



Woodland Ecosystem Study

Pre-Trip Vocabulary

Grades 4-5

Please familiarize your students with the following vocabulary words.
This will be most effective just before the program.

1. **Photosynthesis**– the process by which green plants manufacture simple sugars in the presence of sunlight, carbon dioxide, water and chlorophyll
2. **Chlorophyll** – the green pigment found in plants that can use light energy from the sun to turn water and carbon dioxide gas into sugar and oxygen
3. **Decomposition** - the process where dead material is broken down into simple elements that can be returned to the soil and atmosphere
4. **Ecosystem** - a community of living (biotic) organisms and non-living (abiotic) environmental factors working together as a unit
5. **Habitat**– an area that provides an animal or plant with adequate food, water, shelter and living space in a suitable arrangement
6. **Interdependence** – a condition where the plants and animals living together in an area depend upon one another for survival
7. **Phloem**– the tissues of a vascular plant that transport dissolved nutrients (food) from the leaves to the other parts of the plant
8. **Xylem**– the tissues of a vascular plant that transport nutrient-rich water upwards from the roots throughout the plant
9. **Cambium** – a thin layer in a plant stem where new growth begins
10. **Heartwood** – the older, non-living central wood of a tree or woody plant, usually darker and harder than the younger sapwood
11. **Sapwood** – the younger layers of new wood. Sapwood is active in the conduction of water and is usually lighter in color than heartwood
12. **Sap** – the liquid transported by the phloem and xylem tissues of a plant
13. **Growth ring** - a layer of wood formed in a plant during a single period of growth. Growth rings are visible as circles of varying width when a tree is cut crosswise. They represent layers of cells produced by the cambium. Most growth rings reflect a full year's growth and are called **annual rings**.

14. **Outer bark** - The tough outer covering of the woody stems and roots of trees, shrubs, and other woody plants. It includes all tissues outside the vascular cambium.
15. **Understory** - the layer of the forest formed by the leaves and branches of the smaller trees
16. **Herbaceous** - having little or no woody tissue and growing usually for a single growing season. A herbaceous plant is a plant that has leaves and stems that die down at the end of the growing season to the soil level.
17. **Canopy** - the layer of the forest formed by the leaves and branches of the tallest trees
18. **Forest floor** - the upper layer of mixed soil and decayed or decaying organic material typical of forested land
19. **Succession** - the natural series of changes in the makeup of an ecosystem or species over time
20. **Regeneration** - the process of renewal and regrowth in a healthy woodland