

Choosing Educational Stations

Remember when pointing out decomposition sites, herb beds (i.e. jack in the pulpit found here), animal signs, nests, etc., these sites will change over time. Here are some ideas for trail sites (these topics are discussed in more detail in the movie worksheets at www.makingtrackschallenge.com):

a) **Tree ID** - Mark different species of trees to get a good profile of the tree species on your trail. Don't nail things into your trees for this purpose. You can put a colored, numbered stake in the ground at the base of a tree that people will see and can check their guide for the tree's name. Or use a dichotomous key to identify trees. Introduce trees with some fun tree activities before going out onto the trail too.

b) **Wildflower ID** - Known areas where perennial wildflowers bloom can be marked in the same way as the trees with a colored stake in the ground (i.e. green for trees, red for flowers, etc.).

c) **Other Plants** - The same for non-flowering plants like ferns, clubmosses, moss, lichens and horsetails.

d) **Animals Signs** - These can teach about life cycles, food webs, reproduction, camouflage, adaptations and predator-prey relationships. Examples of these are woodpecker trees, bird nests, tree scratches and chewed areas, beaver trees, dams and lodges, insect galls and nests, animal tracks, shed feathers, quills, owl pellets, bones, antlers, and scats. Many of these are obviously temporary and will pass in weeks or days. But don't worry, they will make more for you to discover!

e) **Forest Succession** - This can take the form of a nurse log covered with moss and hosting tree seedlings and animal middens, or a fallen or cut tree leaving an open area where many young trees are growing in a crowd, or comparing a pioneer pine, huge and branching, to the same species straight and tall that came later and grew quickly to compete for dwindling sunlight.

d) **Stream Ecology** - At a crossing talk about how animals come to drink at streams so it is a good place to watch for animal trails and tracks and the species that actually live in the stream like fish, crayfish, tadpoles and frogs, water striders, whirligigs, etc.

e) **Decomposition** - Especially in the late summer and fall, the search for mushrooms, tree fungus and conchs is fun and interesting. Discuss the great importance of breaking down yearly leaf fall, dead trees, and dead animals and returning their nutrients to the forest floor for new growth. Also how decomposition in standing and fallen dead trees can open up nesting places for birds and mammals, etc.

f) **Life Span of Trees in History** - This is a very interesting way to combine natural science and history by comparing the life of a 200-year-old tree with what it has "seen" happen to our country in its lifespan. Making a tree ring history chart is a fun exercise for kids.

g) **Wetlands** - Observing the increased birdlife, plant life and even annoying insect life in a wetland helps illustrate the biological importance of this type of habitat. If your trail can traverse or approach a wetland, it is a great forum for discussing how wetlands benefit man (and animals). Also talk about the history of wetlands and how we misused and destroyed them, necessitating the Wetlands Protection Act.

h) **Soil Profile** - An area where a steep bank has cut away is a good spot to explore the soil, how roots penetrate it, the rocks there and the soil layers.

i) **Competition, Adaptation and Survival** - Observe a tree growing over a boulder, its roots traveling over the rock to reach the ground to reach water. Taking this barren spot eliminated the competition. It adapted for survival. Pointing out a spot like this is a good forum for discussing competition, adaptation and survival.

j) **Layers of the Forest** - The forest can be broken down into many layers for study. Choose an area where you can clearly see the canopy or tree layer, small tree layer, shrubs layer, herb layer, litter layer or ground later and soil layer to talk about this forest profile.

k) **Human Effect on the Trail** - Introducing conservation can be done by showing human sign in the forest like logging roads and stumps and talking about the timber industry, showing cleared or burned areas growing back, old fences or signs nailed to trees and how they grew over them, garbage dumps grown over with weeds, old forge sites, etc. Not all human effects are negative! You can show maple sugaring sites, and remind them that the very trail they are on represents human activity in the forest and they can be there without ill effect if they respect the forest and leave no trace.

l) **Conservation Clubs and Community Service** – A nature trail is a great rallying point for clubs to get together and have community events, like town litter pick up days, get outside and play days, etc. Trails can also be used by exercise clubs and as family recreational destinations. Invite your community to use and help maintain your school nature trail.