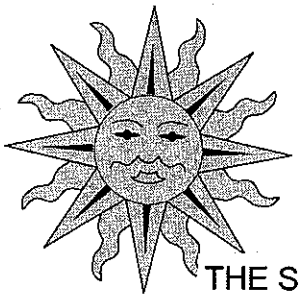
MAPLE TREE FOOD CHAIN

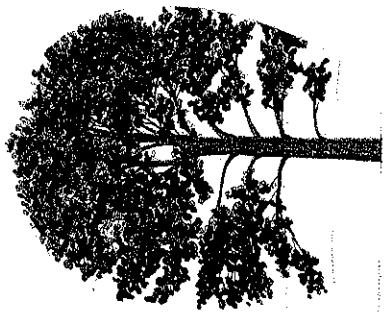
A food chain is a system in nature in which the energy from the sun is transferred to plants and eventually to the animals that eat them. Maple trees are an important part of many food chains.

INSTRUCTIONS;

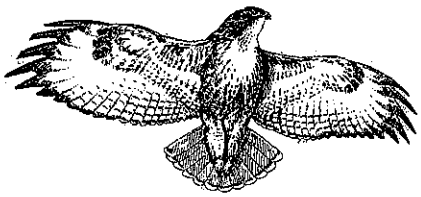
1. Cut out all the pictures below.
2. Research what the animals eat and then label them as a Herbivore (plant eater), an Omnivore (plant and animal eater) or a Carnivore (meat eater)
3. Starting with the sun and the maple tree, build 2-3 food chains that you could find at the Kortright Centre.



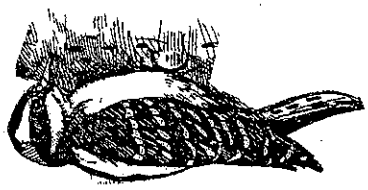
THE SUN



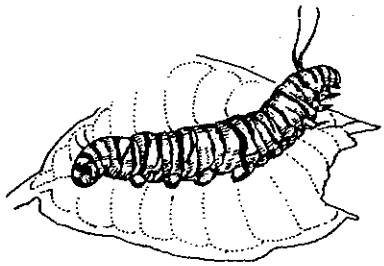
MAPLE TREE



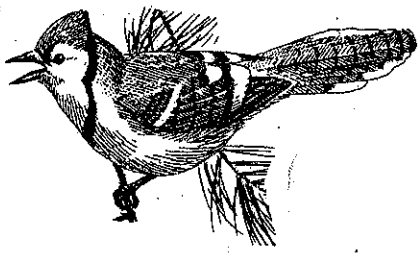
RED-TAIL HAWK



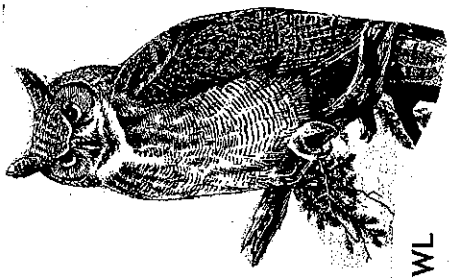
WOODPECKER



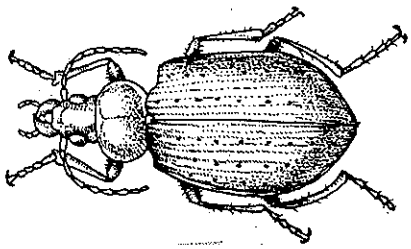
CATERPILLAR



BLUE JAY



OWL



LEAF EATING BEETLE

CHIPMUNK

MAPLE SYRUP
Fill in the Blanks

As the winter days grow _ _ _ _ _ _ and _ _ _ _ _ _ , the sap begins to flow in the maple trees. Once again the annual _ _ _ _ _ _ _ _ tradition of Maple Syrup making begins.

The flow of sap depends on the _ _ _ _ _ _ _ . The best 'runs' of sap occur when temperatures are _ _ _ _ _ freezing during the day, and _ _ _ _ _ freezing at night. Sap flows for about six weeks during _ _ _ _ _ _ time. The _ _ _ _ _ _ _ _ _ _ tree is the most common type of tree used in the maple syrup industry.

To collect sap, tapholes are drilled into the _ _ _ _ _ of a sugar maple tree with a _ _ _ _ _. A metal or plastic _ _ _ _ _ is tapped into the taphole with a hammer. The sap _ _ _ _ _ out of the spile, and is collected in a pail or flows along plastic tubing to a large storage _ _ _ _ . Sap is a clear, colourless _ _ _ _ _ _ containing 1.5% to 3% sugar.

To produce maple syrup, the sap is _ _ _ _ _ _ until most of the water has evaporated, and the sugar content reaches 66%. The syrup is ready when the _ _ _ _ _ _ _ _ _ _ _ reaches 104 °C.
As the sap boils it becomes _ _ _ _ _ _ _ , thicker, darker and very sticky. If syrup is boiled even longer, it will form a solid called maple _ _ _ _ _ .

CHOOSE THE CORRECT WORD BELOW TO FILL IN THE BLANKS

above	drips	sugar maple	trunk
below	liquid	sugar	warmer
boiled	longer	sweeter	weather
Canadian	spile	tank	
drill	spring	temperature	

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LANGUAGE FUN

SYNONYMS

Synonyms are two different words that have the same meaning. Eg. **Big** and **large** are synonyms.

Draw a line to connect the words in the left column with their matching synonym in the right column.

LEFT	***RIGHT***
SWEET	FALL
FLOW	DIM
THICK	CROP
DARK	STRENGTH
GASH	UNCLEAN
IMPURE	BROAD
FILTER	CUT
HARVEST	BOIL
AUTUMN	SUGARY
ENERGY	STRAIN
EVAPORATE	GUSH

IT'S MAPLE SYRUP TIME!

SEQUENCE THE EVENTS

Put the following events of sugaring off in the correct order.

_____ **The syrup is filtered**

_____ **The sap drips out of the tree**

_____ **The sap is boiled until it is 66.5 % sugar**

_____ **The season starts as days get warmer.**

_____ **A hole is drilled into the tree**

_____ **The hot syrup is poured into bottles.**

_____ **The frozen sap begins to thaw and flow in the tree.**

_____ **The delicious syrup is poured onto pancakes.**

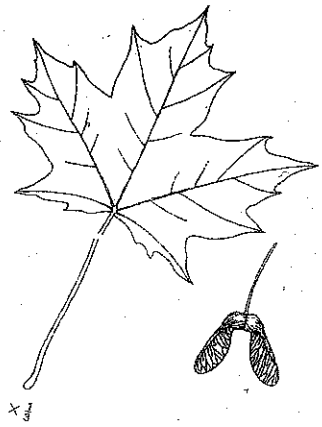
_____ **The sap is taken to the Sugar Shack**

_____ **A spile is put into the hole in the tree.**

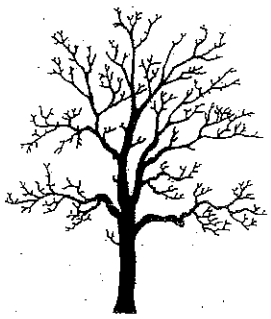
LEAF MATCH

MATCH THE LEAF WITH THE CORRESPONDING TREE

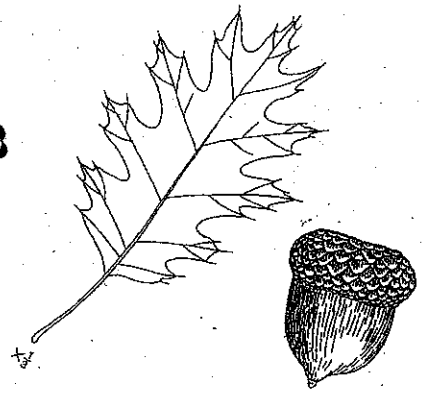
A



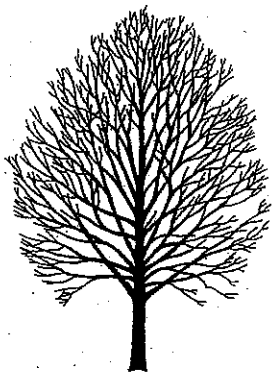
RED OAK



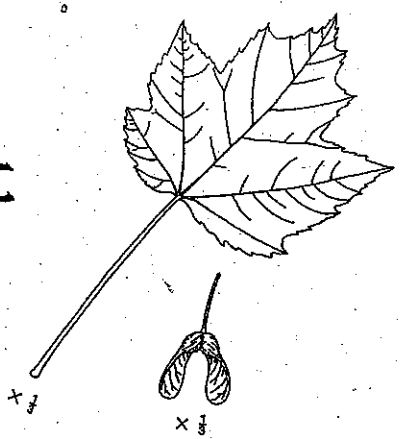
B



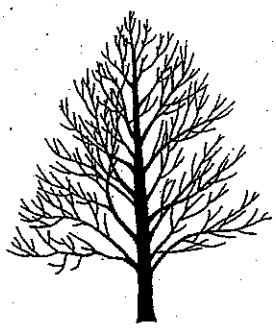
SUGAR MAPLE



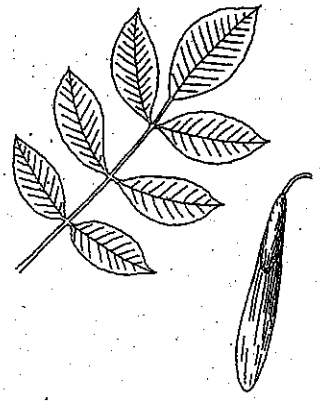
C



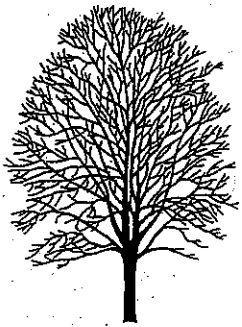
WHITE ASH



D

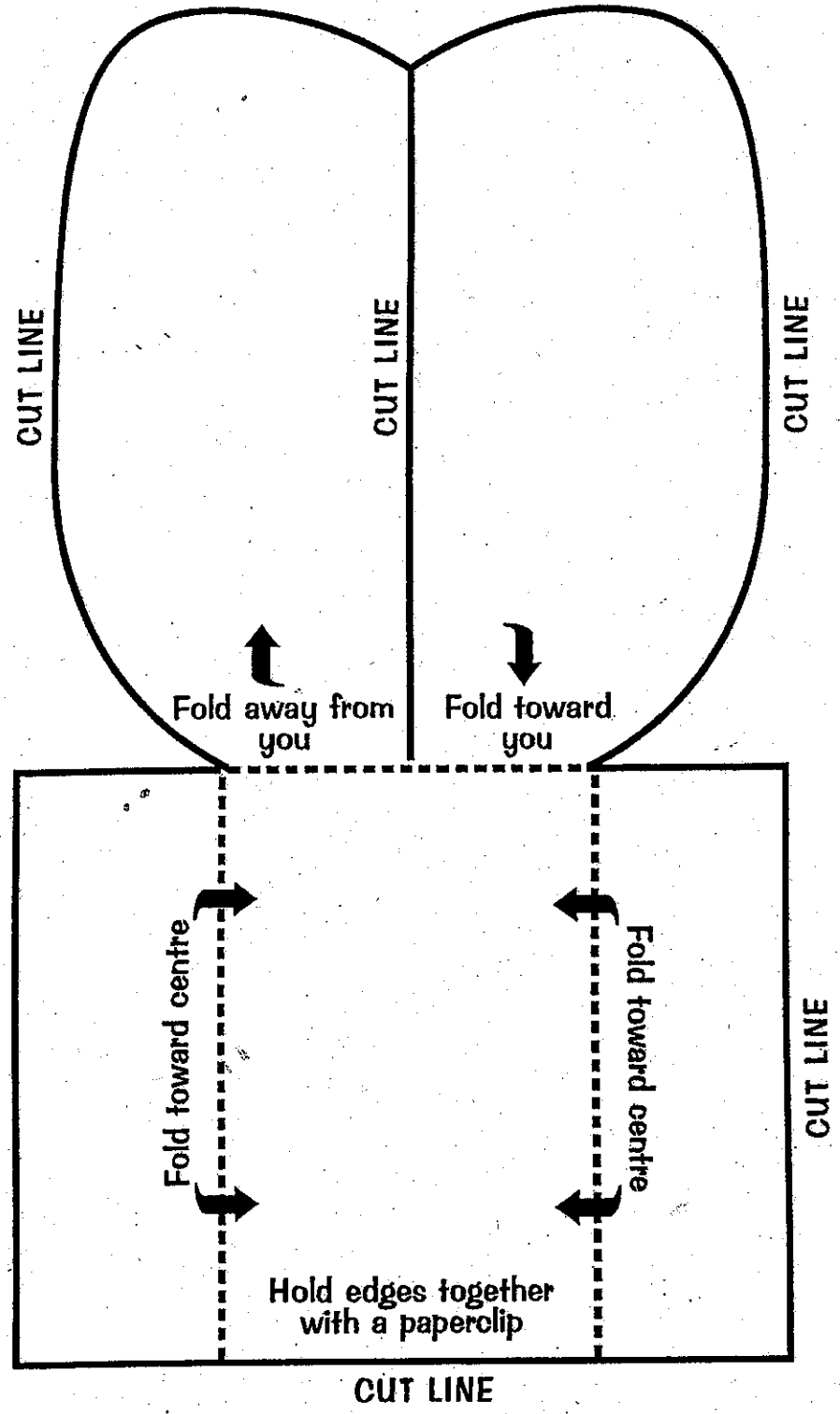


RED MAPLE



Answers : A - Sugar maple, B - Red Oak, C - Red maple, D - White ash

MAKE A FLYING MAPLE SEED or 'HELICOPTER'



1. Cut along the **THICK BLACK LINES.**
2. Fold both sides of the square in towards the centre. Hold together with a paperclip.
3. Fold half the wing towards you, the other half away from you.

To fly your 'HELICOPTER' toss it into the air, or drop it from a height.

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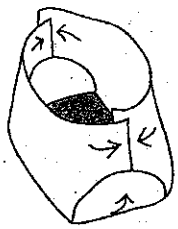
Birch Bark MOKUKS

Natives used containers made from birch bark to collect sap from the maple trees. These containers, called MOKUKS, were often cut from one piece of bark, the sides bent inwards, and sewn together. The seams were then coated with a mixture of sap/gum from evergreen trees, and ash from the fire pits, to make them waterproof.



To make a paper version of a MOKUK:

1. Cut along outer black line.
2. Bend sides inward as shown.
3. Tape or glue ends together.

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