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### PARTS OF A TREE



### CROWN

The crown of a tree is composed of branches, twigs, and leaves. The branches and twigs hold the leaves up allowing them to receive sunlight which is vital to food production. In addition, branches and twigs also support the flowers and fruit of a tree.



### **FLOWERS**

Tree flowers produce fruit, which encase seeds. Within each seed lies the beginning of a new tree. Tree seeds are dispersed by wind, wildlife, and water



### **TRUNK**

The trunk is the main stem of a tree and has two primary functions: to support the crown of branches, twigs, and leaves and to transport food and water throughout the tree. Cutting through the outer bark would expose many different layers. The outer bark of a truck protects the inside of a tree from injury as well as acts as an insulator against cold and heat. The phloem is soft and serves to distribute the food produced in leaves to every living cell in a tree. The xylem or sapwood distributes water up the trunk to the leaves, where food is manufactured. The Cambium is the thin growing layer found between the xylem and the phloem. The heartwood is the accumulation of older wood which no longer carries sap.



### **LEAVES**

Leaves are the manufactures of food for trees. Food is produced through the process of photosynthesis, which means "putting together with light". Powered by sunlight, the green substance in leaves called chlorophyll uses carbon dioxide and water to produce carbohydrates. Also through the process oxygen is released through tiny pores called stomata and water is released through the process of transpiration. In a way trees act like a giant air conditioner, cooling the air with water vapour and expelling oxygen, which we need to breathe. Leaves come in many different shapes and sizes and are attached to the twig in different patterns. For example, some leaves like the maples, are attached opposite one another. Others, like the oak, are arranged alternately on the twig. Observing shapes and arrangement of leaves is helpful in identifying trees.



### ROOTS

Roots are the network found underground that helps to anchor the tree. In addition, roots help in absorbing water and nutrients from the soil which the trees use to manufacture food and grow.

Focus on Forests is Canada's leading forest education program that engages youth and educators in learning more about our forests. Focus on Forests is a program of Forests Ontario.

For more information and to access more great activities visit: www.focusonforests.ca





### **LEAFO** Bingo

With more than 80 native tree species growing in Ontario it is no surprise that tree leaves come in a wide variety of shapes, sizes, and arrangements. Each species of tree has its own unique set of leaves with characteristics that distinguishes it from the rest. By learning common leaf characteristics, you can improve your tree identification skills!

Next time you are heading out for a walk, print out a copy and see how many you can find. Can you complete a single line, just the borders, fill the whole card or even make an X? Many leaves will display more than one of the listed characteristics, challenge yourself to find a unique leaf for each box. Remember to leave living leaves on their trees. Good luck!



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### FOREST FUN WORD SEARCH

Can you find all the words related to our forests?

g	Х	j	р	Х	d	S	0	Х	С	m	а	m	t	Х
У	b	Х	n	С	k	d	р	У	Z	m	t	S	h	0
С	u	b	С	е	n	е	е	е	С	е	W	h	а	f
а	d	С	r	а	е	а	С	С	С	d	i	r	r	0
r	t	n	0	а	m	d	t	b	i	i	g	u	V	r
b	С	r	d	I	n	i	I	i	r	d	е	b	е	е
0	0	а	u	g	0	С	h	е	V	W	u	S	S	S
n	n	Х	W	n	У	u	h	d	g	е	r	0	t	t
С	е	S	0	k	k	n	r	е	t	У	g	а	u	i
0	b	i	0	d	i	V	е	r	S	i	t	У	С	S
n	0	h	d	r	d	b	а	r	k	t	r	е	е	I
i	S	u	S	t	а	i	n	а	b	I	е	r	0	е
f	р	S	h	j	f	S	d	X	q	j	V	j	V	а
е	I	р	q	W	0	t	i	а	С	X	d	n	t	f
r	I	m	С	r	0	W	n	С	n	r	0	0	t	S

colour forest trunk bark roots biodiversity harvest shrubs cone twig branches conifer leaf species wood native sustainable bud crown

carbon deciduous needle tree



### FIND THE INVASIVE SPECIES!

Suspect:

### **DOG-STRANGLING VINE**

Aliases: Vincetoxicum rossicum, Pale Swallowwort



**Crime:** Native to Eurasia, this invasive plant was introduced to North America as a garden plant. Since its introduction to Ontario in the late 1800s, dense patches of Dog- strangling Vine have been strangling native plants in forests, preventing forest regeneration and impeding management activities. The leaves and roots of this plant may also be toxic to livestock.

**Known Hangouts:** Dog-strangling Vine prefers open, sunny areas, but can grow well in light shade. The thick mats of this plant can be found in fields, forests, roadsides, and stream banks, among other locations. This aggressive plant can grow up to two meters high, and produce thousands of seeds that can be carried on the wind. It can also regrow from root fragments, making it difficult to remove.

**KEEP OUT:** Check your shoes, bike tires, and clothing for any hitchhiking seeds or crushed vegetation to prevent the spread of invasive plants!

FORESTS | Forest Recovery Canada

### **SCAVENGER HUNT**



Our forests are beautiful—so be gentle as you walk through them. If you are collecting any of the items below, make sure that they have already fallen on the ground. For those items that are not on the ground, just observe and check off that you've found them. Let the searching begin!

ACORN	LEAF	FLOWERS	TWIG
BARK	SEED	NEEDLE	CONE
MUSHROOM	SOIL	MOSS	BRANCH
TRUNK	FEATHER	ROCK	BUD

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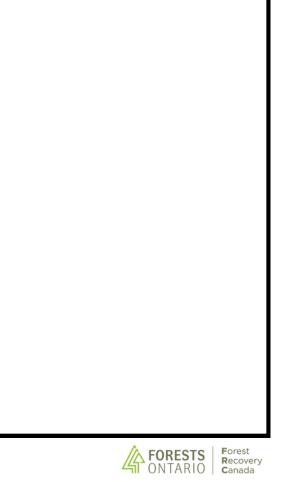




### DRAW A SOUND SCAPE



Close your eyes, and let the sounds of the natural environment around you wash over you. What do you hear? Take a few minutes to absorb the sounds of the forest around you, and write down what you hear or feel, or draw whatever catches your eye.



### CAREER CHART



Name:

Date:

## I love forests and the outdoors!

on activities doing hands outside

I like science and working in a lab

business side

Professiona Forester (R.P.F.)

Registered

pretty coo

wood is I think

Professiona Registered R.P.F.

that make up the parts the forest I like all

being active

l like

Professiona Registered (R.P.F.) Forester

Mill Manager

GIS Specialist

S caler

Chemist

Wood

Harvesting

Op erator

Marketing Sales and

lechnician

Modeler

Technician

lechnician

Lab

Pilot

Accountant

Grader

Forest

Forest

Grader

Forester

Researcher

Tree Faller

Urban

S cientist

Log Truck

Driver

Op erator

Sawmill

Professiona

Professiona

Professiona

Professiona

Professiona

Forester (R.P.F.)

Registered

Forester (R.P.F.)

Registered

Forester

(R.P.F.)

Registered

R.P.F.

Forester (R.P.F.)

Registered

Registered

Ecolo gist

Arb orist

Silviculture

Biolo gist

Contractor

Forest Fire Fighter

Hydrolo gist

Soil Scientist Interpreter Park







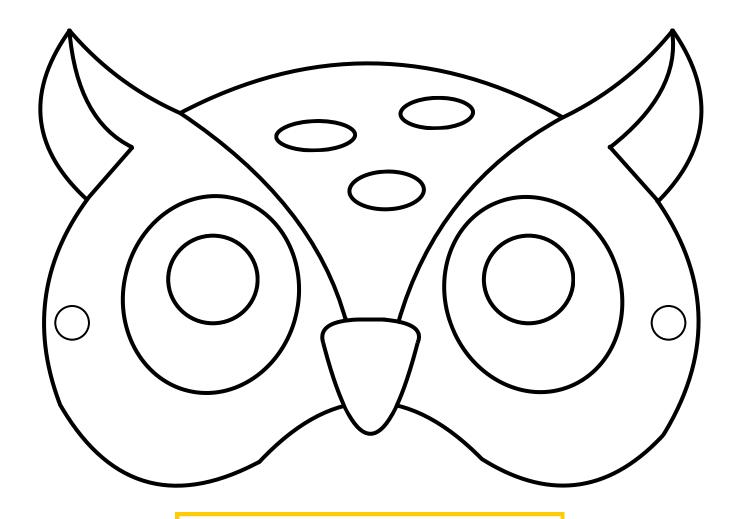
### COLOUR YOUR FOREST



### What a HOOT!

Let's make an OWL mask!

What you will need
Colouring pencils, crayons or markers
Scissors



First, colour in the mask. To make a wearable mask, cut out the mask and the eyes of the Owl. Then, you can either glue the side of the mask to a popsicle stick, or cut out a hole on each side of the mask and run a string through it.



### **DID YOU KNOW?**

There are 11 known species of owls in Ontario.

They are Barn Owl, Barred Owl, Boreal Owl, Eastern Screech Owl, Great Gray Owl, Great Horned Owl, Long-eared Owl, Northern Hawk Owl, Northern Sawwhet Owl, Short-eared Owl, and Snowy Owl. Next time you're in a forest look up, you may just see one!

