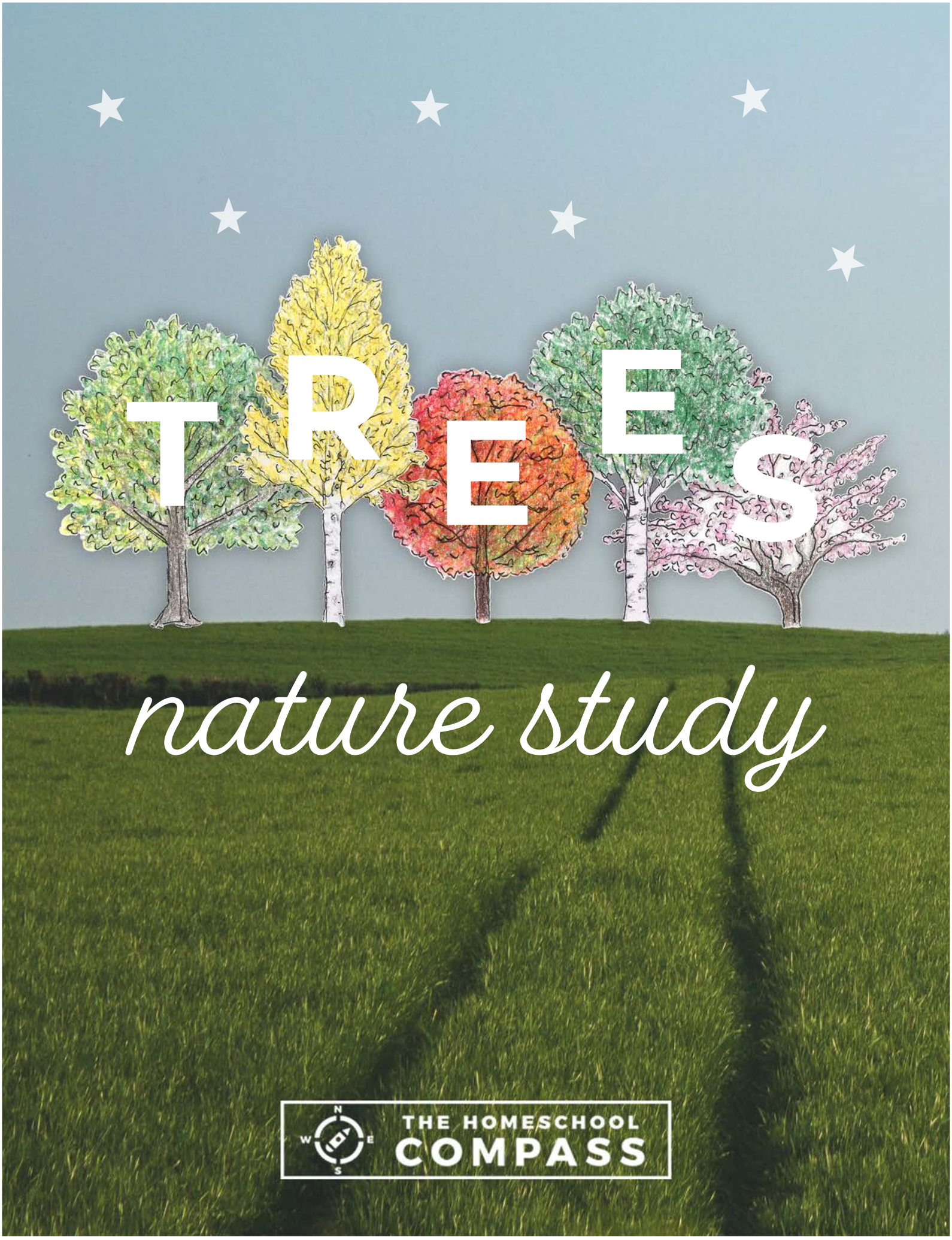
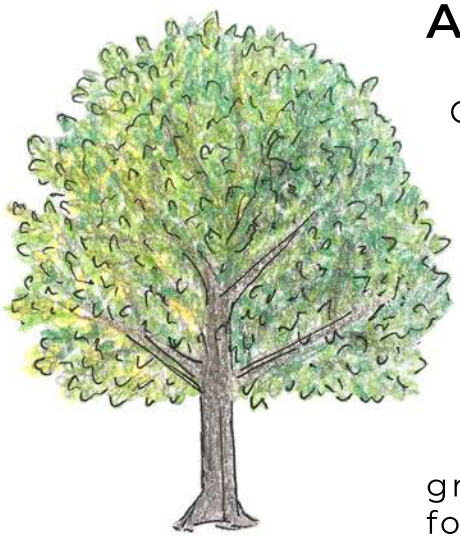

TREES
nature study
THE HOMESCHOOL
COMPASS

TYPES OF TREES



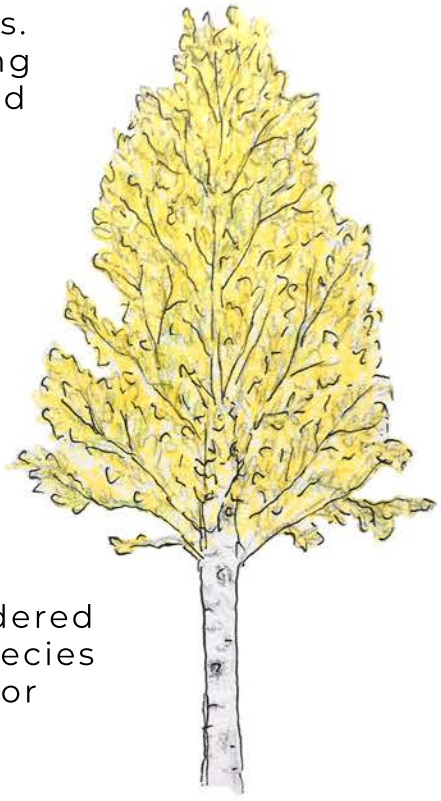
ASH *(fraxinus)*

Green and white ash are the most common species of ash tree and can be found throughout much of the Eastern United States and Canada. Other species like the blue ash, California ash, and Carolina ash are found in the Midwest and Southern states.

These large shade trees grow up to about 70 feet tall. At one time they were the most frequently planted tree in cities across the U.S. as they can grow in a variety of soil conditions and they are forgiving of the pollution, salt, and other challenging conditions found in urban settings.

Ash trees are known for their opposite branching, meaning branches and buds develop directly across from each other in pairs. When looking for opposite branching, remember buds or limbs may die, so not every single branch or bud may still have its mate.

Ash trees have compound leaves with 5 to 9 leaflets on each stem. They commonly have grayish bark that is furrowed with a distinct pattern of diamond-shaped ridges. Ash seeds are found in clusters of slender, paddle-shaped wings known as samaras. Ash wood is strong, lightweight and pliable, making it perfect for furniture making, basket weaving, and producing sporting goods like baseball bats and snow shoes.



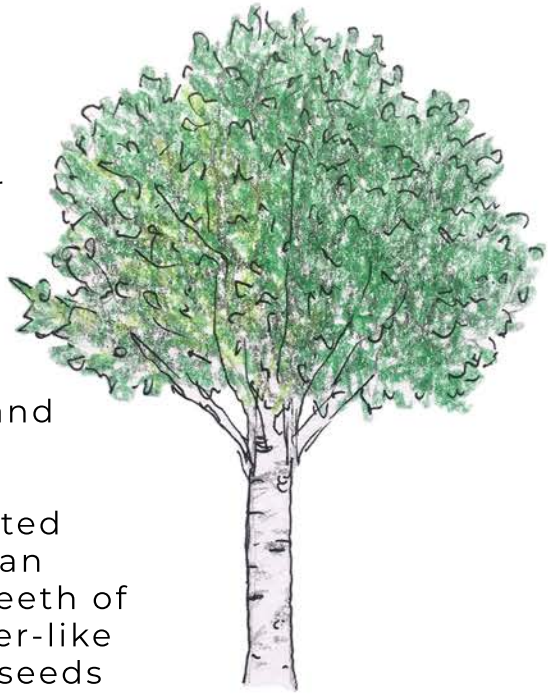
ASPEN *(populus)*

Most of the aspen trees in the United States can be found in Utah and Colorado, although they are scattered throughout the rest of the Western States as well. The Aspen is the state tree of Utah. Aspen trees require full sunlight to produce seeds and grow well, so they are typically found in open areas like the slopes of mountains. They are considered pioneer trees, meaning they are one of the first species of trees to spring up where land has been cleared or disturbed.

Aspen trees often dominate the landscape in areas that experience frequent wildfires.

Aspen leaves are rounded and have teeth along the edges. They grow in an interlocking fashion along a branch like the teeth of a zipper. Aspen leaves move freely even in a very light wind, giving a distinctive rustling sound and making the aspen tree appear to tremble. Aspen leaves turn a radiant golden yellow color in the fall. Aspen trees have smooth, pale bark that grows darker and rougher with age. The wood is very soft. It is often processed into pulp for making paper. Aspen trees have small, hairy seeds that are carried away in the wind. Aspens grow quickly, but live for a relatively short time (about 60 years on average).

BIRCH *(betula)*



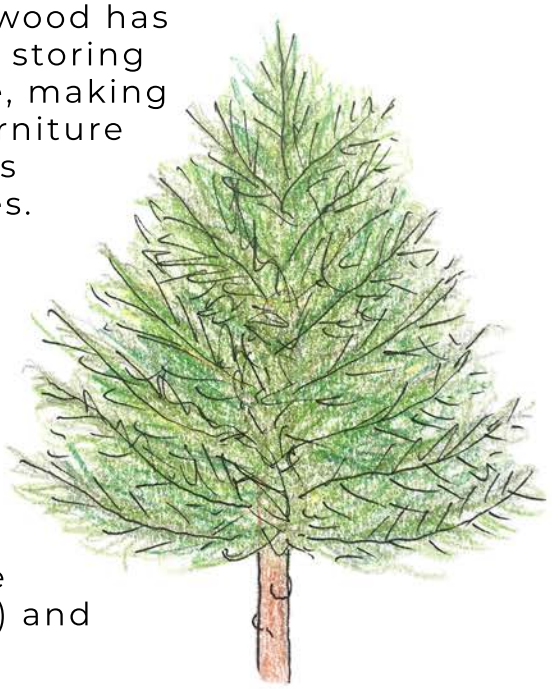
Birch trees can be found across the Northern United States from Alaska to Maine and as far South as the mountains of Virginia and Tennessee. The White Birch is the state tree of New Hampshire. Birch trees are another pioneer species. They colonize grassy, open spaces such as abandoned farm land or areas cleared by a fire. They prefer cool, moist soil and often grow in groups of two or three trees.

Birch trees have egg-shaped leaves with pointed tips and teeth along the edges. They grow in an interlocking fashion along a branch like the teeth of a zipper. Birch trees have smooth, white, paper-like bark that peels from the tree. They have tiny seeds that grow inside a narrow cone about the size of your thumb. The seeds are scattered on the wind in the wintertime. Birch trees grow to be about 60 feet high and live for around 60 years. Native peoples traditionally use birch trees in canoe making, with the tough, lightweight bark used to cover the canoe frame.

CEDAR *(cedrus)*

The Cedar is a coniferous tree closely related to the fir tree. It is native to the Western Himalayas and the countries of the Mediterranean region such as Lebanon, Syria, and Turkey. True cedar trees are not native to the United States, but they have been brought in over the years as a popular ornamental tree.

The Cedar can grow to around 100 feet in height, sometimes higher. It has green needle-like leaves and brown cones that disperse winged seeds. Cedar wood has a distinctive spicy fragrance. Cedar wood and cedar oil are known to repel moths, so cedar wood has often been used to make chests or closets for storing clothes. Cedar wood is also extremely durable, making it a good choice for construction work and furniture making. Resin derived from the cedar tree has traditionally been used for medicinal purposes.

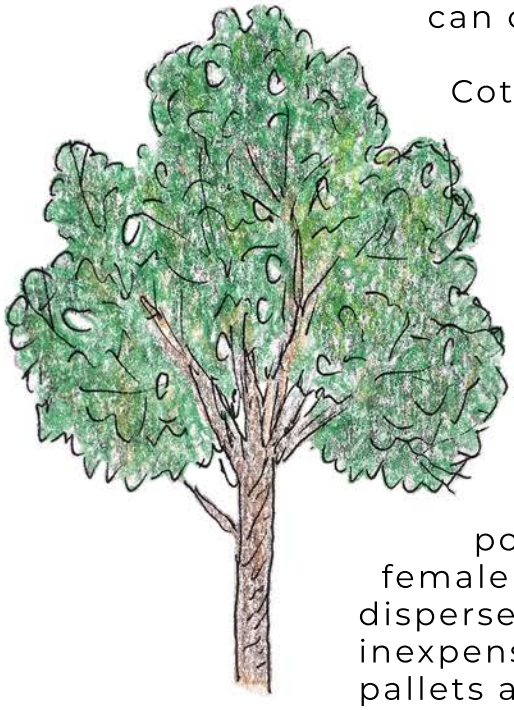


In ancient times the Egyptians used cedar oil for embalming and cedar wood for building coffins or sarcophagi. The Phoenicians used cedar wood for building ships and houses.

The cedars of Lebanon are frequently mentioned in the Old Testament as a symbol of wealth, luxury, and strength (for example, 2 Chronicles 1:15). Cedar wood was used in the building of King David's palace (2 Samuel 5:11) and King Solomon's temple (1 Kings 5:6).

COTTONWOOD *(populus)*

The Cottonwood tree is a deciduous tree that grows throughout the Eastern, Central, and Southwestern United States. It is the state tree of Kansas, Nebraska, and Wyoming. Cottonwoods tend to grow best in open areas with full sun. They prefer moist soil and can often be found along streams and creek beds.



Cottonwoods are often planted as shade trees or windbreaks, so look for them around fields and farmhouses. The Cottonwood can grow up to 100 feet tall and live more than 100 years.

Cottonwood trees have large, glossy, triangular-shaped leaves with toothed edges. The leaves make a distinctive rustling sound when a breeze blows through.

The Cottonwood tree gets its name from the white fluffy substance that surrounds its seed pods. In the summer months, the ripe pods of the female trees burst and release these fluffy fibers to be dispersed on the wind. This fast-growing tree is an inexpensive source of timber for producing newspaper, pallets and shipping crates.

CYPRESS *(cupressus)*

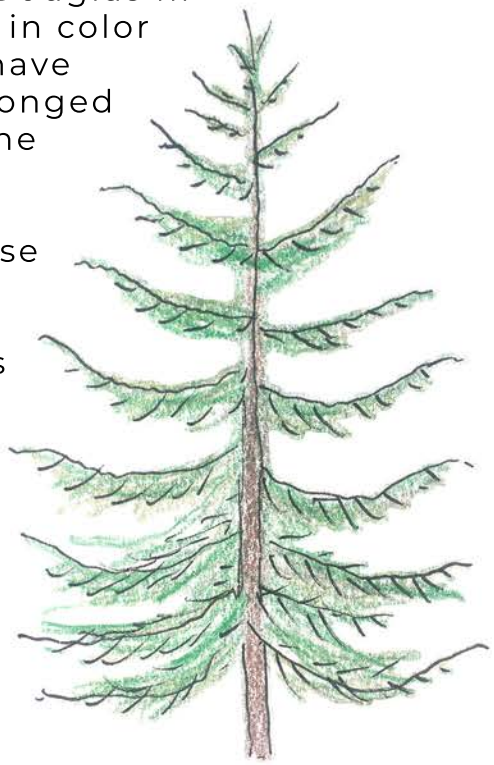
Cypress trees grow throughout the world. In the United States they are frequently found near ponds and wetlands along the Southern and Eastern coasts. They prefer a warm climate and swampy, moist soil with full sunlight. The Bald Cypress is the state tree of Louisiana.

The Cypress is a coniferous tree with narrow, feathery, evergreen leaves and brown woody cones that look like nuts or acorns. Its graceful shape makes it a common ornamental choice for gardens and parks. Cypress trees are known for producing a lightweight and durable wood that is popular with carpenters and artists. Cypress wood is often used for furniture like tables, bed frames and cabinets. It is also used in the construction of shingles, siding, porches, and barns.

DOUGLAS FIR *(pseudotsuga menziesii)*

The Douglas fir is an evergreen tree that is native to the Western United States. It is the state tree of Oregon and one of the most prevalent trees in the Pacific Northwest.

Douglas firs have flat, short needles that are about an inch long and dark green in color. The bark on a fully grown Douglas fir can be over a foot thick. The bark is red-brown in color and often has deep grooves. Douglas fir trees have reddish-colored cones. Each cone has three-pronged tongues called bracts that stick out between the scales.

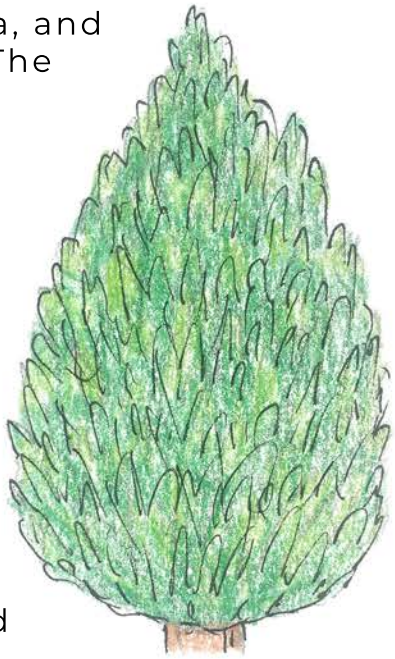


The Douglas fir is popular with foresters because of its rapid growth. Douglas firs are commonly used for wood frame house construction and for Christmas trees. Nearly half of all Christmas trees grown in the United States are Douglas firs.

It is not uncommon for a Douglas fir to live over 1000 years. The oldest Douglas fir on record grew near Mount Vernon, Washington and was around 1400 years old when it was cut down in 1913.

EASTERN WHITE PINE *(pinus strobus)*

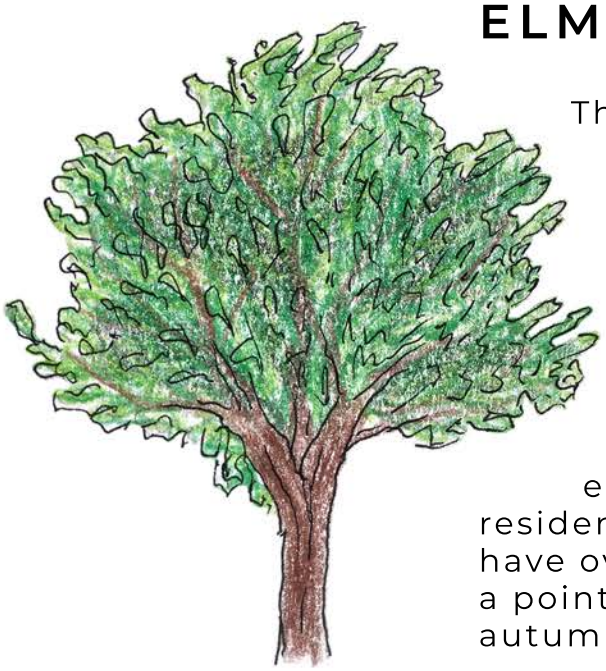
The Eastern white pine is native to the United States. It can be found throughout New England and across the Upper Midwest. Its range extends as far South as Virginia, North Carolina, and Tennessee. It grows best in sandy, well-drained soil. The Eastern white pine is the state tree of Michigan. This tree typically lives around 400 years and can grow more than 100 feet tall.



The Eastern white pine has needles that are blue-green in color and grow in bundles called fascicles. Each fascicle contains 5 needles. Its cones are long and narrow, usually about 3 to 6 inches long. They have light brown papery scales and are often coated with sticky pitch.

The Eastern white pine has papery light gray bark that grows darker in color and more deeply grooved as the tree matures. The wood of the Eastern white pine is light, soft, and easy to use for toys, crates, and many other items.

Native Americans have long valued the Eastern white pine as a medicinal plant using the inner bark, needles, and roots to ward off coughs and colds. The needles can be boiled to make a tea that soothes sore throats. The sap of the Eastern white pine is naturally antibacterial, so it has traditionally been used to treat wounds and cuts.



ELM *(ulmus)*

There are several species of elm tree native to North America. These species can be found throughout the Eastern and Midwestern United States and into the South. The Elm is the state tree of Massachusetts and North Dakota.

The elm is a deciduous tree with a distinctive umbrella shaped canopy that provides lots of shade. For this reason, elm trees are often planted in parks, along residential streets, or in backyards. Elm trees have oval-shaped leaves with jagged edges and a point at the tip. The leaves turn yellow in autumn.

The bark of the elm tree is grayish-brown and has deep, rough ridges and furrows throughout. Elm trees form small, round seeds enclosed in a papery casing called a samara. The timber of the elm tree is strong, but also flexible, making it a good choice for products like ship keels, archery bows, and musical instruments.

HICKORY *(carya)*

Hickory trees can be found throughout the Eastern half of the United States. Hickory trees live about 250 years and can grow to be around 100 feet tall.

Hickory trees have long, narrow leaves that grow along each stalk in opposite pairs with one leaf at the very end of the stalk. The leaves in the final pair at the end of the stalk will be noticeably larger than the others. Hickory leaves often feel hairy on the edges.

The seeds of the hickory are nuts encased in a thick shell. Many species of hickory have edible nuts that are a valuable food source. These include the shagbark hickory, the shellbark hickory, and the pecan tree. Hickory nuts are also an important source of food for animals such as squirrels and deer. The hickory tree produces a dense, shock-resistant wood that is good for handles of tools like axes and shovels. It is also used in furniture and architecture.

Andrew Jackson, the seventh President of the United States, was given the nickname Old Hickory by the men who served under him in the War of 1812 because he was as tough as an old hickory tree.

MAGNOLIA *(magnolia)*

The Magnolia tree is native to the Southeastern United States and grows best in a warm climate. It is often found on the edges of swamps, streams, or other bodies of water. The Magnolia is the state tree of Mississippi.

The Magnolia is best known for its very large, fragrant flowers. In some species these blooms can grow up to 1 foot in diameter. Magnolia blossoms are most often white, but they can also be pink, red, purple, or yellow.

Magnolia trees are medium-sized, growing to be about 60 to 90 feet tall. Magnolia trees have large, pointed, dark green leaves. The leaves stay on the tree year round. The bark of the Magnolia is gray and smooth. Magnolia bark has traditionally been used for its calming effects. It is believed to help with sleep, anxiety, and stress.

MAPLE *(acer)*

Maple trees can be found in almost every part of the United States. Some of the most common varieties in America are the sugar maple, the red maple, and the silver maple. Altogether there are over 132 different species of maple trees, most of which are native to Asia. Maples can also be found in Europe and Northern Africa. The sugar maple is the state tree of New York, Vermont, West Virginia, and Wisconsin, while the red maple is the state tree of Rhode Island.

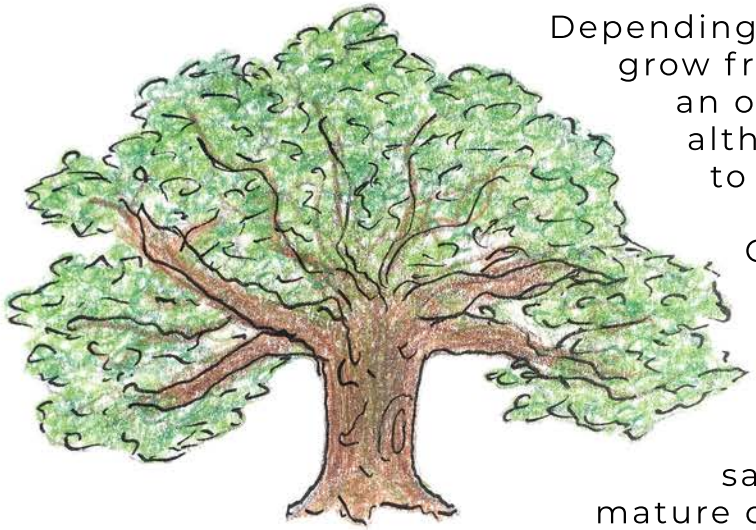
Maples typically grow to be around 60 feet tall and can live for 300 years or more. Maple trees have palmate (or hand-shaped) leaves as seen on the flag of Canada.

The winged seeds (or samaras) of the maple tree resemble the blades of a helicopter. They can often be seen twirling to the ground in summer.

The sugar maple is tapped for its sap which can be boiled into maple syrup. Maple wood is known for its beautiful grain and is frequently used in flooring and furniture production.

OAK *(quercus)*

Oak trees grow all over the United States and throughout the rest of the Northern Hemisphere as well. In 2004 the Oak was chosen as the Official National Tree of the United States. It is also the state tree of Connecticut, Georgia, Illinois, Iowa, Maryland, and New Jersey.

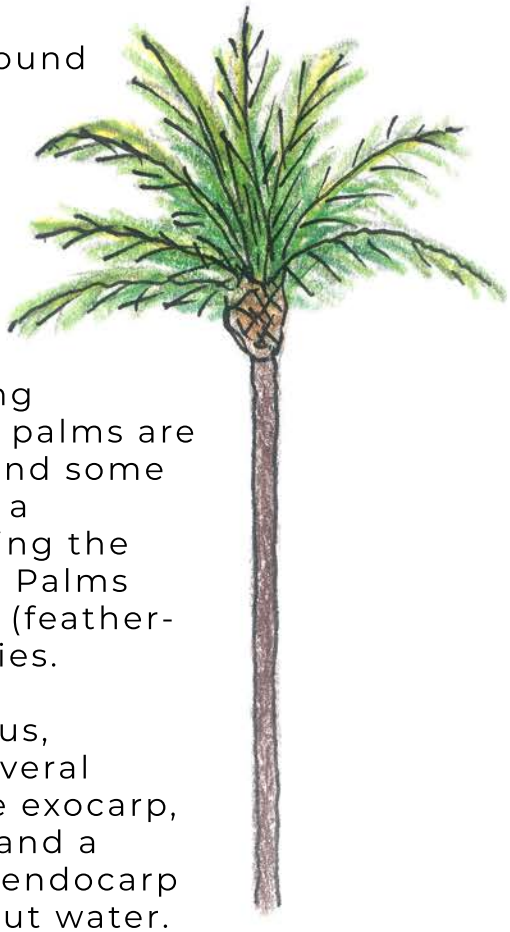


Depending on the species, oak trees typically grow from 40 to 80 feet tall. On average an oak tree lives 100 to 300 years, although some specimens are thought to be over 1000 years old.

Oak leaves have a distinctive lobed shape with rounded edges and a leathery feel.

Oak seeds are called acorns. These brown, round nuts have a saucer-shaped cap on the top. A mature oak can produce as many as 50,000 acorns in one season. That's about half a ton of acorns! In addition to sprouting new oak trees, acorns are an important source of food for animals like raccoons, squirrels, foxes, rabbits, deer, and blue jays. Oak is a beautiful and hardy wood, making it a great choice for construction, flooring, and furniture making.

PALM *(aceraceae)*

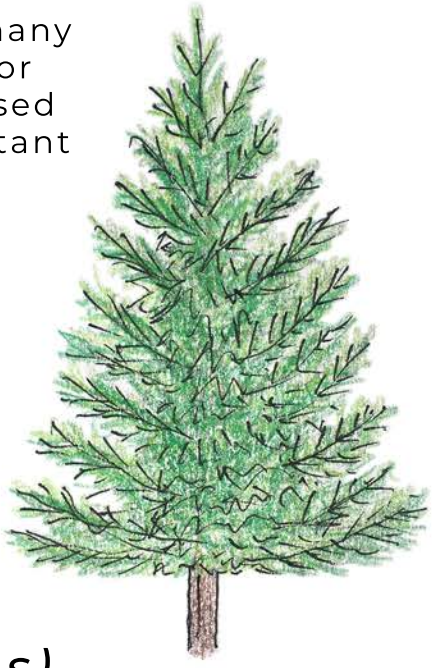


Palm trees grow best in hot regions and can be found throughout the world in tropical and subtropical climates. In the United States palm trees thrive in Arizona, California, Florida, Georgia, Hawaii, Louisiana, South Carolina, and Texas. The Palm is the state tree of Florida, and the Palmetto is the state tree of South Carolina.

The different species of palm trees vary widely in size. For example, coconut palms with their long slender trunks can grow to be 100 feet tall. Other palms are small shrubs that only grow to about 6 feet tall, and some dwarf palms are small enough to grow indoors in a container. Some types of palms have fibers covering the trunks which makes the trunk look hairy or spiky. Palms have large evergreen leaves. They can be pinnate (feather-like) or palmate (fan-like) depending on the species.

Coconut palms produce coconuts which are fibrous, single-seeded fruits. In the wild a coconut has several layers: the smooth greenish outer layer called the exocarp, a fleshy husk in the middle called the mesocarp, and a hard woody shell called the endocarp. Inside the endocarp is the white meat of the coconut as well as coconut water.

Beyond using coconuts for food, palm trees have many other uses. For example, palm leaves can be used for thatched roofs, baskets, and clothing. Palm oil is used for cooking. The wood of the palm tree is an important construction material in many parts of the world.

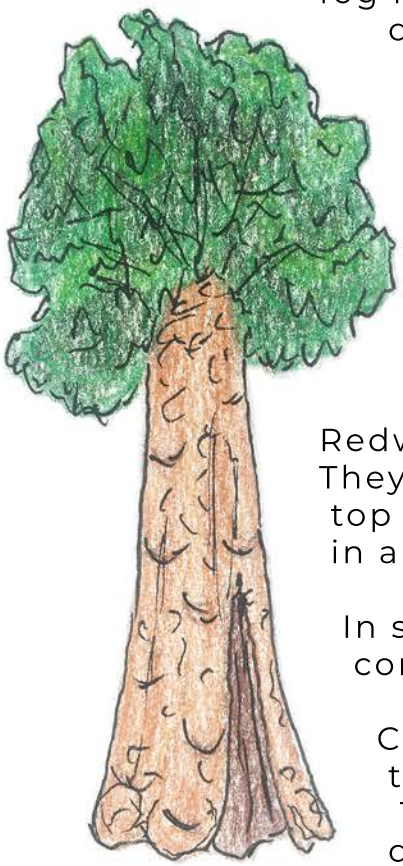


PINE *(pinus)*

Pine trees are tall conifers that have scaly bark and evergreen needles. They produce pinecones. There are many kinds of pine trees, such as the eastern white dine and Douglas fir, previously discussed.

REDWOOD *(sequoia sempervirens)*

Redwoods once grew throughout the northern hemisphere, but today they are only found along the coast from central California to southern Oregon, no more than 50 miles inland. Redwoods require plentiful water and have very shallow root systems, so the cool coastal air and frequent fog in this area is essential to keep the redwood forests damp and protect the trees from dry spells. The redwood is the state tree of California.



It is not unusual for a redwood to live for 500 to 1000 years. They can grow up to 24 feet in diameter and over 350 feet tall. The tallest known living tree is a coastal redwood called Hyperion, which was last measured at 380.1 feet tall. Hyperion's exact location is kept secret to protect the tree from damage.

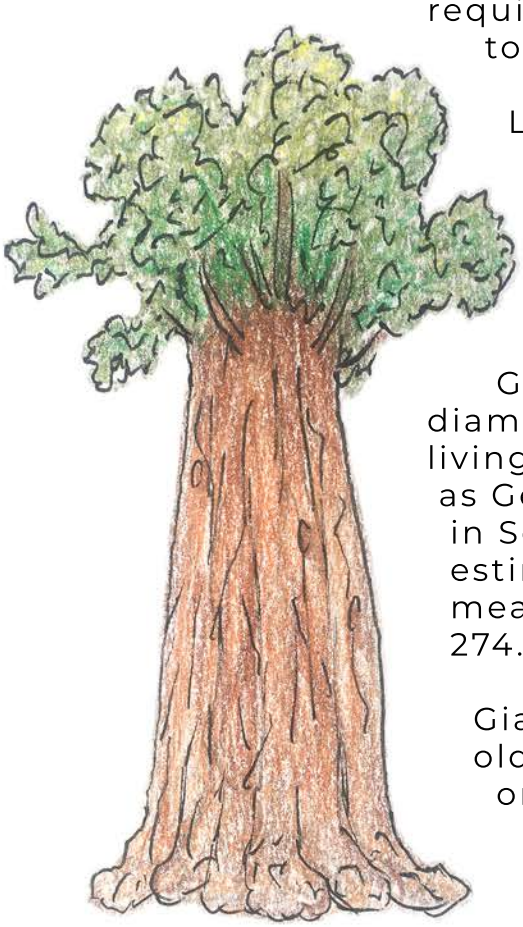
Redwoods are named for their thick, reddish brown bark. They have tapered trunks that grow narrower near the top of the tree. The leaves of the coastal redwood grow in a cone-shaped crown.

In spite of their great size, coastal redwoods have tiny cones, only measuring about 1 inch long.

Coastal redwoods have historically been valuable for their timber. Due to heavy logging starting in the 1850s, 95% of old growth redwoods have been cut down. Most of the redwoods that remain are in protected forests and parks.

SEQUOIA *(sequoiadendron giganteum)*

The giant sequoia grows along the western slope of the Sierra Nevada Mountains, usually between 5,000 and 7,000 feet above sea level and far inland. Sequoia trees grow at such high elevations because they require dry mountain air in order for their cones to open and disperse their seeds.



Like the coastal redwood, at one time the giant sequoia could be found throughout the Northern Hemisphere, but today they exist only in 77 groves throughout Northern California, mostly in protected parks and forests.

Giant sequoias grow to be about 30 feet in diameter and more than 250 feet tall. The largest living tree by volume is a giant sequoia known as General Sherman. General Sherman is located in Sequoia National Park in California and is estimated to be at least 2,300 years old. The tree measures 36.5 feet in diameter at the base and 274.9 feet tall.

Giant sequoias can live to be over 3,000 years old, making them some of the oldest living organisms on the planet.

Similar to the coastal redwood, the giant sequoia has relatively small cones, only about 1 to 3 inches long. One tree may produce as many as 11,000 cones. The wood of the giant sequoia is not good for timber as it is quite brittle and the trees often break apart when felled. Nevertheless, the giant sequoia was heavily logged around the turn of the 20th century.

WALNUT *(juglans)*

The walnut is a deciduous tree that grows throughout much of the Eastern half of the United States. The most common species in America is the black walnut. Walnut trees can tolerate most types of soil and prefer full sun. The black walnut is an allelopathic tree, meaning it releases chemicals poisonous to other plants such as apple trees, pines, lilacs, and tomato plants. This toxicity helps protect the tree from other plants encroaching on its territory and helps ensure that the walnut tree can get enough sun.

Walnut trees grow to about 50 to 75 feet tall and can live to around 150 years old on average. It takes about 12 to 15 years before the tree starts to produce walnuts.

Walnut trees grow very deep roots, making them a difficult species of tree to transplant.

Walnut trees have toothed leaves with a pinnate (or feather-like) shape with an odd number of leaves attached to each stem. The fruit of the walnut tree is valuable for food. The US is the world's second largest producer of walnuts behind China. The vast majority of walnuts grown for food in America are cultivated in the valleys of California. Walnuts are also an important food source for foxes, squirrels, and woodpeckers.

WILLOW *(salix)*

The willow tree is native to China, but it can be found throughout the Northern Hemisphere. There are about 80 different species of willows found in the United States. At least one type of willow grows in each of the 50 states.

Willow trees like a lot of moisture. They often grow along riverbanks or near ponds and lakes. In some parts of the world, willow trees have been planted along waterways to prevent soil erosion because their strong roots help hold the soil in place. Willows can also be planted in flooded areas that need to be drained.

Willow trees typically grow to be about 30 to 60 feet tall. They have a relatively short lifespan, usually living around 50 to 60 years.

The willow is a deciduous tree. It has long, narrow leaves that are green on the top and whitish underneath. The leaves turn yellow in autumn before falling to the ground.

Willows have a distinctive shape with flexible branches that bend down toward the ground and sway elegantly in the breeze. Willow leaves and bark have many medicinal uses. Traditionally they are used to treat fever, pain, and inflammation.

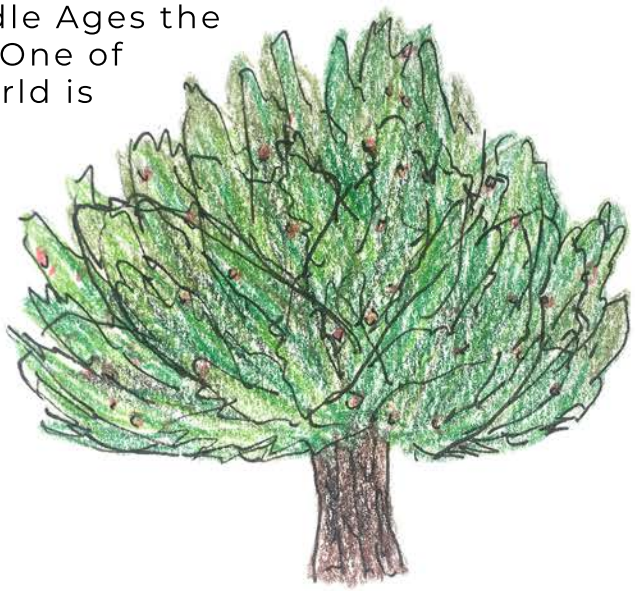
YEW *(taxus)*

The yew tree is native to Europe, North Africa, Iran, and Southwest Asia. The species of yew most common in North America is the pacific yew, which grows along the West Coast from Alaska to California. The yew tree can grow in a wide range of conditions: warm or cold, humid or dry, and acidic or alkaline soil.

Yew trees grow to be about 30 to 60 feet high. They live about 400 to 600 years on average, although several yew trees in the United Kingdom are believed to be over 3,000 years old.

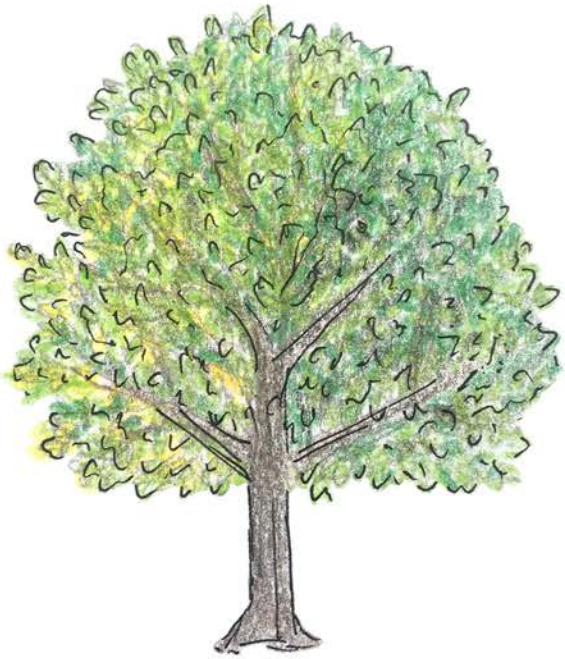
Yew trees are evergreen. They have flat, dark green, needle-like leaves and tiny seed cones. Each seed cone is surrounded by a bright red, fleshy covering called an aril that resembles a berry. The arils are often eaten by birds which then disperse the tough seed.

Yew wood is very durable. In the Middle Ages the English used yew to make longbows. One of the oldest wooden artifacts in the world is a spearhead made of yew that was found in Essex, United Kingdom and is believed to be 450,000 years old.

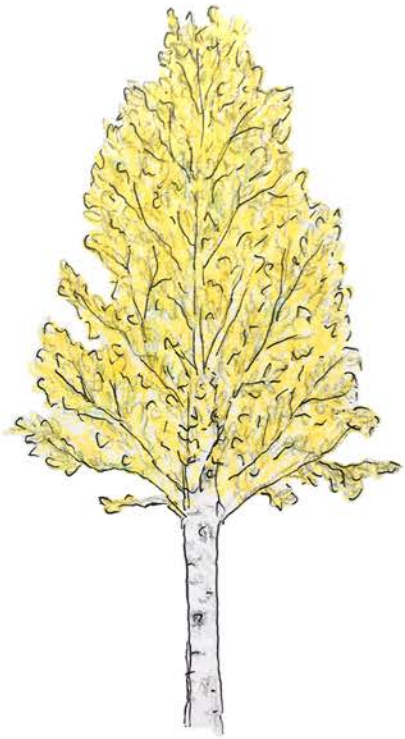


TREES

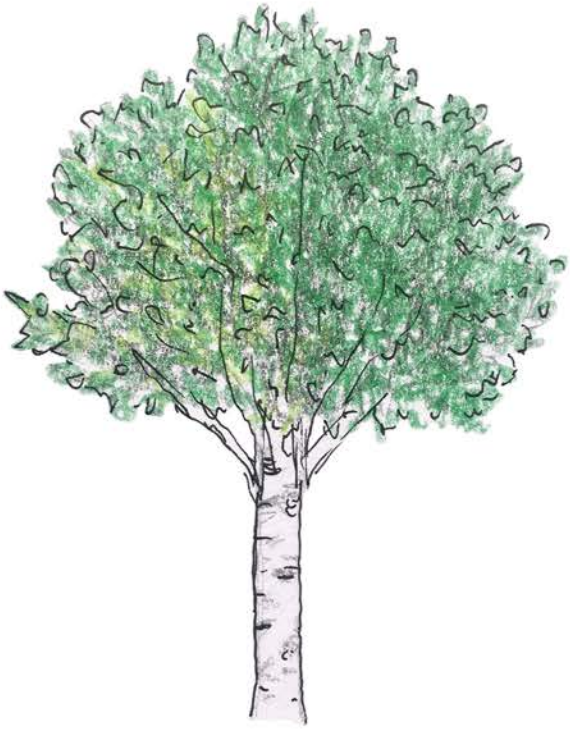
flashcards



ash

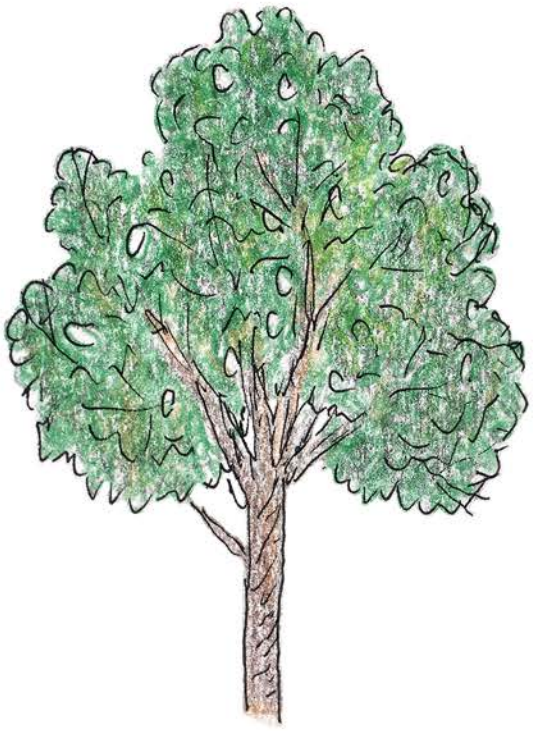


aspen



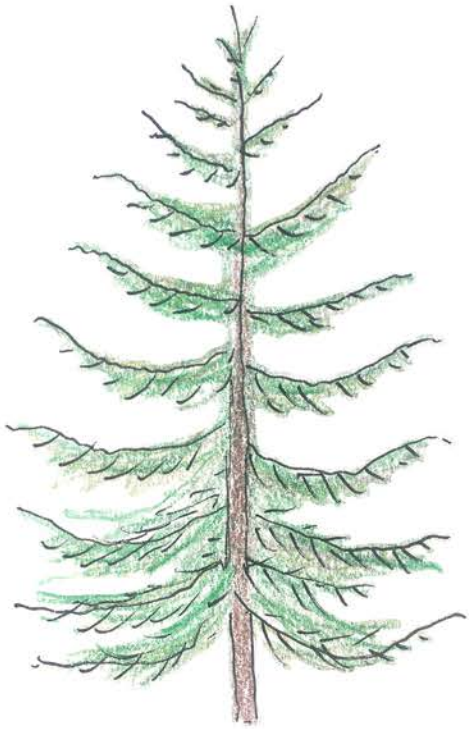
birch

cedar

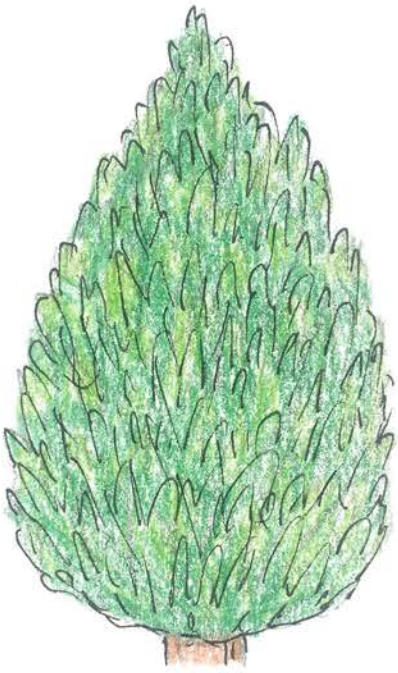


cottonwood

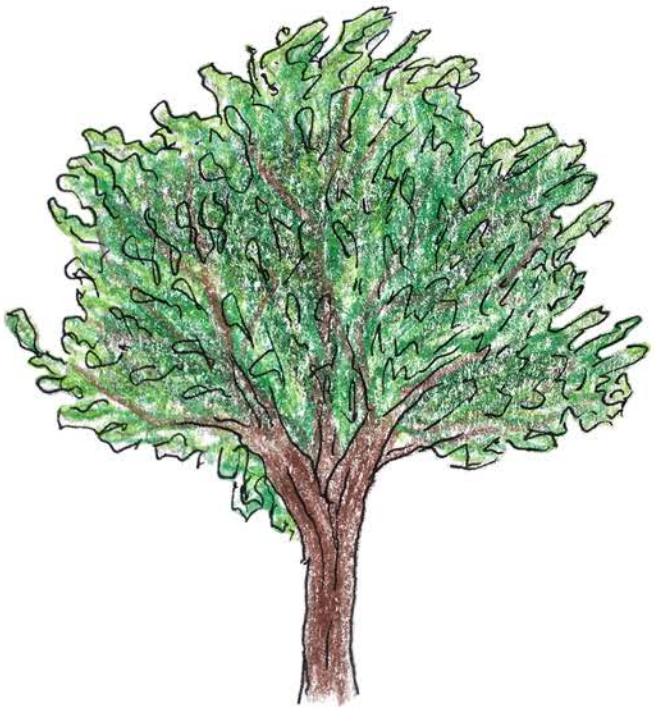
cypress



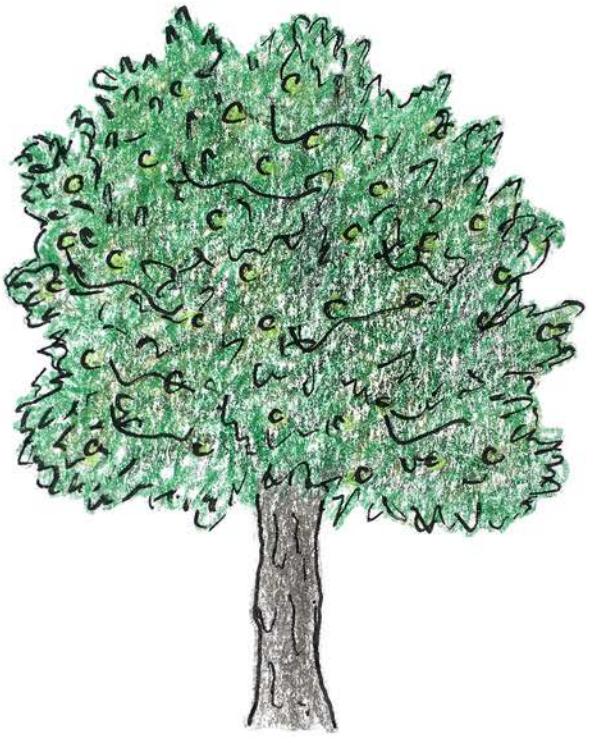
douglas fir



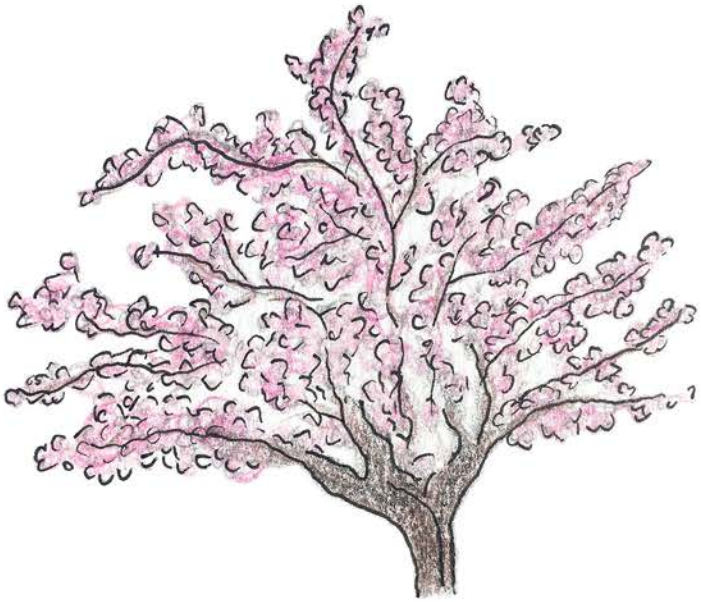
eastern
white pine



elm

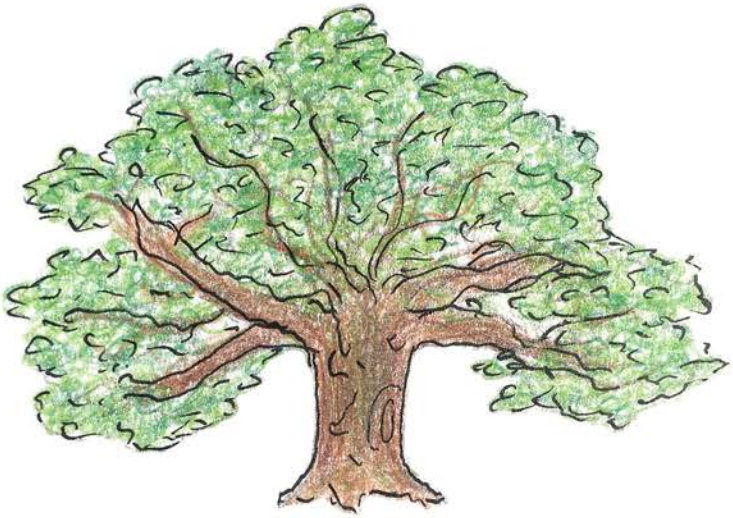


hickory

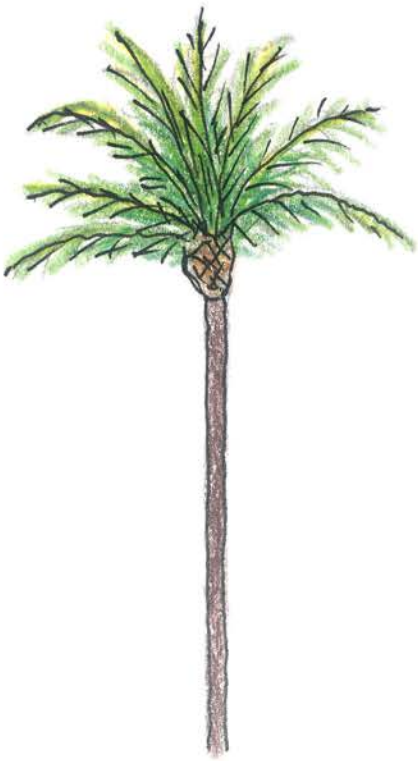


magnolia

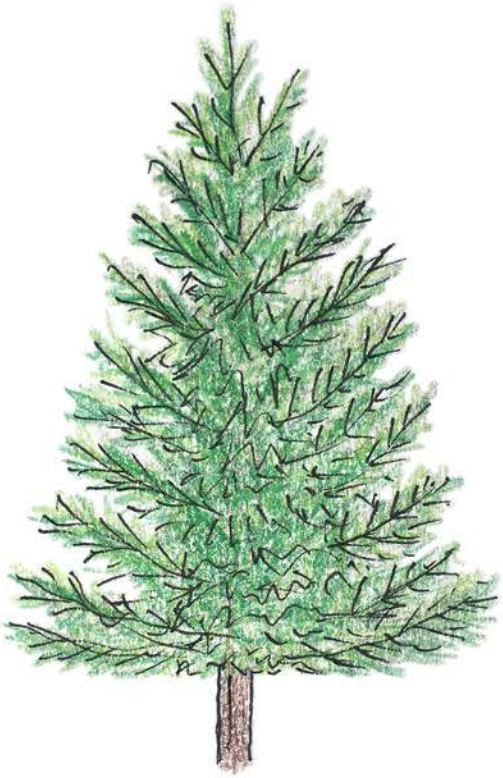
maple



oak

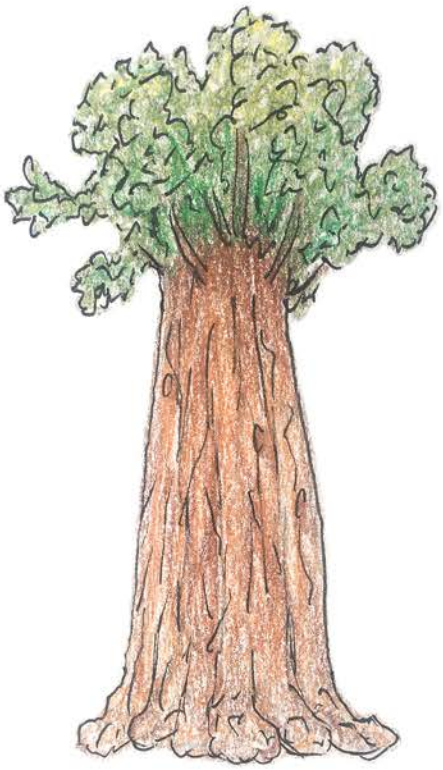


palm

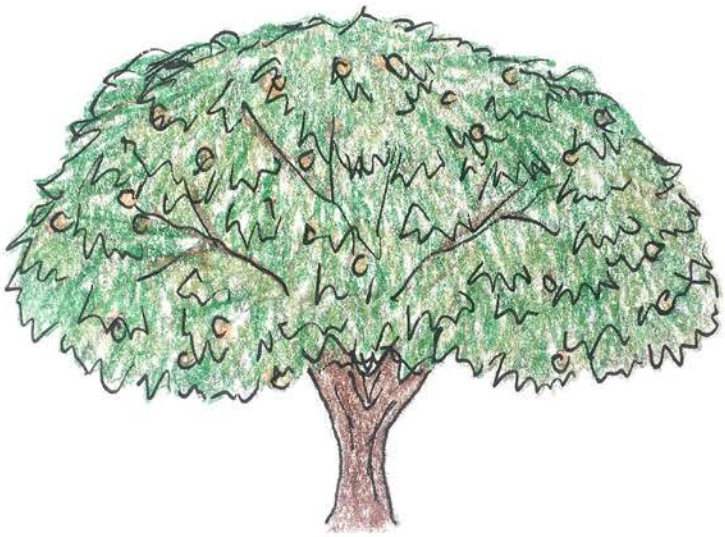


pine

redwood

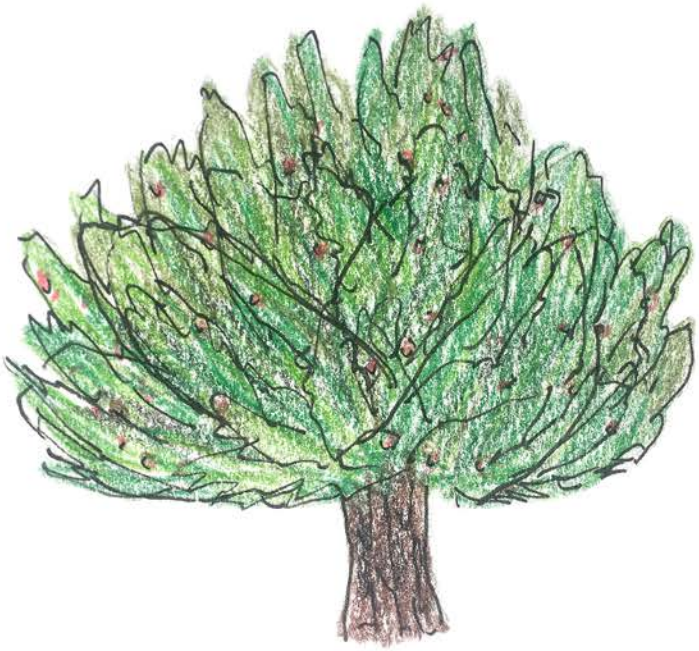


sequoia



walnut

willow



yew

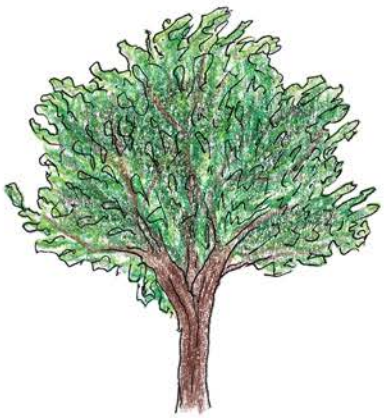
SHAPES OF TREES

SPREADING

Wide and open trees with splotchy shade

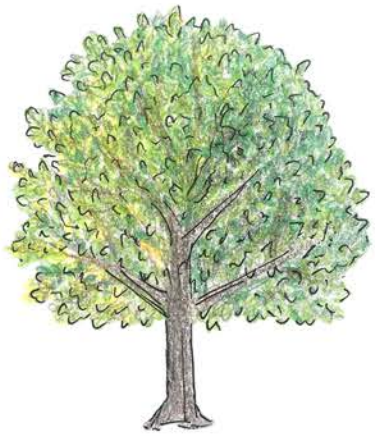
PYRAMIDAL

Wide cone-shaped trees with a large trunk and horizontal branches; good for Christmas trees



VASE

Arching branches on a central trunk, widest at the top



ROUND

Oval shaped trees with a large trunk and dense foliage that creates heavy shade

WEEPING

Characterized by flexible, long branches that hang down with cascading foliage

COLUMNAR

Tall and thin trees with upright branches

SHAPES OF TREES

Draw a line from each tree to its shape:

WEEPING

VASE

SPREADING

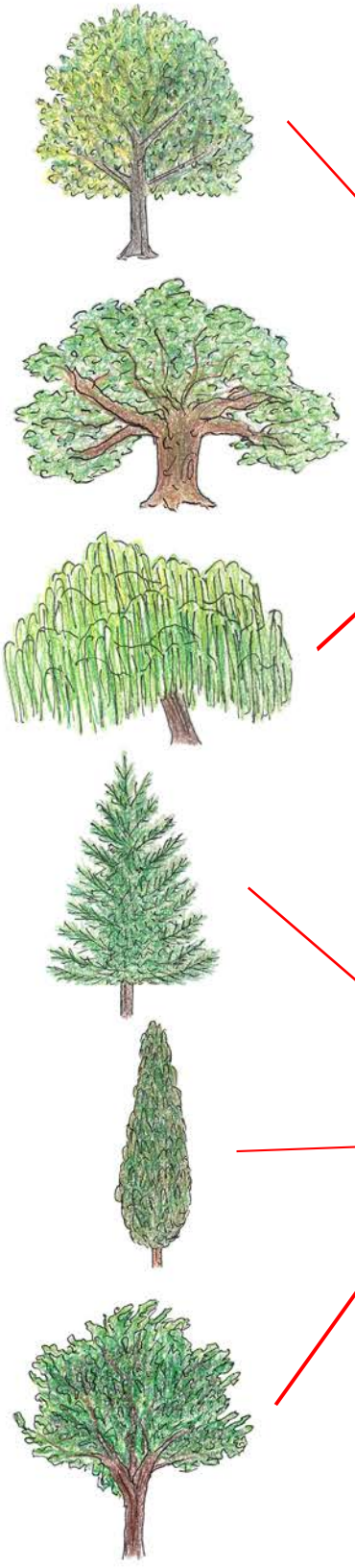
ROUND

COLUMNAR

PYRAMIDAL

SHAPES OF TREES

Check your answers:



WEEPING

VASE

SPREADING

ROUND

COLUMNAR

PYRAMIDAL

TREE CATEGORIES

DECIDUOUS

"Hardwoods"

Has broad leaves that change color in the fall

Loses leaves in the winter to conserve energy

Needs rich soil to grow

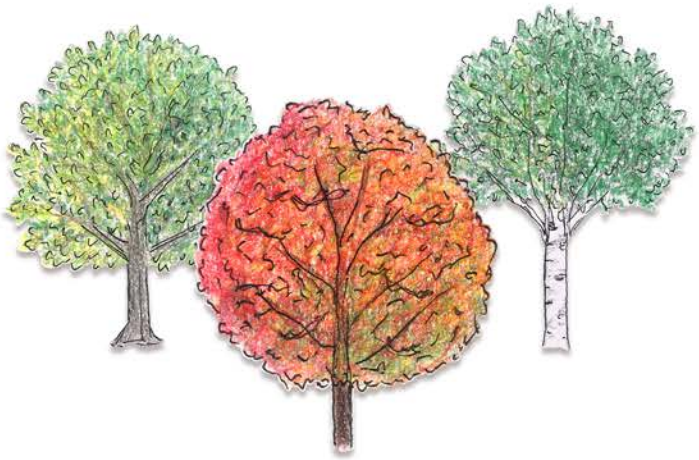
Lots of sunlight reaches the ground

Can be tall or short

Produces flowers and fruit

Generally round shaped

Examples: maple, birch, ash



CONIFEROUS

"Softwoods"

Evergreen (stays green all year)

Has needles and cones

Can grow in poor soil

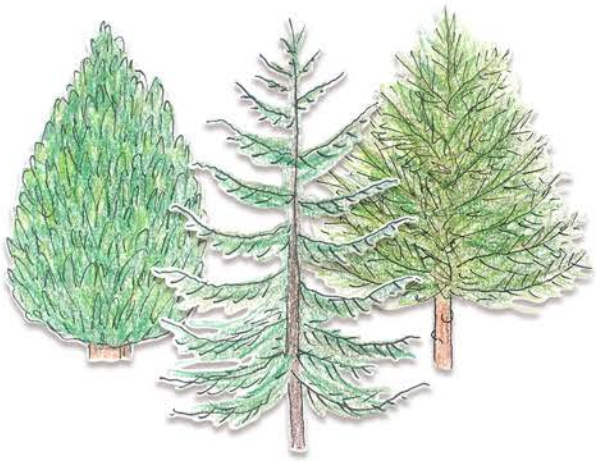
Little sunlight reaches the ground

Usually tall

Does not produce flowers or fruit

Generally cone-shaped

Examples: douglas-fir, cedar, eastern white pine



DECIDUOUS VS. CONIFEROUS TREES

Label the tree characteristics “C” for conifer or D for“deciduous” accordingly:

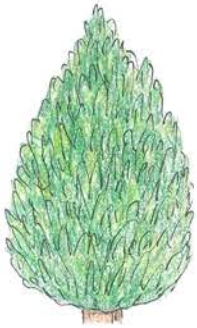
1. Produces flowers _____
2. Usually tall _____
3. “Softwoods” _____
4. Leaves change color _____
5. Can grow in poor soil _____
6. Has needles & cones _____

Circle the **deciduous** trees:

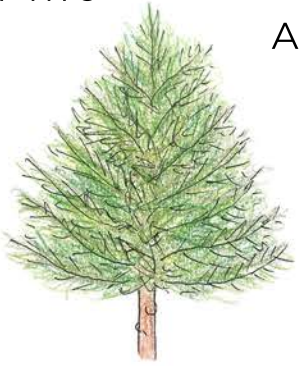
Pine

Aspen

Cottonwood



Eastern white pine



Cedar

Douglas fir

Sequoia

Magnolia

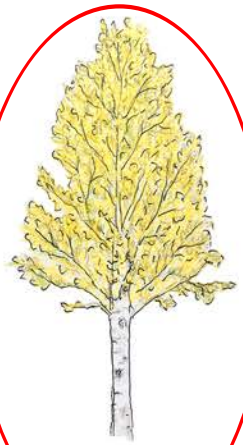
DECIDUOUS VS. CONIFEROUS TREES

Label the tree characteristics “C” for conifer or D for“deciduous” accordingly:

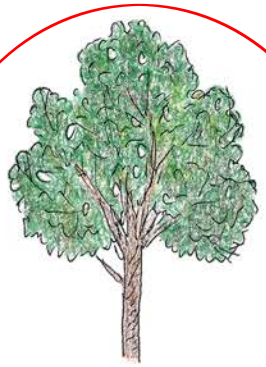
1. Produces flowers ___D___
2. Usually tall ___C___
3. “Softwoods” ___C___
4. Leaves change color ___D___
5. Can grow in poor soil ___C___
6. Has needles & cones ___C___

Circle the **deciduous** trees:

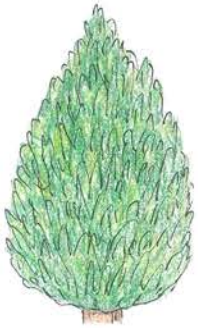
Pine



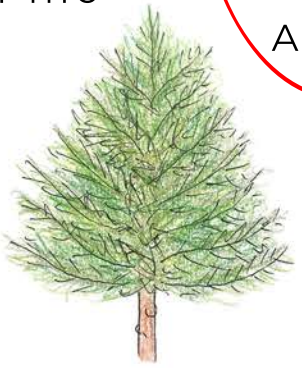
Aspen



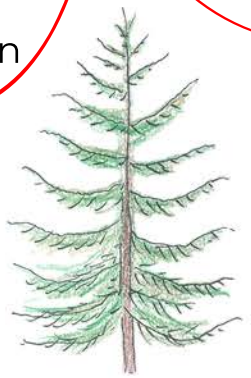
Cottonwood



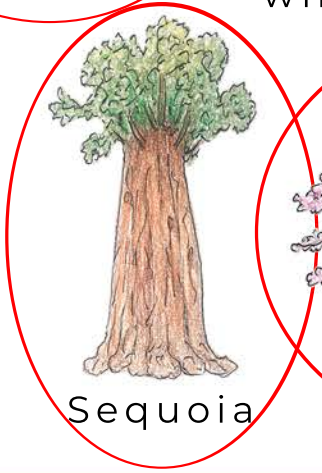
Eastern white pine



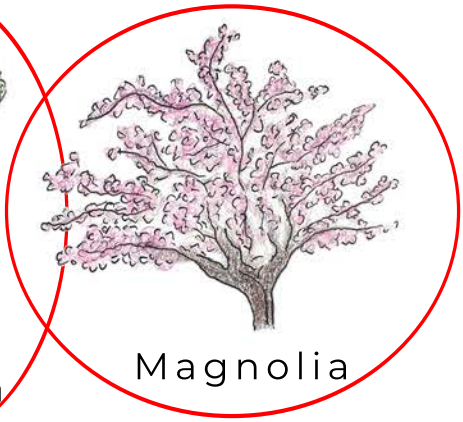
Cedar



Douglas fir



Sequoia



Magnolia

LIFE CYCLE OF A CONIFER

1. POLLEN CONE & SEED CONE

Pollen travels through the air from the male pollen cone up to the female seed cone. The pollen grain enters the pollen tube and fertilizes the egg cell.

2. FERTILIZED CONE

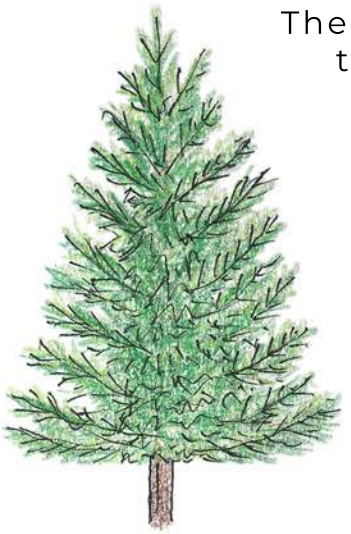
The egg cells in the fertilized cone grow into seeds, which are dispersed into the wind.

3. SEED

The seed falls into good soil and grows into a new plant, spreading roots and beginning to form a stem.

4. SEEDLING

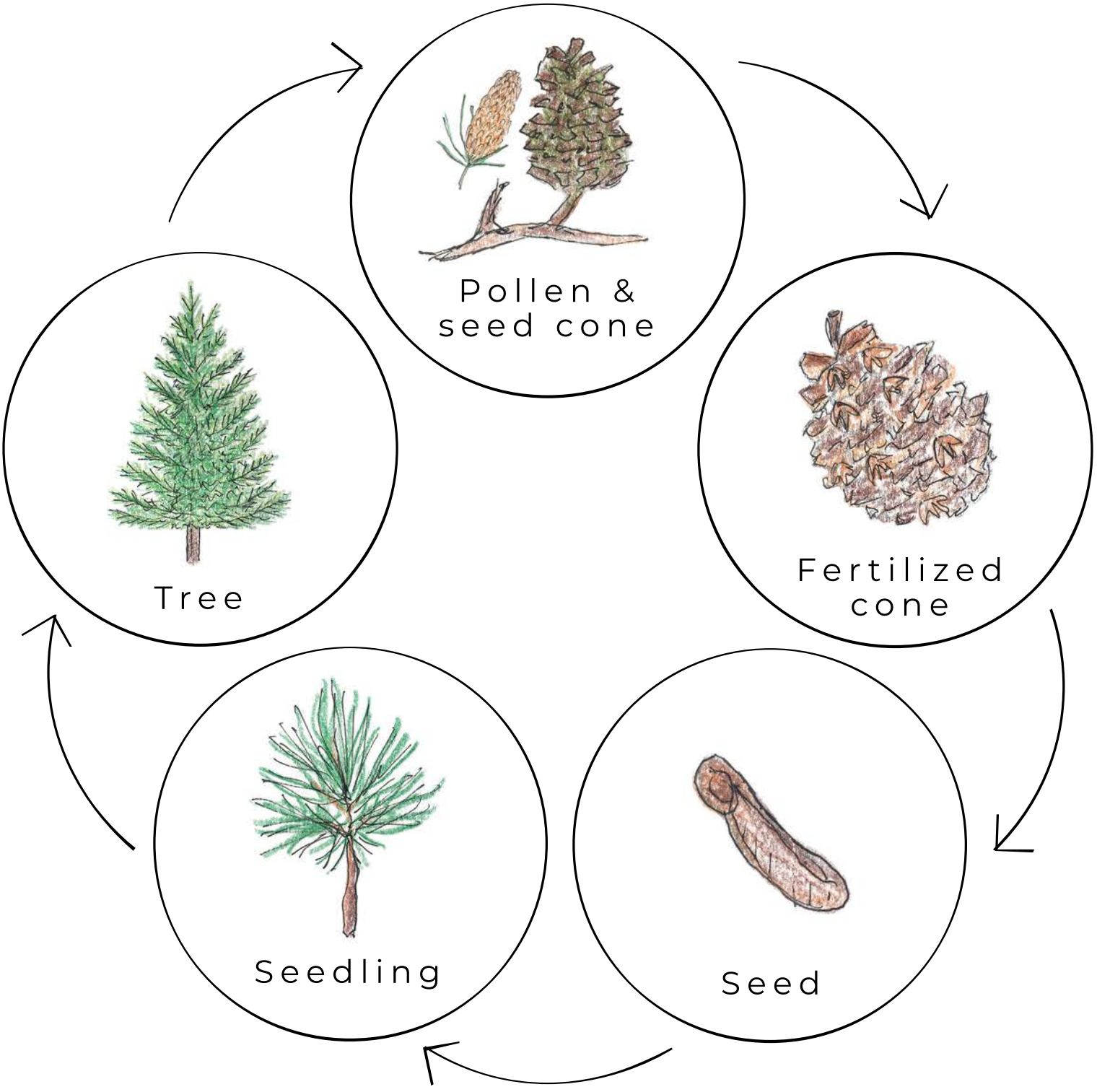
The seedling grows, carrying nutrients through the trunk to the rest of the plant.



5. MATURE TREE

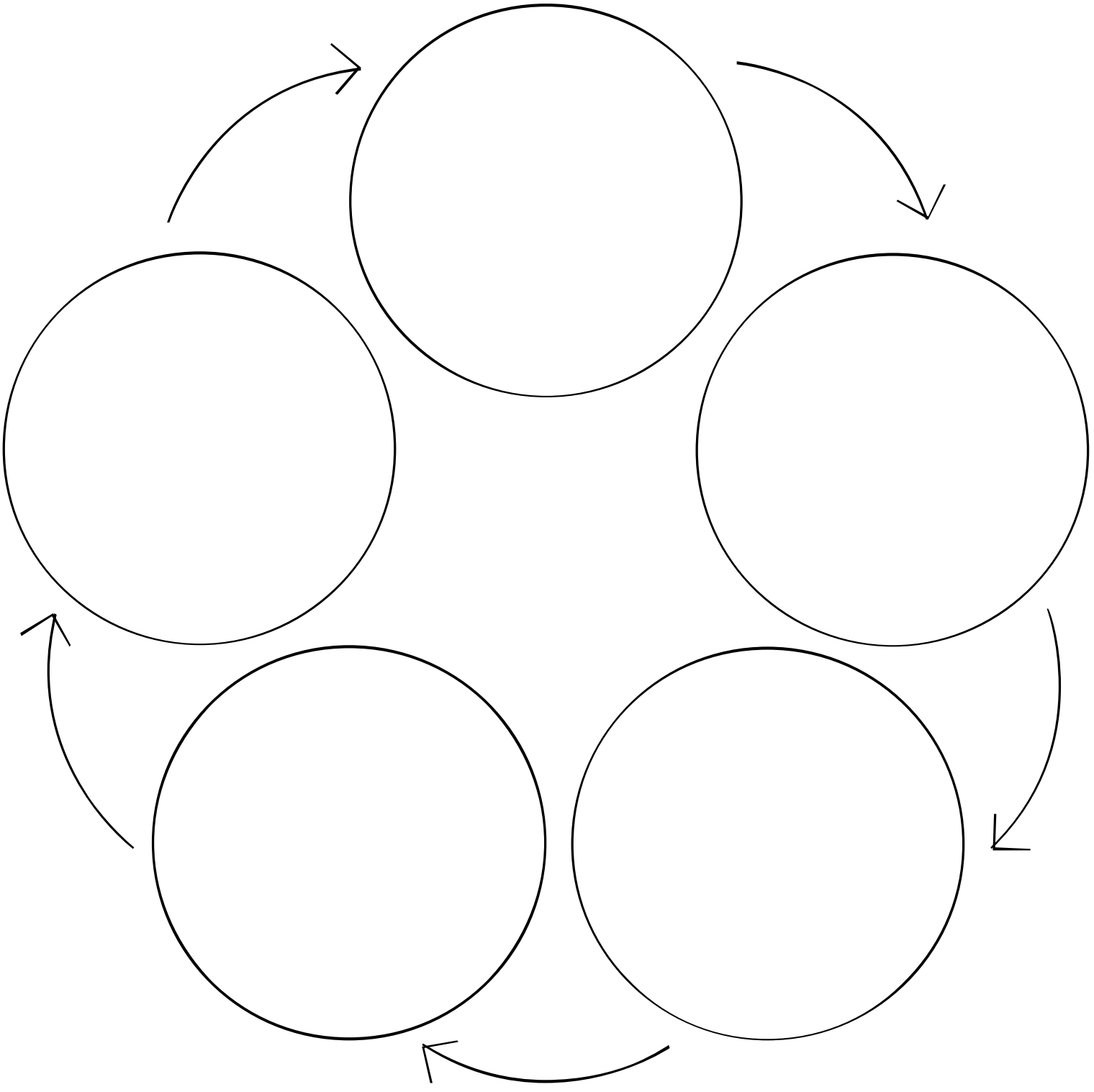
Once the tree is fully matured, it forms its own pollen and seed cones and repeats the process.

LIFE CYCLE OF A CONIFER



LIFE CYCLE OF A CONIFER

Label and draw each step of a conifer's life cycle:



LIFE CYCLE OF A DECIDUOUS TREE

1. SEED

Seeds come from trees producing fruit. They can have a protective shell, like the acorn of an oak tree. The seeds are dispersed through wind, water, or animals.

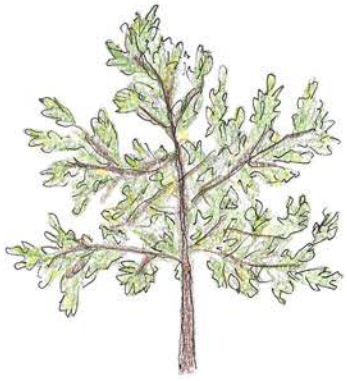
2. SPROUT

The seeds that land in conditions favorable for germination will sprout and grow. The roots grow into the soil to search for water and nutrients, and the sprout emerges from the ground to find light to begin the photosynthesis process.

3. SEEDLING

The stem develops into a trunk with its own thin, protective bark. The seedling fights for nutrients, water, sunlight, and space for its roots to grow.

4. SAPLING

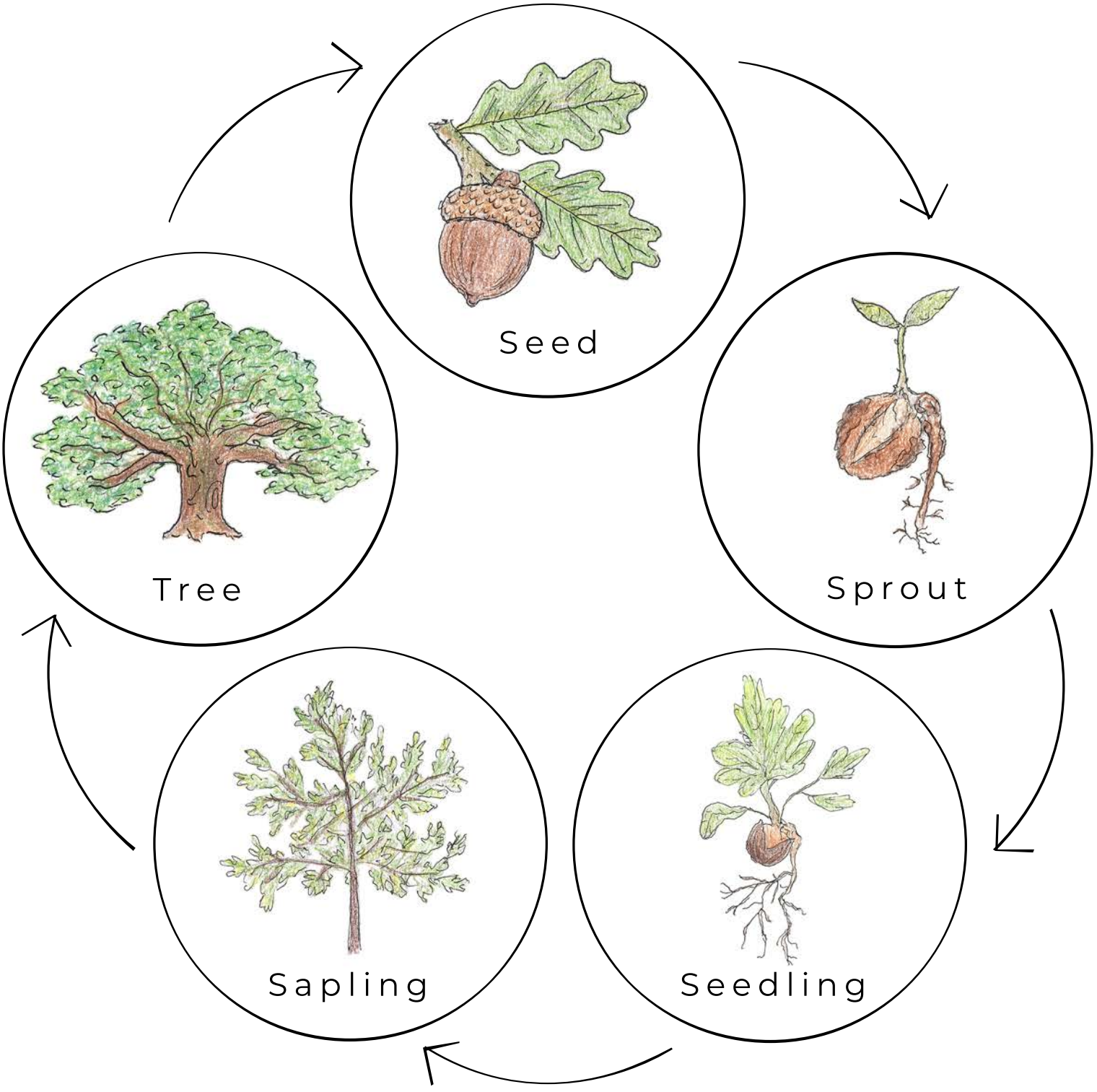


The seedling grows into a small tree called a sapling, about 4.5 feet tall. At this stage the tree grows very rapidly.

5. MATURE TREE

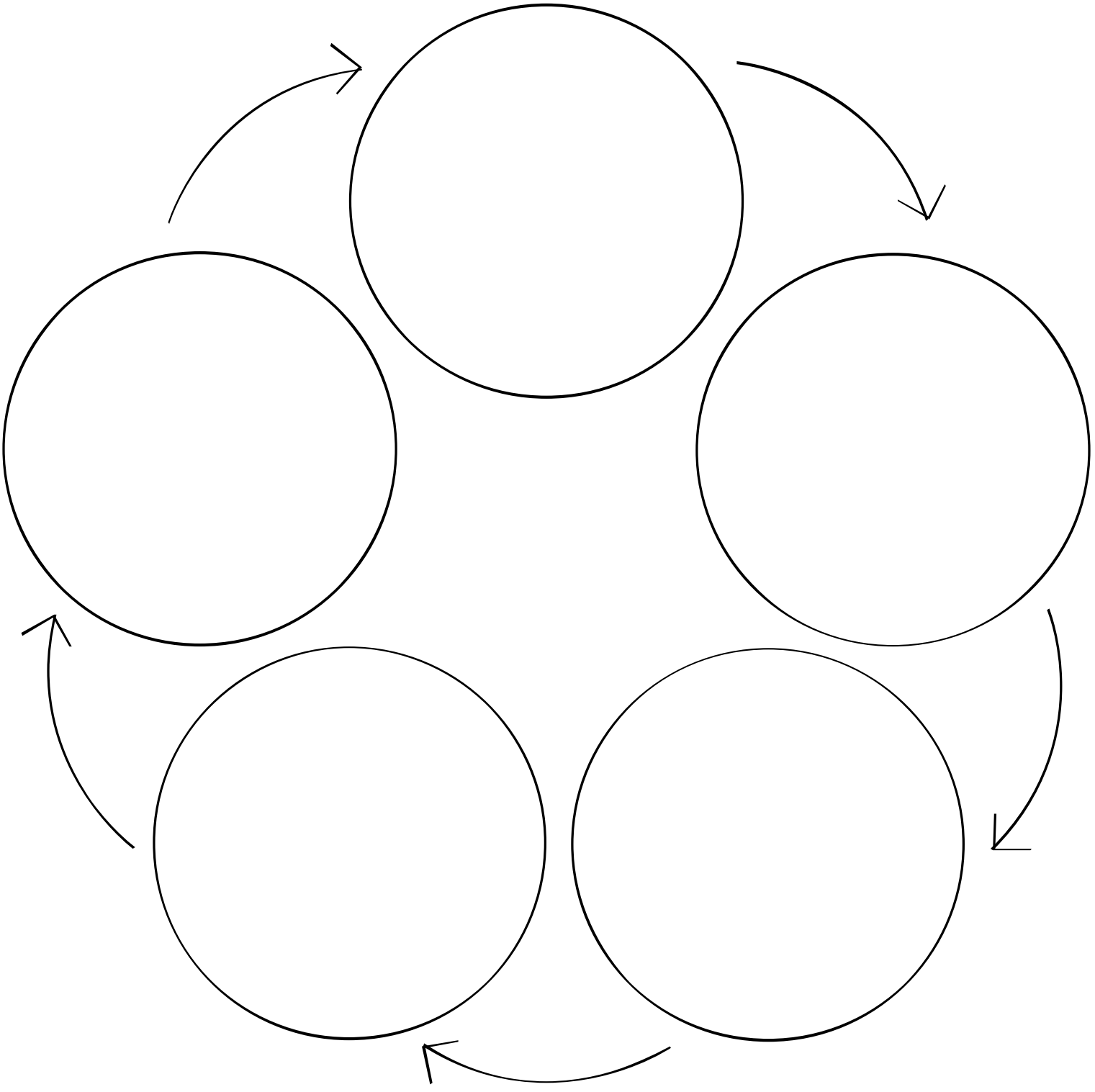
Once the tree is fully matured, it produces flowers and fruits. It then disperses its own seeds and repeats the process.

LIFE CYCLE OF A DECIDUOUS TREE



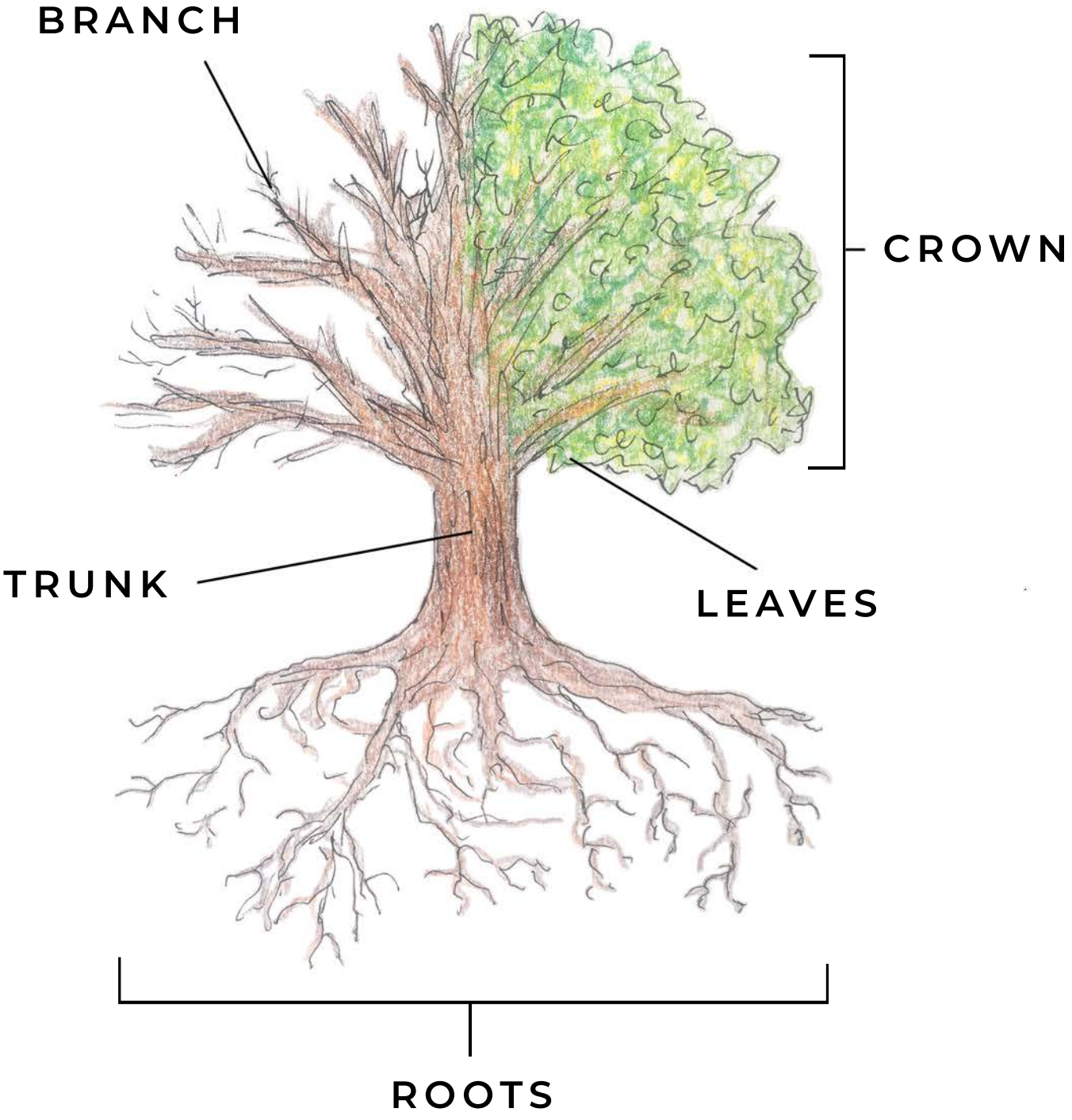
LIFE CYCLE OF A DECIDUOUS TREE

Label and draw each step of a deciduous tree's life cycle:



ANATOMY OF A TREE

Label all the parts of a deciduous tree:



ANATOMY OF A TREE

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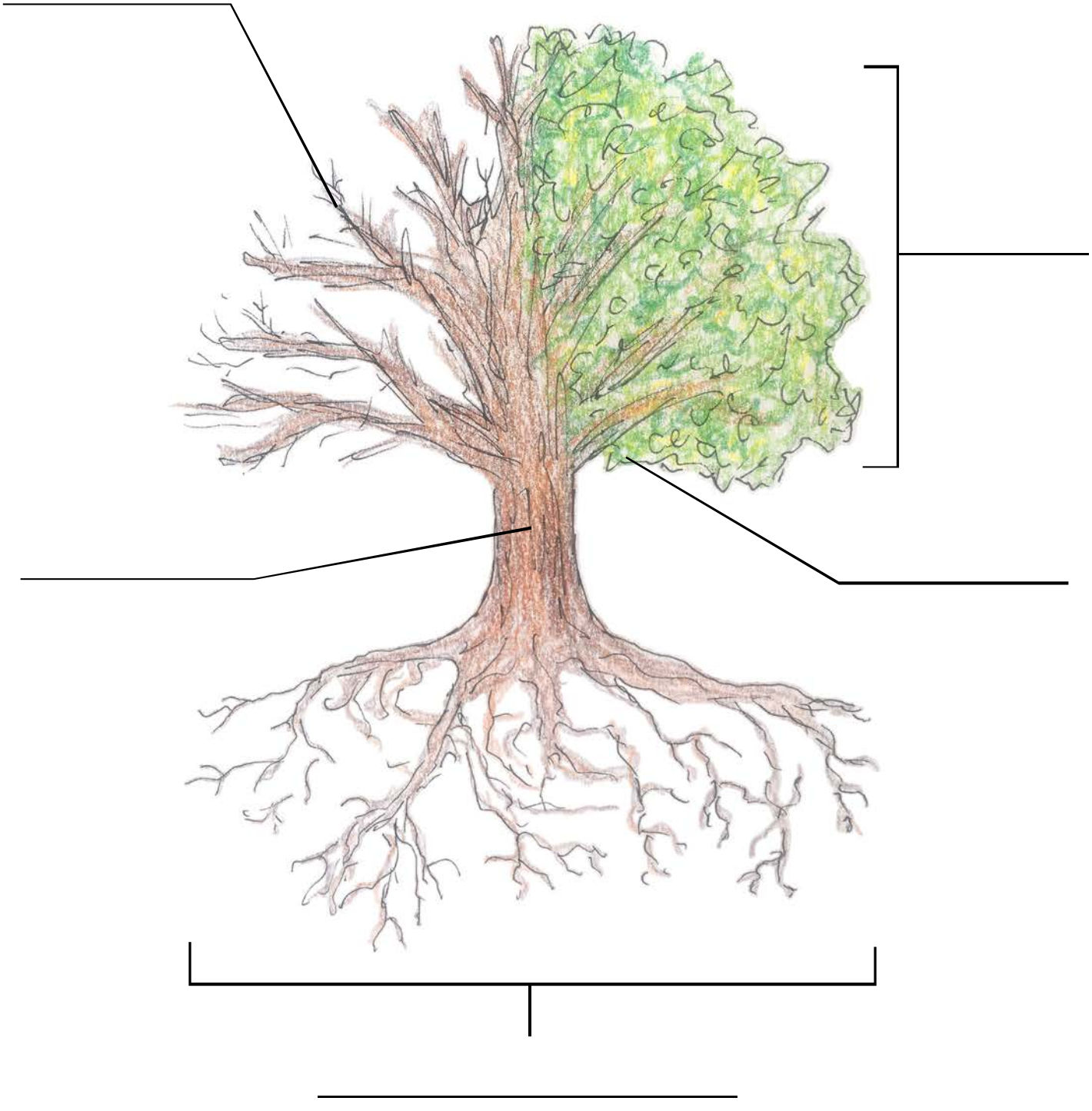


PARTS OF A TREE TRUNK

OUTER BARK

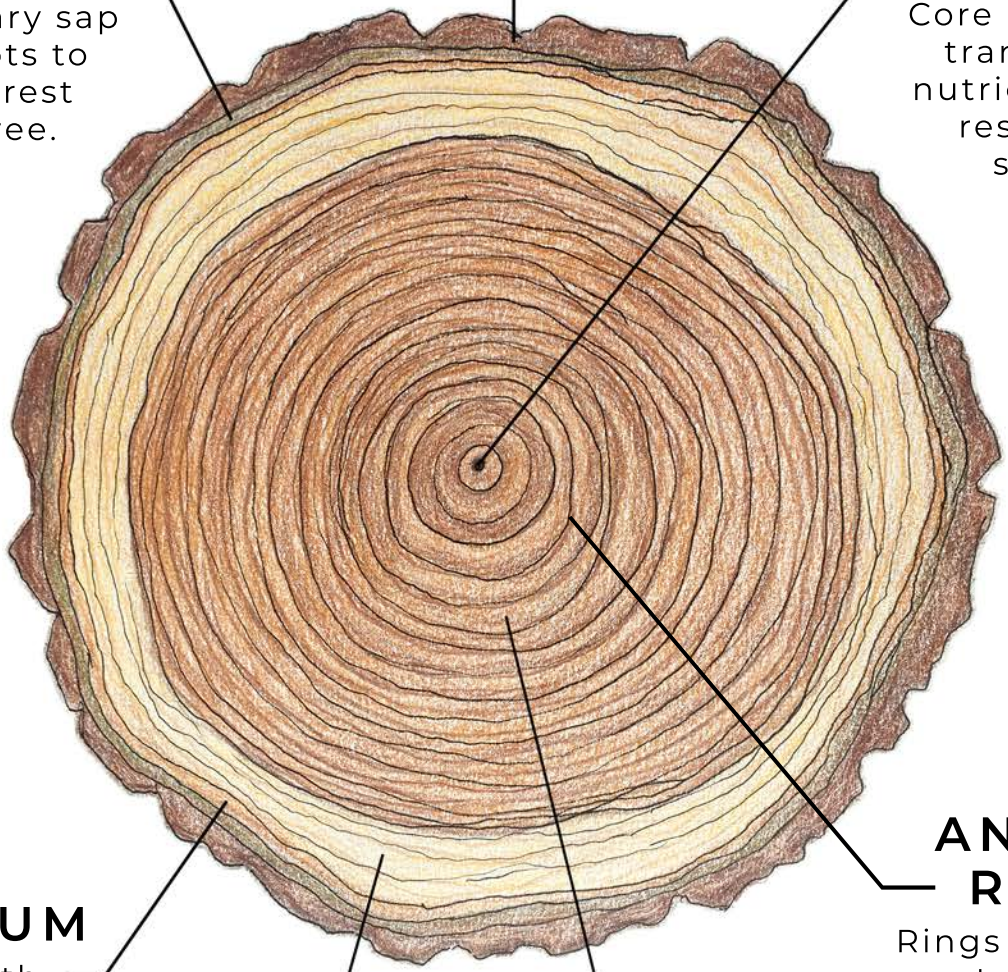
Protects and insulates the tree as well as regulating moisture.

INNER BARK

Moves sugary sap to the roots to feed the rest of the tree.

PITH

Core of the tree; transported nutrients to the rest of the sapling



ANNUAL RINGS

Rings of sapwood created each year of growth

CAMBIUM

Helps with outer growth

SAPWOOD

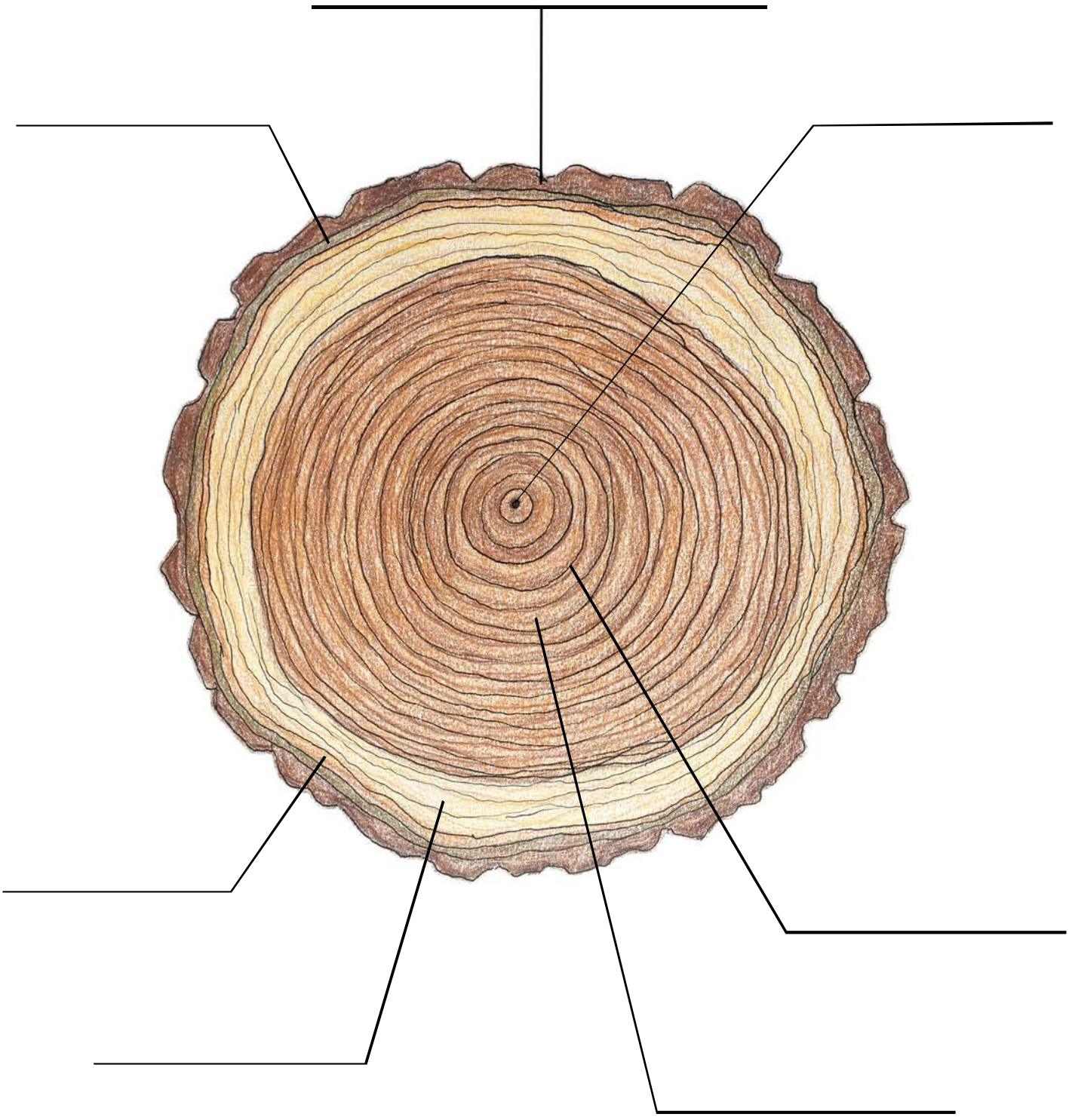
Third layer of vascular tissue, helps transports sap to the roots

HEARTWOOD

Dead cells that strengthen and support the trunk, storehouse for sugars and oils

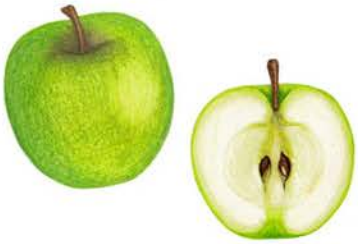
PARTS OF A TREE TRUNK

Label all the parts of a tree trunk:



FRUITS THAT GROW ON TREES

Orange



Apple

Mango

Grapefruit

Pomegranate

Lemon

Coconut

Apricot

Avocado

Plum

Cherry

Starfruit

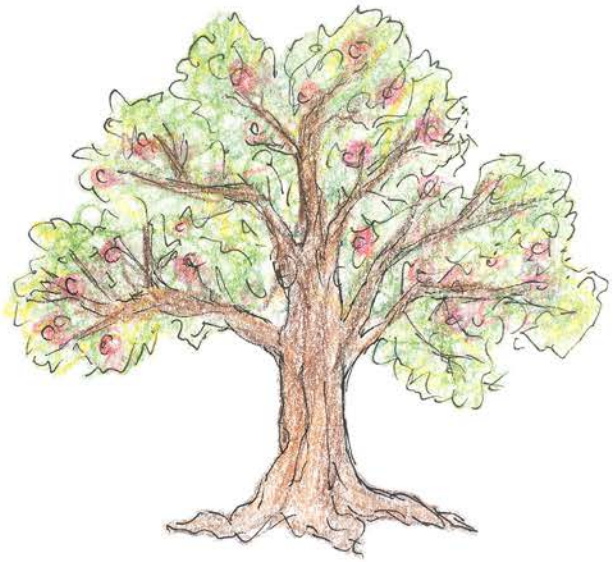
Peach

Pear

Fig

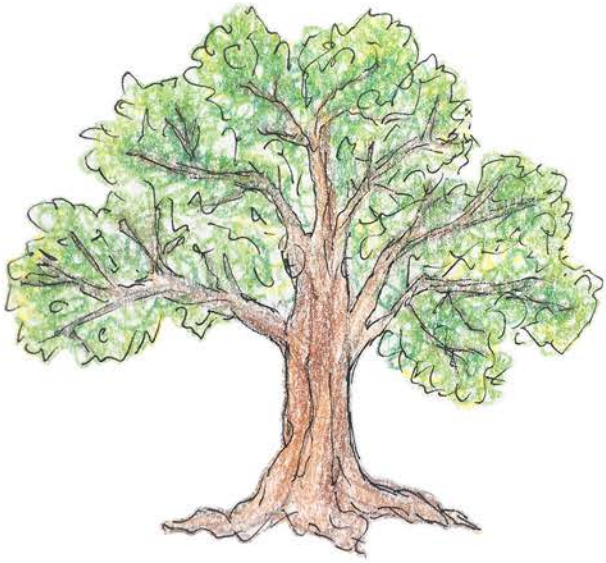
TREES IN EACH SEASON

(Deciduous)



SPRING

The tree starts growing and flowering, and sprouts new leaves.

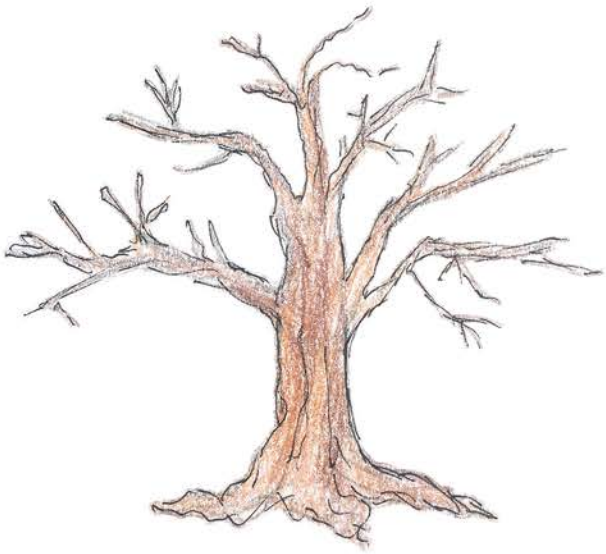


SUMMER

The tree keeps growing and bears fruit.

FALL

The tree stops growing, and the leaves change color.



WINTER

The leaves fall off to help the tree conserve energy in the cold weather.

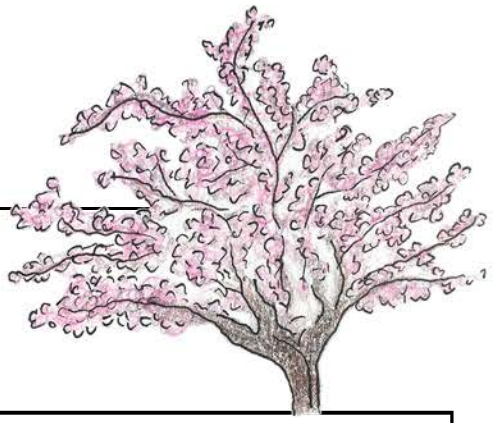
MY TREE IN SPRING

Record observations of one tree
in all four seasons.

NAME: _____

DATE: _____ /_____ /_____

TREE SPECIES: _____



DRAWING:

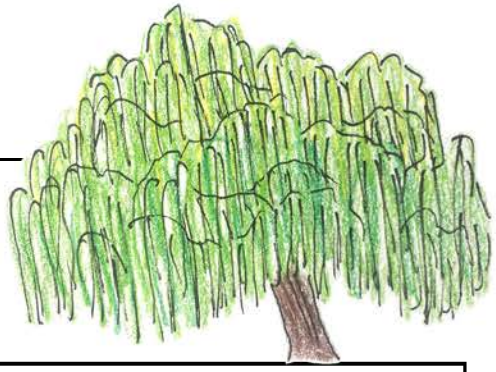
MY TREE IN SUMMER

Record observations of one tree
in all four seasons.

NAME: _____

DATE: _____ /_____ /_____

TREE SPECIES: _____



DRAWING:

MY TREE IN FALL

Record observations of one tree
in all four seasons.

NAME: _____

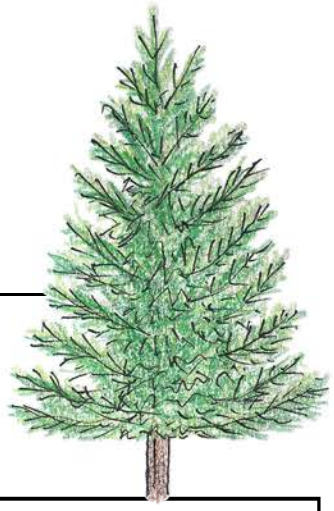
DATE: _____ /_____ /_____

TREE SPECIES: _____

DRAWING:

MY TREE IN WINTER

Record observations of one tree
in all four seasons.



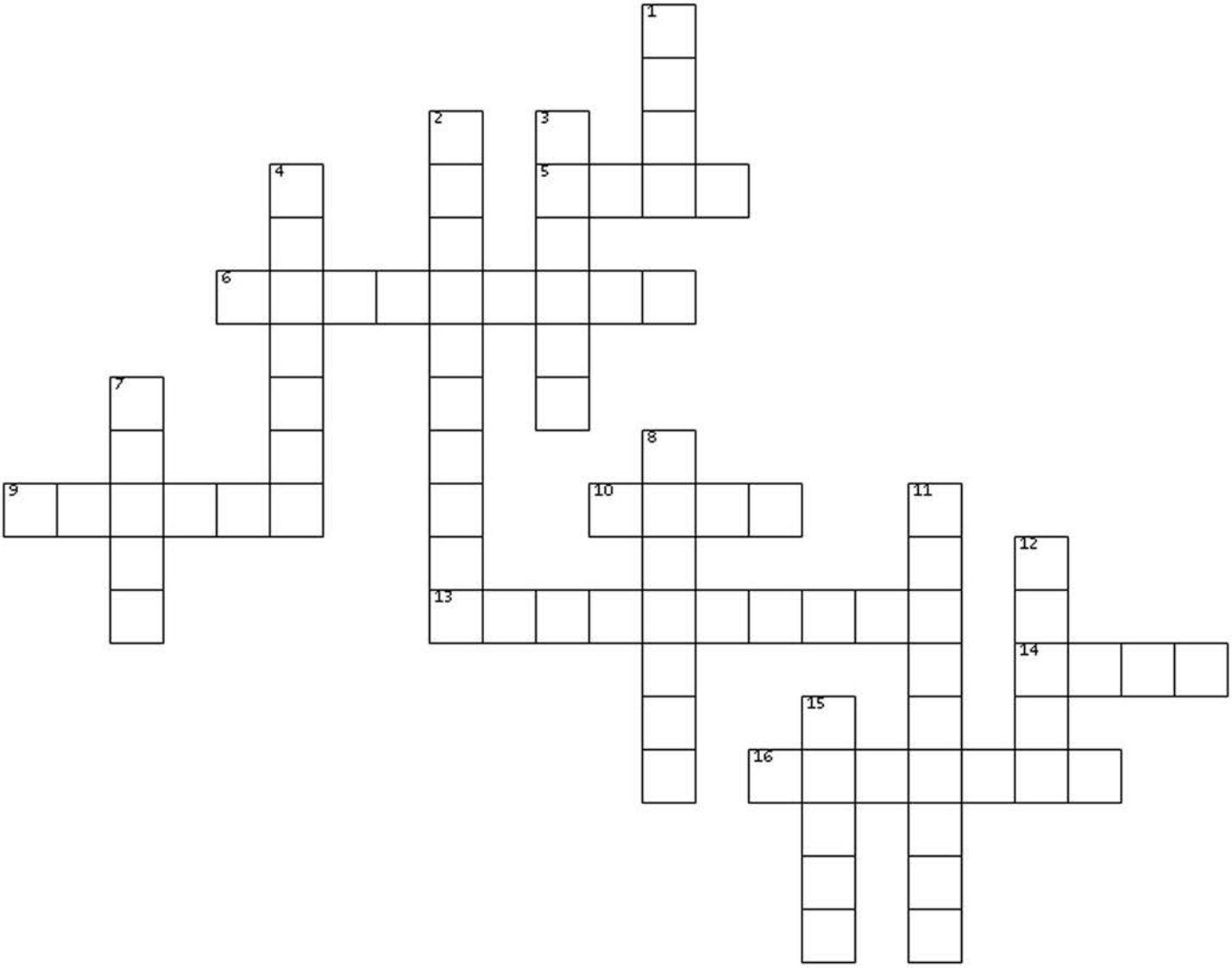
NAME: _____

DATE: _____ /_____ /_____

TREE SPECIES: _____

DRAWING:

CROSSWORD PUZZLE



ACROSS

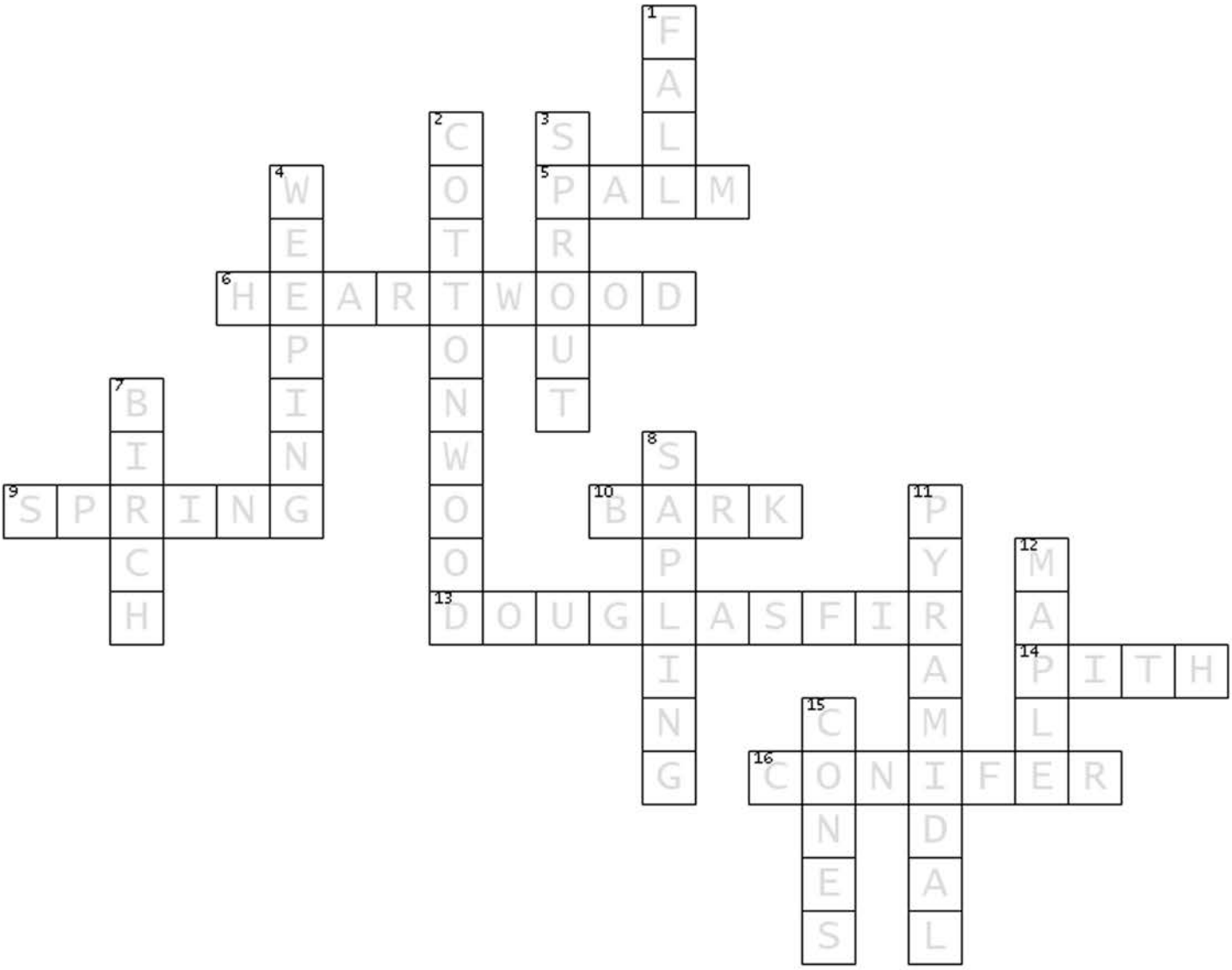
5. Tropical tree that can produce coconuts
6. Dead cells that strengthen and support a tree trunk, storehouse for sugars and oils
9. Trees start growing and flowering in this season
10. Outer layer of the tree trunk that protects/insulates the tree and regulates moisture
13. Tree with reddish-colored cones and dark green needles
14. Core of a tree trunk
16. Trees that stay green all year and can grow in poor soil

DOWN

1. Leaves of deciduous trees change color in this season
2. The state tree of Kansas, Nebraska, and Wyoming
3. The step in the deciduous life cycle where the seed grows roots into soil to search for water and nutrients
4. Willow trees are this shape
7. This type of tree has peeling, white, paper-like bark
8. A small tree that grows rapidly
11. Christmas trees are this shape
12. This tree has sap that can be boiled into syrup
15. Conifers' seeds come from fertilized

_____

CROSSWORD PUZZLE



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