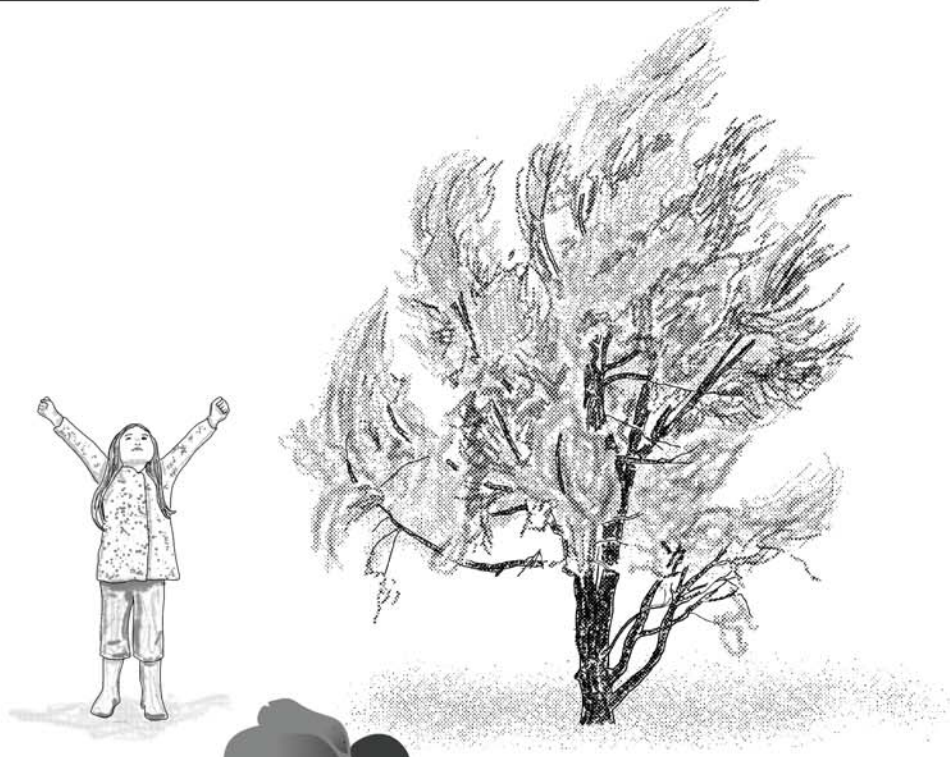


The Wondrous World of Trees:

With Allie, the Alligator Bark Juniper



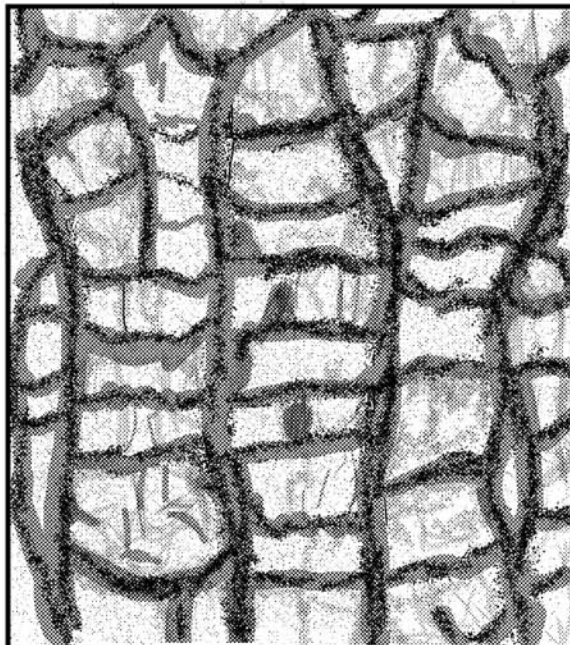
Santa Fe
BOTANICAL GARDEN

CELEBRATE • CULTIVATE • CONSERVE

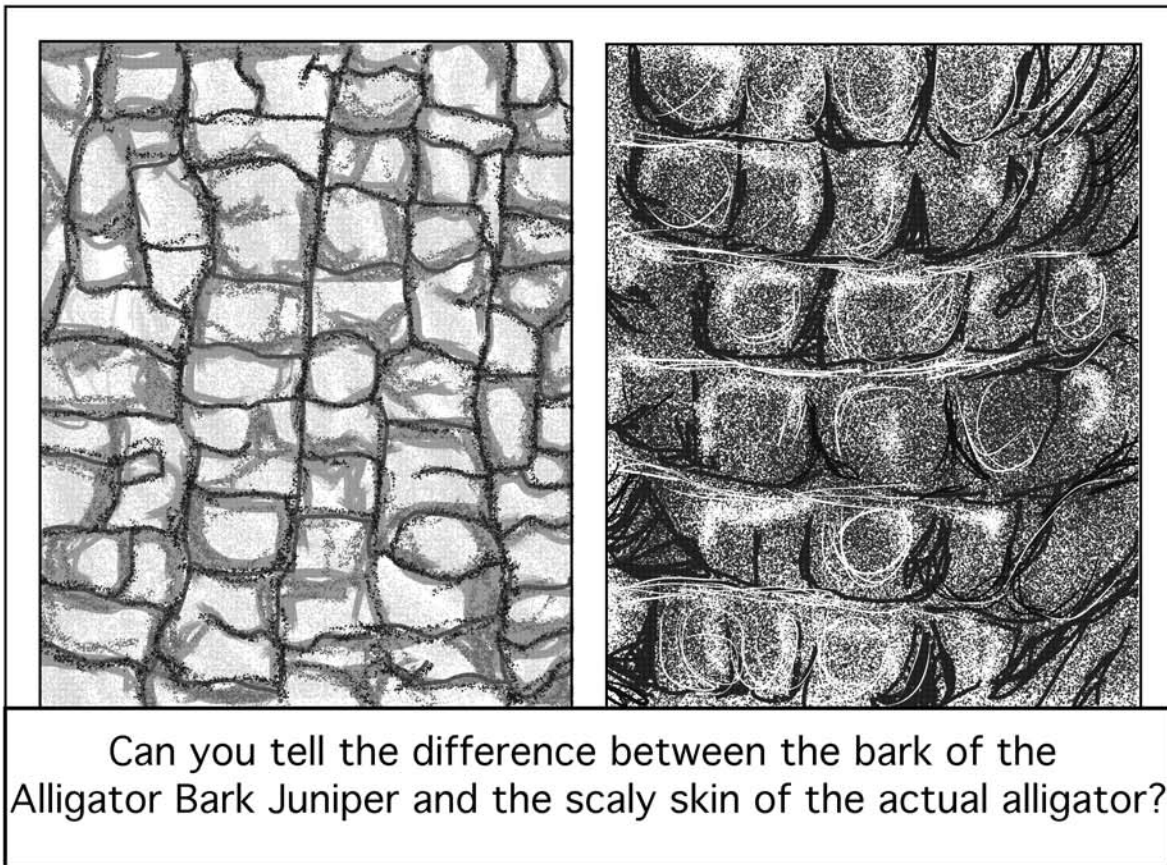
<http://www.santafebotanicalgarden.org>



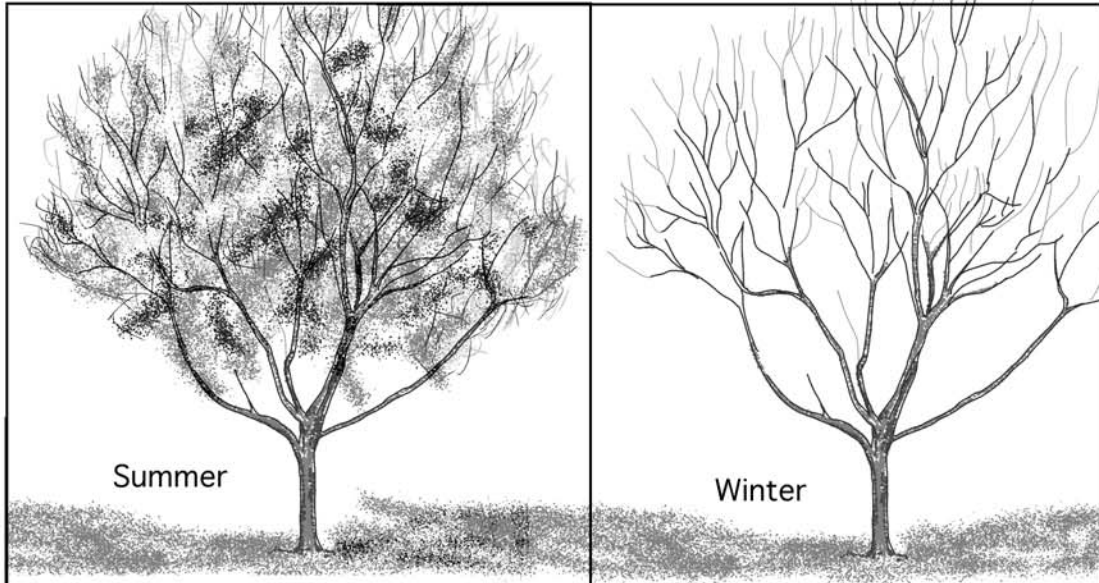
Don't be scared!
I'm not a real alligator!



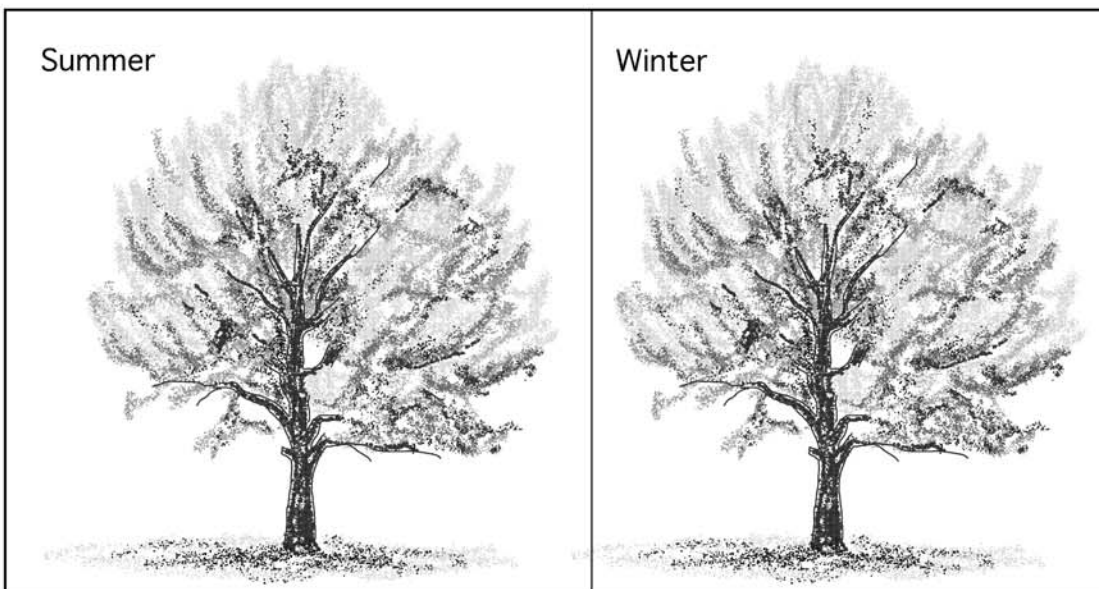
I am a type of juniper
tree with rough bark.



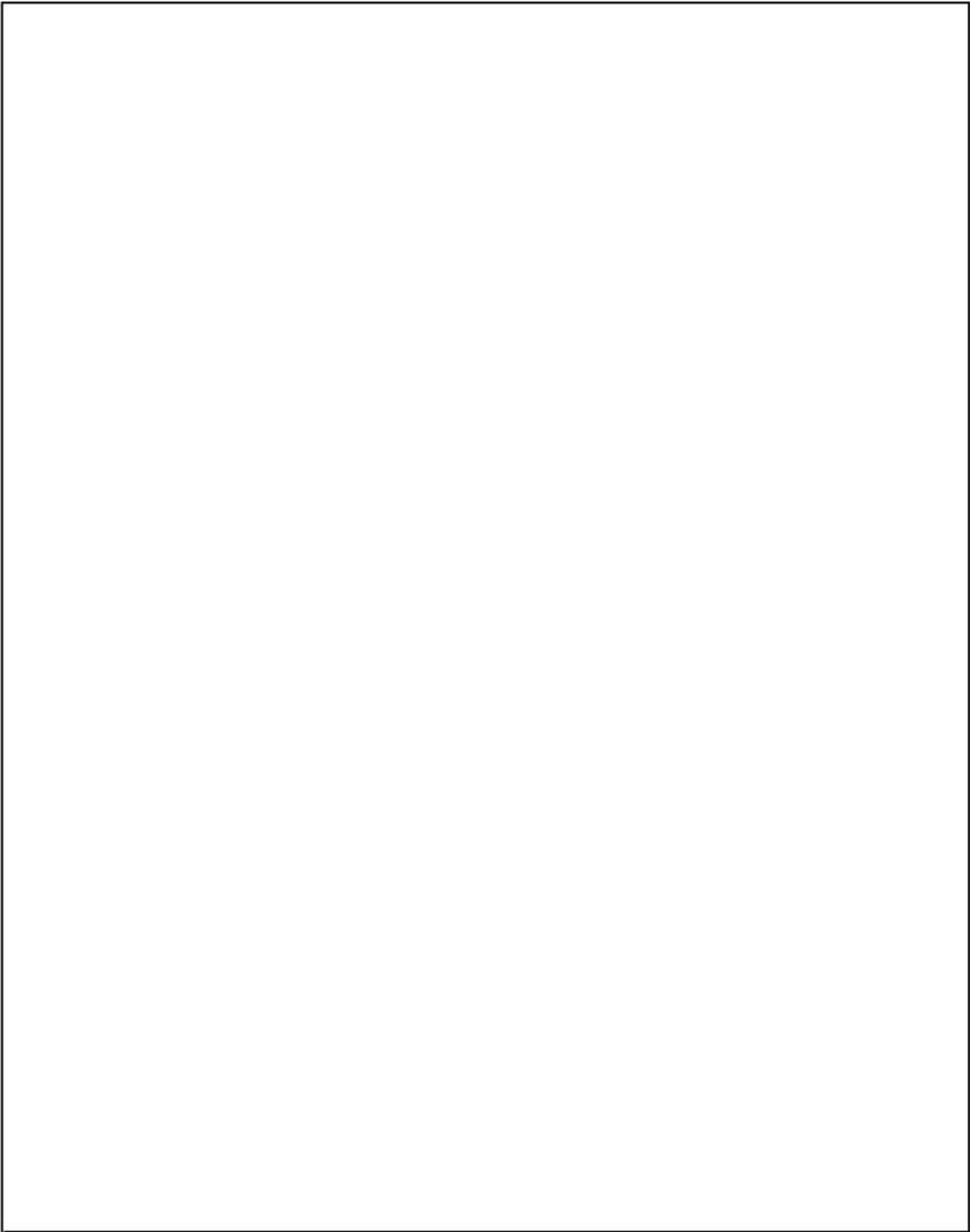
If you look around the garden you will see many different trees. There are two primary types of trees. These are deciduous and evergreen.



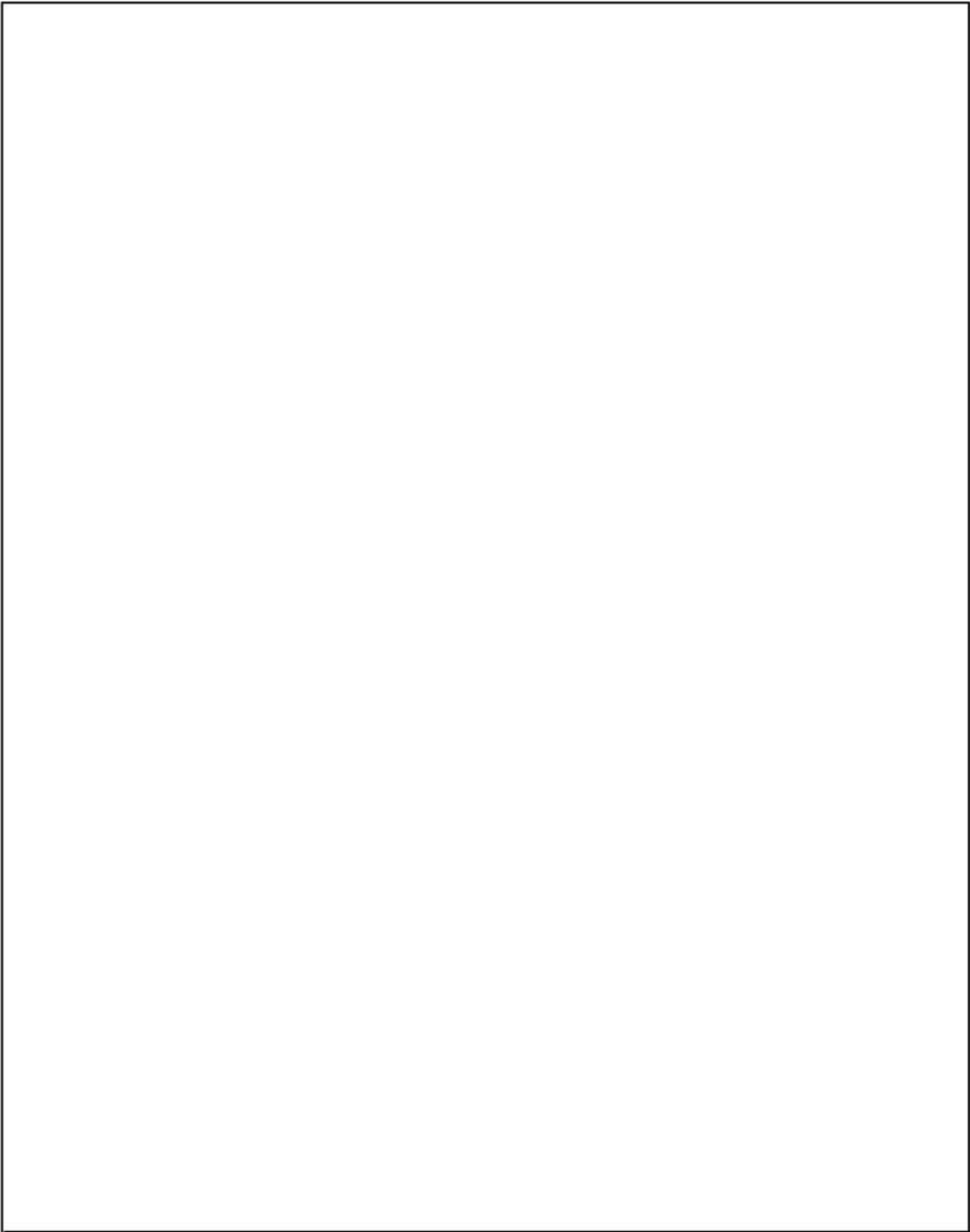
In the winter Deciduous trees lose their green leaves.



Evergreen trees keep green leaves all year.



Look around the garden and find a deciduous tree. Some of the trees in the garden are the Texas Red Oak, the Desert Willow, and the Gambel Oak. Draw your favorite deciduous tree in the space above.



Look around the garden and find an evergreen tree. Some of the evergreens in the garden are the Ponderosa Pine, the Pinon Pine, and the Alligator Juniper. I am an evergreen! Draw your favorite evergreen tree in the space above.

Anatomy of a Tree

Canopy: The leaves of the tree take water, carbon dioxide, and sunlight to make food for the tree. This process is called photosynthesis. Trees store this energy in the form of glucose.

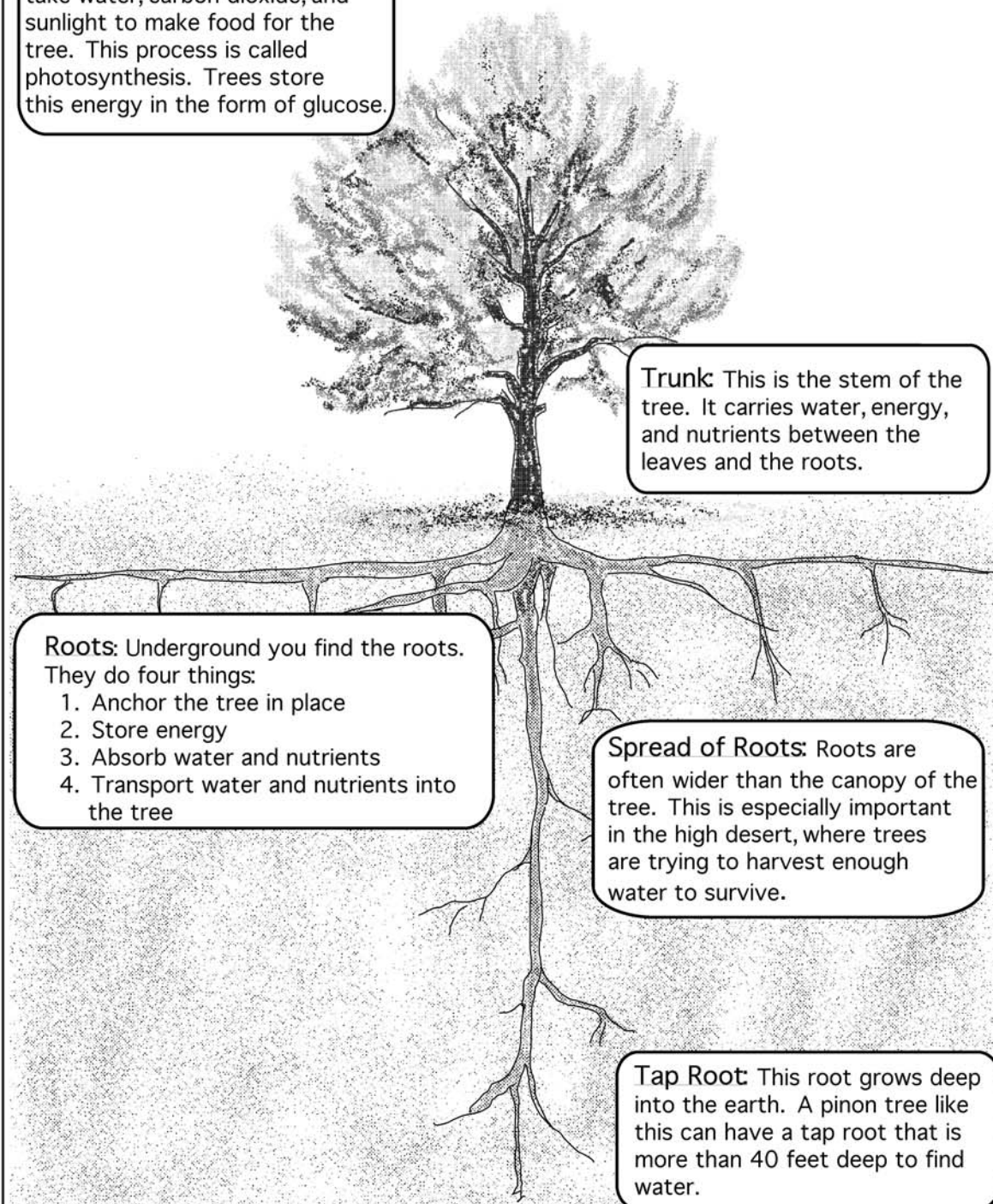
Trunk: This is the stem of the tree. It carries water, energy, and nutrients between the leaves and the roots.

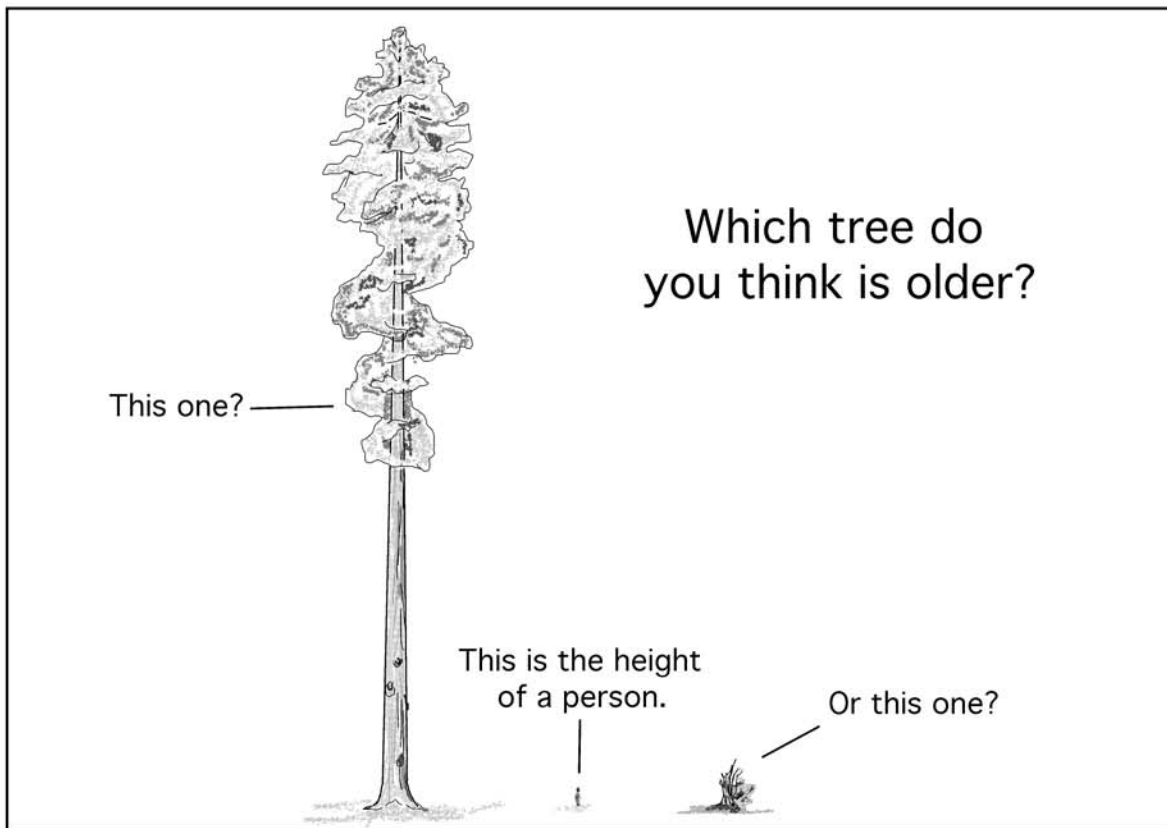
Roots: Underground you find the roots. They do four things:

1. Anchor the tree in place
2. Store energy
3. Absorb water and nutrients
4. Transport water and nutrients into the tree

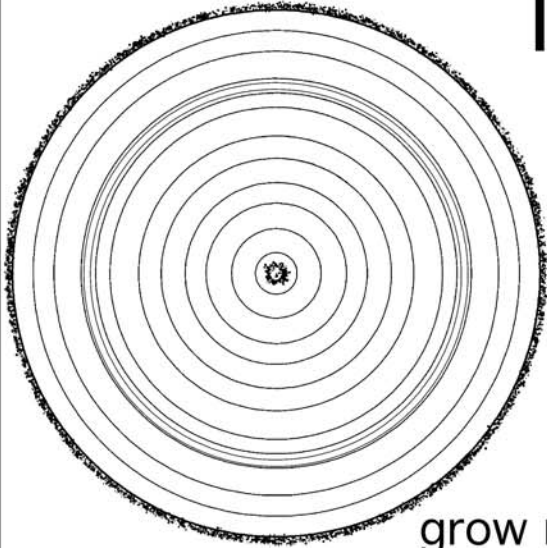
Spread of Roots: Roots are often wider than the canopy of the tree. This is especially important in the high desert, where trees are trying to harvest enough water to survive.

Tap Root: This root grows deep into the earth. A pinon tree like this can have a tap root that is more than 40 feet deep to find water.





Tree Rings



You can see how old a tree is by counting how many rings it has. Every tree grows at a different speed. Some trees grow quickly, and some trees grow much more slowly. I have a slow rate of growth. However, I am not as slow growing as my cousin the Bristlecone Pine!

I am a Redwood.
I am about 750 years old. I start my life growing fast. I slow down when I get tall enough to get sunlight.



Find the tree samples in the backpack.
Which is the oldest?
Which is the youngest?

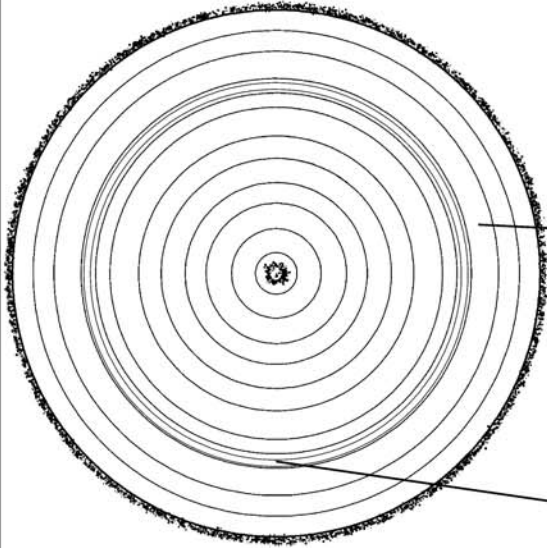
I am a human.
I am 10 years old. But I don't have rings!



I am a Bristlecone Pine.
I am about 4,000 years old. I grow very slowly. The oldest Bristlecone Pine was more than 5,000 years old. It was around when the pyramids were built!



Tree Rings



When trees are healthy, they can grow quickly. During these years they grow thick rings. Like this.

Other years a tree might struggle because of drought, fire, competition, diseases, or pests. Trees grow thin rings these years. Like this

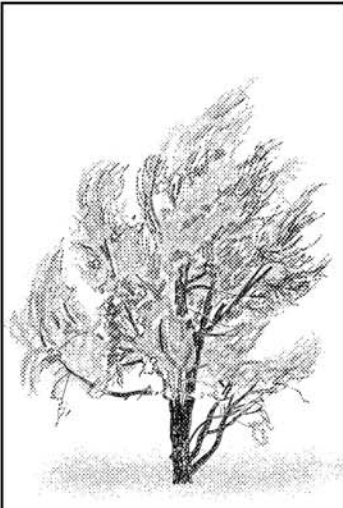
Look at the tree samples in the backpack. Can you find thick and thin rings?

Imagine you are a tree. How many rings would you have?

Which are your thick rings, and which are your thin rings?

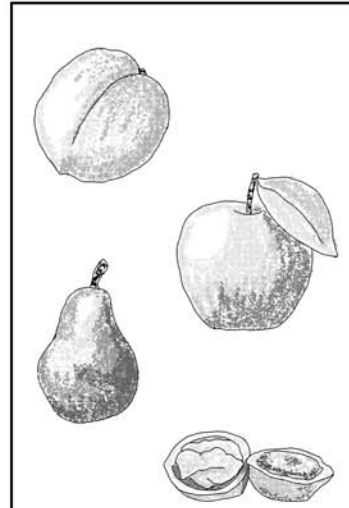
Draw your life in tree rings below. Label what made a year good or bad.

Why are trees important?



Trees like me are really important. We do a lot of great things for the Earth!

We make oxygen. Just the trees on the Santa Fe Botanical Garden land will make enough oxygen for 200 people to breathe this year. You are probably breathing some of the air we made right now!



We also make food. Do you like peaches, pears, almonds, apples, or walnuts? All these foods and many more grow on trees!

There are 21 types of trees in the garden. How many can you spot?
Make sure you look for me, Allie!

Why do you like trees? Draw or write some of your favorite things about trees here.

Tree Ring Maze

Can you find your way from the center of the tree, out through the fire scar?

