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## Writers

Andrea Gladu, Leslie Malkin, Marion Godman, Dhyana Justl, Andrea Shawcross

## Editing and design

Leslie Malkin, Andrea Gladu

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Green Kids Inc. Presents



# Forest Is As Forest Does

In association with A-Channel



## Teacher's Kit 2002

[www.greenkids.com](http://www.greenkids.com)

# Special Thanks To Those Who Support Green Kids!



Estevan Credit Union



School Division # 1



A DIVISION OF THE SASKATCHEWAN ASSOCIATION OF REHABILITATION CENTRES

## Save The Environment Contest 2002!



**As part of the Green Kids Theatrical performance "Forest Is as Forest Does", we think your ideas are so important we want you to share them with all of Manitoba.**

### ***BE ON TV!***

Here is your chance to really make a difference and share your ideas on how to save the environment. A-Channel is going to select three submissions best exemplifying subject matter and creativity. Winners will be on tv and share their message with their very own 30 second Public Service Announcement airing on A-Channel.

### ***SIGN ME UP!***

Whether your ideas are a class project, school event, or individual undertaking; Send us your idea, script or concept on how you would save the environment! For ideas go to [www.greenkids.com](http://www.greenkids.com). Feeling ready for tv now? Check out our tv script example and your very own script template to download and send in.

### ***CAN YOU ENTER?***

If you're an elementary through grade 8 student attending a Manitoba School, you, your class, or your school is eligible to enter.

### ***LET YOUR PARENTS KNOW***

Make sure your teacher or parents know you are entering. If you win, A-Channel will contact you and your teacher. We will make sure your parents/guardians sign our special permission forms before you become a star.

### ***HURRY BEFORE IT'S TOO LATE***

Contest entries will be accepted February 1, 2002 - April 22, 2001. An early bird draw will be made on March 22, 2002 and the first Public Service Announcement will premiere on Earth day APRIL 22!

**Email your entry to:** [WinNow@a-channel.com](mailto:WinNow@a-channel.com)

**Fax your idea/script to:**

(204) 956-8011

Attention: A-Channel *Save the Environment Contest*

**Snailmail:**

#8 Forks Market Road

Winnipeg, Manitoba

R3C 4Y3

**A-Channel Presents "U B the Anchor"!**

**Here is your chance to make history and become the first ever  
*A-Channel Junior Anchor.***

**Visit the A-Channel Autograph tent Thursday June 6<sup>th</sup> or Friday June 7<sup>th</sup> from 10 am – Noon during The Winnipeg International Children's Festival @ The Forks. There you will have your chance to audition and become one of 10 lucky Anchor finalists. We will provide you with an audition script - so just show up and be yourself.**

**10 finalists will be chosen to come back to our studios Saturday June 8 for the final auditions. All 10 finalists will be given some guidelines to follow in order to create their own *Festival Report* highlighting their day at the festival in the form of a television report. A permission form will also be sent home with the finalists for their parent or guardian to sign.**

**As a finalist you will read your report in our studios where we will be recording each report. Each finalist will receive a vhs copy of his or her report and the winner becomes our *A-Channel Junior Anchor.***

**The Junior Anchor's report will play back that night during A-Channel News @ Six.**

***So what are you waiting for??? We want to put YOU on TV.***

Contest is open to students up to 15 years of age.

**We invite you to explore with the Manitoba Model Forest and the members of the Canadian Model Forest Network as we search for new ways to live sustainably with**



**Since 1993, the Manitoba Model Forest has brought people together to appreciate all of the values of the forest and to help ensure those values are conserved for future generations.**

**Part of this ongoing commitment is providing opportunities for teachers and students to learn more about the forests of Manitoba. With tools like the Manitoba Model Forest video and curriculum guide “The Boreal Forest: a case for sustainability” we are helping to provide new educational experiences for the classroom.**

**Through new technology such as the internet, the Manitoba Model Forest is providing new ways to access sustainable forest research and information.**

**[www.ManitobaModelForest.com](http://www.ManitobaModelForest.com)**

**Linking you to educational forest websites across Canada and around the world through the Canadian Model Forest network with access to the Earth’s Biggest Environmental Search Engine.**

**For additional information contact the Manitoba Model Forest  
PO Box 6500,  
Pine Falls, Manitoba, Canada R0E 1M0  
Tel: 204-367-5232 Fax: 204-367-87897  
[bdube@mb.sympatico.ca](mailto:bdube@mb.sympatico.ca)**

# Canola Info

Canola is the combination of two words – Canadian and oil. In 1974, Dr. Balder Stefansson, a University of Manitoba plant breeder, developed the first canola from rapeseed. This was done using traditional plant breeding methods specifically to enhance nutritional qualities.

Canola is the most commonly grown oilseed crop in Canada. It is grown mostly in western Canada. Canola plants grow up to 2 metres tall and produce groups of yellow, four petal flowers. The flowers produce small green pods about 5 cm long. As the plant ripens, the pods turn brown. When harvested, each pod is cracked open to yield about 20 tiny round black or brownish yellow seeds. Each canola seed is approximately 40 percent oil. The seeds are crushed to obtain canola oil for human consumption and the remainder is processed into canola meal that is used as a high protein livestock feeds.

Canola oil is used mainly as a cooking or salad oil and processed into margarine. Canola oil is also used to manufacture many other products such as printing inks, cosmetics, and biodiesel fuel. Scientists are also developing industrial uses for canola oil. Canola meal is used for feed for livestock, poultry and pets and as a fertilizer.

Canola oil is recognized for its nutritional attributes as it contains the lowest level of saturated fat of any vegetable oil. It is high in monounsaturated fat, which has been shown to reduce serum cholesterol levels, and has moderate levels of polyunsaturated fat, which is essential to the human diet. Canola plays a beneficial role as part of a nutritious diet.

Canadian canola farmers are committed to producing the highest quality canola using sustainable resources. “It is important that I am, and all other farmers are, committed to keeping the environment healthy because it provides us with our livelihood” states Geoff Young, a Manitoba producer.

Canola Info and the Canola Council of Canada are committed to providing educational and nutritional information on canola to consumers, educators, dietitians, media and foodservice personnel. For more information on canola, check out [www.canola-council.org](http://www.canola-council.org) or [www.canolainfo.org](http://www.canolainfo.org) or contact:

Canola Info  
Alberta  
780.451.6933

Canola Info  
Saskatchewan  
306.975.0136

Canola Info  
Manitoba  
204.982.2100



# Green Kids Inc.

environmental education for  
young people through theatre

609 - 70 Arthur Street, Winnipeg, Manitoba, R3B 1G7

Phone: (204) 940-4745, Toll Free: 1-800-441-6751, Fax (204) 940-4749

March, 2002

Dear Teacher,

Welcome to *Green Kids*! You'll notice we have decided to put our Teacher's Kit online this year, in the interest of conserving a valuable resource to all of us - paper (and trees)! This way, you can print out whatever parts of the kit you think you'll use (although we *hope* you'll use all of it!) and as many copies as your school needs.

This year's play, *Forest Is As Forest Does*, offers your students and you a fun and entertaining performance, centered around the overall theme that forests are very important in our world and play many different roles. There are several other underlying concepts in the play, many of which are outlined for you in "Forest Is As Forest Does - The "Green Notes" Version.

Following the "Green Notes" summary is a short quiz about the play for your students to complete. This will help you to determine what they've learned from the play and which areas might need a bit more work. The quiz is followed by an answer key.

Next you'll find a terrific variety of educational activities and lessons to complete with your class - themed around everything from the various different roles of the forest to renewable versus non-renewable resources.

Be sure you don't miss the "Be A Tree" Contest found on page 18 - which offers each of your students the opportunity to win a free *Green Kids* show for your school for the 2003 tour! (Your students can also create one entry together as a class.)



Towards the end of the Teacher's Kit, you'll find "Terms to Know and Teach," a comprehensive list of definitions generated from the play or from the various activities found in this kit. We even threw in a few helpful definitions that might come up in your classroom discussions. Be sure to review these definitions with your class.

Finally, you'll find a booking form for the 2003 Green Kids tour. We're very excited about next year's show, which focuses on alternative forms of energy and efficient energy use. We encourage you to book early to take advantage of our early-bird discounts!

Please take a few moments to complete the Green Kids Teacher Evaluation Form. This provides us with invaluable feedback which will help us to plan our 2003 tour. Please also encourage each of your students to complete a copy of the Student Evaluation Form.

If you have any questions about Green Kids or this year's program, please do not hesitate to call us toll free at 1-800-441-6751 or e-mail us at [rex@greenkids.com](mailto:rex@greenkids.com).

From all of us at Green Kids... enjoy the show!



# Forest Is As Forest Does

## The "Cole's Notes" Version



Below are some key concepts generated from the play  
and from your teacher's kit:



**Forests are everybody's responsibility - including business, government and consumers.**

Learning more about what's happening with forests in your area is the first (and the biggest) step in helping to improve the health of our forests.



**Kids have a voice.** Not only do they have the ability to encourage change in their communities - they have a responsibility too!



**We are responsible for what we buy and for the wastes we produce.** By making smart purchasing decisions, consumers can influence the markets and impact the decisions of large corporations about what is produced and how it is produced.



**Forests have numerous valuable roles.**

They serve as wildlife habitats and recreation sites; they help combat the greenhouse effect and reduce soil erosion; they produce timber, pulp, mushrooms, maple syrup, berries and fruit, herbs, botanicals and natural foods (fiddleheads, mint, wild licorice), essential oils (Jack pine, cedar, coriander, balsam, fir) - and so much more!



**Tree harvest can have a positive impact on the environment, if done appropriately.**

The more awareness there is of sustainable forest management, the better we can enjoy the benefits of this important resource. Our lives are more fulfilling when the environment we live in is balanced and healthy.



**Different forests have different needs.**

Forests are very complex and geographically unique. While clear cutting, forest fires or disease might have a negative impact on one type of forest, these occurrences could be essential to the survival of another type. Public awareness of the natural requirements of a region and of local forestry practices is key to the sustainable future of our forests.



**Not all forestry companies in the world are dedicated to sustainable forest management.**

Although some companies are leaders in forest conservation and responsible forest management, others are not doing their part.

Please remember to fill out your student and teacher evaluation forms  
once you've seen Forest Is As Forest Does!



# Forest Is As Forest Does

## A Short Quiz



Complete the following questions about the play to see what you learned!

1. By turning up the heat in the winter, Joey

- a) has made a smart decision - now he can walk around in maple leaf boxers all year round.
- b) has proven that cool kids don't wear slippers.
- c) is not being energy smart.

2. Joey learns that dead trees are important too. In addition to putting nutrients back into the soil, they also

- a) offer a safe place for children to climb and play.
- b) provide food and a place for fungi, insects, birds and small animals to live.
- c) can be hollowed out and used as a place to plant a garden.

3. From the story about "Skyland," we learn that the trees belong to all of us - no one has the right to take them away from us. What do Joey, Alex and Jen decide to do in order to learn more about what's happening to their forests?

- a) Survey the townspeople and visit the forestry company.
- b) Hire a detective to find out what's going on.
- c) Write a newsletter.

4. When Jen visits the forestry company, the manager tells her that forests are a

\_\_\_\_\_ resource.

- a) non-renewable
- b) renewable
- c) non-refundable



5. Answer true or false to the following statements.

- |   |   |   |
|---|---|---|
| a) Joey should buy food in bulk so he uses less packaging.              | T | F |
| b) Clear cutting is always bad and is a practice that should be banned. | T | F |
| c) It is safe to go walking in the woods alone.                         | T | F |
| d) Joey should burn his garbage to avoid leaving a mess in the forest.  | T | F |
| e) All forestry companies are responsible managers of the forest.       | T | F |

6. Mrs. Popodopolous tells Jen, Joey and Alex they don't realize the good they've done - they got the company to come and talk to the townspeople. Do you think kids really have the power to make adults listen? Can kids teach adults about the environment? Discuss your answers with your teacher and your classmates.



# Forest Is As Forest Does

## Quiz Answer Key



1. **c.** As Canadians, we are among the highest energy consumers per capita in the world. We all need to take a more conservation-oriented approach. Turning down the heat in the winter and putting on warmer clothing are energy smart choices.
2. **b.** Dead trees are part of a healthy forest. Deadwood is an important element of the forest ecosystem and its natural life cycle.
3. **a.** The forest is everyone's responsibility. Not only are we obligated to use our resources responsibly but also to ensure others who use our resources are doing so responsibly. The more we know about what is happening in our communities, the more equipped we are to make the right choices.
4. **b.** In Canada, forests are continually regenerated either naturally or with human assistance (planting). In contrast, products like steel, aluminium, concrete and plastic are made from non-renewable resources and are being permanently depleted. See "Terms to Know and Teach" (page 19) for definitions of the different types of resources and "Renewable or Not...?" (page 15) for an activity on renewable resources.
5. **a) True.** As consumers, we are responsible for and must be conscious of the products we buy and the wastes they produce. Smart consumer choices have positive impacts on the environment.  
**b) False.** This is a common misconception; some forests actually grow back more quickly after certain areas have been cleared. Clear cutting can also increase the biodiversity of the landscape if done properly. It creates room for new plants to grow, providing an abundance of food for wildlife. The key is knowing where and how much to clear cut. A clear-cut area that is too small may be overgrazed by deer and will limit the land's ability to regenerate. An area that is too large may disrupt migration patterns of animals or restrict plants' abilities to disperse their seeds into the area.  
**c) False.** It's easy to get lost in the forest and neither children nor adults should walk alone. Always go with someone who knows how to read maps, use a compass and is knowledgeable about the local wildlife, until you learn these skills yourself.  
**d) False.** Joey should recycle his garbage. Some waste is unavoidable, but reducing your waste is one of the best things an individual can do for the planet.  
**e) False.** Although some forestry companies are leaders in conservation and responsible forest management, others are not doing their part.
6. **Yes!** Kids have a loud voice and the power to effect change! Encourage students to share responsible actions they take at home or in their communities. For example, has anyone convinced their parents to recycle or compost? Also encourage students to discuss new responsible actions they can take - like carpooling, remembering to shut off the light (TV, computer) when they leave a room, and sharing with their parents environmental lessons they learn at school.



# A Forest Wears Many Hats

A forest offers much more to our world than a place to go camping and a home for squirrels and other wildlife. Using the words found at the end, fill in the missing letters below to find out all the different roles the forest plays and all it provides for our world!

## 1) Provides Habitat

A forest provides an environment where living organisms - plants and animals - can obtain everything they need to survive, including shelter, f\_\_\_\_, w\_\_\_\_r and living space. The forest is the organisms' habitat.

## 2) Produces Oxygen

Through ph\_t\_sy\_\_\_\_sis, plants use energy from the s\_\_ to convert carbon dioxide into oxygen in the air we br\_\_\_\_. A forest helps produce oxygen.

## 3) Balances Climate Change

A forest stores c\_\_\_\_n, helping to keep the earth's climate in balance. This reduces the green-house g\_\_\_\_s in the climate, helping to minimize the impacts of the **greenhouse effect**.

## 4) Prevents Soil Erosion

Trees help prevent soil er\_\_\_\_n by stabilizing the soil structure through their root systems and sheltering the soil surface from w\_\_\_\_. Trees also help maintain the right moisture and pH levels in the soil. Decomposing trees put n\_\_\_\_s into the soil, allowing plants to grow and animals to live.

## 5) Protects Water

Trees help keep water pure and free from p\_\_\_\_tion by reducing the flow of sedi\_\_\_\_s like soil, fertilizers, pollutants and so on, into the water. Trees also help slow down the flow of surface water, reducing \_\_\_\_ off.

## 6) Provides Home for Tribal People

A forest helps provide everything from food to shelter to c\_\_\_\_ing for natives of A\_\_\_\_\_.

South America and various other countries. We can learn a lot from their different c\_\_tures as well as from their harmonious relationships with n\_\_\_\_\_.

## 7) Produces Natural Medicines

H\_\_\_\_, roots, barks and f\_\_\_\_s that grow in forests can help treat or even prevent certain sickness and diseases. Many natural cancer treatments are found in tropical \_\_\_\_ forests.

## 8) Provides Exercise and Recreation

Hiking, mountain biking, taking nature walks and cross country skiing are fun ways to keep active and stay h\_\_\_\_y. Breathing in the high levels of o\_\_\_\_ provided by the forest is beneficial to your whole b\_\_\_\_\_.

## 9) Generates Timber Products

A forest supports various timber-related industries, providing the material for the production of \_\_p\_r, construction materials for houses and b\_\_\_\_s, f\_\_\_\_re and so on.

## 10) Generates Non-Timber Products

A forest also supports various non-timber-related industries, generating such products as maple s\_\_\_\_p, wild r\_\_\_\_, edible berries, mushrooms and medicinal \_l\_\_ts.

## 11) Supports Ecotourism

A forest can help to support ecotourism - the use of a natural area for t\_\_r\_\_m, conservation and outdoor \_\_c r\_\_tion, which doesn't hurt or damage it in any way. Any non-exploitive, nature-based activity you do in the forest (including learning about it) helps to promote ecotourism.

Use these words to fill in the blanks above:

pollution  
paper  
Africa  
syrup  
nutrients

tourism  
clothing  
plants  
rainforests  
gases  
food  
sediments  
runoff  
cultures  
wind

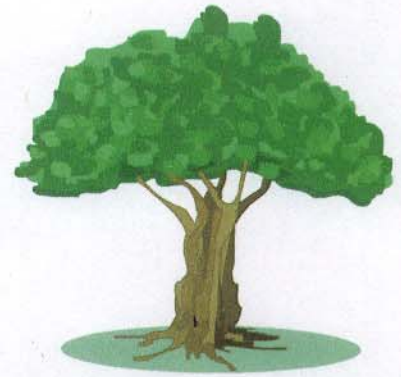
breathe  
buildings  
erosion  
healthy  
furniture

water  
herbs  
rice  
body  
recreation

nature  
fruits  
oxygens  
photosynthesis

# Paper Doesn't Grow on Trees!

## Help Conserve Our Forests



Forests are very important to life on earth. (To find out more about just how important they are, check out the activity "A Forest Wears Many Hats.") Since many of the trees on our planet are cut down to make paper, using less paper is a great way to help conserve our forests.

Fill in the blanks below using the words from the box below to learn more about conserving our forests.

When buying paper at the store, try to find one-hundred percent \_\_\_\_\_ recycled paper - meaning the paper has already been used by somebody. It is made from the papers we've already put into the \_\_\_\_\_!

Another option to buying recycled paper is to buy tree-free paper. This means that not a single \_\_\_\_\_ was cut down to make that paper! Tree-free paper can be made from plants like kenaf, hemp, wheat or flax, all of which can be grown quickly and easily by \_\_\_\_\_.

Tree-free paper can also be made from farmers' waste products like \_\_\_\_\_ stalks and \_\_\_\_\_ straw. Normally, farmers burn or plow this material. Instead, they can sell it to factories that will make environmental tree-free paper from this agricultural bi-product.

tree	corn	wheat
recycling bin	farmers	post-consumer

### Straight from the Forest

Many of the products you use on a regular basis can be made naturally from products of the forest! Find a non-timber product and bring it in for the rest of the class to see, identifying which part of the forest it came from. Some examples are below; now do some research to find your own!

Soap



Rubber

Shoe polish

Perfumes

Cellophane

Cork

Carpeting

Cosmetics



Rayon

Dyes

Crayons

Chewing gum





# Renewable... or Not?

Review the definitions of renewable and non-renewable resource with your students, found in "Terms to Know and Teach." Then complete the following activities with them:



Have each student share with the rest of the class what resources they have already used that day and discuss whether each resource is renewable or non-renewable.  
Example:

### Took the bus

- Fuel for bus to run (gasoline) is a non-renewable resource
- Steel (used to build the bus) is made of non-renewable resources



### Wrote in scribbler

- Paper (in scribbler) is a renewable resource (It might also have come from a treeless source! See "Paper Doesn't Grow on Trees," on page 14).
- Pencil (wood) is a renewable resource

### Ate lunch.

- Food is a renewable resource
- Plastic (sandwich bag/food wrap) is a non-renewable resource.



Have each student bring a favourite possession to school (example: a skateboard, a book, a sweatshirt).

Get them to write down all the materials they think would have been used to create their object. Most should be able to generate a list simply by looking at it (example: plastic, rubber, glass, metal, wood, paper, cotton, etc.).

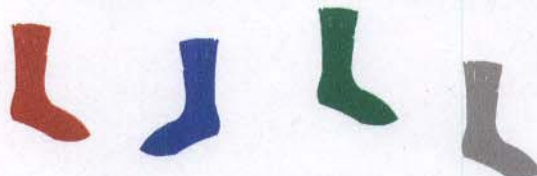
Have them identify any non-renewable resources that went into the creation of their object.



Encourage your students to research what happens to the things we throw away. This can help create an awareness that there is no "away" - all waste must go somewhere. Follow up with some discussion about what things we normally throw away that could be fixed, re-used in a different way or given away to someone else who could make good use of it.

Example: Rather than tossing it into the garbage, a clean but holey and mateless sock could be:

- darned and used a storage place for coins, extra buttons or a rock collection
- used as a rag (rather than paper towel that would get thrown away after use)
- darned and given to the Salvation Army (if we all did that, think of all the socks that could be given to sockless people - who would much rather have warm feet than socks that actually match!)





# Joey's Environmental Quiz



How environmentally conscious are you? What things do you do to help care for our forests? Take Joey's environmental quiz to test your enviro-smarts!

	Yes	Sometimes	No
1. I use both sides of a piece of paper when I can.	10 points	5 points	0 points
2. I recycle paper when it can no longer be used	10	5	0
3. I carry my lunch in reusable containers.	10	5	0
4. I turn off the water while brushing my teeth instead of leaving it running.	10	5	0
5. I turn off the lights when I leave the room.	10	5	0
6. I buy recycled paper.	10	5	0
7. I compost at home.	10	5	0
8. I never litter and I pick up litter when I see it left by someone else.	10	5	0
9. I buy products that have as little packaging as possible.	10	5	0
10. I walk or ride my bike instead of riding in the car when I can.	10	5	0
11. I try to create as little garbage as I can.	10	5	0
12. In the summer, I eat vegetables from the garden.	10	5	0
13. I never buy disposable plates or plastic cutlery.	10	5	0
14. I take five minute showers instead of baths because they use less water.	10	5	0
15. I help promote environmental awareness to my family.	10	5	0



### Results

Add up your scores for all 15 questions to see how enviro-smart you are!

0 - 40 points  
Wake up and smell the forest!

41 - 85 points  
Seeds of knowledge

86-115 points  
Growing awareness

116 - 150 points  
Enviro-pro!





# The Green Kids Way!

## Clubbing It

Does your school have an environmental club? It's easy to start one - or expand one that's already established in your school. To generate some ideas for your own school's enviro-club, take a look at what Winnipeg's H.S. Paul School is doing. Then let us know what you're up to (e-mail us at [rex@greenkids.com](mailto:rex@greenkids.com)) and we may include it on our website!

H.S. Paul School has an ECOKIDS\* club which meets during lunchtime on Wednesdays, three times a month. The club is divided into groups of five members each; groups are named after endangered species in Canada (Mudpuppies, Sharp-tailed snakes, Beluga Whales and Bluehearts).

Some of the exciting activities the kids plan to do this year include:

1. Bring in Green Kids
2. Create enviro-club T-shirts using "recycled" t-shirts
3. Write newsletter articles, ads and reminders
4. Make posters
5. Post bulletin board notices about garbage on the playground
6. Host guest speakers
7. Hold a used book sale
8. Post signs in the bathroom about conserving water
9. Playground cleanup
10. Plant trees

\* To find out more about ECOKIDS, visit the website at [www.ecokids.earthday.ca](http://www.ecokids.earthday.ca)

### More Enviro-Club Ideas for YOUR School!

1. Make sure there are recycling bins in every classroom, in the cafeteria, in the gymnasium, in the playground and anywhere else there could be recyclable waste.
2. Encourage students to pack their lunches in reusable lunch bags and containers to eliminate waste.
3. Encourage your school to use energy-efficient light bulbs and to install low-flow toilets and sinks. Set up fundraising projects to help your school achieve these goals!
4. Encourage your school to turn down the heat at night.
5. Generate monthly conservation projects. Students can research and set up displays to help teach the rest of the school what they learned.

Keep track of your progress so everyone can see what a great job you are doing!





# The Be a Tree Contest

One of your students or your class could WIN a FREE Green Kids show for your school, for the 2003 tour! Here's how students can enter (please photocopy the instructions below for each student):

- 1) Imagine you're a tree. (You read correctly - you are now a tree! With roots, branches, the whole bit!)
- 2) Decide what kind of tree you are (evergreen or deciduous... fir or poplar... young or old, etc.), what you look like and where you grow.
- 3) Remind yourself about the theme of **Forest Is As Forest Does** - that forests are incredibly significant in our world and play many different roles.
- 4) Remind yourself what these various roles are by looking back to the activity "A Forest Wears Many Hats." (Ask your teacher if you haven't seen it yet.)
- 5) Decide what your role is as a tree. Maybe it's to provide maple syrup. Perhaps it's to become a pencil. Maybe it's even to stand tall and majestic in a park, offering shade to visitors and animals who live there.
- 6) Decide what message you want to convey to kids about your role as a tree.
- 7) Tell us about yourself (as a tree), your role and your message in a creative way - either in written form (for example, a poem or a short story), visually (a picture, a photo, a 3-D form) or in any other way you think is unique and creative.
- 8) Send your entry, along with your name, full address, telephone number, school name and address, grade and age, by July 1, 2002, to: **Green Kids, #609-70 Arthur Street, Winnipeg, Manitoba, R3B 1G7.**

Contest entries will not be returned. Green Kids reserves the right to use any contest entries for promotional purposes. The winning entry will appear on the Green Kids website, at [www.greenkids.com](http://www.greenkids.com), in September, 2002.

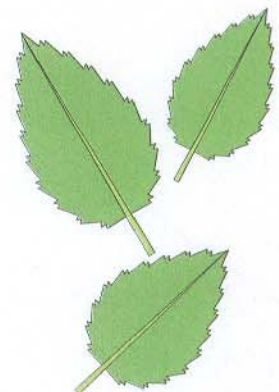
Here's an example:

I am an Elm tree - a large, deciduous tree. I stand on the banks of a fast-moving river that flows through a busy city. I am tall and magnificent, with long, sturdy branches and deep, solid roots.

My role is to protect the water that flows in the river just below where I stand. I help keep the water pure and pollution free by reducing the flow of sediments into it.

Now you would complete your creative entry - whether it's a poem, a painting, a story, whatever!

Good Luck!



# Terms to Know and Teach

## **Boreal Forest**

A belt of trees running through North America, Europe and Asia, characterized by a harsh climate, short growing season and frequent and widespread disturbance (for example, a forest fire, disease, insect outbreak, etc.). This belt of mostly evergreen trees wraps itself around the earth just south of the Arctic Circle.

## **Carbon Sink/Source**

Soil, peat, fossil fuels and various living organisms like trees are natural storage places for carbon - or carbon sinks. Forests are important containers (or sinks) for carbon; Canada's boreal forests alone are believed to hold 135 million tonnes! Because of this tremendous ability to store carbon, forests are vital for helping to minimize the impacts of the "greenhouse effect." Forests also release carbon as organic matter decomposes.

## **Evergreen Trees**

The defining characteristic of evergreen trees is that their leaves - which are often needles - remain on the branches year round. The boreal forest is dominated by evergreen trees, which include spruce, pine and fir.

## **Deciduous Trees**

The defining characteristic of deciduous trees is that they lose their leaves at the end of the growing season (autumn). We have many deciduous trees in Canada. Some examples include American Elm, Bur Oak, Trembling Aspen (Poplar), Birch, Ash, and Tamarack or Larch, which is a needle-leaved deciduous tree.

## **Deforestation**

The permanent removal of trees from an area designated for some other use. Harvesting followed by forest renewal efforts is therefore not considered deforestation.

## **Erosion**

The wearing away of land surface by wind or water. It occurs as a natural process and can be intensified by human practices.

## **Even-Aged Forest**

An area of trees that are all the same age. It is often the result of a disturbance such as fire or harvesting and is desirable for shade-intolerant species like Jack Pine or Poplar.

## **Forest Lifecycle**

The natural growth of a forest from seedlings, to adult trees, to tree death and back to the seedlings. This complex cycle requires much more than trees to survive; many elements are needed to keep the wheel turning. These include soil, organisms that help make the soil, insects, birds and animals that pollinate and spread plant seeds and many more.

## **Fossil Fuels**

Energy sources formed from the remains of plants and animals over millions of years. Burning fossil fuels - like coal and oil - is a major contributor to pollution.

## **Global Climate Change**

When changes in the earth's atmosphere lead to long-term and global changes in temperature, moisture, and air mass movements, global climate change has occurred.

## **Greenhouse Effect**

The earth absorbs energy from the sun and passes this energy through the atmosphere to warm the earth's surface. To keep the climate on earth in balance, an equivalent amount of energy must be sent back into space in the form of infrared (thermal or heat) energy.

Greenhouse gases (GHGs) in the atmosphere act like heat sponges, absorbing some of this heat energy on its way from the earth's surface back into space. The gases then send most of the absorbed heat back to the earth's surface. This system of energy exchange, referred to as the **Natural Greenhouse Effect**, has kept the earth at about 15°C for the last 10,000 years. Without this process, the temperature would be about -18°C!

Human activities have resulted in an increased number of GHGs. This means more energy is being trapped in the atmosphere and sent back to the earth's surface. The climate is no longer in balance and the result is known as the **Enhanced Greenhouse Effect**.

## **Green House Gases (GHGs)**

Gases in the earth's atmosphere that absorb heat. Some examples include carbon dioxide, CFCs, ozone, methane, water vapour, and nitrous oxide.

## **Habitat**

The environment that provides food, water, shelter and space for an organism.

### **Kenaf**

This tall annual plant belonging to the hibiscus family is grown in warmer climates and can be used in the manufacture of tree-free paper.

### **Mixed Forest**

A forest that contains both deciduous and coniferous trees.

### **Multi-Use Management**

The management of forest resources for multiple benefit such as for use as wildlife habitat, timber production, recreation, and so on.

### **Natural Resources**

Raw materials provided by the earth and its processes. Some examples include nutrients, minerals, water, plants, animals and so on.

### **Nonrenewable Resources**

Resources that cannot be replaced in the current geological age. Some examples include oil, coal, gasoline.

### **Old Growth Forest**

A forest with long-living tree species (some can live for hundreds or even thousands of years). Examples include forests of Douglas fir, giant sequoia, and western hemlock.

### **Ozone (O<sub>3</sub>)**

A type of oxygen. In the upper atmosphere, O<sub>3</sub> forms the ozone layer, which protects the earth's surface from the sun's harmful ultraviolet radiation. Ozone is also found at the earth's surface and is the primary ingredient in smog.

### **Perpetual Resources**

Resources which are inexhaustible in human time scales. An example is solar energy.

### **Plantation**

A forest established by planting seeds or seedlings.

### **Pollutant**

Any introduced substance (solid, liquid or gas) that reduces the quality of a resource. Pollutants in the air result in poor air quality.

### **Pulpwood**

Timber cut to make pulp which is then used to make paper and other products.

### **Rainforest**

Forests which have more than 400 cm of rainfall per year. There are two types of rainforests: **Tropical rainforests** have warm to hot weather and two seasons, wet and dry. They are found near the equator (between the Tropic of Capricorn and the Tropic of Cancer). **Temperate rainforests** have four seasons: spring, summer, fall and winter. Found far from the equator, it snows in the winter and there are never long periods of very hot weather.

### **Regeneration**

The renewal of vegetation by either natural or artificial means. Ideally, management practices should reflect a forest's regeneration capabilities. Some tree species have a strong capacity to grow back, such as aspen (poplar) and foresters can take advantage of natural regeneration. Tree species like spruce take a long time to establish themselves in a forest and therefore need help regenerating. Planting is one way to assist in regeneration.

### **Renewable Resources**

Natural resources that can replenish themselves through natural processes or ecologically sustainable management practices. Examples include falling water and trees.

### **Reuseable Resources**

Products that can be reused many times in their current form for similar or other uses. Examples include a plastic bag or a glass jar.

### **Sediment**

Solid materials that settle to the bottom of a liquid. In nature they are deposited by wind, water, or glaciers. Forests help to reduce the amount of sediment flowing into lakes and rivers by holding on to it with their root systems and using some of the materials for growth.

### **Selective Logging**

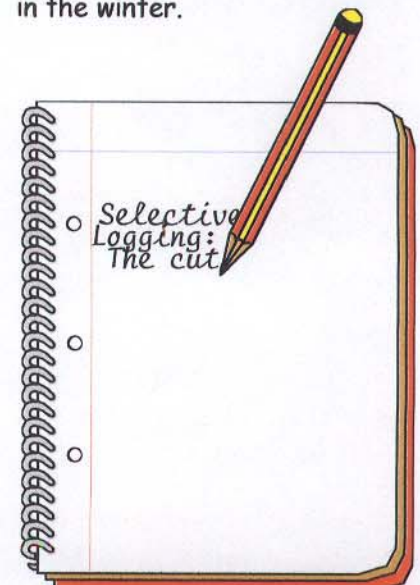
The cutting of intermediate aged, mature or diseased trees in an uneven-aged forest to encourage the growth of younger trees.

### **Sustainable Development**

Making progress in the present without negatively affecting the future. This means maintaining a balance between the needs of society, the economy and the environment.

### **Urban Forest**

Trees found in urban centers - in backyards, school grounds, city parks, and along streets and rivers. Urban forests play an important ecological role in helping to improve human health, provide wildlife habitat, and even reduce energy costs by helping buildings stay cool in the summer and warm in the winter.



**Green Kids Teacher Evaluation Form**

*Green Kids strives to grow, develop and improve each year. Your feedback is extremely valuable to us and helps us to deliver a program that is relevant to your students and their curriculum. Please take a few moments to fill out this evaluation form (feel free to use the back if you need more space) and then fax it to us at (204) 940-4749, mail it to Green Kids, #609-70 Arthur Street, Winnipeg, Manitoba, R3B 1G7 or e-mail us at rex@greenkids.com.*



1. Please rate *Forest Is As Forest Does* on a scale of 1 to 10 in terms of its educational value as well as its entertainment value.

Educational Value:

1      2      3      4      5      6      7      8      9      10

Poor

Satisfactory

Good

Fantastic

Entertainment Value:

1      2      3      4      5      6      7      8      9      10

2. What did you like best about the show and why?

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3. What did you like least about the show and why?

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4. Were you able to incorporate elements of the teacher's kit into your curriculum? If yes, which activities and how did you incorporate them? If no, why not?

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5. What would like to see in future Green Kids programming? Please consider the play as well as the teacher's kit and the website in your answer.

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Optional:

Your Name

Your e-mail address

\_\_\_\_\_

\_\_\_\_\_

School Name

\_\_\_\_\_

## Green Kids Booking Form - 2003 Tour

2003 Theme: Efficient Energy Use and Alternative Forms of Energy

*To book your show for next year, please return this form as soon as possible to  
Green Kids at #609-70 Arthur Street, Winnipeg, Manitoba, R3B 1G7.  
You may also fax it to (204) 940-4749 or e-mail it to rex@greenkids.com.*

School Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ Province \_\_\_\_\_ Postal Code \_\_\_\_\_

Contact Name \_\_\_\_\_ E-mail \_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_\_ Fax (\_\_\_\_) \_\_\_\_\_

# Students \_\_\_\_\_ Grades \_\_\_\_\_ # Shows desired \_\_\_\_\_

### Early Bird Discounts!

- Book before June 30, 2002: \$50 off
- Book before October 15, 2002: \$25 off

#### Show Prices:

	1 Show	2 Shows
Winnipeg:	\$350	\$550
Manitoba (outside Winnipeg)	\$375	\$600
Saskatchewan	\$400	\$650
Ontario	\$450	\$700

## Green Kids Student Evaluation Form

We want to know what you think about *Forest Is As Forest Does!*  
Please fill out this evaluation form (feel free to use the back if you need  
more space) and ask your parents or teacher to return it to us  
by fax at (204) 940-4749 or mail it to  
Green Kids, #609-70 Arthur Street, Winnipeg, Manitoba, R3B 1G7.  
You may also e-mail feedback to us at [rex@greenkids.com](mailto:rex@greenkids.com).



1. Please rate the play *Forest Is As Forest Does* on a scale of 1 to 10.

1      2      3      4      5      6      7      8      9      10

Poor

Satisfactory

Good

Fantastic

2. What did you like best about *Forest Is As Forest Does*? Why?

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3. What did you like least about *Forest Is As Forest Does*? Why?

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4. What did you learn from the play that you didn't already know?

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5. What do you think of the Green Kids website ([www.greenkids.com](http://www.greenkids.com))?

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6. What do you do at home, at school or in your community to be environmentally responsible?  
Do you recycle? Do you shut off the light when you leave a room? What else do you do?

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Optional:

Your Name

Your Age

Your School

Your e-mail  
address

Thank You!

# Useful Resources



American Forest Foundation: Project Learning Tree  
[Environmental Education Pre K-8 Activity Guide. 1993](#)

Canadian Nature Federation:

[www.cnf.ca/index.html](http://www.cnf.ca/index.html)

Climate Change and Canada's Position:

[www.davidsuzuki.org](http://www.davidsuzuki.org)

Climate Change Caravan:

[www.mta.ca/climatechangecaravan](http://www.mta.ca/climatechangecaravan)

Frequently Answered Questions about the Taiga (Boreal Forest):

[www.wilds.mb.ca/taiga](http://www.wilds.mb.ca/taiga)

Forestry and the Forest Product Industry in Canada:

[www.canadian-forests.com](http://www.canadian-forests.com)

Forest Management Certification Standards in Canada:

[www.sfms.com/welcome.htm](http://www.sfms.com/welcome.htm)

Forest Stewardship Council:

[www.fscoax.org/principal.html](http://www.fscoax.org/principal.html)

Grassroots Recycling Network:

[www.grrn.org](http://www.grrn.org)

Journal to Forever's Online Biofuels Library:

[www.journeytoforever.org/biofuel\\_library.html](http://www.journeytoforever.org/biofuel_library.html)

Mad Science

[www.madscience.org](http://www.madscience.org)

Manitoba Model Forest Network:

[www.ManitobaModelForest.com](http://www.ManitobaModelForest.com)

Manitoba Naturalist Society:

[www.manitobanature.ca](http://www.manitobanature.ca)

Manitoba Woodlot Association:

[www.woodlot.mb.ca](http://www.woodlot.mb.ca)

Products for an Enlightened Planet

[www.eco-furniture.com](http://www.eco-furniture.com)

The Urban Naturalist - Activities for Children:

[www.wilds.mb.ca/urbanat](http://www.wilds.mb.ca/urbanat)

Society, Environment & Energy Development Studies (SEEDS) Foundation:

[www.greenschools.ca/seeds](http://www.greenschools.ca/seeds)

Whole Earth: A TreeFree Botanical of Plant Fibres

[www.wholeearthmag.com](http://www.wholeearthmag.com)



# Appendix I: CANADA FOREST ACCORD

## OUR FORESTS

The forest symbolizes Canada. Covering nearly half the Canadian landscape, some 418 million hectares, forests are integral to our environment, economy, culture, traditions and history. They are critical to realizing our aspirations as a society and as a nation. Canada's forests are diverse from coast to coast and are crucial components of our natural environment. Canada has 10 per cent of the world's forests, which play an important role in protecting 20 per cent of the world's fresh water. Our forests provide habitat for wildlife, which includes plants, animals and micro-organisms. They moderate the climate and provide clean air and water. They enrich the soil, prevent its erosion, and regulate water flow. They provide wild and managed areas for the cultural, spiritual and recreational benefit of everyone in Canada.

Our forests are a natural resource whose care and stewardship is of interest to every Canadian and in a sense to all citizens of the world.

Most of Canada's original forest remains today. Of the 418 million hectares, 23 million are, by law, to be left in their natural state. Another 28 million hectares are excluded from timber harvesting, by policy. Commercial forests, both public and private, capable of producing timber along with a variety of other benefits, cover 235 million hectares. The balance of 132 million hectares is made up of open forests comprised of natural areas of small trees, shrubs and muskeg.

Our forests form a vital part of our economy, supporting some 337 communities and providing jobs for over 830,000 Canadians. The interests of the majority of Canada's Aboriginal communities are also linked to forest conservation and use. With over 71 billion dollars of shipments annually, Canada is one of the world's largest suppliers of wood and paper forest products. Exports contribute some 32 billion dollars to the country's net balance of trade. In addition, Canadian forests support industries providing billions of dollars in sales, including tourism, recreation, wild foods, fur trade, Christmas trees and maple products.

Through sound forest management, a variety of timber and non-timber benefits can be produced from our forests on a sustainable basis to continue fulfilling this vital economic role.

Since 94 per cent of Canada's forests are publicly owned, all Canadians have a vital interest in their management. In Canada, forest management is the Constitutional responsibility of the provinces. In the Northwest Territories, the federal government has transferred responsibility for forest management to the territorial government. Similar transfers are under discussion with the Yukon. The federal government has direct or shared responsibility for industrial and regional development, trade, international relations, science and technology, the environment and federal lands. Various other forest community interest groups also play an important role in the decision-making process.

## WE BELIEVE

- Healthy forest ecosystems are essential to the health of all life on earth.
- Our forest heritage is part of our past, our present and our future identity as a nation.
- It is important to maintain a rich tapestry of forests across the Canadian landscape that sustains biological diversity.
- Continued economic, environmental and social benefits must be maintained for the communities, families and individual Canadians who depend on the forest for their livelihood and way of life.
- The spiritual qualities and inherent beauty of our forests are essential to our physical and our mental well-being.
- As forest stewards, we must ensure the wise use of our forests for the environmental, economic, social and cultural well-being of all.
- All Canadians are entitled to participate in determining how their forests are used and the purposes for which they are managed.

## OUR VISION

- All measures within our means will be taken to ensure healthy forests are passed on to future generations.
- We will fulfill our global responsibilities in the care and use of forests, maintaining their contribution to the environment and the well-being of all living things.
- Our needs will be met through developing and applying the best available knowledge, and through cooperation.
- Our forests will be managed on an integrated basis, supporting a full range of uses and values, including timber production, habitat for wildlife, and parks and wilderness areas.
- We will participate in setting objectives and priorities for managing our forests, based on how we value them and using the best available knowledge of their environmental, economic, social and cultural features.
- A strong economic base for varied forest products, tourism and recreation will be supported within a framework of sound ecological and social principles and practices.
- Advanced training, skills and education will be provided to those employed in forest-related activities, and stable, fulfilling employment opportunities will add to the quality of life in their communities.
- Through consultation, mutual respect, sharing of information and clear and harmonious relationships among all those involved with forests, trust and agreement will be brought about and the effectiveness of forest conservation, management and industrial development will be improved.

## OUR GOAL

### *Sustainable Forests*

**Our goal is to maintain and enhance the long-term health of our forest ecosystems, for the benefit of all living things both nationally and globally, while providing environmental, economic, social and cultural opportunities for the benefit of present and future generations.**

## OUR COMMITMENTS TO ACTION

We commit ourselves to apply our knowledge and expertise to fulfill our vision by, where applicable:

1. Improving our understanding of forest ecological processes, and enhancing our capacity to manage forests in a way that will maintain the biological diversity, productivity and resilience of these ecosystems.
2. Planning for a range of environmental, economic, social and cultural values relating to forest use and conservation, guided by appropriate geographical and time scales.
3. Encouraging forest stewardship, continuously improving our silvicultural systems and practices, managing the economic, social and ecological impacts of fire, insects, disease, competing vegetation and climate change, and ensuring the prompt renewal of disturbed forests.
4. Heightening public awareness and knowledge of forests and of sustainable forest management, facilitating access to information on forests which meets the public's needs, and ensuring that the views of the public are considered in forest management.
5. Enhancing the long-term competitiveness of Canada's wood, paper and other forest-based industries, further developing economic opportunities for non-timber products and promoting Canadian goods, services, technologies and expertise in world markets.

6. Ensuring that processes used in forest management and product manufacture are environmentally sound, economically viable and socially acceptable, maintaining a framework of regulations and incentive measures that are conducive to long-term investments, and ensuring international recognition and acceptance of Canada's sustainable forest management regimes and practices.
7. Performing focused and collaborative science and technology.
8. Enabling the forest and forest-related workforce to contribute fully to, and benefit from, sustainable forest management opportunities, and improving the capabilities of forest-dependent communities to develop and diversify their economies.
9. Recognizing and making provision for Aboriginal and treaty rights, ensuring the involvement of Aboriginals in forest management and decision-making, consistent with these rights, supporting the pursuit of both traditional and modern economic development activities, and achieving sustainable forest management on Indian Reserve Lands.
10. Promoting regional landscape management and planning that includes private woodlots and increasing the environmental, economic, social and cultural benefits derived from private woodlots.
11. Maintaining, enhancing and demonstrating the contribution that forest ecosystems make to the health of the planet, and meeting Canada's commitments arising from international Conventions.
12. Seeking concrete, effective results in international efforts to improve the management of the world's forest ecosystems through cooperation among nations and enhancement of the international legal regime for forests, and assisting other nations to improve their capacity to sustainably manage their forests.
13. Preparing, before the end of 1998, public and measurable action plans in response to these commitments and appropriate to our respective circumstances and capabilities, and encouraging others to do the same.

*We, the Canadian Ministers responsible for forests, endorse this Accord and undertake, on behalf of all Canadians, to support its spirit and to advance its goal.*

*We, the undersigned members of the Canadian forest community, endorse this Accord and pledge our cooperation, assistance and energies toward the goal of sustainable forests, nationwide.*

Ottawa, May 1, 1998 (reprinted April 1, 2001)

**Source:** <http://nfsc.forest.ca/accord2.html>