

Student Exploration Guide:

From Field to Forest



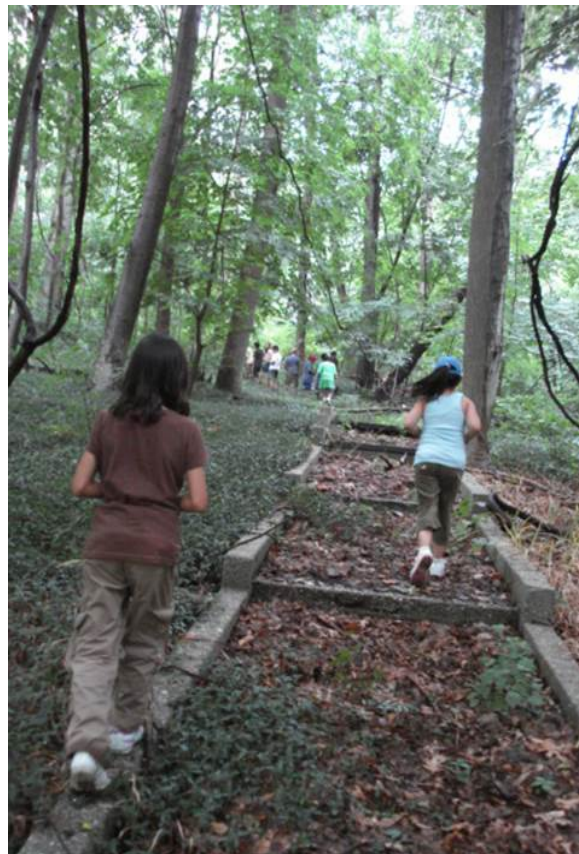
A newly mowed field at Caumsett State Historic Park Preserve

Get Ready to Explore!

This guide will prepare you for your field trip to study the fields and forests at Caumsett State Historic Park Preserve. You'll discover many types of amazing animals and plants during your stay with us.

Caumsett is on the North Shore of Long Island and it was once the grand estate of Marshall Field III. The name Caumsett is a Matinecock Indian name which means "place by a sharp rock."

The students shown here are hiking through the woods near where a one room school house burned down in the early 1900's. These paths were once gardens that are now more natural in how they look – some would even say overgrown! And it's a perfect example of forest ***succession*** – ***how does a field become a forest?***



What will happen on your Field Trip?



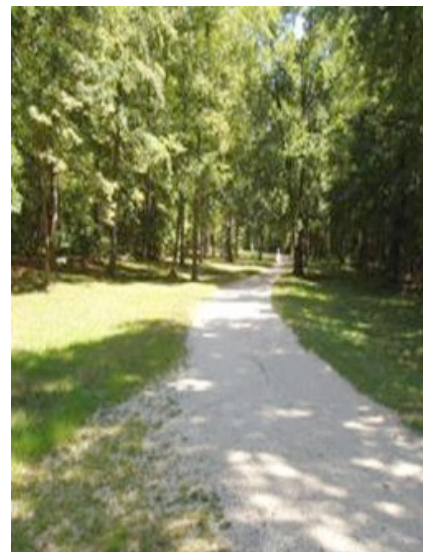
Your bus will arrive at our Nature Center and you will be assigned to a group. You and your classmates will be working together with one of our naturalists. A naturalist is an outdoor educator who has studied many topics about the natural world.

Our naturalists also know lots of great ways to help you understand the subjects you may be learning in school. But now, you will get to see it first hand - not just from a book. It's a great and fun way to learn!

This guide will help you understand about the different field and forest habitats. Bring along your good observational skills and a questioning mind!

Remember to dress for the weather and the season! Dressing in layers is the best way to make sure you will enjoy your day. And don't forget to wear shoes that can get muddy!

Now... get ready to explore!



The Field

Your explorations will begin in one of the many fields at Caumsett. You will probably notice many different types of grasses and other plants too. But what would happen if we stopped mowing the fields?

Succession – what came first?

Woodlands and forests are magical, special places. But how did they get that way?

Succession means when one thing follows another. In ecology, it means how habitats change over time allowing new plants and animals to live there. Let's trace the start of a forest.

Look at the diagram below. You will see that over hundreds of years, what was once bare rock can eventually develop into a climax forest.

In the case of Long Island, the climax trees are mostly oak, maple and hickory. These are **deciduous** trees or trees that change color in the Fall and drop their leaves.

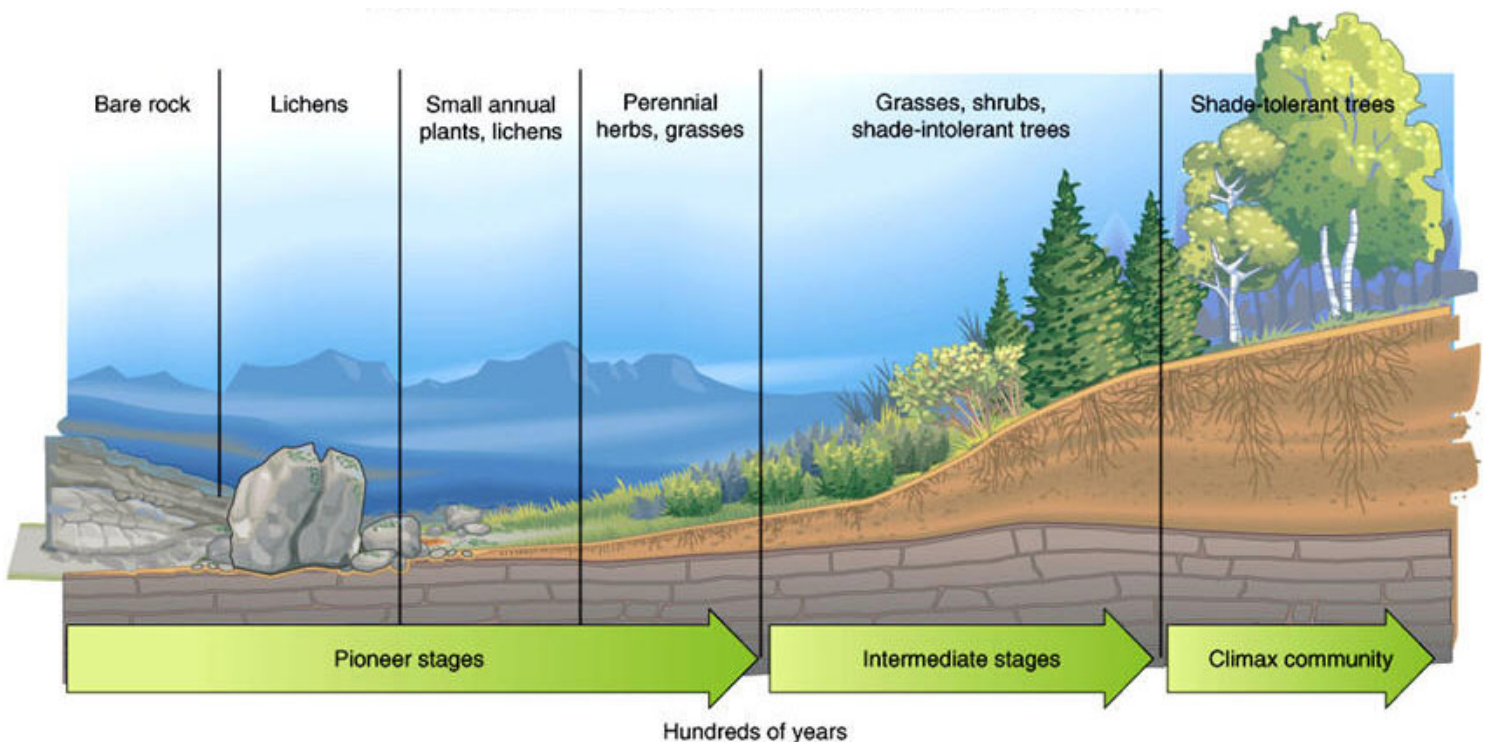


Diagram from: www.sciencescene.com

On Long Island we also have **coniferous** forests. These are forests of cone-bearing trees that we commonly call evergreens.



These trees often make up the climax forest in places where there are poor or very sandy soils like in the Pine Barrens in eastern Long Island.

Photo credit: Sandy Richard



Layers of the Forest

When you walk along a forest trail, look around you and notice that different types of plants and trees will grow to different heights. This simple diagram shows these layers.

The different layers become their own mini-habitats with each layer creating conditions for the animals that live there.

The canopy of the forest is the upper part of the tree where you find most of the tree's leaves. It is the job of the leaves to gather sunlight and make food for the tree.

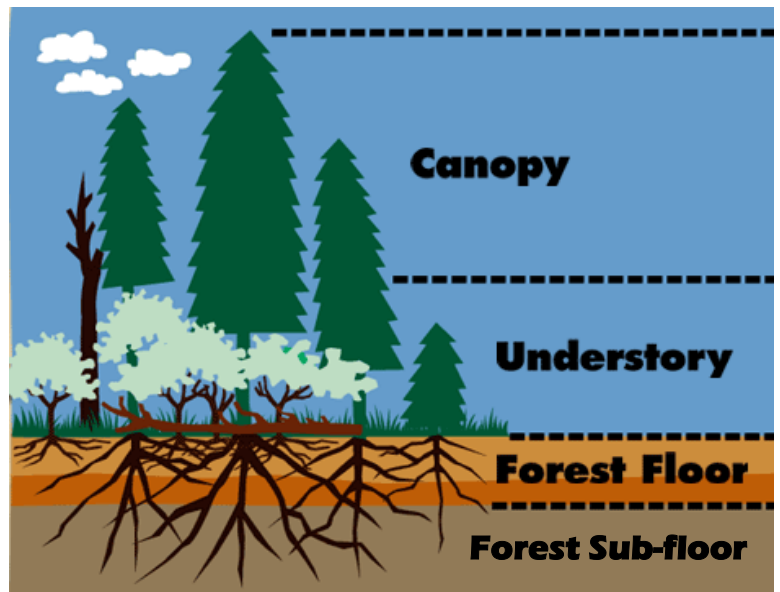


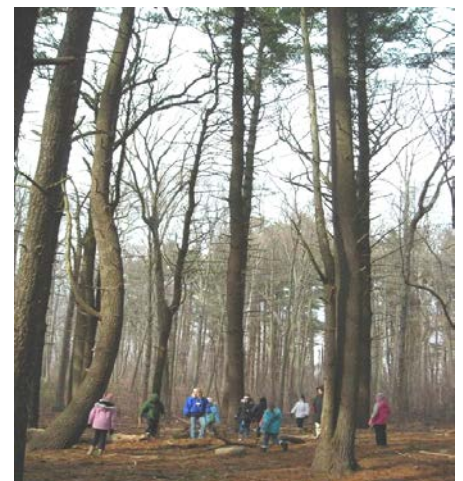
Diagram from: <http://www.insideoutsidenature.com/?p=2262>



A tree in a field may be leafy on all sides with branches near the ground, because it has sunlight all around it.

But in a forest, the trees are close together and will tend to shade each other. This means the leaves and branches are usually only at

the top of the tree and you will notice that a forest tree's trunk is usually somewhat bare until it reaches the canopy. Wildlife such as hawks and owls can be found in the canopy.



The understory part of the forest includes small trees and shrubs that don't mind shade. The leaves of these plants can get enough light even beneath the canopy. This means an understory tree is shorter than most of the trees in the forest.

Understory trees provide important cover for wildlife such as many types of birds and small mammals such as squirrels, deer and raccoons.



The forest floor layer is very important to the health of the forest. It can be compared to the foundation of a tall apartment building.

It includes small plants, such as ferns that act as ground covers and help to protect the soil.

Leaf litter seems to be everywhere and can look like a carpet on the forest floor. It provides shelter for small animals and, as the

dead leaves break down, nutrients return to the soil and provide food for trees and other plants in the forest.



Fallen logs and stumps are found here too, often with mushrooms, lichens and mosses growing on them. These act as decomposers and help to break down the fallen debris,

If you find a dead log during your exploration, gently turn it over. Many insects, millipedes, centipedes, spiders and snails spend their entire lives on the forest floor and depend on these structures for survival.

Remember to roll the log back over again!



And, just as an apartment building has a basement – so does the forest. The **subfloor of the forest** includes everything underneath the ground, including soil, rocks, roots from all of the plants, worms, ants, and small mammals that make their homes in tunnels here.

Think about it... Why would a major fire or hurricane cause forest succession to start all over again?

Animal Life in Caumsett

Just like people, forest animals need three basic things to survive: food, water and shelter. Many animals are able to find all these in one layer. Some animals may move from layer to layer to get what they need. For example, an owl may nest in the canopy for shelter and hunt for mice on the forest floor.

Being quiet while you explore may help you to see a variety of Caumsett's animal life. Being a good observer will help you too, as many animals use camouflage to help protect them from predators.

Keep a lookout for chipmunks, and squirrels – they seem to have adjusted to humans visiting their world. And being a good listener many allow you to hear the *rat-a-tat-tat* of a woodpecker or the high pitch call of a red tail hawk flying way above a field looking for its next meal. But if you are *very* quiet, you may see a fox or deer during your stay with us - a special treat!



Artist, Kandis Elliot. Printed with permission from Defenders of Wildlife



We hope you enjoy your trip to Caumsett. Remember to visit each season – it's a special place any time of the year!



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