



Enriching Students. Sustaining Forests.
The Wisconsin K-12 Forestry Education Program

Forester Activities for the Classroom

Grades K–8

LEAF is a partnership program between
Wisconsin Department of Natural Resources—Division of Forestry
and

Wisconsin Center for Environmental Education
College of Natural Resources
University of Wisconsin—Stevens Point





Enriching Students. Sustaining Forests.

The Wisconsin K-12 Forestry Education Program

LEAF was created to help promote forestry education in Wisconsin schools. In 2001, Wisconsin K-12 forestry education stakeholders evaluated the current status of and the needs for Wisconsin-based K-12 forestry education. A variety of programs existed, but voids were identified in delivery and dissemination of educational materials and services. To offer a more unified effort, stakeholders supported the development of a comprehensive program that would enhance existing efforts.

During the spring of 2001, legislation was written to establish the LEAF program as a partnership between the Wisconsin Department of Natural Resources—Division of Forestry and the Wisconsin Center for Environmental Education at the College of Natural Resources, University of Wisconsin—Stevens Point. Funding for the program is provided through a surcharge on the sale of seedlings from Wisconsin Department of Natural Resources—Division of Forestry nurseries.

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LEAF

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Forestry Activities in the K-8 Classroom

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Wisconsin Department of Natural Resources—Division of Forestry
and Wisconsin Center for Environment Education

Introduction

Rationale

So you've been asked by a teacher to be a guest in a classroom. With an already taxed workload, you probably don't have the time to prepare a presentation from scratch. This resource can help. With a minimum amount of preparation, you can be ready to give an age-appropriate, interactive, hands-on classroom program for any grade between K and 8.

Program Highlights:

- An introduction gives you a chance to introduce yourself and the program to the students.
- Two interactive activity stations led by you and the classroom teacher allow the students to dig in to the material in smaller groups.
- A concluding activity offers a chance for review and closure.
- The user-friendly leader's sheets make it easy to prepare for and lead each activity.
- The online PDF format makes the program materials accessible to everyone.
- A confirmation letter helps you communicate effectively with the classroom teacher.
- Information in the confirmation letter links activities in the programs to Wisconsin Model Academic Standards.
- Each program enriches existing lessons from *LEAF's Wisconsin K-12 Forestry Lesson Guides*.

Best Management Practices For the Classroom

To make the most of your classroom experience we suggest that you:

- Print out the confirmation letter, fill in the blanks, sign it, and send it to the teacher in advance.
- Review all four activity sheets for the program you have chosen and familiarize yourself with the information.
- Print activity sheets back-to-back on cardstock.
- Print any other program materials provided in PDF format. Things like game cards and puzzles should also be printed on cardstock and will need to be cut out prior to the program.
- Collect any other materials listed on each activity card in advance.

OVER →





Introduction

Division of Forestry Key Target Messages

Developed for use by professional foresters, this guide helps insure that a consistent message is given in classrooms throughout the state. Each program communicates one or more of the DNR Division of Forestry's target messages which include:

- *Forests play a key role in Wisconsin's economy by providing jobs, materials for products, and money from recreation.*
- *Wisconsin forests are in better condition today than they were 50 years ago.*
- *Maintaining abundant and healthy forests is critical to maintaining environmental quality in Wisconsin.*
- *Forests are a renewable resource.*
- *Forests provide products, aesthetics, and recreational opportunities that are important to our everyday lives.*
- *Wisconsin has a plan for forestry that contributes to the overall good condition and longevity of forests.*
- *Wood products are an environmentally sound choice for consumers.*



Forester Activities for the K-8 Classroom

K-1
Activities



www.leafprogram.org



In this Lesson you will find:

- **A Confirmation Letter**
— to share with the teacher you will be visiting
- **Lesson Materials & Preparation Sheet**
- **Lesson Introduction**
MEET A FORESTER
- **Forester Activity**
FORESTER: FRIEND OF THE FOREST
- **Teacher Activity**
FOREST PRODUCTS FIND A PLACE
- **Lesson Conclusion**
FOREST ALPHABET CHALLENGE
- **Worksheets for all activities**



Confirmation Letter

Please Review

Program Date: _____

Program Time: _____

of Students: _____

Please contact me if any of the above information is incorrect:

Phone: _____

Email: _____

From A to Z, Forests Provide for You and Me

addresses the following
Model Academic Standards:

Environmental Education A4.4 Questioning and Analysis

The standard is: Communicate their understanding to others in simple terms

Students communicate their understanding of a forester's job by creating props for a forester puppet and explaining what prop they made and why.

Environmental Education B4.10 Knowledge of Environmental Processes and Systems

The standard is: Describe how they use natural resources in their daily lives.

Students describe how they use natural resources everyday by compiling a list of forest products important to our everyday lives.

Dear Teacher,

This letter confirms that I am scheduled to present **From A to Z: Forests Provide for You and Me** in your classroom.

Designed for Kindergarten and 1st grade, this 45- minute program will engage your students in learning how important forests are to our everyday lives.

During the program your students will visit two hands-on activity stations:

- At **Forester: Friend of Forests** your students will outfit a sock puppet for work in the field as they interview the forester.
- At **Forest Products Find a Place** your students will furnish three rooms with products made from Wisconsin's forests.

As a conclusion, your students will be given the **Forest Alphabet Challenge**. For every letter of the alphabet, they will brainstorm a way we use forests, or a product that comes from the forest.

Please review the information on the right and contact me if anything is incorrect. Please prepare for the day by reading through your responsibilities on the next page.

I will check in at the main office when I arrive. Please note that I will arrive 10 to 15 minutes before the program is scheduled to set up for the activities. I look forward to working with you soon!

Sincerely,

OVER →www.leafprogram.org

Teacher Responsibilities

1. For the **Forester: A Friend of the Forest** activity, I will need your help collecting the following materials:
 - Six or more pair of scissors
 - Tape
 - Misc. craft supplies, for example: pipe cleaners, felt, construction paper, glue, yarn, string, buttons, paper clips, scissors, etc.
2. Before I arrive, please have the classroom set up to accommodate two activity stations. These can be tables or sets of desks pushed together. Each station should be large enough to accommodate half of your students.
3. During the program, you will facilitate the **Forest Products Find a Place** activity. The directions for the activity are enclosed. I will bring supplies for the activity. The complete lesson can be found on the LEAF website: www.uwsp.edu/cnr/leaf

Objectives

Upon completion of this lesson students will be able to:

- List ways that foresters protect and sustain our forests
- List products that come from the forest.

LEAF LINKS

This program relates to the following lessons in the *LEAF Wisconsin Forestry Education Lesson Guide*, Unit K-1:

Lesson 3: My Favorite Forest Use

Students discover the value of forests by studying *Tree Spy* collages and singing a song.

Lesson 4: Forest Product Time Machine

Students explore historical uses of forest resources and compare them to present-day goods by surveying pictures and creating drawings.



Preparation

- Read the lesson to familiarize yourself with what you need to explain and examples on which you may need to elaborate.
- Make a sock puppet (See **WORKSHEET 1** for instructions)
- Print (in color) **WORKSHEETS 2-8** for the **Forester: Friend of the Forest** activity.
- Copy onto cardstock **WORKSHEETS 9, 11, & 13** - drawings of rooms for the **Forest Products Find a Place** activity.
- Copy onto cardstock and cut out objects on **WORKSHEETS 10, 12, & 14** for the **Forest Products Find a Place** activity.

Materials:

Forester provides:

- Sock puppet
- Six pictures of forester
- Drawings of three rooms with corresponding objects

Teacher provides:

- Six or more pair of scissors
- Tape
- Miscellaneous craft supplies
- Chalk/marker board

Grade Level Pointers

The following are tips for success when working with kindergarteners and first graders:

- Patience...give clear expectations and directions.
- Be aware of their distractibility.
- Before they'll care about your topic, they need to know you care for them (and are interested in them as well).
- Share your personal stories, anecdotes and experiences. YOU are a lot cooler than a "concept."
- Don't be afraid to have fun with them... let your guard down.
- Answer, or attempt to answer, their questions, whether they are on topic or not, then move on.
- Smile! Enjoy the diversions, but redirect and give clear boundaries.
- At this age the children can understand your instructions, but cannot read well.

Key Division of Forestry Target Messages Addressed

- Importance of forests to daily lives
- There's a plan for responsibly managing forests in Wisconsin





**Forester Introduction
MEET A FORESTER**

Description:

Forester introduces himself or herself and organizes the group for the two classroom activities.

5 minutes

What to Say and Do:

1. Introduce yourself and what you do as a forester. Share a short story about a day that you have had.
2. Ask the students if anyone has spent time in a forest. Make sure to point out that forests are beautiful places to spend time, places to have fun hiking and camping, and that forests provide all kinds of products we use. Tell the students that today they are going to learn about how forests provide for people and how foresters help make that happen.
3. Tell the students that in a few minutes they will be working in smaller groups on two activities. Each group will get a chance to visit both activity stations during the lesson. They will come back together at the end for a special challenge.
4. Go to each station area and briefly explain what will happen at that station.
5. Divide the class into two groups. An easy way to do this is to have them count off by twos. Once you have them divided send the “ones” to a station and the “twos” to the other.



FORESTER: FRIEND OF THE FOREST

Description:

Students interview the forester and outfit a sock puppet for work in the forest.

15 minutes

Materials:

Forester brings:

- Copies of **WORKSHEETS 3-8** (Pictures of foresters' duties)
- Sock puppet (Instructions on **WORKSHEET 1**)

Teacher provides:

- Six or more pair of scissors
- Tape
- Miscellaneous craft supplies

What to Say and Do:

1. Begin with the sock puppet on your hand.
2. Tell the students that you would like to introduce them to **Steve or Sandy Forester**, (the sock puppet). Steve or Sandy is a new forester who needs your help getting ready to go out into the forest. "Your job is to ask me questions to learn more about a forester's job so you can get Steve or Sandy dressed and ready to go!"
3. Have the students count off by 6 to create six groups. Have the students move so they are with their group members. Handout one of the forester photographs to each group.
4. Have each group ask you, in turn, "How is the forester helping the forest in this picture?" Answer them using the key on **WORKSHEET 2** to aid you.
5. Ask each group to use the craft materials provided by the teacher to create an item that will help **Steve or Sandy Forester** do their job. Give the students time to work on their item. Make sure you have at least 3 minutes left for the last step.
6. Have each group discuss what they made and add their prop to the sock puppet using tape.
7. Conclude by asking the following questions:
 - Who can name one of the things foresters do to take care of the forest?
 - What would happen to our forests if no one fought fires, planted new trees, or did anything to take care of the forest?
 - Would you like to be a forester someday? Why or why not?





FOREST PRODUCTS FIND A PLACE

Description:

Students discover how important forests are to their daily lives as they furnish three rooms with products made from Wisconsin's forests.

15 minutes

Materials:

- Copy **WORKSHEETS 9, 11, & 13**
- Objects cut out from **WORKSHEETS 10, 12, & 14** placed in an envelope

What to Say and Do:

1. One at a time show the students pictures of three rooms—a classroom, a bedroom, and a kitchen. Have the students identify any forest products that are already in each picture. Ask what the items are made of. Once you have shown the students all of the rooms lay the drawings of the rooms on the table in front of you.
2. Tell the students that you are going to pass around an envelope that contains drawings of items that fit in these rooms. Each student will choose one item. Explain that their job will be to decide what room that item fits in and whether it is made from a forest product. Begin passing the envelope around the group. When a student selects an item, have that student tell what the item is, what room it belongs in, and whether it is made of a forest product. Ask the group if they agree. Some items might be found in more than one room.
3. Once the group and student agree, have the student add the picture to the room they have chosen in an appropriate place. Continue until all items have found a place in one of the rooms.
4. Conclude by asking the following questions:
 - Are you surprised by how many forest products we use everyday?
 - What would your life be like if there were no forests to make these products from?
 - Besides providing products, forests also provide beauty for us to enjoy.
 - Can anyone describe a beautiful place in the forest that they have visited?
 - Forests also provide places to do fun activities. Can anyone tell us about a time you did something fun in a forest?

The following products from this activity are NOT forest products

- Chalk
- Chalkboard eraser
- Metal silverware
- Glass
- Matchbox car
- Pillow
- Blanket
- Kitchen pot



Forester Conclusion
FOREST ALPHABET CHALLENGE

Description:

Using every letter of the alphabet, students will brainstorm a way we use forests, or a product that comes from the forest, that starts with each letter.

10 minutes

Materials:

- Chalk/marker Board

What to Say and Do:

1. Ask the students to come back together as a large group.
2. Tell the students that they have just learned how forests are important to their everyday lives. Explain that you would like to give them a special challenge. For every letter of the alphabet, they have to come up with a way we use forests, or a product that comes from the forest.
3. Write all of the letters up on the board and see how many they can come up with before your time is up. Set a time limit based on how much time you have before you leave. If they can't finish, ask the teacher to finish it with them later and send you the results.
4. Conclude by asking the following questions:
 - Who can name one of the things foresters do to take care of the forest?
 - Why is that task so important?
 - Besides providing materials to make products, what else do forests provide for us?



How to make a sock puppet



1 Get a pair of socks.



2 Roll up one sock and stuff it into the toe of the other sock.



3 Use a marker to draw a face on the puppet.

FORESTER: FRIEND OF THE FOREST

WORKSHEET 2

Key to photographs: How is the forester helping the forest in this picture?

- 1. Planting trees to make sure there are more trees in the future. (Students may choose to give the puppet a planting spud or a tree sapling.)



- 4. Helping a landowner to create a plan to make the best use of his forested land. (Students may choose to give the puppet paper and pencil for making a plan.)



- 2. Marking trees that can be cut to make forest products. (Students may choose to give the puppet marking paint.)



- 5. Pruning trees in the city to keep trees healthy so they continue to grow, to keep dead branches from hurting people, and to keep branches away from power lines. (Students may choose to give the puppet a chain saw or loppers.)



- 3. Fighting fire to protect forests from being damaged. (Students may choose to give the puppet special clothing or a backpack can.)



- 6. Measuring trees so we can calculate how much wood is available. (Students may choose to give the puppet a measuring stick.)





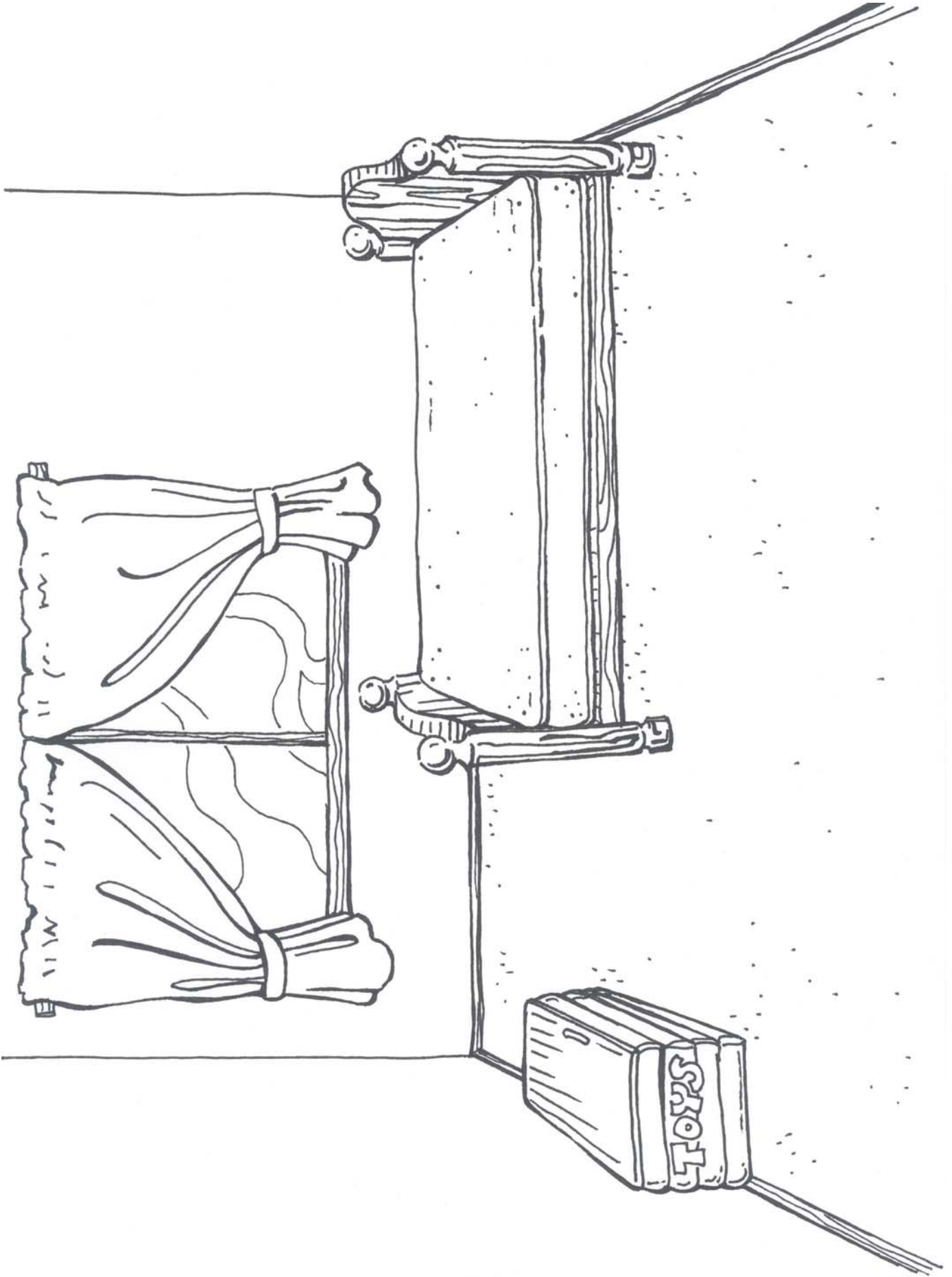


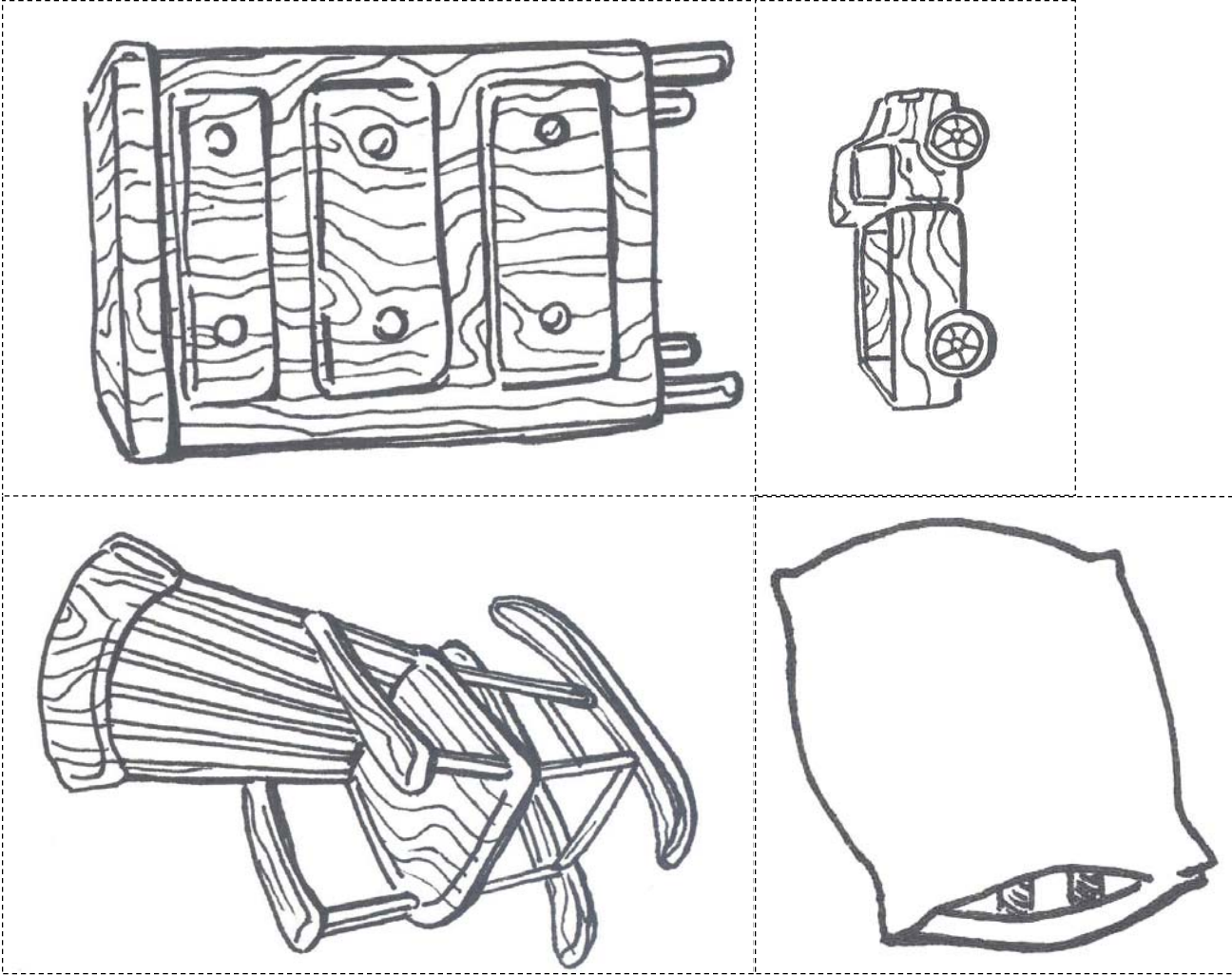
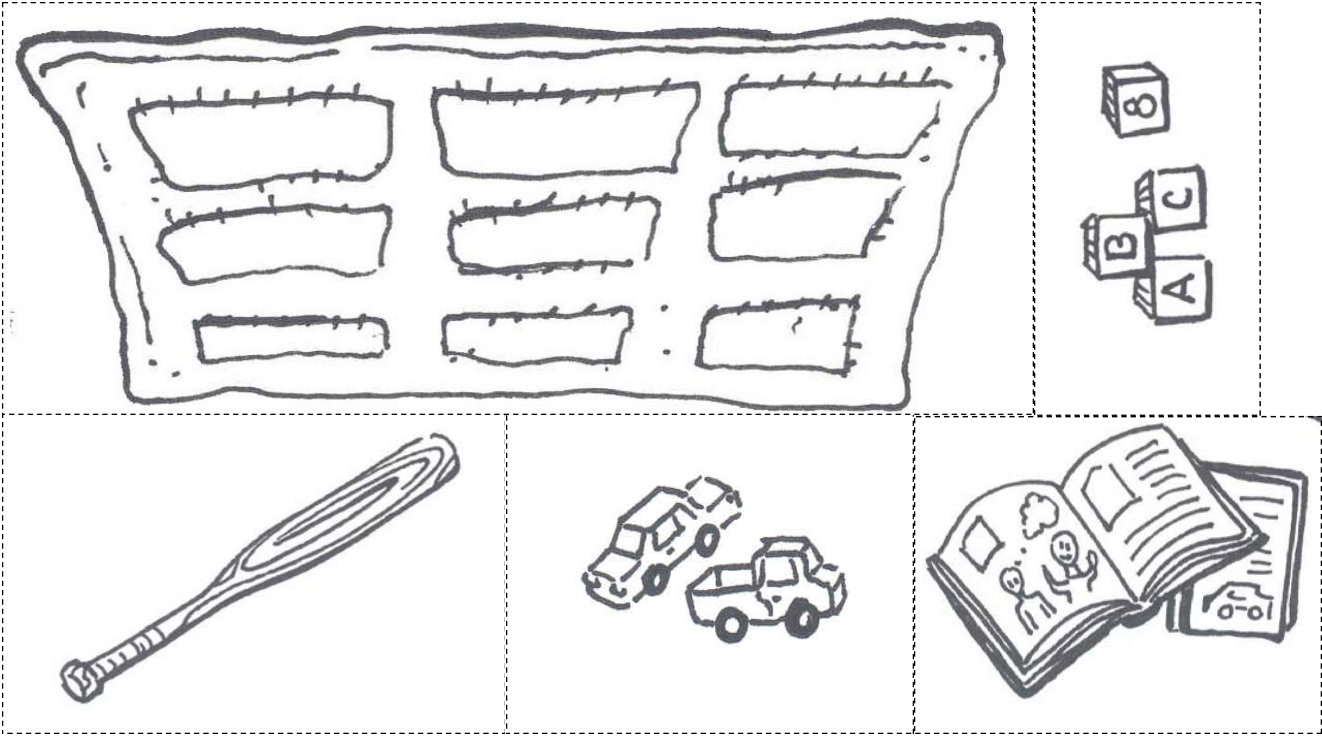


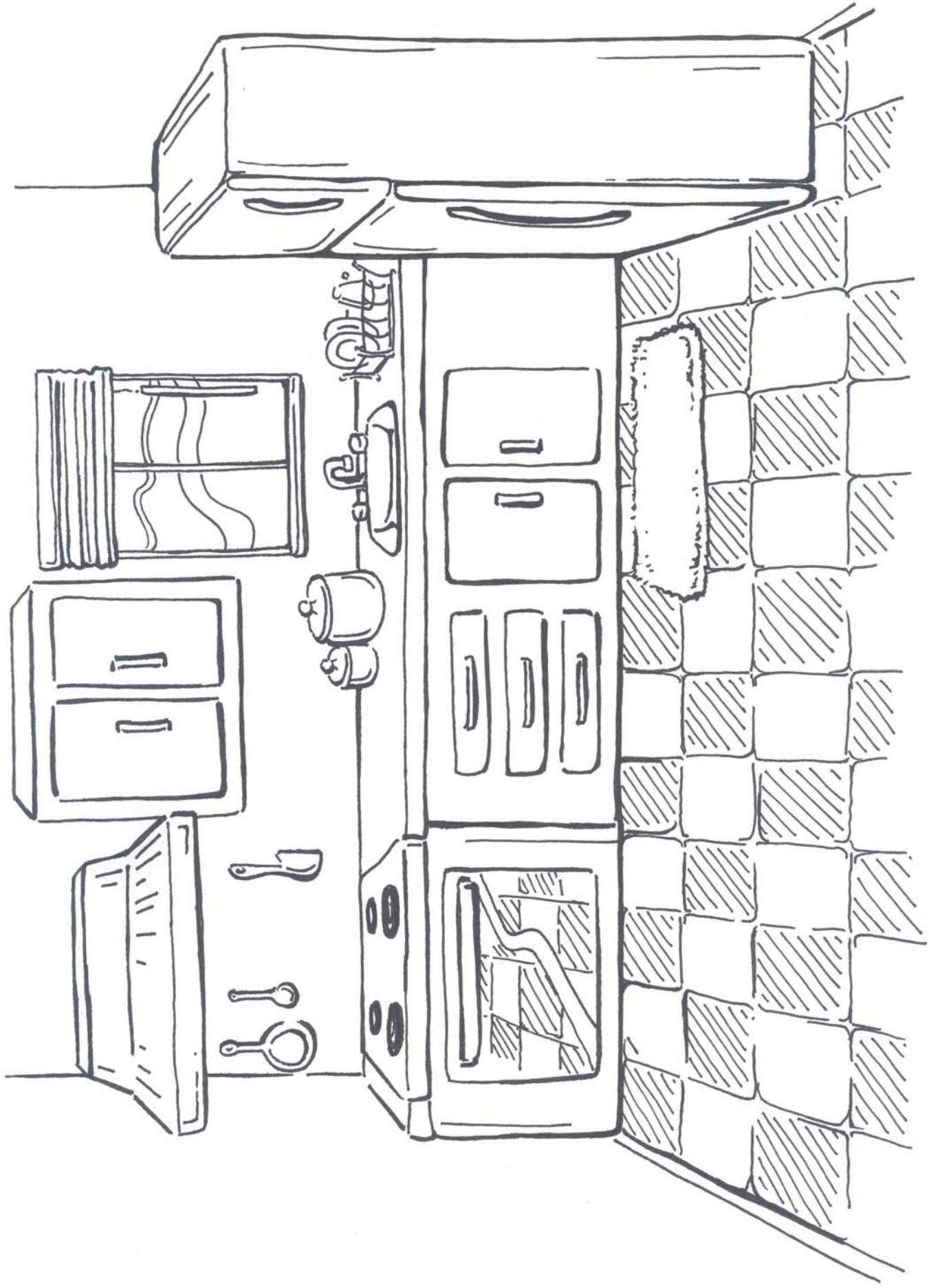




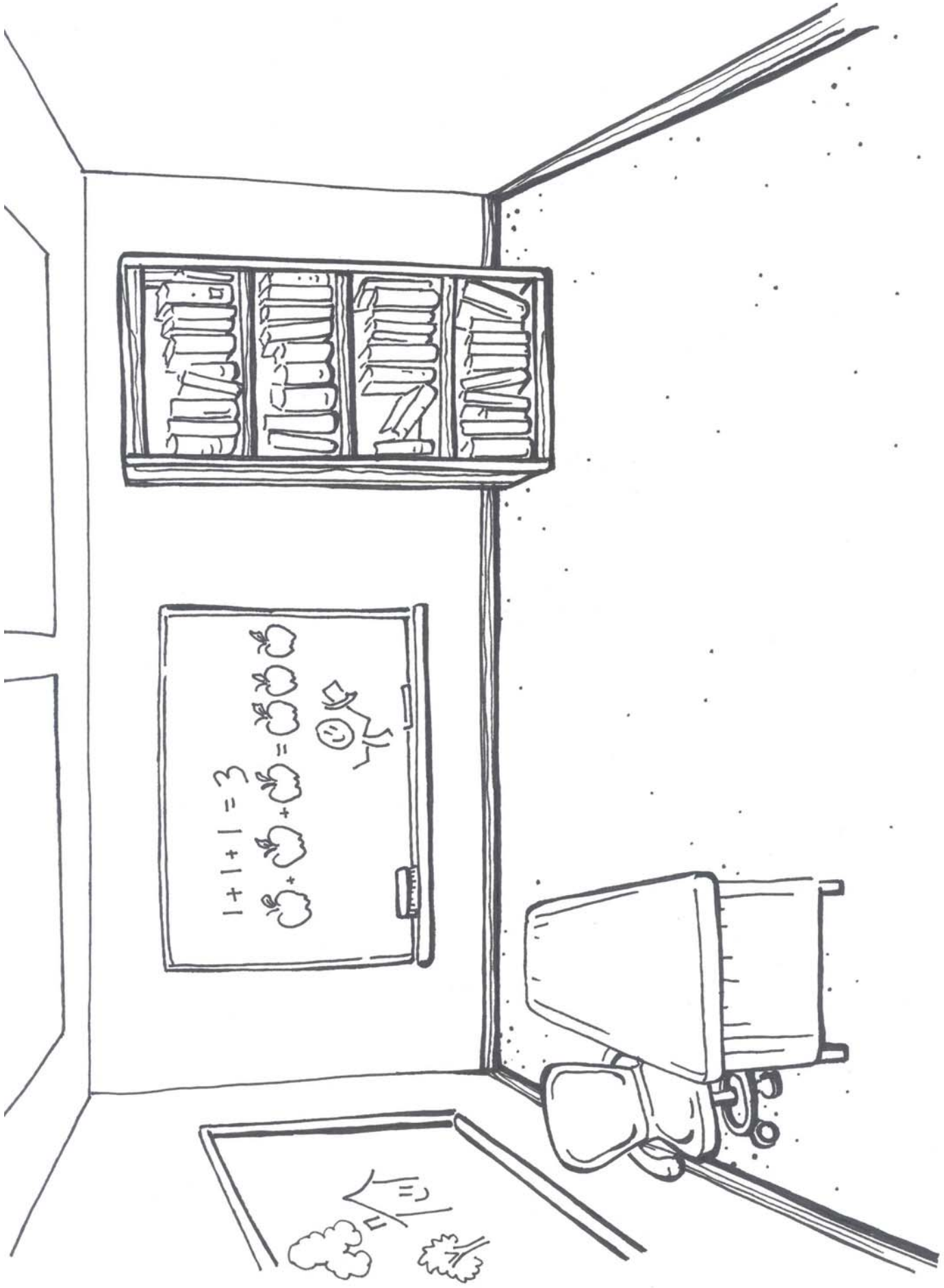


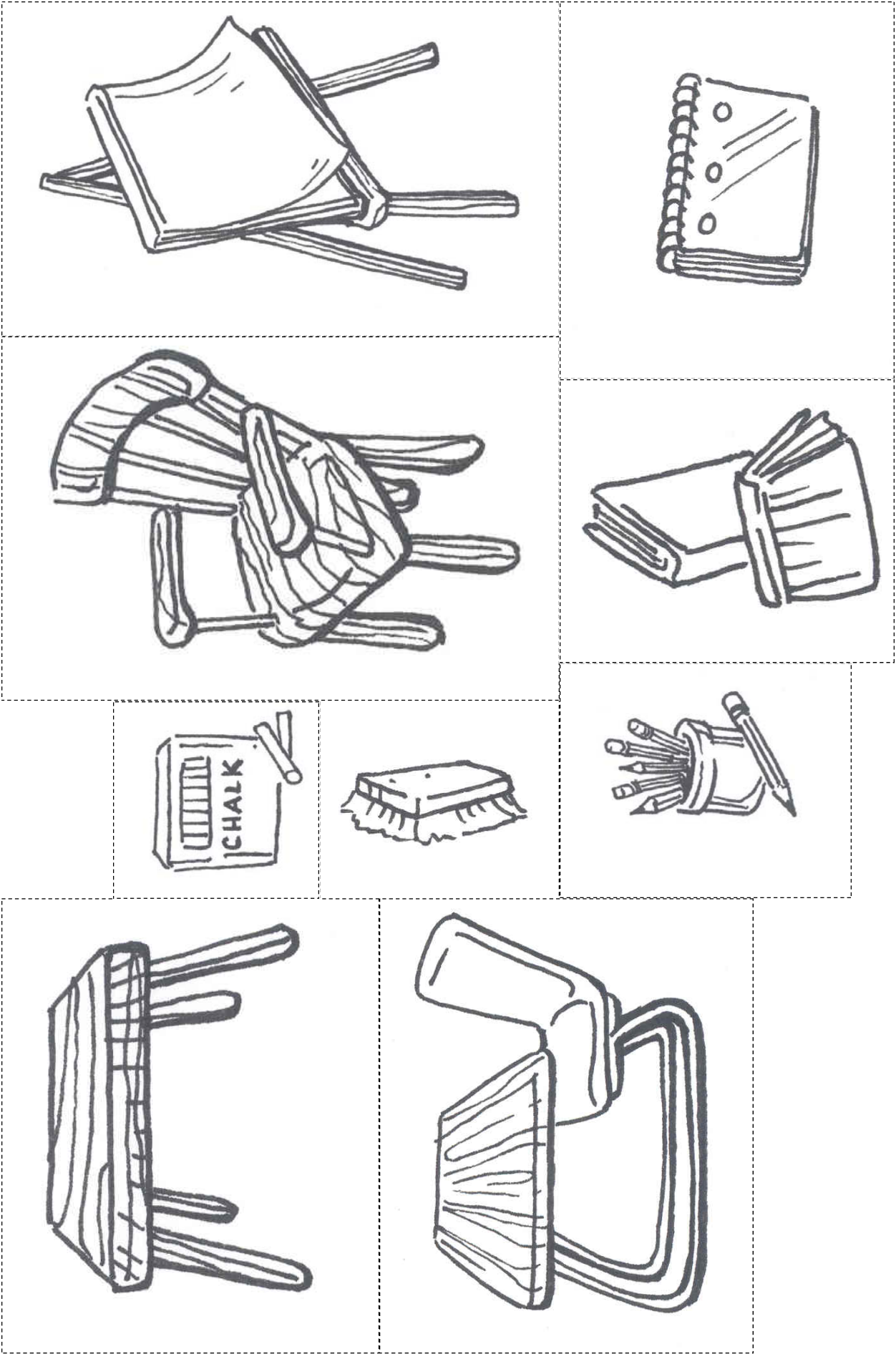














Forester Activities for the K-8 Classroom

2-3

Activities



www.leafprogram.org

Confirmation Letter

Please Review

Program Date: _____

Program Time: _____

of Students: _____

Please contact me if any of
the above information is incorrect:

Phone: _____

Email: _____

Grow, Cut, Use!

addresses the following

Model Academic Standards:

Environmental Education B4.9 Knowledge of Environmental Processes and Systems

The standard is: Distinguish between
renewable and nonrenewable re-
sources.

*Students identify what makes
forests a renewable resource.*

Environmental Education B4.11 Knowledge of Environmental Processes and Systems

The standard is: Students identify what
makes forests a renewable resource.

*Students list jobs related to
maintaining the health of forests,
recreational use of forests, and
processing and using materials
from forests.*

Dear Teacher,

This letter confirms that I am scheduled to present **Grow, Cut, Use!** in your classroom. Designed for 2nd and 3rd grade, this 45-minute program will engage your students in learning how forests are a renewable resource and how forests play a key role in Wisconsin's economy.

During the program your students will visit two hands-on activity stations.

- At **Forestry First Bank** your students will discover that forests contribute to our economy through professions, play, and products.
- At **Renew the View** your students will put together a picture story showing how forests are a renewable resource.

As a conclusion, your students will be given the **M&M Challenge**. They will review ways that forests play a role in Wisconsin's economy and be rewarded with a treat.

I will check in at the main office when I arrive. Please note that I will arrive 10 to 15 minutes before the program is scheduled to set up the two activity stations. I look forward to working with you soon!

Sincerely,

OVER →



Teacher Responsibilities

1. Before I arrive, please have the classroom set up to accommodate two activity stations. These can be tables or sets of desks pushed together. Each station should be large enough to accommodate half of your students.
2. During the program, you will facilitate **Renew the View**. The directions and a list of all the materials you need are located at <http://www.uwsp.edu/cnr/leaf>. I will provide the story picture cards.

Objectives

Upon completion of this lesson students will be able to:

- List at least one economic contribution of forests in each of the following categories: product, jobs, and play.
- Describe how forests are renewable resources.

LEAF LINKS

This program relates to the following lessons in the *LEAF Wisconsin Forestry Education Lesson Guide*, Unit 2-3:

Lesson 4: Forests are Important to Me!

Students explore forest values and discover what forest products come from.





Lesson Materials and Preparation

Preparation

- Read the lesson to familiarize yourself with what you need to explain and examples on which you may need to elaborate.
- Copy onto cardstock and cut out:
 1. Sets of products, professions, and play coins from **WORKSHEETS 2,3,4,6,7,8,10,11,and 12** for **Forestry First Bank** activity
 2. Story picture cards from **WORKSHEETS 14-21** for **Renew the View** activity
- Gather and label:
 1. Fifteen “piggy banks” - banks can be envelopes, Ziploc bags, or disposable cups with lids. Label five banks **“Products”**, five **“Professions”**, and five **“Play”**
 2. One **“Forestry Account”** made from a plastic food storage container

Materials:

- Fifteen piggy banks (see left)
- One **“Forestry Account”** (see left)
- 60 professions, products, and play coins (see left)
- Story pictures (see left)
- Bag of M&Ms with at least 4 colors
- *Chalk/marker board (on site)*

Grade Level Pointers

The following are tips for success when working with second and third graders:

- Patience...give clear expectations and directions.
- Be aware of their distractibility.
- Before they'll care about your topic, they need to know you care for them (and are interested in them as well).
- Share your personal stories, anecdotes and experiences. YOU are a lot cooler than a “concept.”
- Don't be afraid to have fun with them... let your guard down.
- Answer, or attempt to answer, their questions, whether they are on topic or not, then move on.
- Smile! Enjoy the diversions, but redirect and give clear boundaries.





Forester Introduction
MEET A FORESTER

Description:

Forester introduces him or herself and organizes the group for the two classroom activities.

5 minutes

What to Say and Do:

1. Introduce yourself and what you do as a forester. Share a short story about a day that you have had.
2. Tell the students that today they are going to discover how important forests are to people in Wisconsin. Forests provide jobs, materials for products, and money from recreation activities. And best of all, forests are a renewable resource. That means new trees grow back after a tree has been cut down.
3. Tell the students that in a few minutes they will be working in smaller groups on two activities. Each group will get a chance to visit both activity stations during the lesson. They will come back together at the end for a special challenge.
4. Go to each station area and briefly explain what will happen at that station.
5. Divide the class into two groups. An easy way to do this is to have them count off by twos. Once you have then divided into groups, send the “ones” to a station and the “twos” to the other.





Forester Activity FORESTRY FIRST BANK

Description:

Students learn about forest contributions to our economy by collecting money from the forest and making a deposit at **Forestry First Bank**.

15 minutes

Materials:

- Fifteen piggy banks: piggy banks can be envelopes, Ziploc bags, or disposable cups with lids. Label five **“Products”**, five **“Jobs”**, and five **“Play”**
- One set of 60 coins (20 for each account: products, professions, and play)
- One **“Forestry Account”** made from a plastic food storage container.

What to Say and Do:

1. Begin with the coins all mixed up, on a table. Tell the students the table represents a forest and the coins show different ways people earn money from a forest.
2. Tell the students there are 3 main ways that people earn money from the forest: selling products, working forest-related jobs, and recreation (people playing in the forest). Products are made from materials found in the forest and then sold for money. People are needed to make these products and to manage the forest; these people earn money by having jobs related to the forest. People pay other people money to play and do fun activities in the forest like hiking, camping, and hunting.
3. Pass out one “piggy bank” to each student. Each bank is labeled as **“Products”**, **“Jobs”**, or **“Play”**.
4. Explain that the students will pass by the table of coins in a single file line. As they walk past the “forest”, they should look at the pictures and find one that matches the category on their piggy bank. Once they find a coin from their category, they should go to the back of the line to walk by the forest again. Each student needs to find FOUR coins to put in their “piggy bank”.
5. Once students have four coins in their piggy bank, they should sit down in a circle. When everyone is seated, ask each student to discuss each picture from their “account.” Have students focus on what the picture depicts and how it relates to that category.
6. Lead a discussion using the following questions:
 - Does anyone know someone who has a job related to the forest? What do they do?
 - What kinds of activities do you enjoy doing in the forest?
 - Name a forest product you use everyday that would be very difficult to live without.
7. Finally, have the students deposit their coins in the **“Forestry Account”** that you have. Explain that all of the money that each of the different accounts brings in is part of the economic value of a forest.



Teacher Activity
RENEW THE VIEW

Description:

Students arrange pictures of a forest in chronological order and show how forests are a renewable resource.

15 minutes

Materials:

- Forester will provide one set of story picture cards from **WORKSHEETS 14-21**

What to Say and Do:

1. Spread the drawings out on the table so that each drawing can be seen. (Have students begin with the drawing with the “1” at the bottom of it.) Tell the students that they are looking at the life of a forest, but the drawings are out of order. Ask the students to work together to lay the drawings out in the correct order. (Use the key on **WORKSHEET 13** to verify answers.)
2. Once the drawings are in order, ask the students to tell you what the story was about. Review the major events with them. (*The man cuts the tree down, more trees grow, another man cuts a tree down.*)
3. Ask the students if they have ever heard of the term “renewable resource.” See if they can explain it. Explain that a renewable resource is something that we can use now and can be used again and again in the future. Tell students that forests are renewable resources.
4. Ask the students if they were surprised that the forest grew back after trees were harvested. Tell them that the aspen forest in the picture grew back without people planting trees. Tell them that most forests in Wisconsin grow back on their own. Explain that, in some forests, people do replant trees.
5. Have students put the pictures in a circle instead of a straight line. Ask them why this is a better way of showing the story. (*Forests are renewable so they don’t have a beginning or end but are in a constant cycle.*)

Renewable Resource: A renewable resource has the ability to regenerate, grow back, or produce more. A forest is a renewable resource.





Forester Conclusion
M & M CHALLENGE

Description:

Students review some ways that forests play a role in Wisconsin's economy and are rewarded with a treat.

10 minutes

Materials:

- Bag of M&Ms with at least 4 colors
- Chalk/marker board

What to Say and Do:

1. Pass around a bag of M&Ms. Ask each student to take only one M&M from the bag and set it down in front of them.
2. Tell the students that they are going to get to eat the M&M if they can share one way that forests play a role in Wisconsin's economy.
3. Write on the board: **Red or Orange = Job; Yellow or Green = Play; Blue or Brown = Product.**
4. Ask who got a red or orange M&M. Have them share a job related to forests. Tell them that they can eat their M&M.
5. Ask who got a yellow or green M&M. Have them share a way people play in the forest. Tell them that they can eat their M&M.
6. Ask who got a blue or brown M&M. Have them share a product made with materials from the forest. Tell them that they can eat their M&M.
7. Conclude by asking the following question: What would life be like without forest products, jobs, or forests to play in?



FORESTRY FIRST BANK

WORKSHEET 1 - PROFESSION Coins Key

Key to Professions Account: These coins should be found in the "PROFESSIONS" Account



Home Builder



Log Truck Driver



Nursery Manager



Soil Scientist



Orchard Owner



Paper Mill Worker



Wildlife Biologist



Arborist



Forest Ranger



Skidder Operator



Carpenter



Ecologist



Naturalist



Fire Fighter



Furniture Maker



Harvester



Tree Farmer



Front Loader Operation
in Lumber Mill



Toy Maker



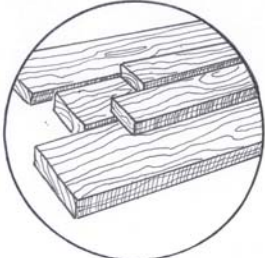
Urban Forester







Key to Products Account: These coins should be found in the "PRODUCTS" Account



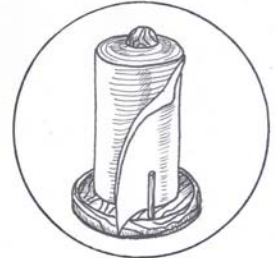
Lumber



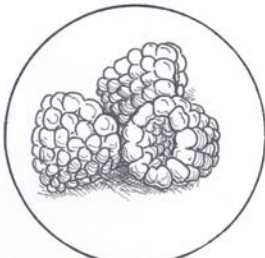
Blueberries



Toilet Paper



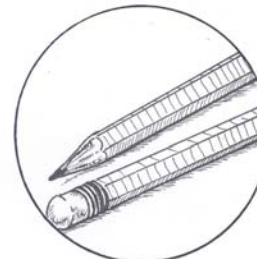
Paper Towel



Raspberries



Bark Mulch



Pencils



Tissues



Animal Bedding



Books



Rocking Chair



Table



Maple Syrup



Log Cabin



Tongue Depressors



Toy



Cardboard Box



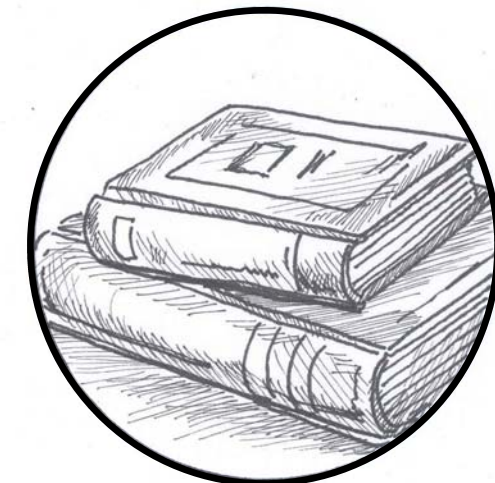
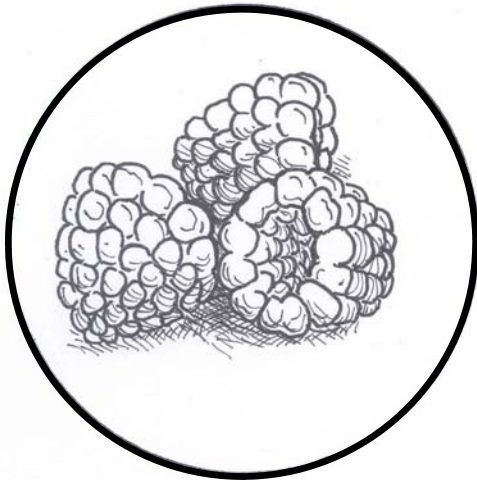
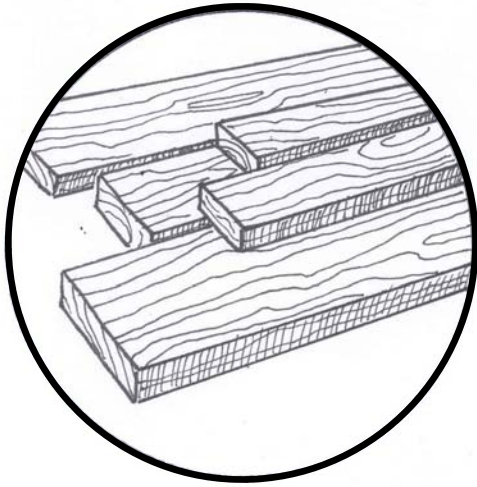
Pencils

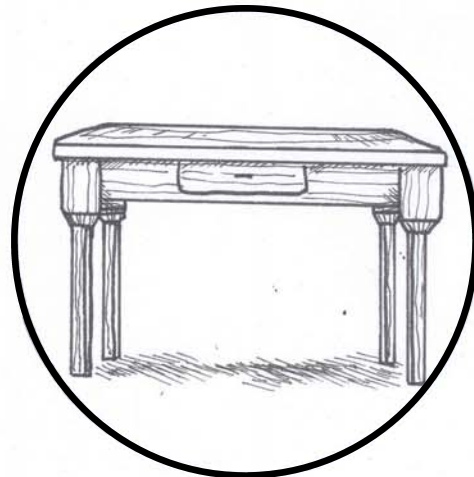
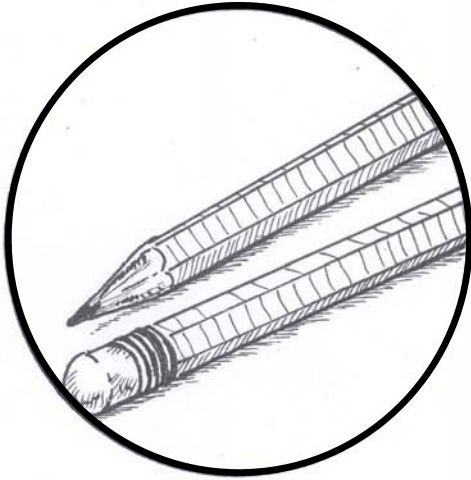
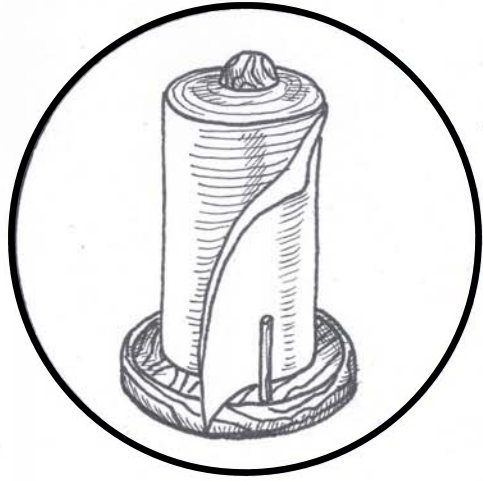
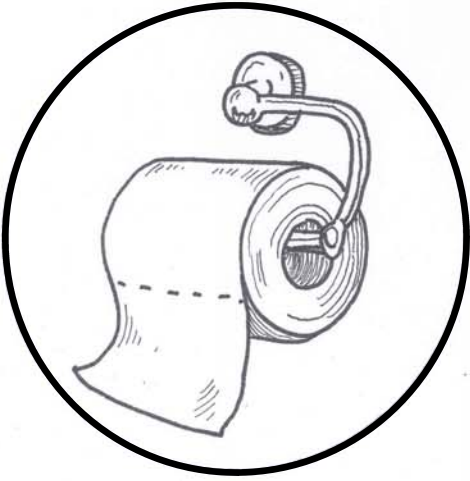


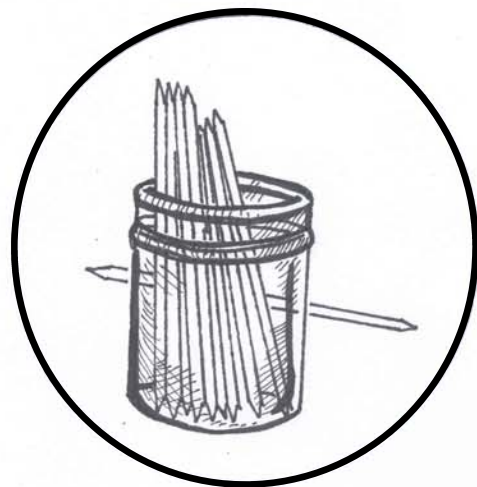
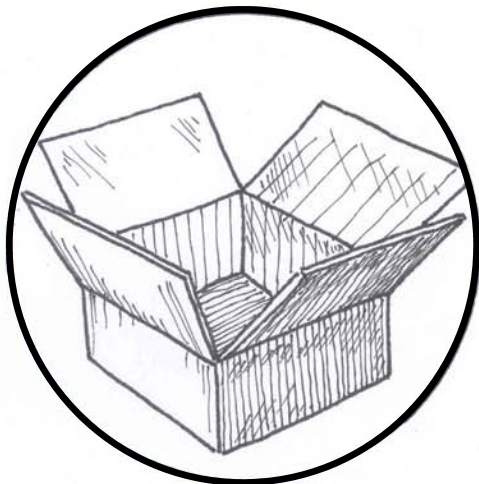
Dresser



Nuts







FORESTRY FIRST BANK

WORKSHEET 9 PLAY Coins Key

Key to Play Account: These coins should be found in the "PLAY" Account



ATV Riding



Berry Picking



Cross-Country Skiing



Hunting



Duck hunting



Bird watching



Fishing



Hiking



Camping



Canoeing



Horseback riding



Jogging



Kayaking



Mountain biking



Rock Climbing



Solitude



Outdoor Cooking



Photography



Downhill Skiing



Snowmobiling

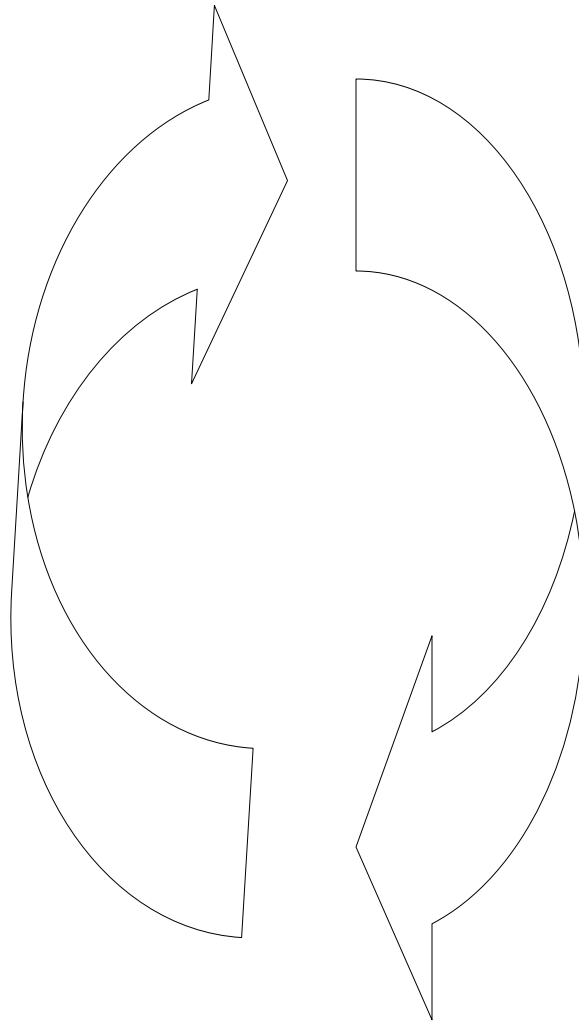
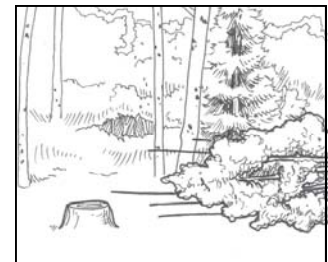
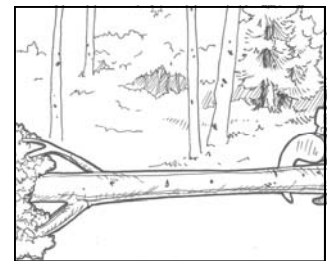
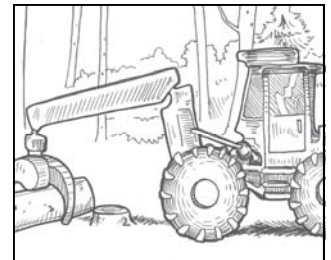
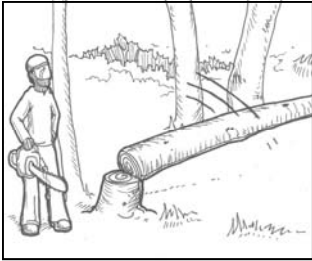






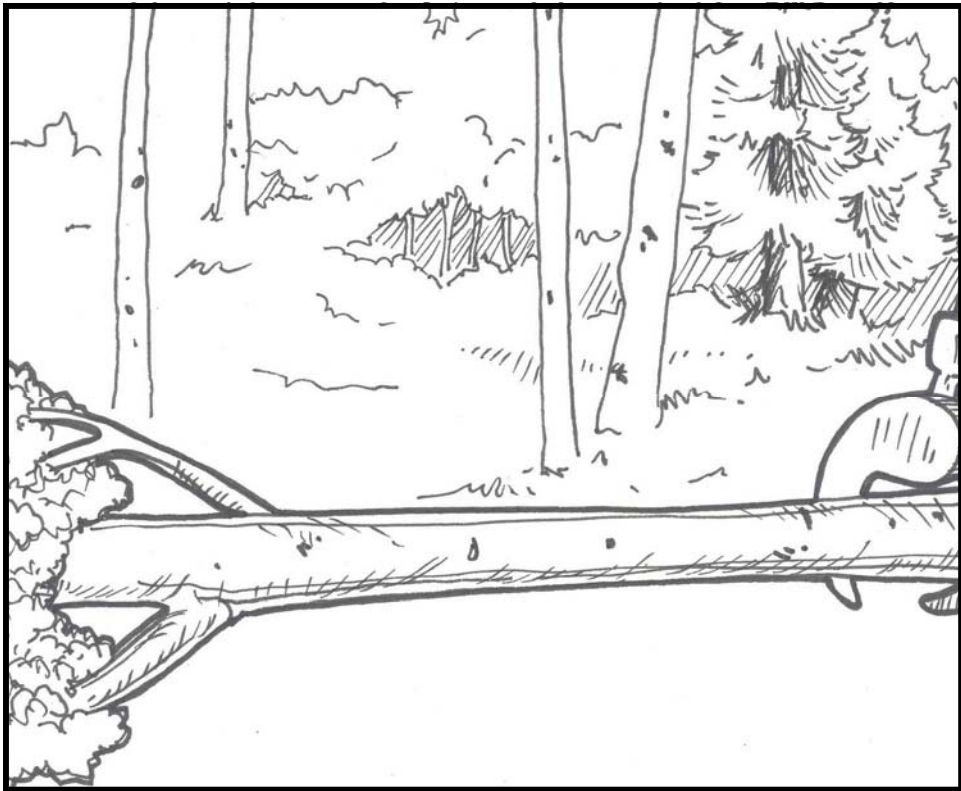
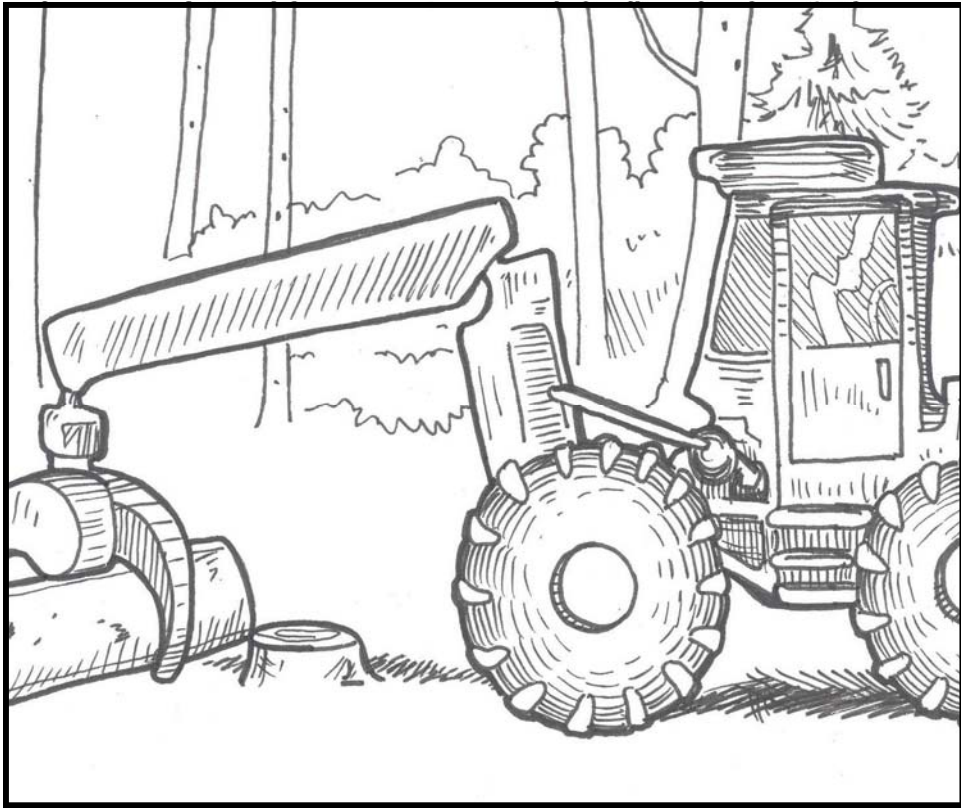
RENEW THE VIEW

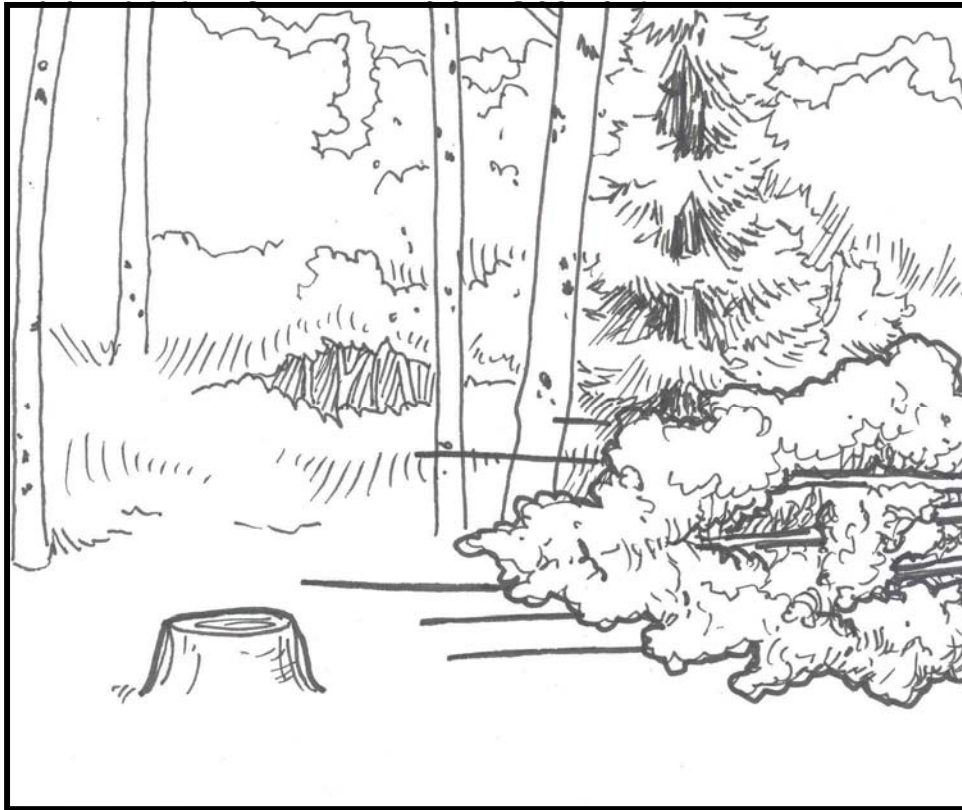
WORKSHEET 13 - RENEW THE VIEW Key





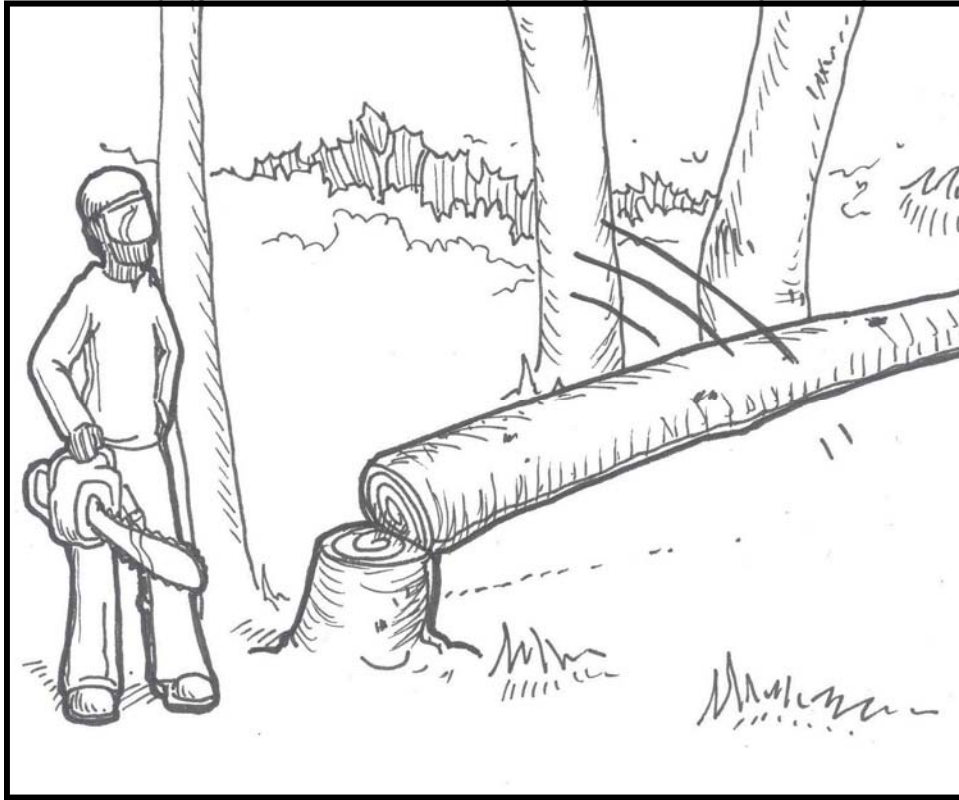














Forester Activities for the K-8 Classroom

4th Grade Activities



www.leafprogram.org

Confirmation Letter

Please Review

Program Date: _____

Program Time: _____

of Students: _____

Please contact me if any of the above information is incorrect:

Phone: _____

Email: _____

Who Needs a Plan?

addresses the following

Model Academic Standards:

Environmental Education A4.4 Questioning and Analysis

The standard is: Communicate their understanding to others in simple terms.

Students create a list of things they learned after participating in two activity stations.

Environmental Education B4.7 History

The standard is: Identify and describe important events and famous people in Wisconsin and United States history.

Students identify important events in the history of Wisconsin's forests.

Dear Teacher,

This letter confirms that I am scheduled to present **Wisconsin's Forests: Then and Now** in your classroom. Designed for 4th grade, this 55-minute program will engage your students in learning about how Wisconsin forests have changed over time.

During the program your students will visit two hands-on activity stations:

- At **From Overuse to Sustainable Use** your students will participate in a simulation of the ups and downs of Wisconsin's forests over the past 150 years.
- At **Then or Now?** your students will learn about forest events and decide if the events occurred in the past or now.

As a conclusion, your students will review what they learned at each activity station.

Please review the teacher responsibilities below. I will check in at the main office when I arrive. Please note that I will arrive 10 to 15 minutes before the program is scheduled to set up the two activity stations. I look forward to working with you soon!

Sincerely,

OVER →



www.leafprogram.org

Teacher Responsibilities

1. Before I arrive, please have the classroom set up to accommodate two activity stations. These can be tables or sets of desks pushed together. Each station should be large enough to accommodate half of your students.
2. During the program, you will facilitate **Then or Now?** The directions and a list of all the materials you need are located at <http://www.uwsp.edu/cnr/leaf>. The forester will provide the **Then or Now?** cards. Please have blank paper and markers or crayons available for students.

Objectives

Upon completion of this lesson students will be able to:

- Describe how forests are different today than 100 years ago.
- Explain what the word “sustainable” means.

LEAF LINKS

This program relates the entire *LEAF Wisconsin Forestry Education Lesson Guide, Unit 4*: The 4th grade unit examines the history of Wisconsin’s forests. All lessons in the unit apply. **Lesson 5** is an overview of 150 years of events and is a good summary.





Lesson Materials and Preparation

Preparation

- Read the lesson to familiarize yourself with what you need to explain and examples on which you may need to elaborate.
- Copy onto cardstock and cut out:
 1. **History Game** cards on **WORKSHEET SET 1**
 2. **Then or Now?** Cards on **WORKSHEET SET 2**
- Copy **Wisconsin Map**
- Divide skittles or M&Ms into appropriate bags.

Materials:

- **History Game** cards
- **Wisconsin Map** (provided in lesson)
- Large Ziploc bag of M&Ms or Skittles
- 2 pie plates or other containers
- **Then or Now?** cards
- *Blank paper (supplied by teacher)*
- *Markers or crayons (supplied by teacher)*
- *Chalk/marker board (on site)*

Grade Level Pointers

The following are tips for success when working with fourth graders:

- Give clear directions and expectations.
- Share your personal stories and experiences where relevant.
- Have fun with them.
- Answer their questions even if off track, but then refocus.





**Forester Introduction
WHAT WE KNOW**

Description:

Forester introduces him or herself and assesses what students know about Wisconsin's forest history.

5 minutes

Materials:

- *Chalk/marker board (onsite)*

What to Say and Do:

1. Introduce yourself and what you do as a forester. Share a story about a day that you have had.
2. Ask the students if they can tell you five things about the history of Wisconsin's forests. List their ideas on the board under the heading **"What We Know"**.
3. Tell the students that in a few minutes they will be working in smaller groups on two activities. Explain that each group will get a chance to visit both activity stations during
- the lesson. Tell them that today they are going to explore the history of our forests in more depth.
4. Go to each activity station area and briefly explain what will happen at that station.
5. Divide the class into two groups. An easy way to do this is to have them count off by twos. Once you have them divided, send the "ones" to a station and the "twos" to the other.





FROM OVERUSE TO SUSTAINABLE USE

Description:

Students participate in a simulation to explore the decline and recovery of Wisconsin's forests.

20 minutes

Materials:

- **Map of Wisconsin**
- Sixteen **History Game** cards from **WORKSHEET SET 1**
- 2 pie plates or containers
- Large Ziploc bags of M&Ms or Skittles, divided

What to Say and Do:

1. Begin with **History Game** cards face down in chronological order. Place them next to the map with the 1848 card on top. Place 2 pie plates next to the map with candies in them. One container should contain approximately 100 candies and should be placed next to the northern area of the map. One container should have approximately 20 candies and should be placed next to the southern area of the map. The Ziploc bag containing a large quantity of candies for restocking can be placed off to the side of the map.
2. Explain to the students that they are going to take part in a simulation that will show what happened to Wisconsin's forests during the last 150 years. Show the students the map. Explain that the northern 2/3 of the state was heavily forested. The southern 1/3 contained prairies and prairies with scattered oak trees called savannas. Tell the students that the M&M's in the containers next to those forests represent the trees that make up the forest.
3. Read the first card yourself to illustrate how the simulation works. Then have one student come up at a time and pick up a game card. Have them read the card out loud to the group and take or put back candies as the card describes. *Students may eat the candies they renew, unless the card says otherwise.*
4. When the 1905 card is read, show the students how few M&M's remain. Tell the students that by then most of Wisconsin's forests had been logged.
5. Continue through each of the cards until completed and you have discussed each card. Again show the students how many candies/forests are now back. Ask the students what sustainable means. Make sure that they have now grasped the idea that something that is sustainable can be maintained for use today and in the future. Ask the students if logging before 1920 was sustainable. Ask the students to share some of the things that helped with the return of forests to the land.





Teacher Activity
THEN OR NOW?

Description:

Students are given a word or phrase with an explanation. They draw a picture to represent the information they are given and present to the group. After all have presented, the group categorizes the pictures as **THEN** or **NOW**.

20 minutes

Materials:

- **Then or Now?** cards from **WORKSHEET SET 2** (provided by forester)
- Blank paper for students
- Markers, crayon, or colored pencils

What to Say and Do:

1. Pass out the **Then or Now?** cards to the students. Ask students to read the card to themselves and then to create a picture that represents the information they have read. Ask that they put the word or phrase on the top of their picture. Hand out paper and markers or crayons. Tell them they have 10 minutes to draw their picture.
2. When the time is up, have students present their picture to the group. Tell them that they should hold up their picture and read what is on their **Then or Now?** card.
3. After each student has presented, ask the class if they the picture is **THEN** or **NOW**.
4. Tell the students that today we have almost half of our state back in forests. Ask the students to give some examples of things that helped forests grow back.

THEN

- Erosion
- Fire
- Logging
- Forests Become Farms
- Lumber Camps
- Railroads
- River Drives
- Cities Built from Wisconsin Lumber
- Towns Spring Up Around Sawmills

NOW

- Nurseries
- Planting Trees
- Trees Grow Faster than Logging
- Wisconsin Gains Forest Land
- People Buy Forests for Recreation
- Fire Control
- Urban Forests





**Forester Conclusion
WHAT WE LEARNED**

Description:

Students brainstorm the events, actions, and statistics that took place in Wisconsin's forests over the past.

10 minutes

Materials:

- *Chalk/marker board*

What to Say and Do:

1. Tell the students that you would like them to recap what they learned today about the history of Wisconsin's forests. Explain that you would like to go around the room and each person should tell you an event, action, or information about what happened to Wisconsin's forests. List their ideas on the board under the heading, "**What We Learned**" next to their list "**What We Know**" from the introduction.
2. Tell the students that today our forests are in the best shape they have been in the last 50 years. Explain that we have gained over 640,000 acres of forest as well since the 1960's. Tell them that forests are a renewable resource—they can be cut but grow back to be used again.



1848 - Wisconsin became a state. In southern Wisconsin settlers cleared the trees from savannas to plant crops. I'm taking **4 M&Ms** from the south to represent this clearing of trees. In northern Wisconsin logging had begun. Many folks were moving north for the jobs in the woods and sawmills. I'm taking **2 M&M's** from the north to represent the beginning of logging of the northern forests.

1848

1860's - Settlers continued to clear trees from savannas in southern Wisconsin. I'm taking **2 M&Ms** from the south. The lumbering business in the north was growing. Lumber camps and sawmills sprang up along the rivers. The forests of northern Wisconsin appeared to be endless. I'm taking **5 M&M's** from the north.

1860's

It's **1869** - Wisconsin was 4th in lumber production in the United States. That year enough lumber was made from Wisconsin's white pine to build a 6 lane freeway from New York City to San Francisco. I'm taking **10 M&M's** from the north.

1869

1871 - It was a hot dry summer and fall. People were clearing logged lands by burning the leftover branches from trees. On October 7th, high winds created a fire storm known as the Peshtigo fire. By the next day more than 1.25 million acres had burned. I'm taking **10 M&M's** from the north, but I can't eat them since the forests burned.

1871

1892 - Lumber output reached a new high. Lumberjacks cut four times as many trees this year as they did in 1869. That's enough lumber to lay down a road one-inch thick from New York to San Francisco as wide as a football field is long. I'm taking **20 M&M's** from the north.

1892

1897 - Even more trees are harvested. Studies warned that logging in Wisconsin could only last 10 more years. Forests had been cut faster than they could grow back. By 1897 only one-seventh of Wisconsin's forests remained. I'm taking **20 M&M's** from the north.

1897

1899-1904 - The forests of Wisconsin were logged at an even faster rate. Wisconsin was number one in lumber production in the nation. I'm taking **20 M&M's** from the north.

1899-1904

1905 - Most of the white pine was gone, but logging continued. The railroads transported hardwood logs to the mills. I'm taking **5 M&M's** from the north.

1905

1907 - Wisconsin set aside 3,000 acres of land as the first state forest. The land didn't have many trees on it, so Wisconsin began planting trees. I'm putting back **2 M&M's**.

1907

1908 - People used fire to burn the branches and limbs left from logging. Many of those fires got out of control. More than 1,400 fires burned over 1.25 million acres. I'm taking **10 M&M's** from the north, but I can't eat them since the trees all burned up.

1908

1911 - The first State tree nursery was built in Trout Lake, Wisconsin. With all of the forest lands that had been logged, burned, and eroded, there was a need to replant the forests. I'm adding **10 M&M's** to the north.

1911

1923 - Most of the large trees had been cut. Smaller trees were cut for pulp, which is used to make paper. The paper companies started planting trees to provide pulp for many years to come. I'm going to take **2 M&M's** for the trees harvested for pulp, but I am putting **10 M&M's** back for the trees replanted.

1923

1927 - Since logging started after statehood, people had cleared land for farming. Crops didn't grow well in many areas of the north and by 1927 many farms had been abandoned. No one paid the taxes on the abandoned land, so the counties got the land back. I'm not sure if I get any M&M's.

1927

1933 - The Great Depression hit the United States. Many people were out of work. A program called the Civilian Conservation Corps provided jobs for men out of work. The workers played a big role in renewing Wisconsin's forests. I'm putting back **40 M&M's**.

1933

1950's-1960's - Our forests had finally grown back in the north. Trees were still being logged, but foresters managed the forests so that no more trees were removed each year than grew back. I'm going to add **5 M&M's** for the tree growth, but I'm going to take **5 M&M's** for the trees harvested.

1950's-1960's

1970's-Today - People recognized that forests provided more than wood products. Forests provide recreation, homes for wild-life, and take care of our air and water. Sustainable forestry manages forests for all the benefits they provide, not just wood. How many M&M's do I get?

**1970's-
Present**

When it rains on a forest, tree leaves slow down the falling rain and tree roots help hold soil in place. When all the trees were logged, rains washed away the soil on hills. The rainwater washed ditches into the soil. This is called erosion.

Erosion

As trees were logged, the tree tops were left behind. These tree tops were called slash. People clearing the land for farming burned the slash. Slash fires often spread burning trees, farms, and whole towns.

Fire

The white pines of Wisconsin were used to build cities and farms. The need for Wisconsin's lumber led to the logging of Wisconsin's forests by the lumberjacks. With a crosscut saw and axe lumberjacks removed the forests.

Logging

As the trees in the forest were cut down, the land was sold to immigrants for farming. Removing all the stumps and rocks was hard work. Much of northern Wisconsin was not really good for farming. The weather was harsh and the soils poor.

Forests Become Farms

Lumberjacks lived in lumber camps out in the forests. These camps included bunk houses where they lived, a dining hall to eat in, barns for horses, a blacksmith shop, and more. Life was hard in the lumber camps. Men worked in the forest from daylight until dark all winter.

Lumber Camps

The first forests to be logged were near rivers so the trees could be floated to the sawmills. As the forests near rivers were gone, railroads were put in the forests to get the logs to the river or to the mill. Railroads made it possible to log trees with leaves and get them to the mill.

Railroad

Once logs were cut they were stacked near rivers. In the spring when the ice and snow melted, the rivers filled up with water. The lumberjacks rolled the logs into the rivers. They used pike poles to push on the logs to keep them moving. They floated the logs down river to the sawmill.

River Drives

Buildings at this time were built mainly from wood. It took a lot of lumber to build all the houses, factories, and stores. There was a lot of work for carpenters as new buildings were built.

Cities Built from Wisconsin Lumber

Sawmills provided jobs for people. Towns were built around sawmills, with stores to provide all the things people needed to live. Schools, churches, and hospitals were built. All of these provided jobs.

**Towns
Spring Up
Around Sawmills**

Tree seeds are planted in nurseries to grow seedlings. The seedlings are small trees that are used to replant forests. The State of Wisconsin owns 3 nurseries. Other companies run nurseries too. Many people work to grow and dig the seedlings so others can plant them.

Nurseries

Small trees are planted to help start a new forest. Small trees are planted by hand or with a machine pulled by a tractor. In people's yards, bigger trees are planted. A shovel is used to dig a hole.

**Planting
Trees**

Forests are constantly changing. New trees grow, some are harvested for lumber, and others die. Sustainable forestry makes sure more forests grow new each year than are harvested for lumber.

**Trees
Grow Faster
Than Logging**

Farm machinery has become larger. It is hard for farmers to work small fields with big machinery. Many of these small fields aren't farmed any more. Tree seeds have started in these small fields and new forests have grown.

**Wisconsin
Gains Forest Land**

The reasons people own forests are changing. Many people buy forests for recreation. They may hunt, camp, bird watch, or just relax in their own forests.

**People
Buy Forests for
Recreation**

Many forest fires burn each year, but we have a system for fighting the fires. The fires are spotted from fire towers or airplanes. Fire engines and bulldozers work to keep the fire from spreading. Airplanes are used to drop water on the fire.

Fire Control

The trees in my town are part of an urban forest. They provide some of the same things that rural forests provide. Tree shade cools my house, blocks the winter winds, and cleans the air I breathe.

Urban Forests

State of Wisconsin



**For use with
Wisconsin's Forests: Then and Now—Forester Activity: From Overuse to Sustainable Use**



Forester Activities for the K-8 Classroom

5-8
Activities



www.leafprogram.org

Confirmation Letter

Please Review

Program Date: _____

Program Time: _____

of Students: _____

Please contact me if any of the above information is incorrect:

Phone: _____

Email: _____

Who Needs a Plan?

addresses the following
Model Academic Standards:

Environmental Education B8.8 Knowledge of Environmental Processes and Systems

The standard is: Explain interactions between organisms or populations of organisms.

Students explain the needs of different organisms and how they affect other organisms.

Environmental Education B8.10 Knowledge of Environmental Processes and Systems

The standard is: Explain and cite examples of how humans shape the environment.

Students cite examples of how different management plans can shape the environment.

Dear Teacher,

This letter confirms that I am scheduled to present **Who Needs a Plan?** in your classroom. Designed for 5th-8th grades, this 45-minute program will engage your students in learning about how Wisconsin's forests are managed.

- The introduction to the program, **Who's Who?**, introduces your students to different types of forest users.
- During the program students will visit two hands-on activity stations:
 1. At **Who Wants What?** your students will match forest users with their goals for the forest.
 2. At **What Happens Next?** your students will match forest users' goals with actions taken to reach them.
- During the conclusion, your students will take a look at the elements that are included in a written management plan.

Please review the teacher responsibilities below. I will check-in at the main office when I arrive. Please note that I will arrive 10 to 15 minutes before the program is scheduled to set up the two activity stations. I look forward to working with you soon!

Sincerely,

OVER →

Teacher Responsibilities

1. Before I arrive, please have the classroom set up to accommodate two activity stations. These can be tables or sets of desks pushed together. Each station should be large enough to accommodate half of your students.
2. For the conclusion, I will need an overhead projector or document reader and a screen. Please have these available before I arrive.
3. During the program, you will facilitate **Who Wants What?** The directions for all the materials you need are located at <http://www.uwsp.edu/cnr/leaf>

Objectives

Upon completion of this lesson students will be able to:

- List at least 3 forest users.
- Explain that forests are managed to meet forest users' goals.

LEAF LINKS

This program relates to the following lessons in the *LEAF Wisconsin Forestry Education Lesson Guide*, Unit 5-6 and Unit 7-8:

5-6 Lesson 6: What is Management?

Students learn about the need for and development of forest management techniques

5-6 Lesson 7: Who Owns It?

Students learn how management goals of landowners impact forest ecosystems.

7-8 Lesson 3: How Forests are Managed

Students explore forest management plans and their connection to sustainable forestry.



Lesson Materials and Preparation

Preparation

- Read the lesson to familiarize yourself with what you need to explain and examples on which you may need to elaborate.
- Copy onto cardstock and cut out:
 1. **How to Meet a Goal** and **Goal** cards on **WORKSHEETS 1 & 2**
 2. **Forest User** and **Goal** cards on **WORKSHEETS 3 & 4**
- Make **Who Needs a Plan?** overhead transparencies from **WORKSHEETS 5 & 6**:
 1. **Summary Chart** (optional)
 2. **Management Plan Parts**

Materials:

- Cardstock
- Overhead transparencies
- *Chalk/marker board (on site)*
- *Overhead projector*

Grade Level Pointers

The following are tips for success when working with fifth through eighth grade students.

- Be positive. If you are, chances are they will be too.
- Listen! More than ever before students are in need of attention from adults and peers.
- Your energy and enthusiasm can be significant in getting disinterested students engaged in learning.
- Be patient.
- Avoid embarrassing the students.
- Expect short attention spans and an inability to concentrate.
- Be a good role model - show enthusiasm, be willing to poke fun at yourself, give kids a chance to “show you up” occasionally.
- “Walk a mile in their shoes” and remember the “golden rule.” Try to remember what you were like at that age and treat kids as you would like to be treated.





WHO'S WHO?

Description:

Forester introduces himself or herself. Students brainstorm a list of forest users who are affected by forest management.

15 minutes

Materials:

- Chalk/marker board

What to Say and Do:

1. Introduce yourself and what you do as a forester. Share a short story about a day that you have had.
2. Ask students if they have ever used a forest. Explain that there are many different forest users. Forest users can benefit from a well managed forest.
3. Have students brainstorm a list of people, plants, and animals who are forest users and write it on the board. (*Tree farmer, Native American, hiker, mountain biker, ATV rider, oak tree, pine tree, raspberry, wildflower, deer, squirrel, wood duck, etc.*)
4. Explain to students that when foresters manage a forest to help out the forest users, they follow a written plan. Tell students that in a few minutes they will be working in smaller groups on two activities. Each group will get a chance to do both activities.
5. Divide the class in two groups. An easy way to do this is to have them count off by twos. Once you have divided them, send the "ones" to a station and the "twos" to the other.





WHAT HAPPENS NEXT?

Description:

Students match forest users' goals with actions to meet the goals.

10 minutes

Materials:

- **How to Meet Goal** and **Goal** cards from **WORKSHEETS 1 & 2**

What to Say and Do:

1. Give each student either a **Goal** card or a **How to Meet Goal** card. If there are an odd number of students, have two students work together, give one student two cards, or include yourself.
2. Have students match their **Goal** with the appropriate **How to Meet Goal**.
3. When students have found their partners, have them sit down next to each other.
4. When everyone is sitting, each pair will share their goal and their corresponding action to meet the goal with the rest of the group.





WHO WANTS WHAT?

Description:

Students match forest users with their goals.

10 minutes

Materials:

- **Forest User** and **Goal** cards from **WORKSHEETS 3 & 4**

What to Say and Do:

1. Tell students that in order to have a management plan for a forest, the first thing you need to know is what the forest users want. We refer to this as their goal.
2. Give each student either a **Forest User** card or a **Goal** card. If there are an odd number of students, have two students work together, give one student two cards, or include yourself.
3. Have students match the **Forest User** with their **Goal**.
4. When students have found their partners, have them sit down next to each other.
5. When everyone is sitting, ask each pair to share their forest user and their forest user's goal with the rest of the group.



WHO NEEDS A PLAN?

Description:

Find out what goes into a forest management plan.

10 minutes

Materials:

- **Summary Chart** (optional) overhead transparency from **WORKSHEET 5**
- **Management Plan Parts** overhead transparency from **WORKSHEET 6**
- Overhead projector

What to Say and Do:

1. Use the **Summary Chart** to review the connections between **Forest Users**, their **Goals**, and **How to Meet Goals**. (This may be made into a overhead transparency.)
2. Ask students what would happen if foresters managed the forest to only meet one forest user's goal? (*Other forest users' goals would not be met.*) Ask students to suggest some of the **Goals** of different forest users that could be met at the same time. (*Christmas trees and Deer, Wolf and Firewood*)
3. Tell students that foresters must consider a lot of different things when planning to manage a forest. Give a few examples. (*Landowners' objectives and as many forest users as possible. A forester also considers environmental, social, and economic factors.*)
4. Place **Management Plan Parts** overhead on the overhead projector with the list covered up. Explain that when a forester writes a plan to manage a forest it includes the things on the list. Tell students that written plans direct the actions to be taken on forested land all over Wisconsin.
5. Reveal the list on the overhead and briefly review it with the students. Be aware of terms that students don't understand and explain them as needed.
6. Ask the students if any of them realized that managed forests grew according to a plan. Ask if anyone has ever been involved in planning something.
7. Conclude by thanking students for listening and ask them if they have any questions for you.





Lots of edge habitat. Edge is where forest meets open space. It can be forest next to roads, fields, large openings in the forest, neighborhoods, etc.

Goal



Build roads and neighborhoods. Cut areas of trees out of the forest.

How to Meet Goal



Large expanses of forest with no roads, towns, or large openings.

Goal



Don't allow any roads, houses, or large areas of cutting.

How to Meet Goal



Be able to cut firewood from the forest. Wood should be from trees that burn slowly, not from pine or aspen.

Goal



Manage for oak and maple.

How to Meet Goal



Smaller trees to be chipped up to make into paper pulp.

Goal



Manage for trees that mature quickly like trembling aspen and jack pine.

How to Meet Goal



Snags (standing dead trees),
ground cover for mice.

Goal



Let the trees die of natural causes or
intentionally kill some but do not cut
them down so there will be lots of
snags (standing dead trees).

**How to
Meet Goal**



Small uniform conifer trees.

Goal



Plant rows of pine, spruce, or fir trees.
Harvest trees when they are very
young.

**How to
Meet Goal**



Preserve areas of historic
importance.

Goal



Set aside areas with cultural
significance. Maintain areas for
future generations.

**How to
Meet Goal**





Deer

Forest User



Lots of edge habitat. Edge is where forest meets open space. It can be forest next to roads, fields, large openings in the forest, neighborhoods, etc.

Goal



Wolf

Forest User



Large expanses of forest with no roads, towns or large openings.

Goal



Landowner with wood stove

Forest User



Be able to cut firewood from the forest. Wood should be from trees that burn slowly, not from pine or aspen.

Goal



Paper Company

Forest User



Smaller trees to be chipped up to make into paper pulp.

Goal



Owl

Forest User



Snags (standing dead trees),
ground cover for mice.

Goal



Christmas Tree Farmer

Forest User



Small uniform conifer trees.

Goal



Native American

Forest User



Preserve areas of historic
importance.

Goal





WORKSHEET 5—SUMMARY CHART

Forest Users	Goal	How to Meet Goal
Owl	Snags (Standing dead trees), ground cover for mice.	Let the trees die of natural causes or intentionally kill some but don't cut them down.
Christmas Tree Farmer	Small uniform conifer trees.	Plant rows of pine, spruce, or fir trees. Harvest trees when they are very young.
Native American	Preserve areas of historic importance.	Set aside areas with cultural significance. Maintain areas for future generations.
Deer	Lots of edge habitat. Edge is where the forest meets open spaces. It can be forest next to roads, fields, openings in the forest, neighborhood, etc.	Cut areas of trees out of the forest.
Wolf	Large expanses of forest with no roads, towns, or large openings.	Don't allow any roads or houses in an area.
Landowner with Wood Stove	Be able to cut firewood from the forest. Wood should be from trees that burn slowly, not from pine or aspen.	Manage the forest for maple and oak.
Paper Company	Smaller trees to be chipped up to make into paper pulp.	Manage the forest for trees that mature quickly like trembling aspen and jack pine.





WORKSHEET 6—MANAGEMENT PLAN PARTS

Forest Management Plans include:

- Landowner's goals
- Maps to describe the property
- Legal description of property location and acreage
- Descriptions of water bodies, wildlife, vegetation, and soils
- Descriptions of the size, species, quality, and quantity of timber
- Descriptions of forest pests present, if any
- Descriptions of other relevant environmental, social, and economic factors
- History of what has been done to the property in the past
- Management options and how they relate to the goals
- Costs of different management options and their potential returns
- Timeline for management activities

