

Tree Parts Song

First Grade

Science: 2.b., 2.e.

Objective:

Students learn about the parts of a tree.

Method:

The class sings a song together.

Materials:

None! Optional: picture of a tree and its seeds, flowers, and/or fruits to show the class, preferably a valley oak, giant sequoia, blue oak, incense cedar, sugar pine, ponderosa pine, or other native tree found in this area.

Background information:

One of the best ways to teach kids about trees is to show them that a tree is made of many distinct parts. This song is a great way to precede a lesson on what exactly a tree's roots, stem, fruits, seeds, leaves, and crown are and what they do. Once they learn about the tree's parts, they can understand how trees as a whole function and what makes one species of tree unique from other trees.

The song is to the tune of "Heads, Shoulders, Knees, and Toes." It is accompanied by hand motions indicating the part of the tree that is being sung about at the moment. The motions are illustrated below.

A sample discussion surrounding tree parts is included in the procedure. Please adjust the content to fit your students' abilities.

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| <p><u>Crown, Branches, Trunk and Roots</u></p> <p>① Crown, ② branches, ③ trunk and roots, ④ roots,</p> <p>③ Trunk and roots!</p> | <p>① Stick figure with arms raised above head (Crown) ② Stick figure with arms raised to shoulders (Branches) ③ Stick figure with arms raised to waist (Trunk) ④ Stick figure with arms raised to knees (Roots)</p> |
| <p>① Crown, ② branches, ③ trunk and roots, ④ roots,</p> <p>③ Trunk and roots!</p> <p>⑤ Leaves and seeds and,</p> <p>⑥ Flowers and fruits,</p> | <p>⑤ Stick figure with arms extended horizontally (Leaves) ⑥ Stick figure with arms raised to shoulders (Flowers) ⑦ Stick figure with arms raised to shoulders and small circles around them (Fruits)</p> |
| <p>① Crown, ② branches, ③ trunk and roots, ④ roots,</p> <p>③ Trunk and roots!</p> <p>(repeat 2 - 3 times)</p> | <p>⑧ Stick figure with arms raised to waist (Trunk)</p> |

Procedure:

1. Sing the song with the motions once for your students.

- i. *Capture the sun's energy to make sugar during photosynthesis.*
 - ii. *Help move water throughout the tree.*
- 9. Seeds
 - a. Ask your class to point out any seeds, such as acorns if you're looking at an oak.
 - b. Ask what the seed does. *It grows into a new plant.*
- 10. Flowers
 - a. Ask the class to point out any flowers.
 - b. Ask, what is pollination? *When pollen gets spread from one flower to another, mixing the genes of two flowers or trees together.*
 - c. Ask, what do the flowers do? *They get pollinated and produce fruits, then seeds.*
 - d. What kinds of animals pollinate flowers? *Bees, wasps, birds.*
- 11. Fruits
 - a. Ask the class to point out any fruits.
 - b. Ask, what does a fruit do?
 - i. *It nourishes the sapling that germinates from the seed.*
 - ii. *It may also encourage animals to swallow the seed and poop it out elsewhere, distributing the seeds over a greater area.*
 - iii. *Scrub jays, for example, take acorns and plant them in the ground, storing them for later as a tasty treat. They forget where some are hidden, though, and those may grow into trees.*
 - c. How does the tree make fruits?
 - i. *Flowers are pollinated to create fruits.*

2. Invite your students to sing along with you. Do a few rounds until everyone has memorized the song.
3. Proceed by asking questions about the different parts. Sing the song a few times between questions if the students get restless.
4. The crown
 - a. Show the class a picture of a tree or take them outside to see a real, live tree. *The crown is the leafy top of the tree.*
 - b. Explain that the crown of a tree is like the crown of your head, the top. Your head holds your hair, and the crown holds the leaves.
 - c. Ask why the crown is at the top of the tree. Why would it be better if the leaves were high up on the tree?
 - i. *The leaves can get more sunlight if they are high up and are not shaded by other plants.*
 - ii. *If the crown didn't hold the leaves up at the top of the tree, water would not reach its branches and trunk. By transpiring water, or letting it evaporate, leaves suck water from the bottom to the top of the tree. Transpiration works the same way that sucking on the end of the straw draws water up into your mouth; it creates a vacuum.*
 - d. Ask, what would happen if the crown caught on fire and burned up?
 - i. *The tree would not get the energy from the sun that it needs, and it would die.*
 - ii. *Also, it would be unable to draw water up from the roots; that would also kill it.*
5. Branches
 - a. Ask your class to point out the tree's branches.
 - b. What do the branches do?
 - i. *They hold the leaves out to the light. The branches are spread out high in the tree so that a maximum number of leaves can get sunlight.*
 - ii. *The branches also hold flowers, fruits, and seeds.*
 - c. Explain that the tips of the branches make up the crown of the tree.
6. Trunk
 - a. Ask your class to point out the trunk of the tree.
 - b. What does the trunk do?
 - i. *It supports the tree's crown and branches.*
 - ii. *It contains tubes that distribute water and nutrients through the tree. The xylem distributes the water. Phloem distributes the nutrients.*
7. Roots
 - a. Ask your class to point out the roots.
 - b. What do the roots do?
 - i. *Roots suck water and nutrients out of the soil.*
8. Leaves
 - a. Ask your class to point out the leaves.
 - b. Ask, what do the leaves look like? How are they shaped? How do they feel? Are they large or small? Why do you think the leaves are like this? How could they help the tree?
 - c. What do the leaves do?