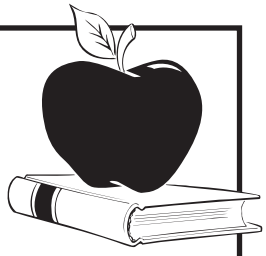
GRADE LEVEL: PreK

ILLINOIS EARLY LEARNING STANDARDS: 11.A.ECa, 11.A.ECb, 11.A.ECe, 11.A.ECf, 11.A.ECg, 12.A.ECb, 12.B.ECb, 12.E.ECb

SKILLS: observing, critical thinking

OBJECTIVE: Students will learn that although we use trees for many things in our daily lives, if we plan carefully, we will never run out of trees.

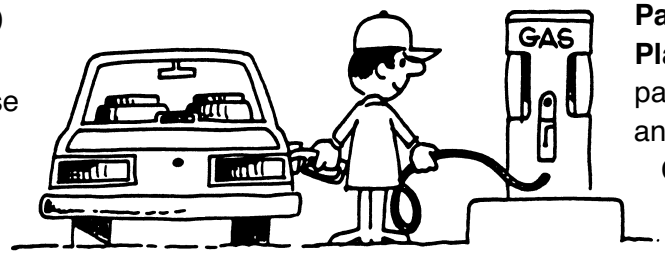
TEACHER'S GUIDE



UNIT THREE ▪ LESSON ONE

Trees for Tomorrow

BACKGROUND



Some of the natural resources that we use cannot be replaced. We burn gasoline in our cars. Gasoline comes from oil that took millions of years to make deep within the earth. Coal is often used to make the electricity that lights our homes. Coal, too, took millions of years to make.

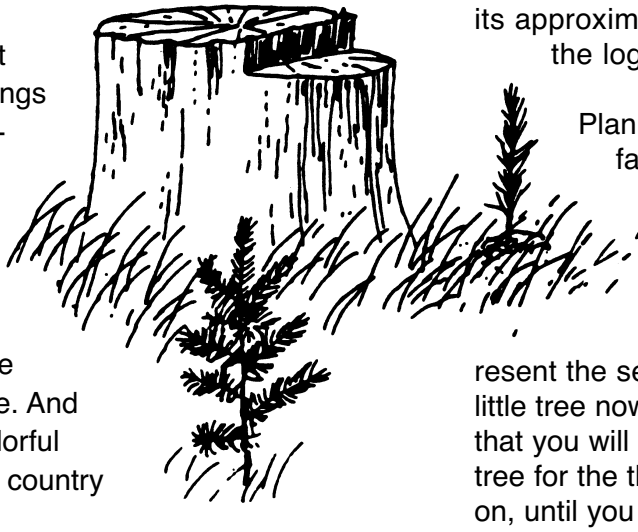
Trees are called a renewable resource because they can be replaced. But that does not mean we can waste trees. It takes a long time to replace a tree. Before any tree is cut, there should be a plan to replace it. For every tree that is cut, there should be a tree or trees planted to replace it.

Christmas Tree Farm. Trees that are used during Christmas are a good example of how trees can be replaced. No one wants to run out of Christmas trees, so they are grown on carefully managed farms . . . just like vegetables. Christmas trees are harvested when they are the right size, which takes from five to 10 years. When trees are cut, new trees are planted so that every year there is a fresh crop of Christmas trees ready.

Paper-Makers Are Big Tree Planters. The trees used to make paper are usually pines, spruces and firs (softwoods), just like Christmas trees, only much bigger. Millions of acres are devoted to growing trees to make paper. When trees are cut, lots of trees are planted. This must be very carefully planned because it takes from 15 to 80 years to grow a tree big enough to make paper.

Planning for Future Forests. Hardwood trees are used to make furniture, floors, bowling alleys and baseball bats. The things that we make from these trees—which include oak and hickory trees—can last a very long time. So with careful planning we can replace hardwood trees as we use them.

Trees For Your Tomorrow.
Remember, we don't just plant new trees so we can make things from them. Someday your students will have children. And those children will enjoy sitting under a cool oak tree on a hot summer day. They'll swim in lakes and streams that are clear because tree roots hold the soil in place. And they'll enjoy the wonderful, colorful spectacle of a trip through the country on a sunny autumn day.

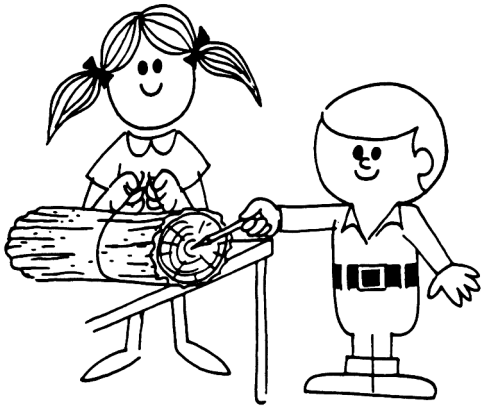


PROJECTS AND ACTIVITIES

Have students, with their parents' help, identify the oldest product in their home that is made from wood. Students should draw a picture of the product and bring it to class for a show and tell session where students describe the product, its age and any interesting stories associated with it.

Have the class begin a recycling project and collect classroom paper for recycling. Measure the amount of paper collected and keep records of how much the class recycled during the year.

Bring a cross section of a small log to class and count the rings to determine its age. Measure the circumference of the log with string and record it. Take the class on a short tree hike, around the perimeter of the school or in a neighborhood and have the students guess the ages of the trees they see by comparing them to the circumference of the log. Measure the circumference of the largest tree you find. Back in class try to determine its approximate age in comparison to the log.



Plan a simple Christmas tree farm on the chalkboard. Draw a small Christmas tree that has just been planted and explain that in one year it will grow. Draw a larger tree to represent the second year of growth. The little tree now represents a new tree that you will plant. Add a third larger tree for the third year of growth. And so on, until you have five trees on the board. The biggest one is ready for Christmas. Now ask the class to discuss how the farm can be managed in the future so that every year there will be one perfect Christmas tree. Ask the students to draw a picture of their own Christmas tree farm.

EVALUATION

Some products made from trees we use up quickly, paper for instance. Other products last a long time. Some trees grow faster than others. Have the class discuss, based on this information, what type of products we might want to recycle and why.

EXTENSION

Take the class on a field trip to a Christmas tree farm where trees have recently been planted. Have the owner or manager explain the plan they use to plant and harvest trees. If there is no Christmas tree farm nearby, visit a nursery where the growth rate of trees can be demonstrated.

VOCABULARY

compost
mulch
natural resource
renewable resource

Trees for Tomorrow

STUDENT'S GUIDE

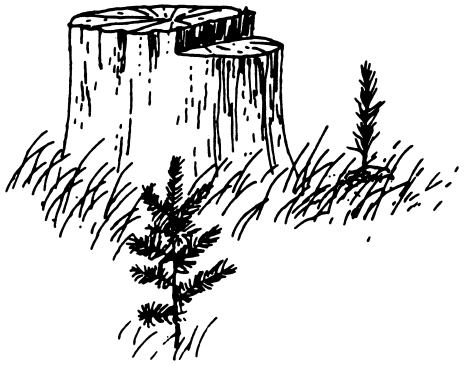
When we use trees to make things, we can grow new trees.

Merry Christmas

We won't run out of Christmas trees. Tree farmers plant new ones.

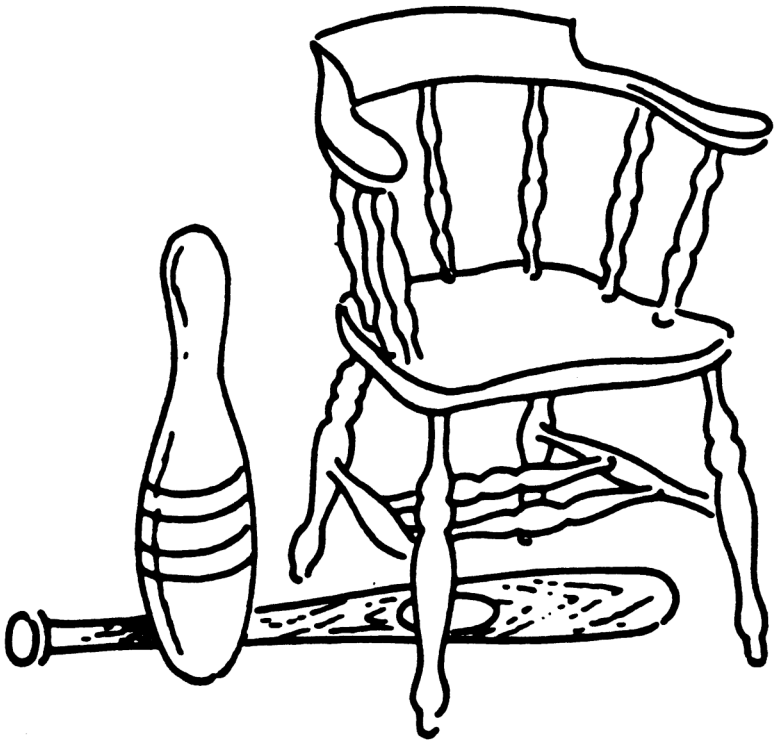
Paper-Makers

It takes lots of trees to make paper. Paper-makers plant millions of new trees every year.



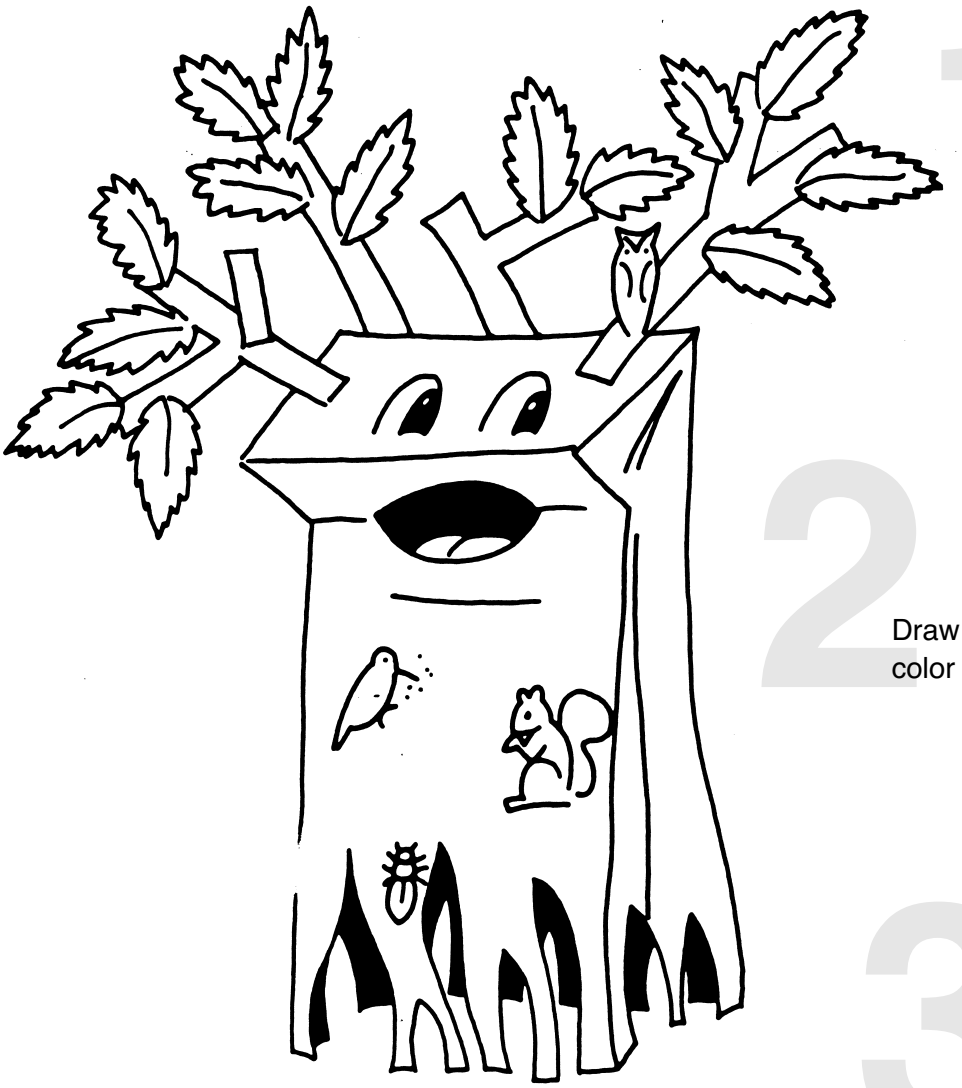
Hard Wood

Some trees have very hard wood. The things we make from them usually last a long time.



Make a Lunch Bag Tree Puppet!

What you will need
- a lunch-size paper bag
- green, brown and white construction paper
- paste
- scissors
- crayons or markers



1 Make your own talking tree. Start with a lunch-size paper bag. Cut away strips at the bottom to make roots.

2 Draw eyes and a mouth as shown and color the bark on your tree.

3 Paste on branches made from construction paper.

4 Make leaves from construction paper and paste them on. You can also use real leaves.

5 Decorate your tree with animals. You can draw them on, cut them from construction paper and paste them on or use stickers.