

NATURE WALK TO SELECT ECOSYSTEM SITES

Objectives:

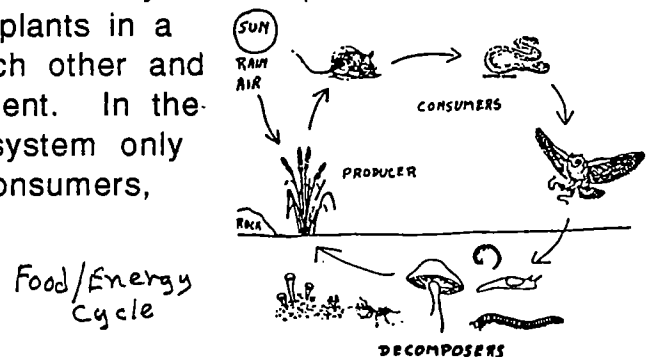
- Select and mark their ecosystem site with planter sticks and orange tape
- Construct a map of its location
- Record major features of their ecosystem



Before going out:

Explain to students that, working in teams of three or four, they will stake out a small area, or ecosystem, in their schoolyard; each student will keep a Science Journal recording observations and data collected on monthly expeditions to observe their ecosystem as it changes through late fall, winter, and the coming of spring into summer.

Discuss and review with students the Forest Ecosystem Nature Walk they did last year to set the stage for this activity and help them to define an ecosystem as the animals and plants in a given area interacting over time with each other and with the non-living parts of the environment. In the Arboretum they explored the forest ecosystem only once, especially looking at producers, consumers, decomposers and the food/energy cycle.



This year they will look at how an ecosystem changes over time in response to seasonal weather patterns. An ecosystem includes the ground and extends into the sky. They will need to mark its boundaries and create a map so they can find it each time they go out.

Hand out Ecosystem Journals and explain that this first expedition is to locate and mark their ecosystem; they will also write down why they chose this site and make a few notes about its major features.

They will go out a few days later to make and record their first detailed observations, and after that go out every month for the rest of the school year.

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Environmental Aides will take out half a class at a time. Teachers will divide the children into teams of three or four. Depending on the number of parents, a team of Aides may go out twice in one morning taking half the class each time.

Materials for Expedition to Select Their Ecosystem Site:

For each student:

Ecosystem Journal notebook and pencil



For each group:

Four plant marker sticks

Four 18 to 20 inch long pieces of orange surveyors tape

Indelible marker

Meter stick

different color for each class

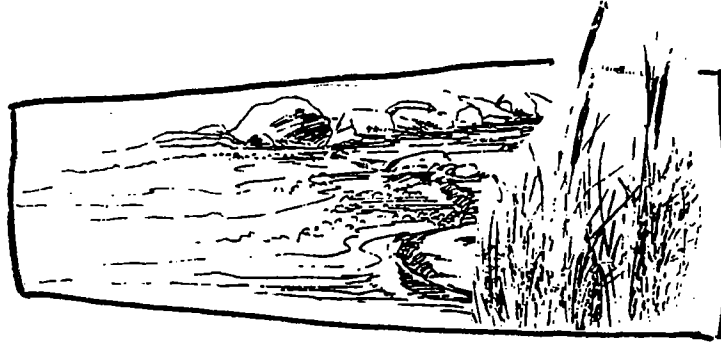
(The leader may want to take a sturdy dowel or rod to start the holes so the plant marker sticks don't snap off if the ground is hard and dry.)

1. Walk with students to the middle of the designated area (bordered by the blacktop, the path, the brook, and the edge of the woods). Their own special ecosystem will be about one meter square. Discuss for a minute where they might find the most interesting variety of plants, animals, and non-living things and also where others at recess won't disturb their site. Edge areas are always good.



Explain that they may make their study area a little bigger to include something special; but if they do so they must measure and record its exact size. Allow groups time to explore and decide on their site.

2. Once they have selected their ecosystem site, they should mark its corners with plant marker sticks and orange tape. Write the name of their group on the orange tape so they can find their ecosystem again.



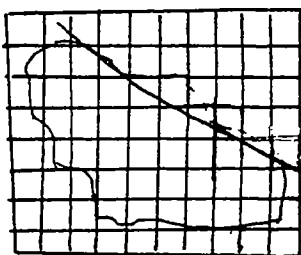
3. The first thing each student should write in their Ecosystem Journal is their ecosystem's exact location, described in words and with a rough map. They will do a more complete map back in the classroom using the grid they made for Archeology.

4. Finally ask each student to write down what is special about their ecosystem, why they chose it, and what they think they may discover by watching it for the whole school year. Include exact dimensions and perhaps make a quick sketch of major features. Students may wish to give their ecosystem a special name.

5. Return to school.

Back in the classroom:

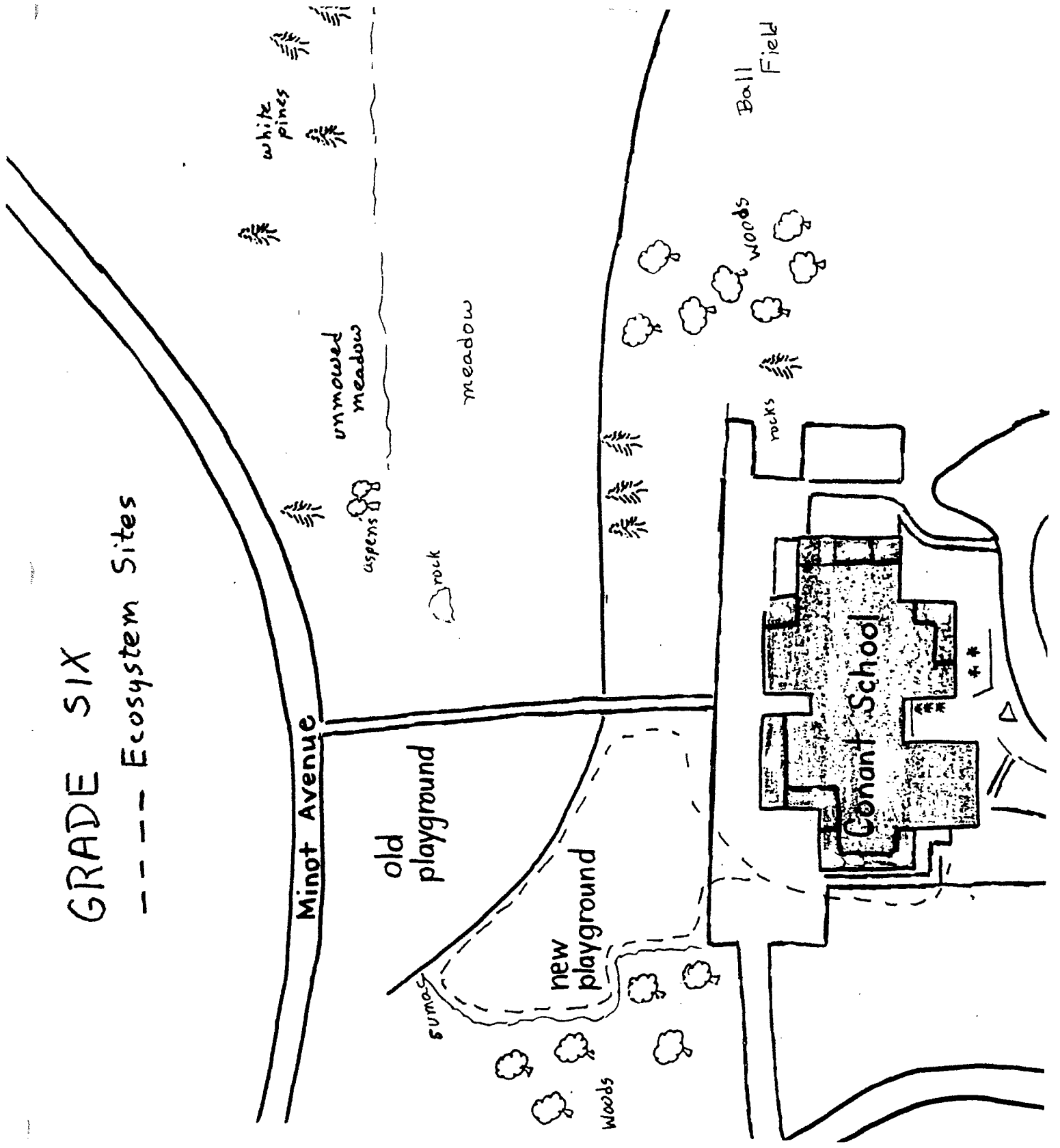
Using the skills learned in their Archeology Unit and the sketch map they made out doors, have students locate their ecosystem site on a grid map.



Not done

GRADE SIX

--- Ecosystem Sites



GRADE SIX NATURE WALKS

Grade Six Nature Walks are scheduled monthly from mid fall to June, last 30 to 45 minutes, and are based on:



1. Careful seasonal observations of a small ecosystem in the schoolyard
2. Independent recording in a Science Journal of their ecosystem as it changes over time
3. Making and recording measurements in metric and centigrade
4. Demonstrating understanding of concepts including: producer, consumer, decomposer, food/energy cycle, and ecosystem.
5. Realizing the interdependence of everything in an ecosystem, including non-living, weather, plants and animals.

This Unit grows specifically out of the Grade Five Forest Ecosystem Nature Walk in the Acton Arboretum, but also provides students the opportunity to demonstrate science skills and information gained during their seven years at Conant.

The Unit also interfaces with several facets of the Grade Six curriculum. As part of their study of Archeology, students have learned how to map a specific area of their schoolyard using graph paper to make a grid. Students will locate their individual ecosystem in the same area of the schoolyard used for Archeology and similarly map its location. Students will take measurements in metric and centigrade.

Hopefully children will realize that ecosystems are dynamic and continually changing, that everything is connected and interdependent, and that plants and animals, including themselves, are affected by nature's rhythms and cycles. Adaptation is the key to survival.

