



Trees and Other Plants

Trees tend to be in the background of our daily life. They do get some attention in the fall with the changing colors of the leaves, and in the spring when they are flowering. Yet, they have a certain presence that at times goes beyond just observing them: when an old trees is suddenly cut down, people notice and protest. In the aftermath of a strong storm when some trees are knocked over, people lament their loss. Various mythologies around the world have given special symbolic value to trees. In Jungian psychology, they come up as being symbolic of multiple associations. They also figure prominently in some creation myths. Michael Perlman, in his book *Power of Trees*, writes about the strong connections we can have about trees. He cites a number of patients he was counseling who mention trees as a personal symbol. Other psychological investigators have noted that trees symbolically evoke the soul, personality and biography. (Perlman, p 39.)

It is a worthwhile practice for students to do an extended observation of trees. They provide a way of developing an understanding of plant life and the intricacies of how plants survive. Taking a similar approach as with studying pond organisms, trees can be observed over the whole school year. Some time is taken in the fall, a few sessions in the winter, then multiple sessions in the spring. If the school is fortunate enough to be next to a park or woods, then a richer experience can happen. There are usually trees planted on the school grounds, or they might be in the nearby neighborhood. In the spring, students can collect seeds from outside and see if they germinate. Students can arrange a particular set up in the classroom to observe the shoots and roots as they grow and change. The whole tree in its outline and its branching structure exhibit interesting aesthetic arrangements. The changing leaves in the fall and the flowering in the spring present a wide range of colors and shapes for students to observe and draw inspiration from.

Drawing just the outline of a tree is readily done, but trying to capture the branching pattern is particularly challenging. In this situation, students can use their cell phones or a cheap digital camera provided by the school to capture changes of trees during the year. Some of these photos can be shared on the internet by way of special websites or the more general ones such as Pinterest.

A curriculum guide for the science activities can be found at: [amazon bernie](#)

ART

Practicing the drawing of trees

Students can make leaf rubbings.

Students can make designs or drawings using leaves.

Imaginary trees

Students can draw imaginary trees with both branching patterns and root structures. Ways of making trees can be found on Pinterest

SCIENCE

Fall

Students can go on field trips to observe trees. This can happen just outside the school building, at a nearby park, or if possible, a forest. At this point, they are encouraged to survey what kind of trees are present and observe some of their parts. With digital cameras or cell phones they are free to take photos for recording observations and for artistic purposes.

During a second trip, students pick one or three trees they will adopt and observe for the whole school year. They can both make drawings and take photos. Back in class, they can discuss what they like about the tree they adopted.

Winter

Students can take several field trips to observe their adopted trees and to observe the overall skeleton and branching patterns of different kinds of trees.

Spring

Students can set up an experiment where a germinated seed is placed on a vertical surface, such as cardboard covered with plastic. Make a sandwich-type arrangement, with wet towels placed between plastic saran wrap. Over several weeks, students can record the growth of the stems and the roots.

Drawing flowers

Making designs involving flowers

Some of the drawing mentioned in the science section could be done in the art classes.

Several field trips are carried out to observe the adopted trees and other flowering trees.

Several kinds of observations and experiments can be done as follows:

Making leaf designs.

Drawing imaginary trees with different branching patterns and root systems.

Drawing different kinds of flowers.

Design a branch that has an optimal arrangements of leaves using a dowel for a branch and post-its for leaves.

Estimating the surface area of a leaf and the total surface of leaves of a selected tree.

Constructing a model tree using wire. See Pinterest for possible methods.