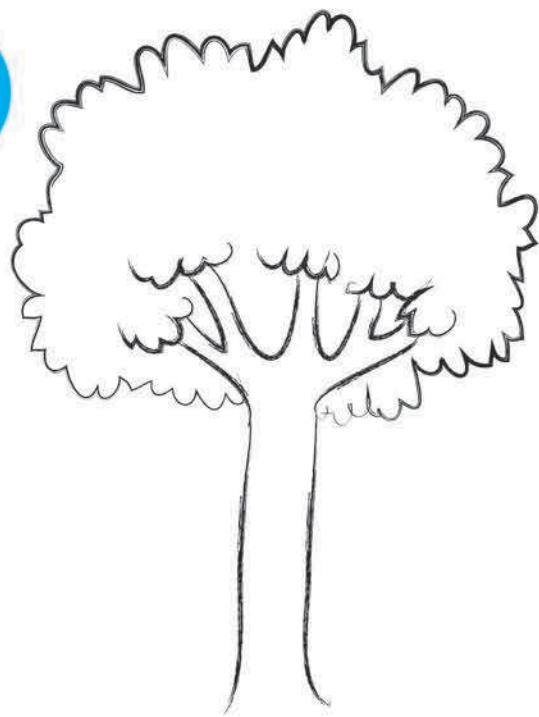
Follow these easy steps to turn a couple of lines into a lush apple tree.



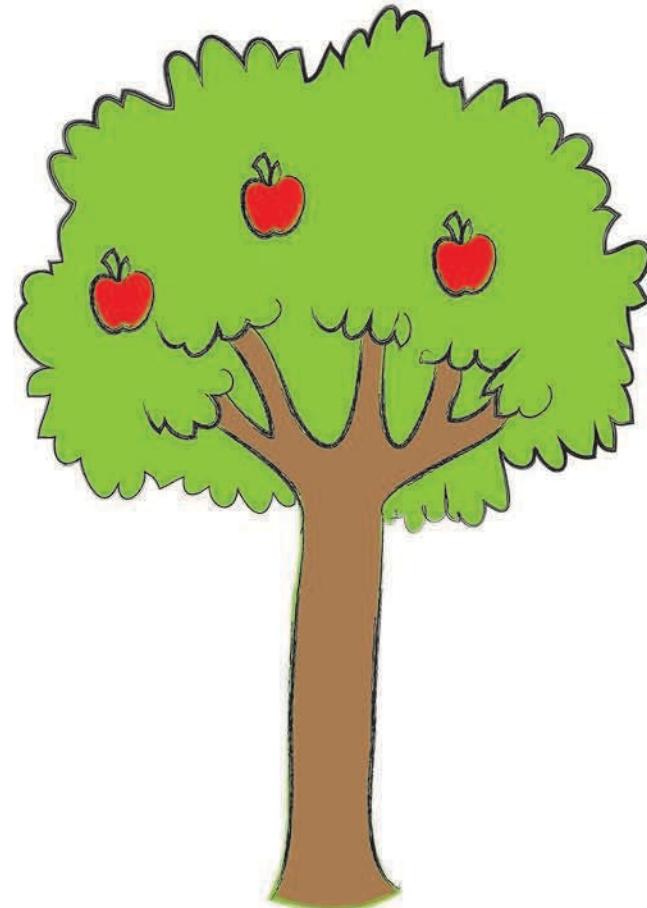
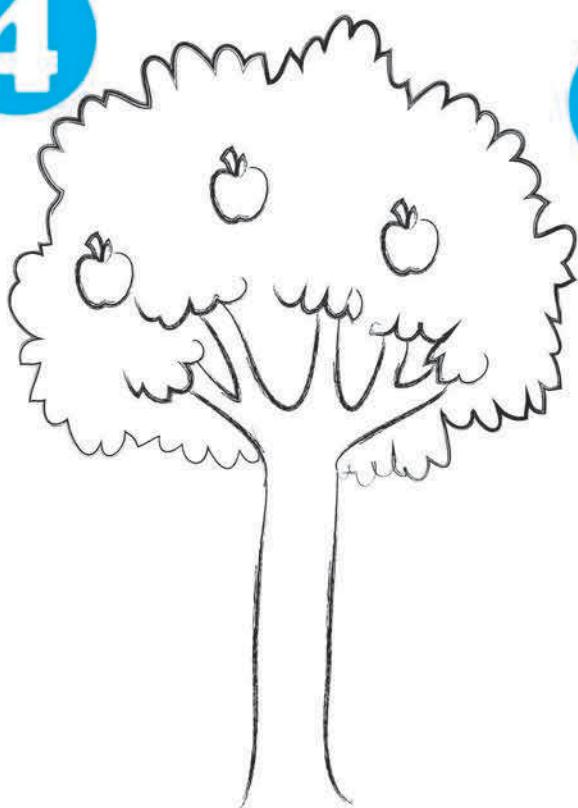
Start by drawing the trunk.



Next, add some branches.

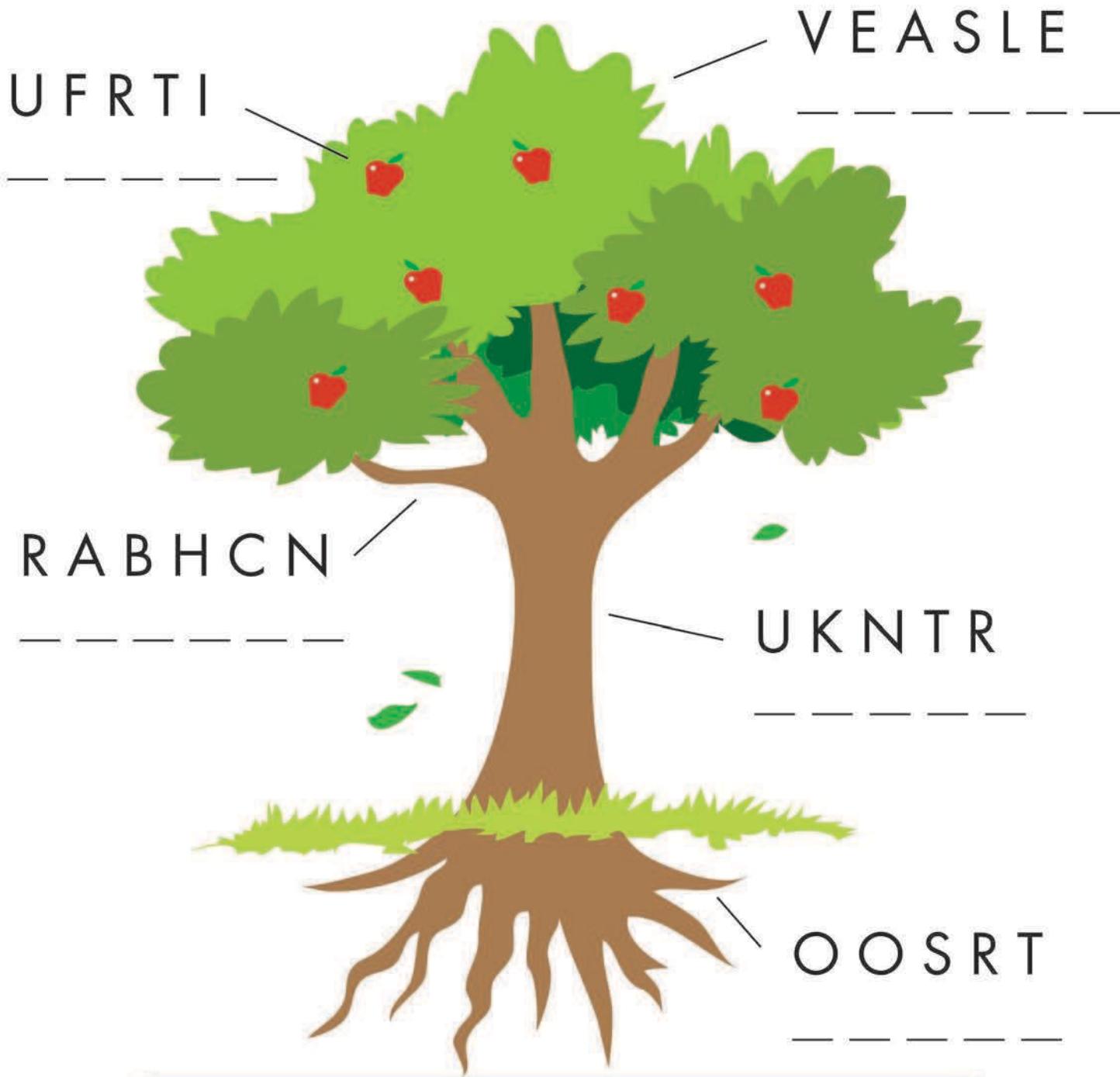


Then, add the leaves.



## TREE SCRAMBLE

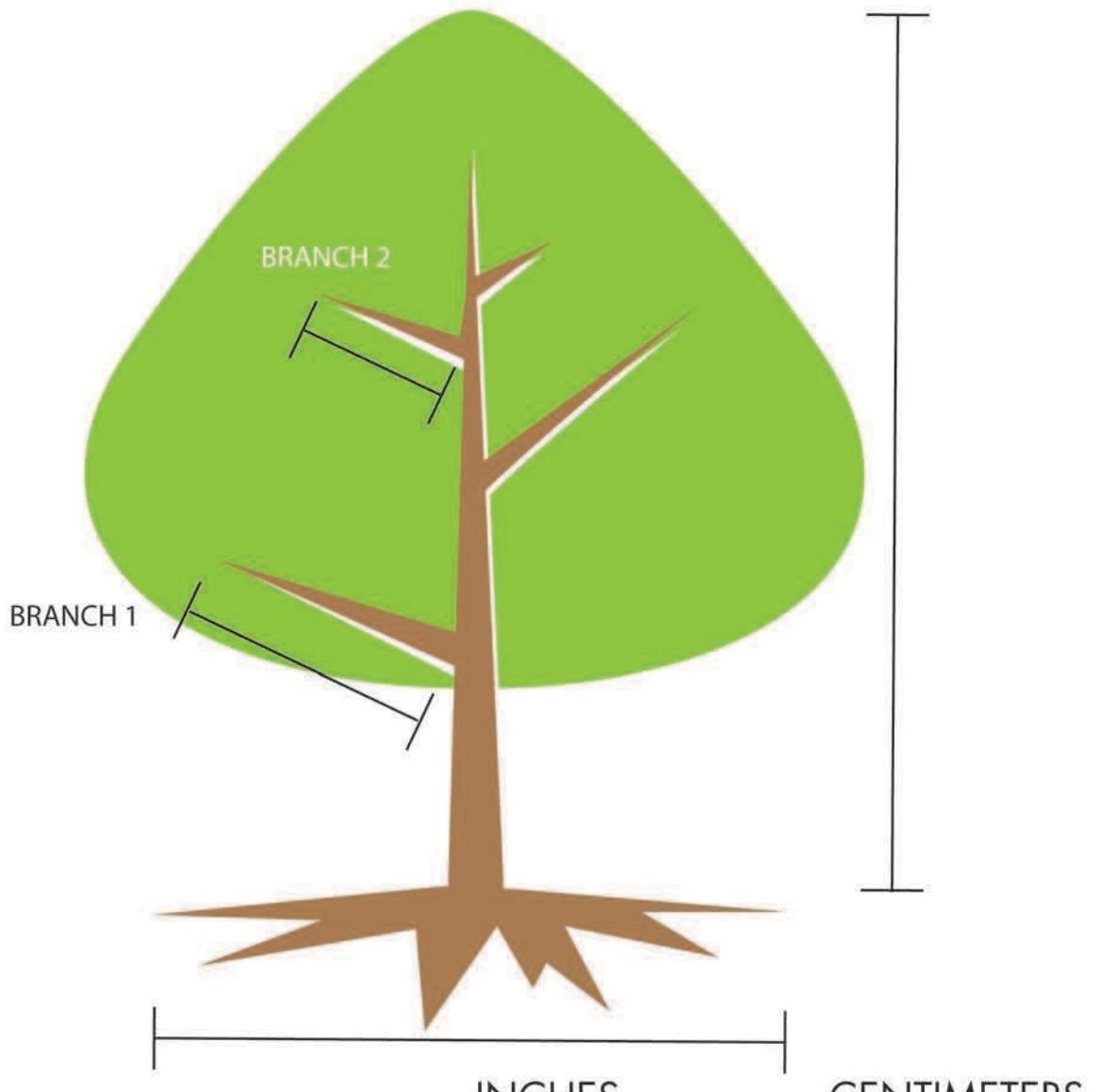
Unscramble the letters to reveal parts of a tree. You can experiment with different words from the box below.



BRANCH	LEAVES	STUMP	GRASS
FRUIT	NEEDLES	TALL	NEST
THORN	ROOTS	GREEN	TRUNK

## TREE MEASURING

Use a ruler to measure this tree. First, write down your estimate of the length to the nearest inch and centimeter. Then, use a ruler to perform a more accurate measurement, again rounding to the nearest inch or centimeter.



	INCHES		CENTIMETERS	
	estimate	exact	estimate	exact

How tall is the tree?

_____	_____	_____	_____
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How long is branch 1?

_____	_____	_____	_____
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How long is branch 2?

_____	_____	_____	_____
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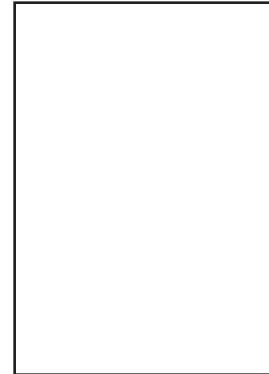
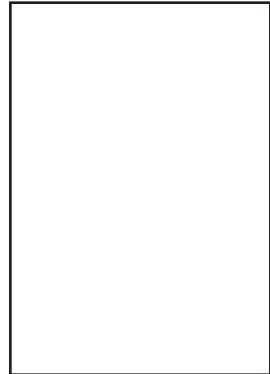
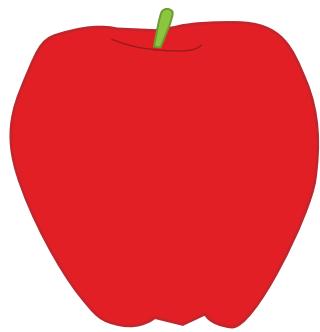
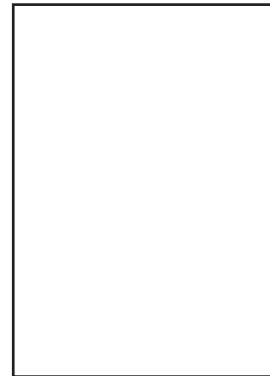
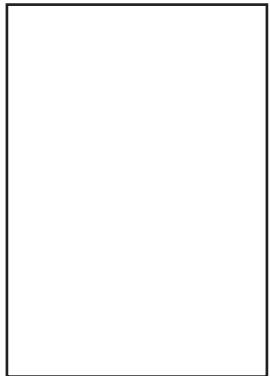
How wide are the tree's roots?

_____	_____	_____	_____
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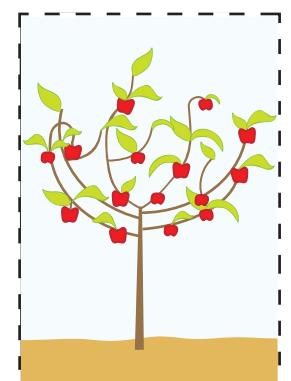
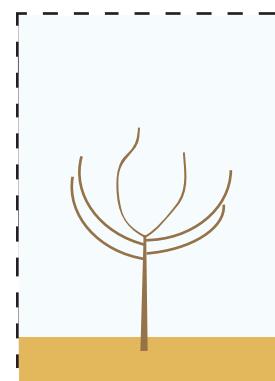
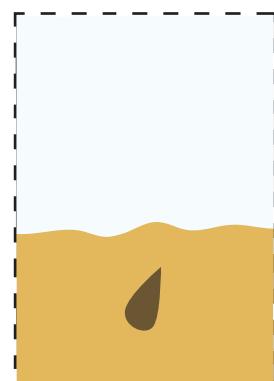
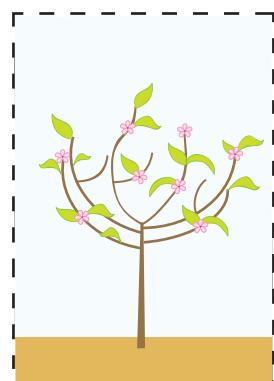
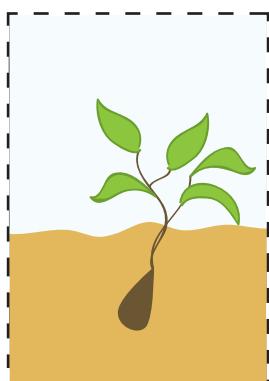


# How Do Apples Grow?

Some apple trees will grow over 40 feet high and live over 100 years!



CUT OUT THE PIECES AND PASTE THEM IN ORDER OF GROWTH



# A TREE FOR ALL SEASONS

Some trees keep green leaves or needles all year long. These types of trees are called evergreens. Other trees have leaves that change, depending on the amount of sunlight they receive and the temperature that surrounds them. Trees that lose their leaves will shed them during the cold and dark winter months. During the spring, new leaves grow, and they are green in the warmer climate. They continue to sway in the breeze during the warm and sunny summer months. When fall arrives and the sun is not shining quite as bright, the leaves will change color.

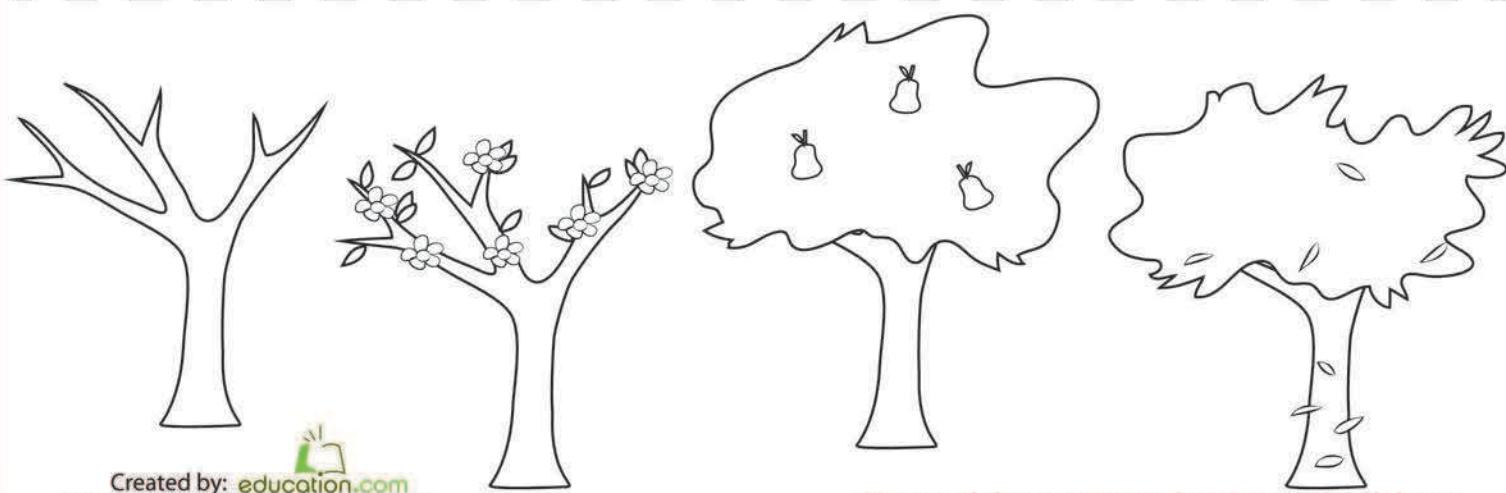
**Directions:** Color the pictures below. Cut out the pictures and paste them into the box with the correct season.

SPRING

SUMMER

FALL

WINTER

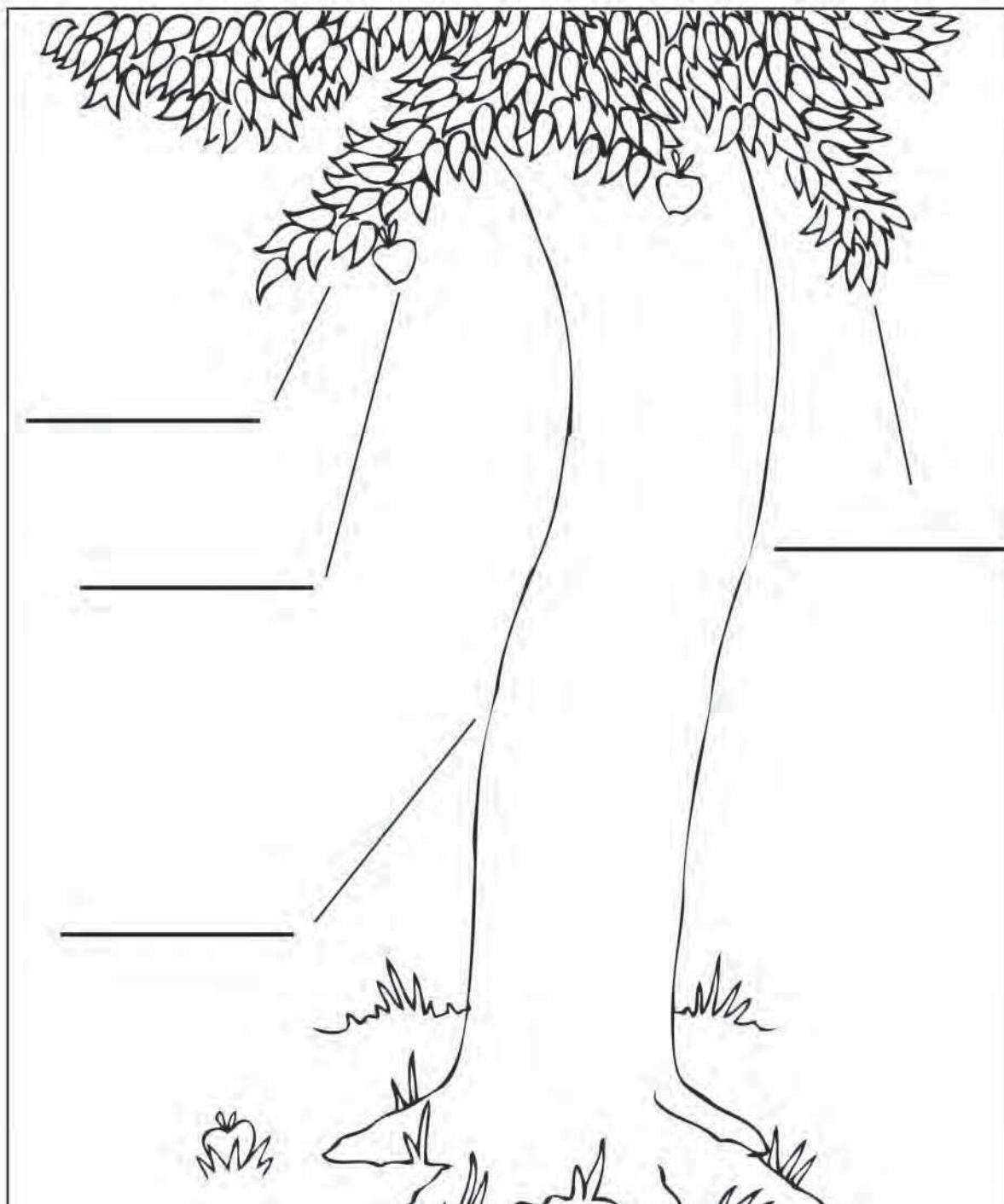


## THE GIVING TREE

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Directions: After reading *The Giving Tree*, see if you can remember all of the parts of the tree that the boy enjoyed. Use the word bank to help you label the parts of a tree. Then, color the tree.

You can also listen to *The Giving Tree* being read by the author, Shel Silverstein here: <http://www.youtube.com/watch?v=1TzCP60qRIE>



## THE GIFTS OF THE GIVING TREE

In *The Giving Tree* by Shel Silverstein, how did the boy use these gifts from the tree?

Apples \_\_\_\_\_

Leaves \_\_\_\_\_

Trunk \_\_\_\_\_

Branches \_\_\_\_\_

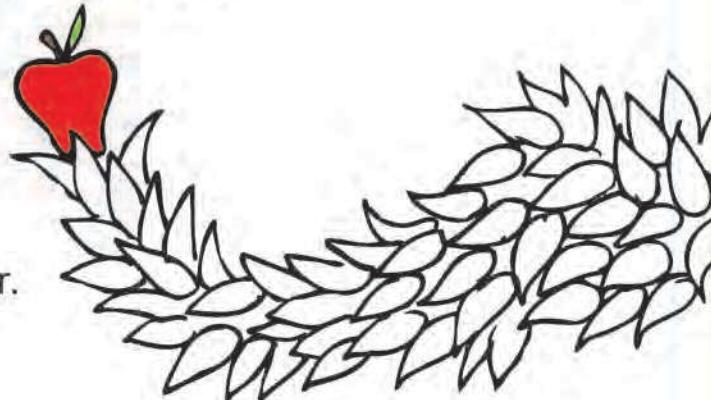
Shade \_\_\_\_\_

Can you think of other gifts we get from trees?

Example:

From the fruit of the tree, we get jam.

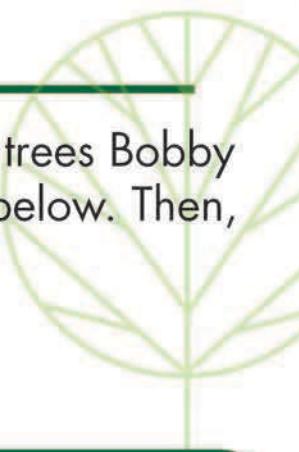
From the trunk of the tree, we get paper.

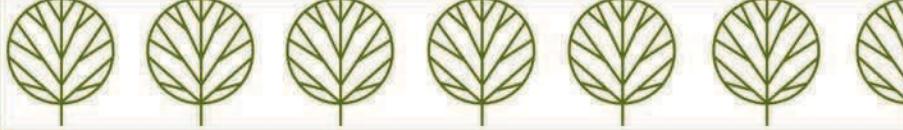
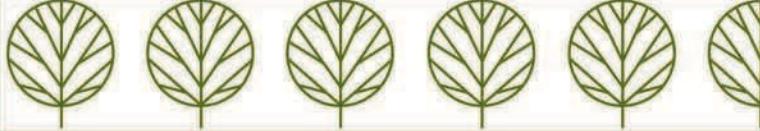


# GROWING TREES

Trees are important natural resources. Find out how many trees Bobby planted in the past few weeks by reading the pictograph below. Then, answer the questions.

Note: each tree in the pictograph stands for 2 trees.



WEEK	NUMBER OF TREES
WEEK 1	
WEEK 2	
WEEK 3	
WEEK 4	
WEEK 5	



= 2 trees

1. What does this symbol represent?

2. How many trees did Bobby plant in week 3?

3. In which week did Bobby plant the fewest trees? How many did he plant that week?

4. In which week did Bobby plant the most trees? How many more did he plant in that week than in week 1?

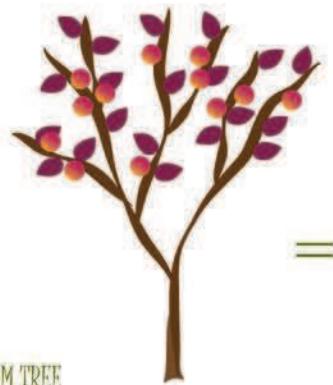
5. Draw symbols to represent 5 trees.

## TREE TREATS

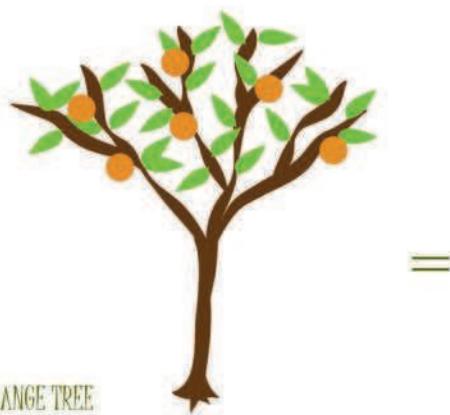
Trees provide many things for us. Draw one snack or food item that is provided by each type of tree that you see below.



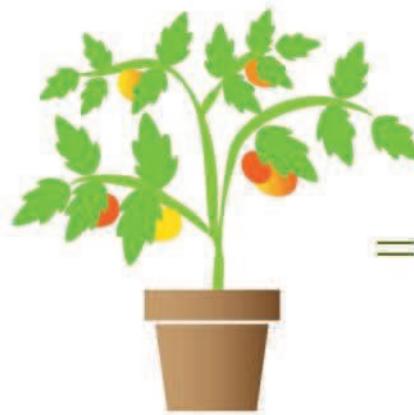
APPLE TREE



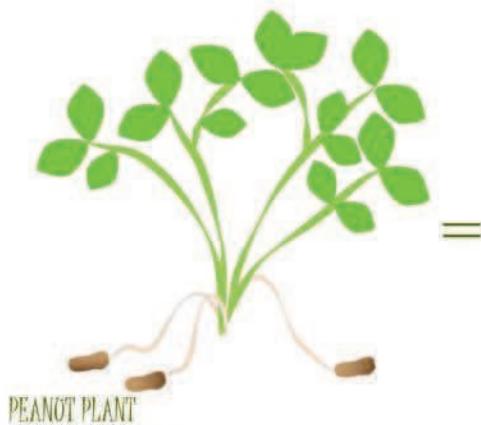
PLUM TREE



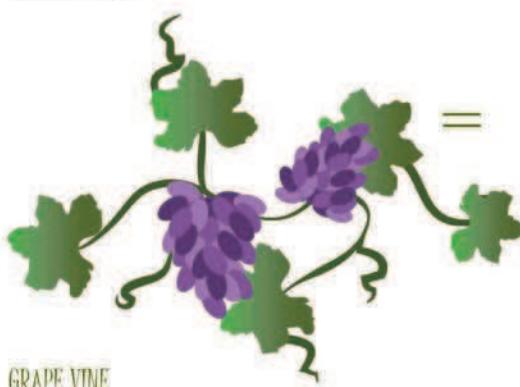
ORANGE TREE



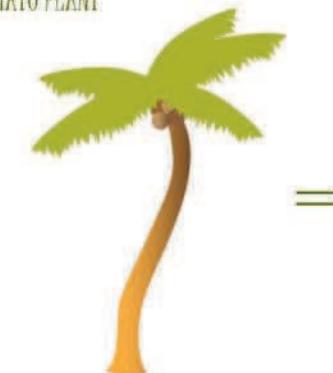
TOMATO PLANT



PEANUT PLANT



GRAPE VINE



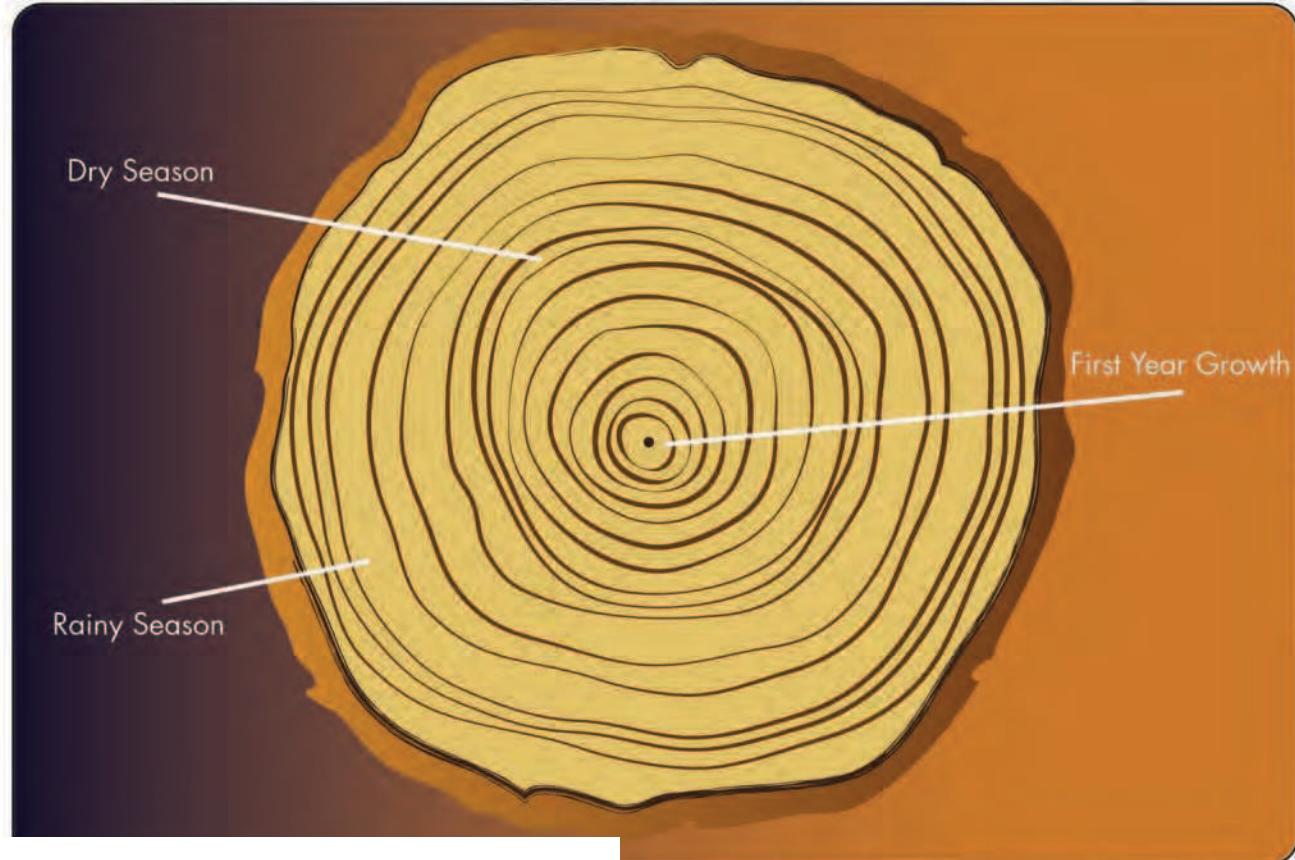
COCONUT TREE

## READING TREE RINGS

Every year a tree grows, new layers of bark are formed. For each year the tree has been alive, a ring can be seen in the cross-section of the trunk. New bark grows in the spring and summer months. In the spring, wood grows faster and is lighter because the bark is made of larger cells. In the summer, wood grows slower, darker, and is made up of small cells. This is seen in the cross-section of a trunk; there are light and dark rings!

The rings may appear larger on one side of the tree; this is because there might have been something next to the tree, causing it to lean to one side. The tree had to grow extra bark on the side being leaned on to compensate for the extra weight. Lastly, you can see how good the rainfall and sunshine was for the tree in a given year by inspecting how the rings are spaced out. If the rings are far apart from each other, then the tree was well-nurtured that year.

Below is a diagram of a tree who has seen a few years. Can you tell how old it is?



## READING TREE RINGS

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Use what you've learned to create a set of tree rings with a history of your own. Consider what you've learned about telling how old a tree is, what kind of weather it received, and whether or not it leaned to one side or another.



## HOW OLD IS THAT TREE?

### What You Need:

- Tree
- Measuring tape
- Marker
- Pen
- Paper
- Helper

### What You Do:

Help your child find a tree that is at least as tall as a grown up and have your child wrap the measuring tape around the widest part of the trunk. (A grown up might need to help with this part!) The distance around the trunk of a tree is called the circumference. Write this measurement down on a piece of paper.



The measurement of the circumference in inches is also the approximate age of the tree in years!

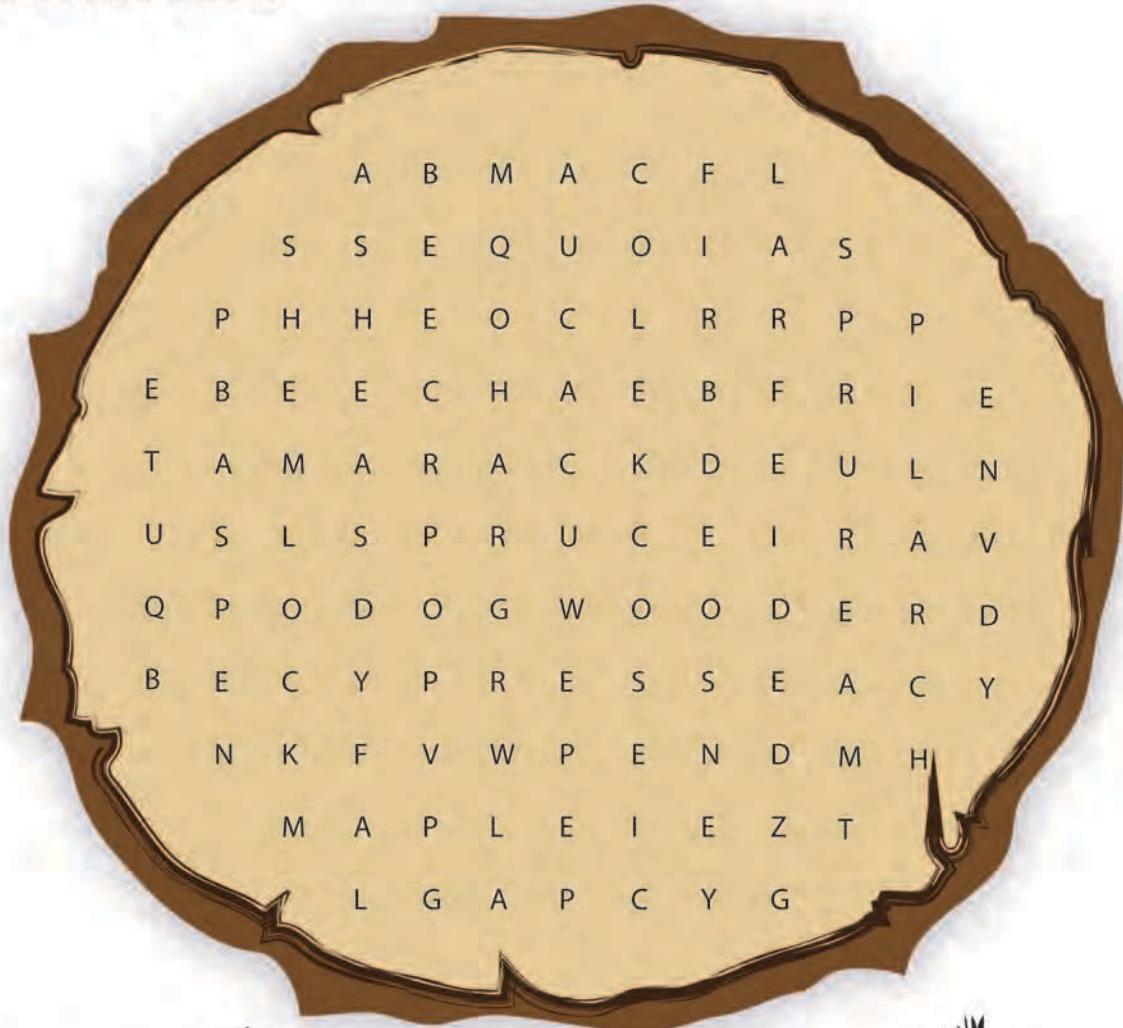
### Did You Know?

Every year a new layer of growth occurs just under the bark. Some trees like firs and redwoods may grow more than this in a year, while others like cedars may grow less. This method is a good rule of thumb to estimate the age of a tree.

## TREE STUMP WORD SEARCH

Trees are separated into two categories: coniferous and deciduous. Conifer trees have long, thin needle leaves, and bear cones (pinecones!). Deciduous trees have broad leaves that change color with the seasons.

Try to find different types of coniferous and deciduous trees hidden in the word search below.



Deciduous



Ash

Dogwood

Coniferous



Aspen

Maple

Cedar

Pine

Beech

Mulberry

Fir

Sequoia

Cypress

Oak

Larch

Tamarack

# SORTING AND ORDERING TREES!

## What You Need:

4-5 different-sized leaves

12" x 18" construction paper or two 8.5" x 11" papers taped together

Glue

## What You Do:

Take a nature walk. Gather four or five of your child's favorite colored leaves from a park or your backyard. If you live in a four-season climate, take advantage of the brilliant crimson, gold, and brown leaves. If you live in an all-year sunny climate, just collect interesting leaves of various types and sizes.

When you get home, spread the leaves around your work table. Point out the different sizes of leaves to your child, small, medium, and large. Ask her to put the leaves in piles of small, medium, and large. For very young kids, you can sort into just small and large leaves.

Put your large piece of construction paper on the table. Tell your child she can line the leaves up from smallest to largest. Have her put the smallest leaf to the left and the biggest leaf on the right side of the paper. Continue asking her questions such as "Which leaf comes next? Which leaf is the next biggest?"

Once she has them lined up correctly, show her how to make small dots of glue on the backs of the leaves. She can then glue the leaves on the paper from smallest to largest. (Make sure she glues them back on in the right place.) Have her write her name on the paper and lay it aside to dry.

When it's finished, you now have a wonderful, autumn leaf collection to hang on your wall as a decoration. Refer back to this helpful visual whenever you ask your child questions about relative size. You can also use it to discuss with her the four seasons and how the trees change with each season.



# LEAF CHART

## ACTIVITY: LEAF WALK

Go for a walk with an adult and collect 10 leaves with different shapes. Once you're back home, use this chart to figure out what type of leaves you found.

LANCEOLATE



OBOVATE



LINEAR OR  
RECTANGULAR



STAR-SHAPED



DELTOID



HEART-SHAPED  
OR ORBICULAR



OVAL



ELLIPTICAL



OVATE



## TREE CLIMBERS

The animals listed on the tree are all good climbers. Can you find them in the word search below?

MONKEY

BEAR

RACCOON

SQUIRREL

SLOTH

KOALA

FOX

LEOPARD

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

## THE RAINFOREST IS HOME

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The tropical rainforest is a place where the weather is warm all year round and a great amount of rain falls. Because of the warm climate and large amounts of rain, a tropical rainforest has more kinds of trees than any other area in the world. Over half of all types of plants and animals live in rainforests, and tropical rainforests produce almost half of the Earth's oxygen. Unfortunately, the rainforests of the world are being destroyed and damaged.

Directions: Think of 5 ways you can help save these animals and their homes. Talk to an adult about your ideas.



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## THE RAINFOREST IS HOME

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Directions: Find and circle each hidden rainforest animal in the picture below. A few may be hidden in the background.

Harpy Eagle  
King Cobra  
Bengal Tiger

Dawn Bat  
Chimpanzee  
Two-toed Sloth

African Forest Elephant  
Golden Lion Tamarin  
Yellow-browed Toucanet

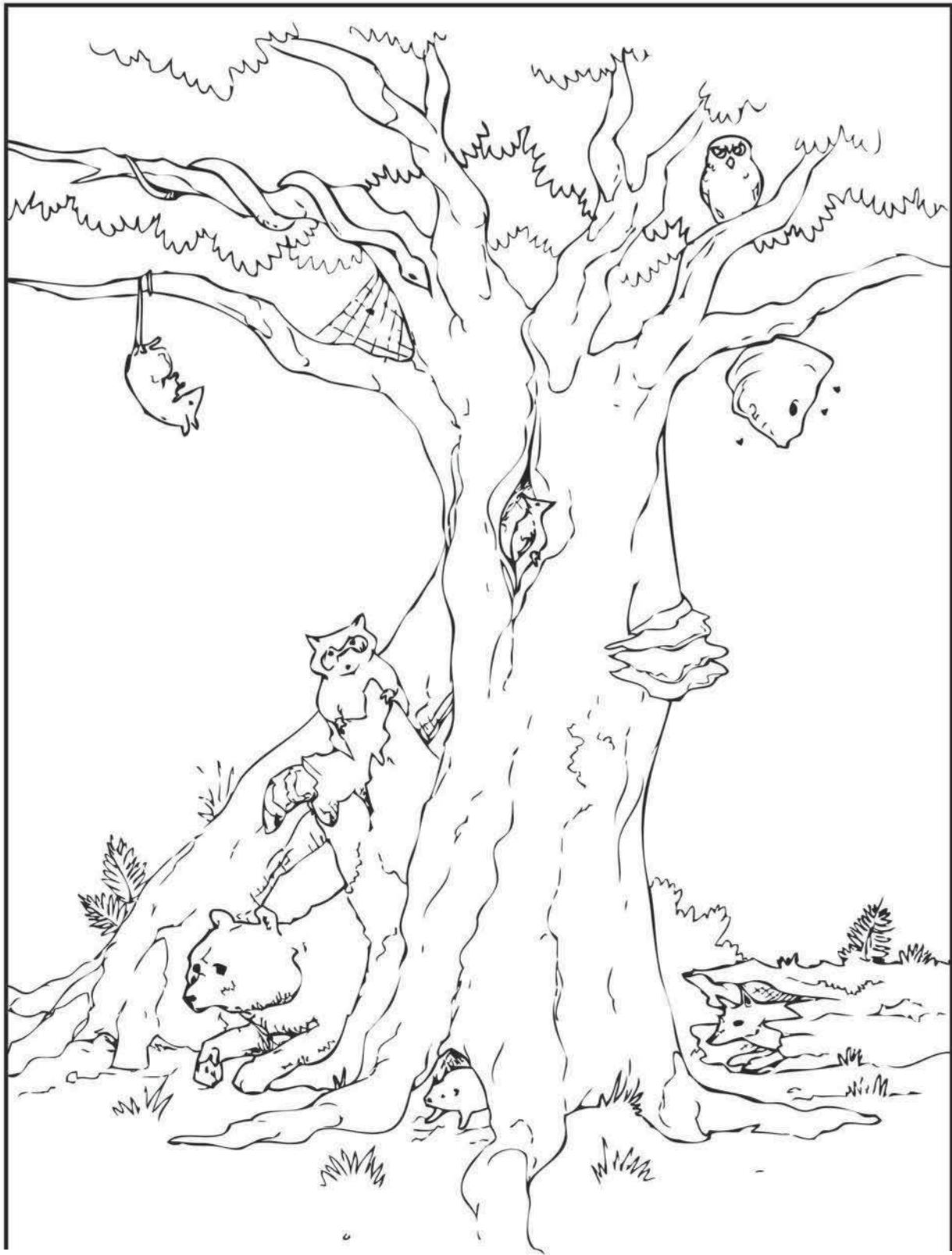
Southern Cassowary



## TREES ARE HOME TO MANY DIFFERENT ANIMALS

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Trees are home to many different animals if you look hard enough. Can you find all the tenants taking up residence in this tree? After you find them, start coloring!





Great job!