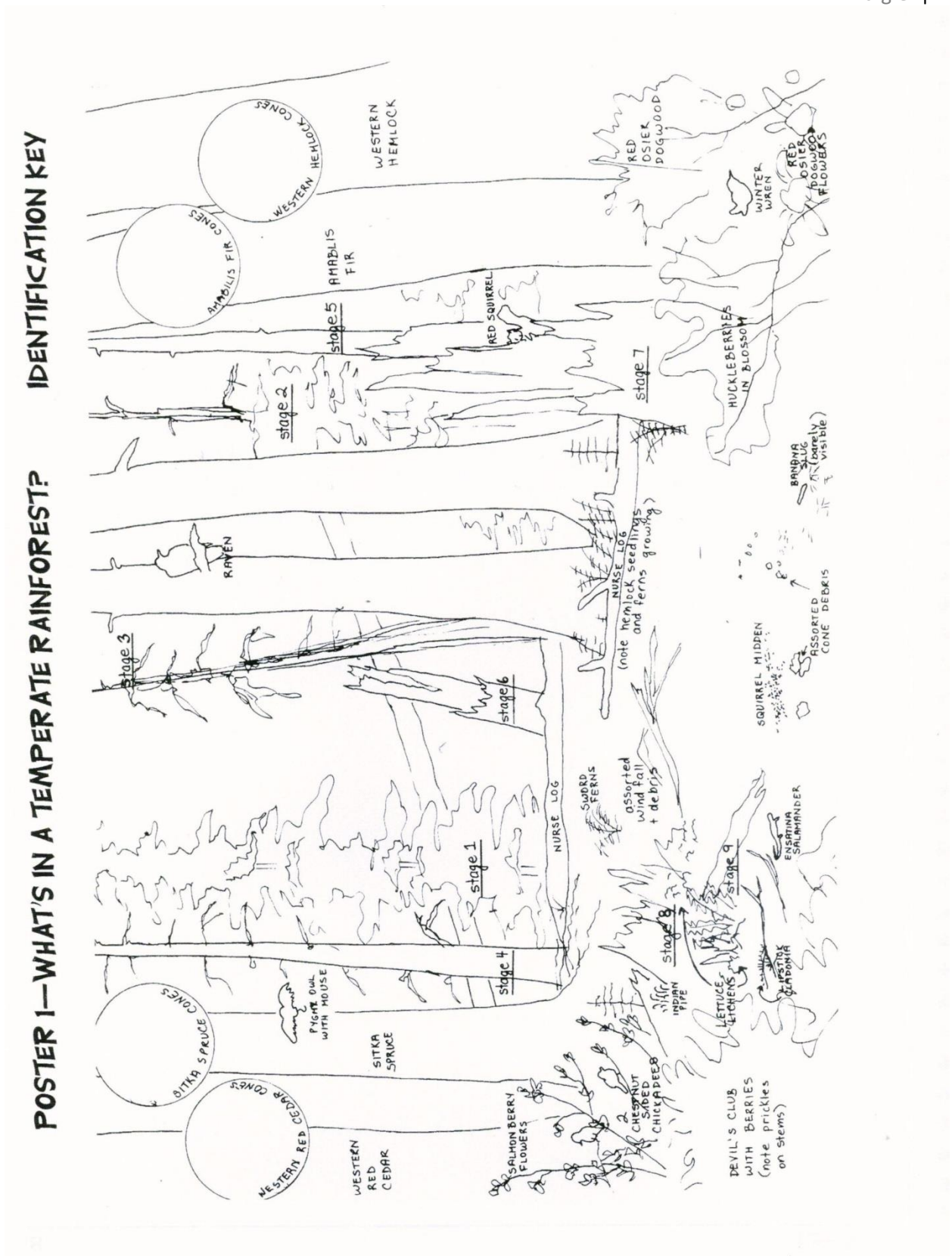
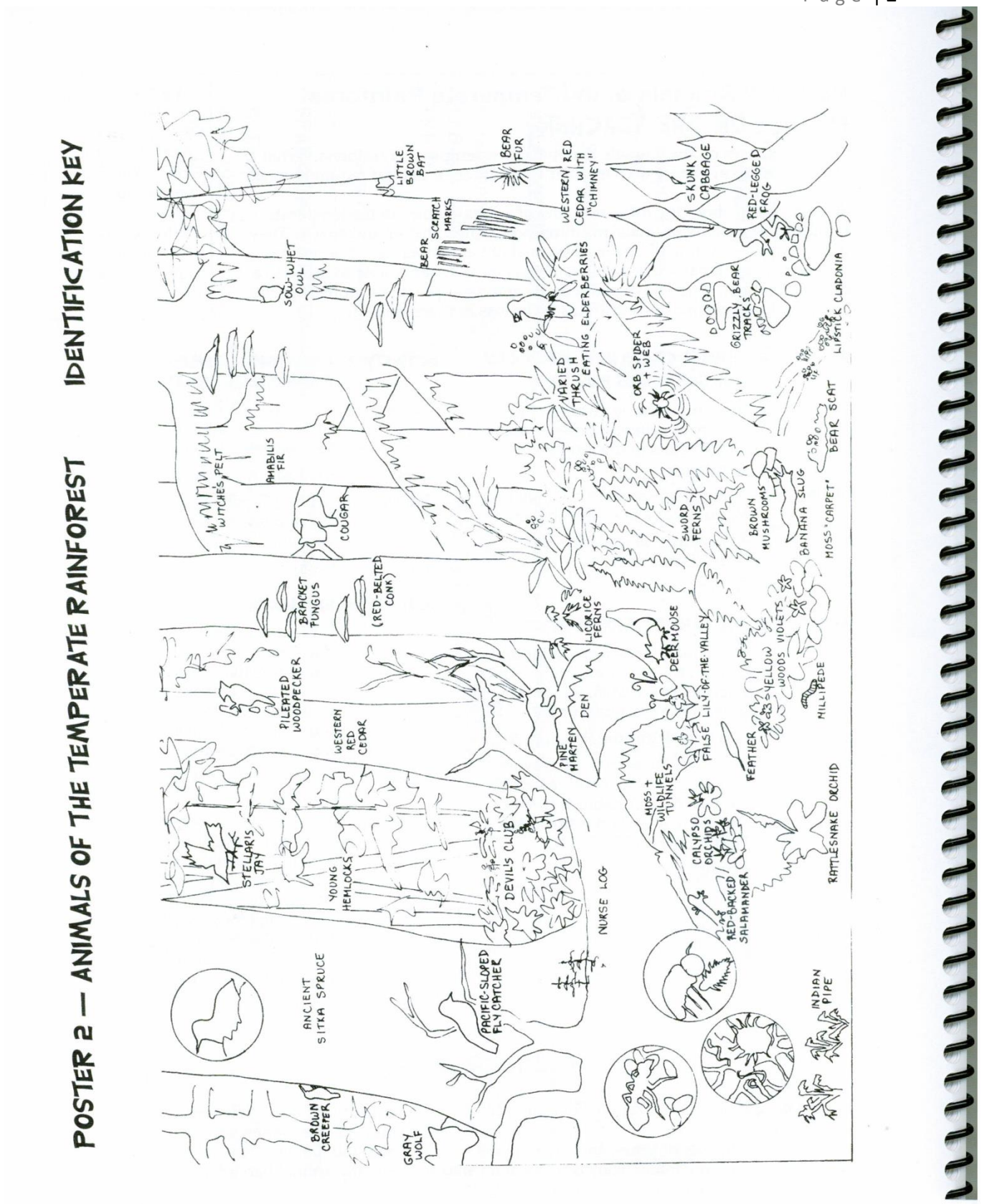

POSTER 1—WHAT'S IN A TEMPERATE RAINFOREST?
IDENTIFICATION KEY
CONES
WESTERN HEMLOCK
WESTERN HEMLOCK
CONES
AMABILIS FIR
AMABILIS FIR
RED SQUIRREL
RED OSIER DOGWOOD
WINTER WREN
RED OSIER DOGWOOD FLOWERS
HUCKLEBERRIES IN BLOSSOM
BANANA SLUG (barely visible)
RAVEN
stage 2
stage 5
stage 7
stage 3
stage 6
stage 1
stage 4
stage 8
stage 9
NURSE LOG
(note hemlock seedlings and ferns growing)
SWORD FERNS
assorted wind fall + debris
SQUIRREL MIDDEN
ASSORTED CONE DEBRIS
PYGMY OWL WITH MOUSE
SITKA SPRUCE
CONES
SITKA SPRUCE
CONES
WESTERN RED CEDAR
WESTERN RED CEDAR
SALMONBERRY FLOWERS
2 CHESTNUT BACKED CHICKADEES
INDIAN PIPE
LETTUCE LICHENS
ENSATINA SALAMANDER
DEVIL'S CLUB WITH BERRIES (note prickles on stems)


POSTER 2 — ANIMALS OF THE TEMPERATE RAINFOREST
IDENTIFICATION KEY
BROWN CREEPER
GRAY WOLF
ANCIENT SITKA SPRUCE
STELLARIS JAY
YOUNG HEMLOCKS
PACIFIC-SLOPED FLY CATCHER
DEVILS CLUB
NURSE LOG
PILEATED WOODPECKER
WESTERN RED CEDAR
BRACKET FUNGUS
(RED-BELTED CONK)
PINE MARTEN
DEN
LICORICE FERNS
MOSS + WILDLIFE TUNNELS
DEER MOUSE
CALYPSO ORCHIDS
FALSE LILY OF THE VALLEY
RED-BACKED SALAMANDER
FEATHER
YELLOW WOODS VIOLETS
RATTLESNAKE ORCHID
MILLIPEDE
INDIAN PIPE
WITCHES' BROOM
PACIFIC SILVER FIR
COUGAR
SOOTY-WHEET OWL
LITTLE BROWN BAT
BEAR SCRATCH MARKS
BEAR FUR
WESTERN RED CEDAR WITH "CHIMNEY"
VARIED THRUSH EATING ELDERBERRIES
CRAB SPIDER WEB
SWORD FERNS
BROWN MUSHROOMS
BANANA SLUG
MOSS "CARPET"
BEAR SCAT
GRIZZLY BEAR TRACKS
SKUNK CABBAGE
RED-LEGGED FROG
LICHEN
LIPSTICK CLADONIA

Read Me!

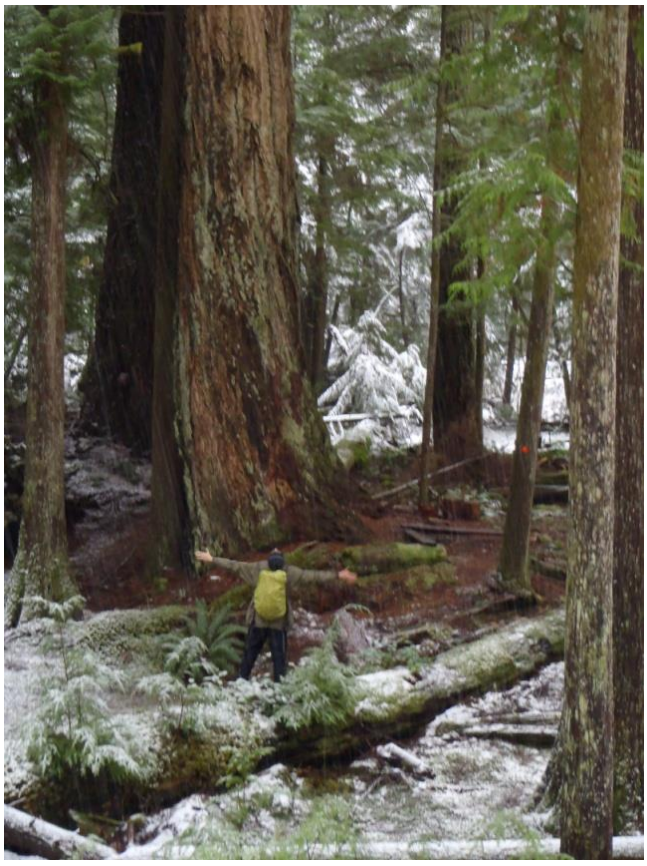
What is in a Temperate Rainforest?

BIG 4 Ingredients + Producers + Consumers + Decomposers

The BIG 4 Ingredients: SUNLIGHT, WATER, AIR, SOIL

- You can think of a **temperate rainforest** as a kind of living machine that recycles energy and food.
- The **SOIL** stores nutrients and rain provides **WATER** for seedlings and big trees to grow.
- Green plants need **SUNLIGHT** for Photosynthesis to make food.
- Plants also use nutrients from **SOIL** and **AIR** to make food.

PLANTS = Forest PRODUCERS



- Temperate Rainforests have some of the biggest trees in the world
- Major rainforest trees are western hemlock, western red cedar, Sitka spruce, and Douglas-fir.
- Because it is rainy there are few forest fires and trees can live to be 300 years old.
- There are trees of all ages in a natural rainforest.
- There are many other plants that use photosynthesis to make food in the shade of the trees.
- To reach for sunlight, some plants grow on old logs. Some plants grow on the bark of rainforest trees. (epiphytes)

ANIMALS = Forest CONSUMERS

- Animals eat green plants and other animals that feed on green plants. They are called **CONSUMERS**.

- Animals help the plants by carrying seeds to new places and their droppings are good fertilizer for the plants to grow in.

Forest DECOMPOSERS

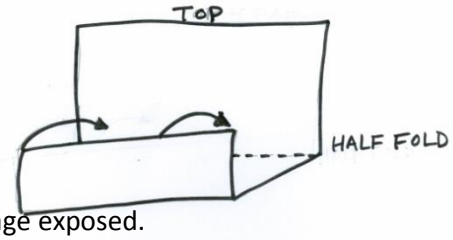
- Some plants don't use photosynthesis to make food, they get their energy from dead material in the forest. (saprophytes)

- Fungi, bacteria, worms, slugs, grubs and other small animas also break down dead material in the forest.

- These **DECOMPOSERS** recycle dead plants and animals into soil which can be absorbed by the roots of the trees and other producers.

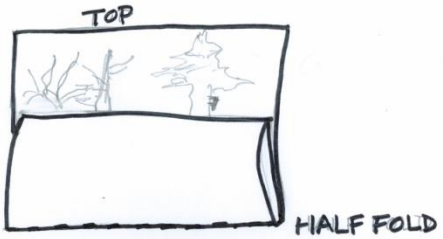
FOLD it!

Fold your paper to represent Four Forest Layers (Canopy, Understory, Forest Floor, Soil)



Leave only the top of the page exposed.

Look up at the canopy above you and notice details.



Draw the Canopy layer o the top part of your paper.
You may have to draw a magnified section to show the little things.
Include at least one:

- conifer
- broad leaf
- dead tree
- animal that uses the canopy

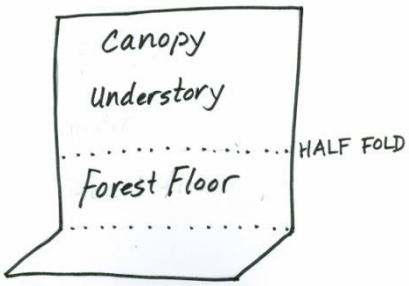
Describe your Canopy layer to your partner and
listen to what your partner tells you about his/her Canopy layer.
Trade pages with your partner and unfold one layer.

Observe details in the Understory.

On your **partner's** paper, in the second layer of the paper, below the canopy layer,
continue the trunks of the trees and draw other details from the Understory layer, including:

- Nurse stump
- 3 young trees, identify and label them
- 2 shrubs
- At least one animal or insect that uses the understory, and
- Either an Epiphyte

(a plant that grows on another plant but doesn't steal nutrients from it)
or a Parasite
(a plant that steals nutrients and water from another plant).



Describe your drawing of the Understory layer to your partner and
listen to what your partner tells you about his/her Understory layer.
Trade pages back with your partner.

Magnify the Forest Floor:

Use the magnifier to see things on the forest floor. If you have time, draw these details in the third layer of your paper.

Digging Deeper Data Collection

Date_____

Group Members_____

_____ _____

Soil Test Site:

1. What plants are growing on the site?
   _____
   _____
   _____
   _____
2. Is the Site on a Slope? _____
3. What direction is the Slope? (e.g. Northwest)_____

4. Sketch a map of the area and mark where your soil test site is located:

What other things do you notice?

_____

_____

Organic Layers:

1. Select an area of soil to examine closely.
2. With your trowel gently cut into the organic material on top of the soil. This is made of three layers, called the LDH layers, which stands for Litter, Duff, Humus.
3. Fill out the chart below.

Name of Layer	Describe characteristics: Colour, Smell, Feel	List the plant parts you can identify
Litter-identifiable dead things on the surface		
Duff-partially decomposed organic matter, compacted.		
Humus- almost completely decomposed, non-identifiable organic matter		

4. What else do you notice in the organic layers?

_____

Mineral Soil:

1. Dig into the mineral soil and measure how deep you have dug down. (Record this on the table below.)
2. Take a sample of soil and describe its colour and texture. (The Soil Structure Sheet will help)
3. Use the thermometer to measure soil temperature in your hole.
4. Collect a sample to take back to class for Ph test.

How deep? (cm)	Colour	Texture Blocky, columnar, granular, or platy?	Temperature (degrees Celsius)	pH acid or alkali?