The Sensory Table allows participants to explore the parts of trees and ask questions about them. We like to include tree parts that people may not have noticed before alongside some more common items. Specifically the sensory table focuses on how trees grow, but if you have any other ideas feel free to incorporate them and let us know what you did and how it worked!

If someone asks a question and you don’t know the answer, it is okay to say you don’t know and ask the question back, like “I am not sure... How do you think it does that? Often people come up with their own answers that might be correct, and they can think about how to figure them out.

Materials
Any tree parts you can find make good sensory table materials! If you need help, just contact Tree Pittsburgh, and we would be glad to share with you or let you borrow one of our sensory table boxes.

- Kentucky coffeetree Pods and Seeds (seeds are inside pods with sugary goo)
- Large musical seed pod—from Miami or Puerto Rico, the Flamboyant, Royal Poinciana, or Flame Tree
- Bur Oak Acorns (large, spiny/hair cap, biggest are from a tree in Allegheny Cemetery or at Prospect Hill in Schenley Park)
- Pin Oak Acorns (teeniest acorns, sometimes have stripes, found city-wide)
- Red Oak Acorns (smallish round acorns, found city-wide) Chinese Toon seed pod “flowers” (from Allegheny Cemetery trees)
- Longleaf Pine cones (the biggest ones, from Florida)
- Dawn Redwood cones and seeds (tiniest cones, seeds look like oats)
- Wood cookies from trunk of tree (various species and sizes, species may be written on one side)
- Magnifying glasses
- Tree Smells:
  - Cinnamon
  - Pine
  - Birch
  - Sassafras/birch
  - Ginkgo berries,
  - Maple syrup, etc

Tree Smells were created by purchasing scented oils and putting them on cotton balls in film canisters. You could also make tree smells for a single use by using orange peels, ground cinnamon, maple syrup, birch beer, pine scent, etc in small containers. But these will not “keep” so be sure to empty them out when you are done!

How do trees grow?

If you hung your jacket on this branch and came to get it in 10 years, where would your jacket be?

Most kids probably think trees grow up and up and up. But if you were to hang your jacket on a low tree branch and come back in 10 years, would it be 10 feet higher in the air? No—it might be further away from the tree trunk, but it wouldn’t be higher in the air. All the tips of the branches and the tip of the top of the tree grow outward, adding new layers each year. The branches stay in the same places, and new branches grow from the top and tips as the tree grows.

Go to the newly planted tree or a recently planted young tree and (gently) point out a low branch. At the end of the branch there will be a spot where there is new, bright green growth—this is the newest part of the tree that has grown since spring started. You can see where it stopped growing in fall at the end of the green, where there is lighter brown growth.

Since trees add layers each year, you can also see how trees grow in tree rings, on the wood cookies. Tree rings are wide in the middle because the tree was young and growing fast! Tree rings get skinnier as the tree grows more slowly, or if the year was hard for the tree—if there was not enough rain, for example.

Where do trees get the energy to grow?
From the sun. The green part of the leaves contains a pigment called chlorophyll, and the chlorophyll in the plant cells acts as solar panels that harvest sunlight and make energy in the form of sugars with it.

What else do trees need to grow?
Sunlight, water, carbon dioxide, space, love. Students can check out the wood cookies/tree slices and growth rings and make guesses at how old the tree was when it was cut.

Questions for the Table Items
- What do many of the items on the table have in common?
Meet a Tree

This exercise works best if you have good control over your group, and many trees in one spot, whether it is in your schoolyard or nearby.

Goal:
to encourage students to take a closer look at trees without using sight, to explore bark texture as a way to identify trees.

Materials:
blindfolds/straps of cloth
multiple trees

Time:
about 15 minutes total

Allow students to choose partners or assign them. One student will blindfold the other and lead them carefully to a tree in a roundabout way. The blindfolded student feels the tree carefully and gets to know it through the sense of touch and is returned (usually in a roundabout way) to the starting point. The blindfold is removed, and the student finds ‘their’ tree. The students switch roles.

Important:
Give students boundaries (only use the trees between the parking lot and the front of the school, etc) and demonstrate with a volunteer how to lead their blindfolded partners—one hand on the elbow and one hand on the shoulder—and encourage them to tell each other to step over things, etc. Also be very clear with the rules about safety: if anyone is being unsafe with their partners, they will stop the game and sit with the teacher.

Questions/Connections:
• How can you tell the difference between one tree and the others?
• Does the bark feel different from your tree to your partner’s tree?
• Why do trees have different types of bark?

How do some of these seeds get around?
Pines: wind
Kentucky coffee tree: animals that are now extinct ate them and spread them. Now, humans must plant them.
Acorns: animals (turkeys, squirrels)
Tree Smells (scents will be listed on the bottom of their containers. Unscrew the lids and rubber band a piece of fabric to the jars so they can be easily sniffed, and replace the lid when you are done.)

Some trees can be identified just by their smell. Do you recognize any of these tree smells?

Other Ideas:
Place sensory table items in dark colored bags or in boxes and have students guess at what they are by feeling them.

Ask participants to describe all the good things trees do for them.

They all come from trees!
Many of them are seeds! Etc.

• Which seeds do you think grow the biggest trees?
  Bur Oak: 100ft
  Dawn Redwood: 200ft+
  (smallest cone, seeds look like oats)
  Longleaf Pine (largest cone on table) 90ft

Many of them are seeds! etc.

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Elementary Grade Activities

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