

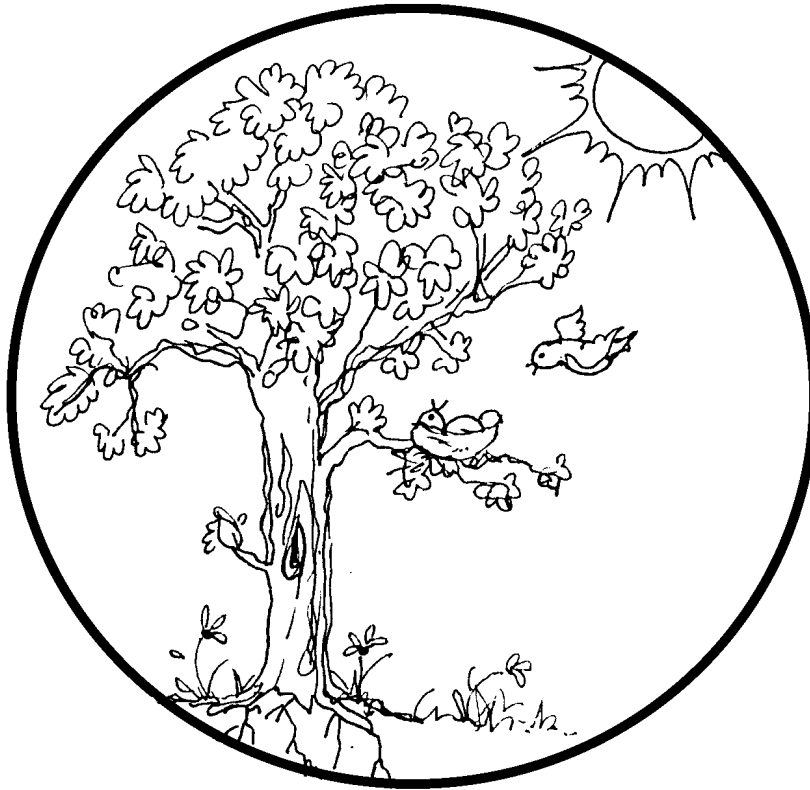


Life Cycle

Diversity in a Balance

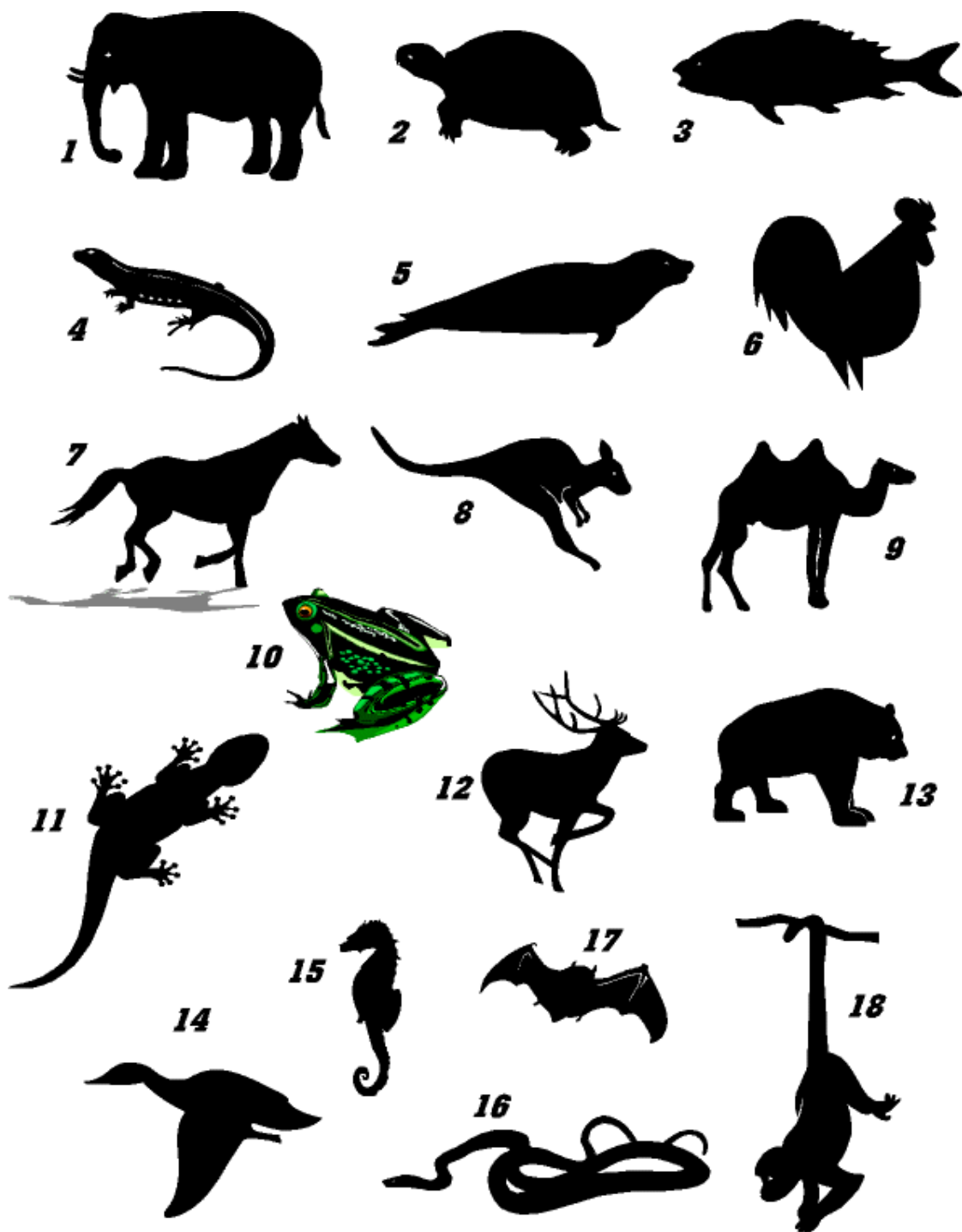


SECOND GRADE WORKBOOK



student _____

LIFE CYCLE - ORGANISMS (2A)
PRE



LIFE CYCLE - ORGANISMS (2A)

PROBLEM: How are organisms different?

PREDICTION: _____

PROCEDURE: USE SOME OF THE FOLLOWING WORDS TO DESCRIBE THE ANIMALS IN LAB. YOU MAY USE OTHER WORDS. ANSWER THE FOLLOWING QUESTIONS FOR EACH ANIMAL:

1. Where is the animal's nose?
2. Where are the animal's eyes?
3. Where are the animal's feet?
4. Where is the animal's heart?

WORDS THAT MIGHT HELP: slimy, wet, fur, warm, cold, big, little, webbed feet, no feet, shell, scales, lives in water, hops, makes sounds

ANIMAL	DESCRIBE

CONCLUSION: What are some characteristics to look at when comparing organisms?

LIFE CYCLE - ORGANISMS (2A)
POST

MATCH THE ANIMAL WITH ITS TRACK



raccoon



owl



fox



deer



cat



mouse



squirrel



1



2



3



4



5

6

7

LIFE CYCLE - ORGANISMS (2B)
PRE



AMAZING DUCK HAS TO TELL AN FUN FACT
AND AN ANIMAL JOKE. IN THE SPACE BELOW
WRITE A JOKE AND AMAZING FACT ON THE
ANIMALS OF YOUR CHOICE.

JOKE

AMAZING FACT

LIFE CYCLE - ORGANISMS (2B) LAB

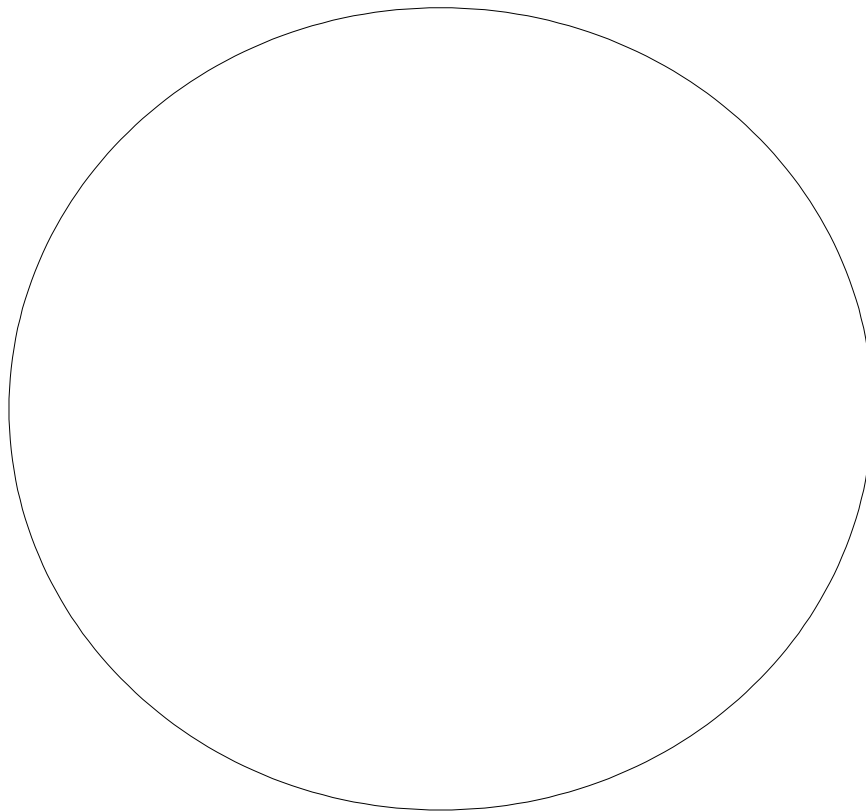
PROBLEM: Can the habitat of the schoolyard support life?

PREDICTION: _____

MATERIALS: 2 meter string, outside

PROCEDURE: Go outside and measure a circle with a diameter of about 4 meters. Have your partner stand in the center and walk around him with a 2 meter string in you hand. As you walk around in a circle, the diameter of the circle is 4 meters. The 2 meter string represents the radius.

Draw a picture of the plants and animals in your circle in the space below.



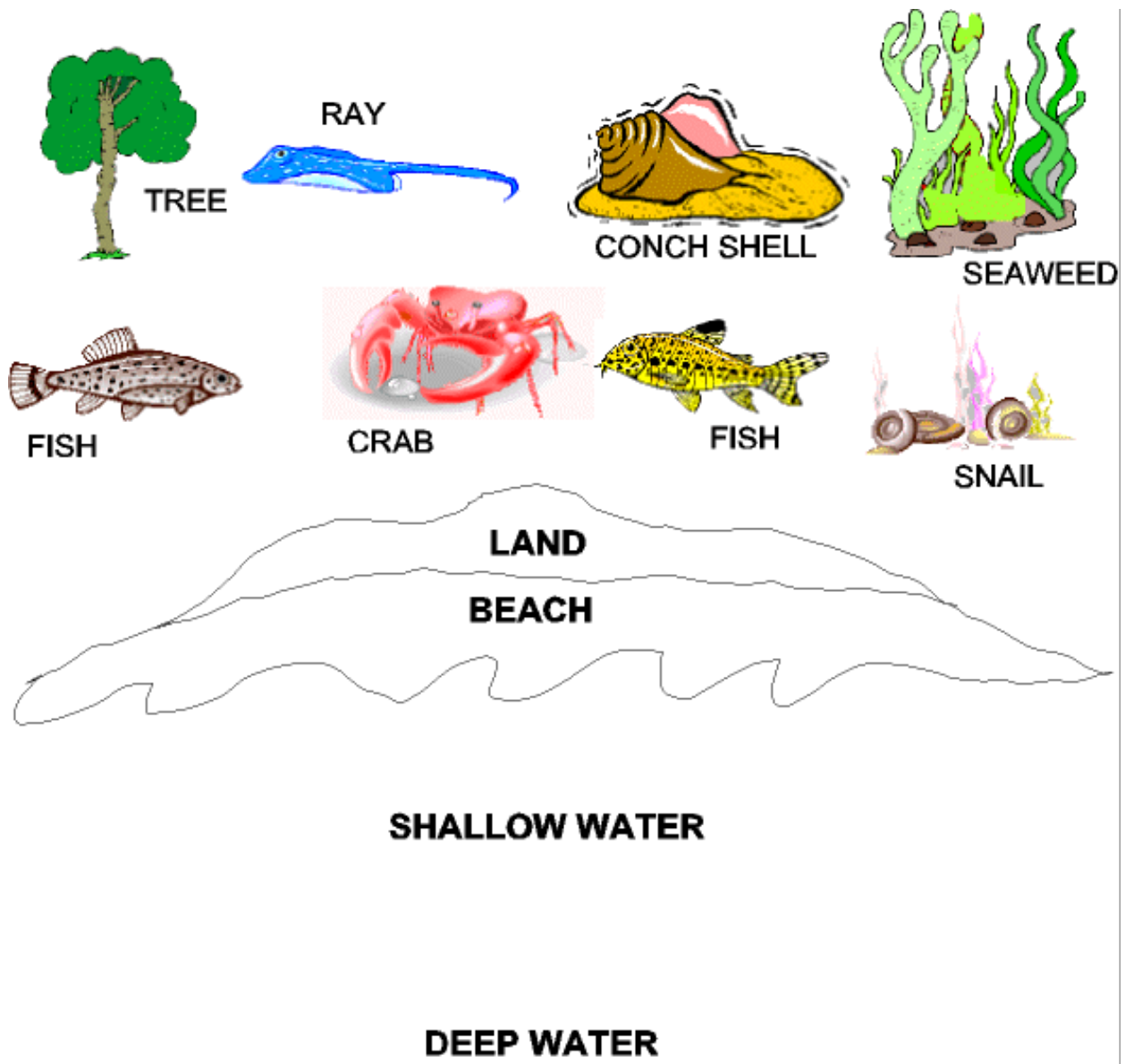
CONCLUSIONS:

1. About how many plants are there in your circle? _____
2. Are they mostly grass? _____
3. About how many animals did you find? _____
4. What kinds of animals were there? _____
5. What animal was the most common? _____

LIFE CYCLE - ORGANISMS (2B)
POST

WHERE DO THESE ORGANISMS LIVE?

DRAW A LINE TO WHERE YOU THINK THESE ANIMALS LIVE.



LIFE CYCLE - HUMAN BIOLOGY (2A)
PRE

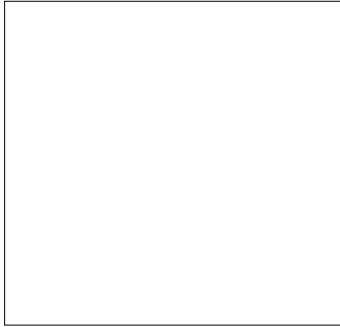
HOW DO WE GROW?

Baby with diaper



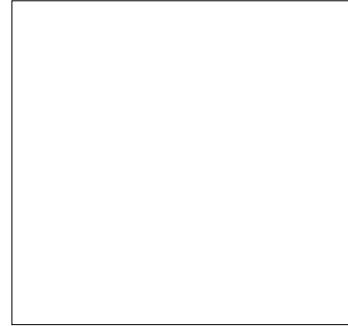
Age _____

Baby walks



Age _____

Baby talks



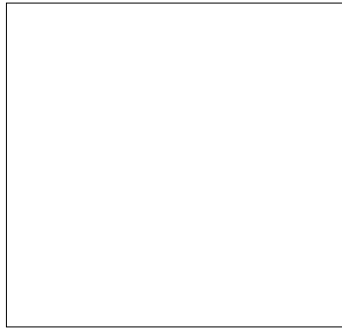
Age _____

Goes to 5th grade



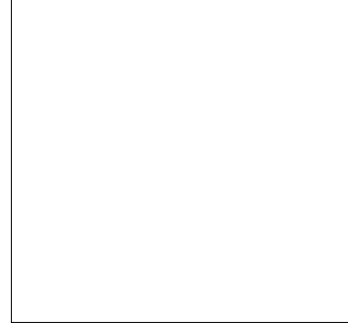
Age _____

Graduates high school



Age _____

Goes to college



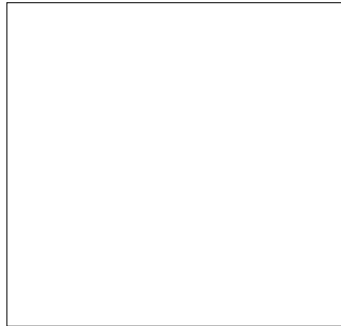
Age _____

Begins Working



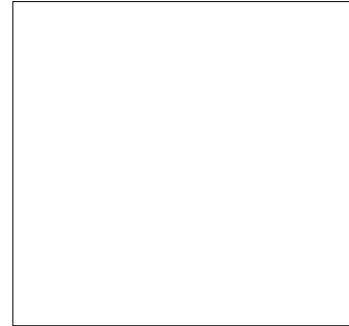
Age _____

Retires from work



Age _____

Dies



Age _____

LIFE CYCLE - HUMAN BIOLOGY (2A)

PROBLEM: Are there different types of hair?

PREDICTION: _____

PROCEDURE: Look at different samples of hair. Describe and draw the texture of the hair under the microscope.

USE WORDS LIKE BLACK, BROWN, BLONDE, WAVY, STRAIGHT, CURLY, TIGHT CURLY

SAMPLE - DRAW SPECIMEN	DESCRIBE IN WORDS
SAMPLE 1.	
SAMPLE 2.	
SAMPLE 3.	
YOUR OWN HAIR	

CONCLUSION: What types of hair have you seen?

LIFE CYCLE - HUMAN BIOLOGY (2A)
POST



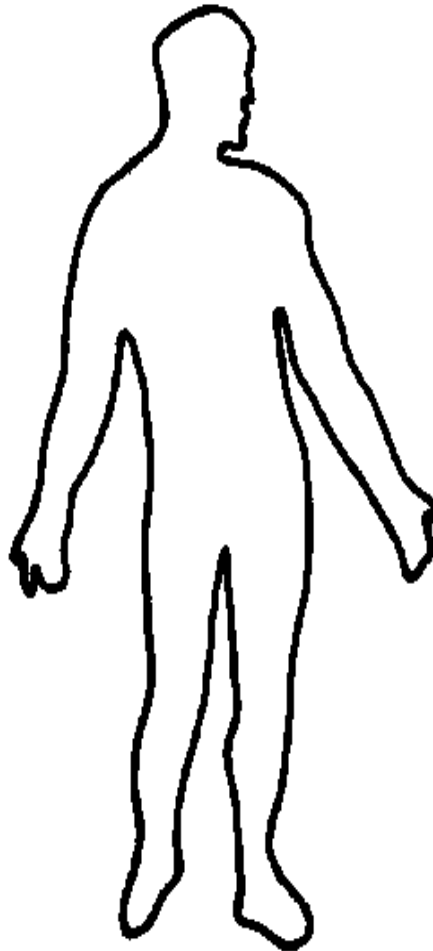
TABULATING RESULTS		
NAME	AGE	SIZE OF HEAD COMPARED TO SIZE OF BODY

HOW DO WE GROW?

Write down in the two columns below, whether the item your teacher reads aloud, is needed or not needed for your body to grow.

NOT NEEDED

NEEDED



LIFE CYCLE - HUMAN BIOLOGY (2B)

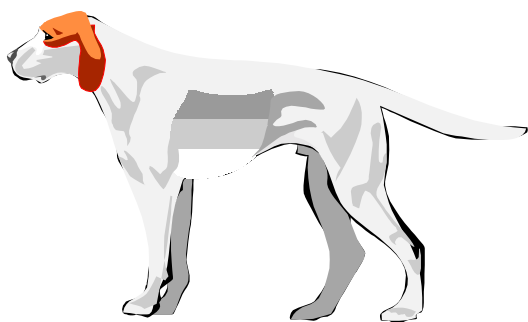
PROBLEM: Do all animals have similar organs in similar places?

PREDICTION: _____

PROCEDURE: Use the stethoscope and list to the following organs. Describe the sound and write the function of each organ.

organ	sound with stethoscope	function
heart		
stomach		
brain		
lung		

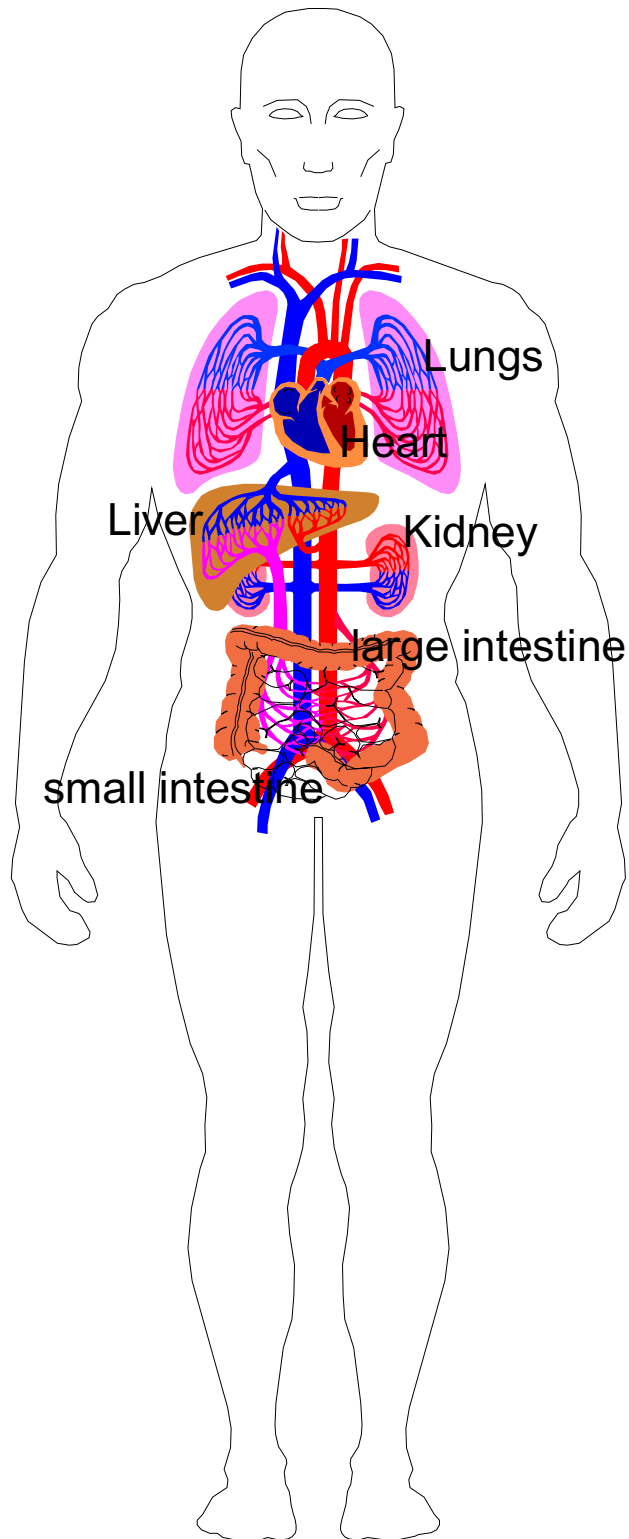
Locate and then label where you think the eye, stomach, heart, brain, and lung are located on a cat and dog. Compare with picture of human.



CONCLUSION: Are the functions of the organs similar in each animal?

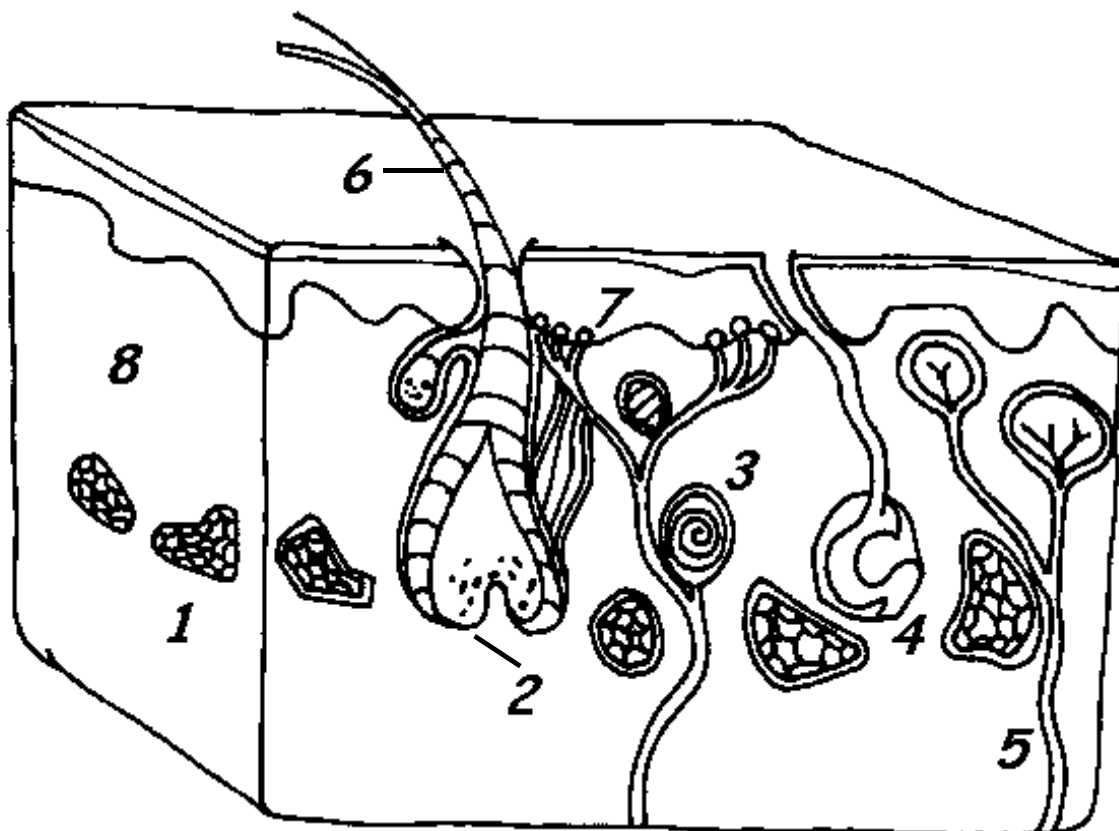
Where the organs located in similar places?

LIFE CYCLE - HUMAN BIOLOGY (2B)



LIFE CYCLE - HUMAN BIOLOGY (2B) POST

COLOR THE PICTURE OF THE OUTER PART OF THE SKIN. WRITE DOWN WHAT EACH NUMBER REFERS TO BELOW.



1. _____

5. _____

2. _____

6. _____

3. _____

7. _____

4. _____

8. _____

LIFE CYCLE - HUMAN BIOLOGY (2B) POST



A



B



C



D

Place your fingerprint below.

See if you can locate the different grooves as described below. List them under your fingerprint.



E



F

A = plain arch; B = plain whorl; C = tented arch; D = central pocket loop; E = loop; F = double loop; G = loop; H = accidental



G



H

LIFE CYCLE - PLANTS (2A)

PROBLEM: How can you describe leaves to learn how they are different?

PREDICTION:

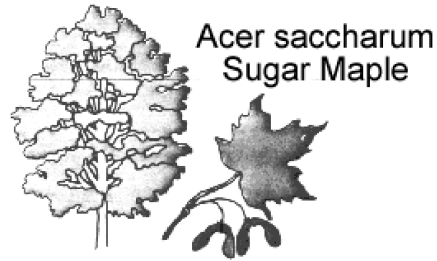
MATERIALS: leaves, angiosperms/gymnosperms guide, guide sheet to leaf structure, ruler

PROCEDURE: Draw your leaf in the space below. Measure the length and width of your leaf and describe what it looks like by using the guide sheet to leaves. See if you can name your leaf.

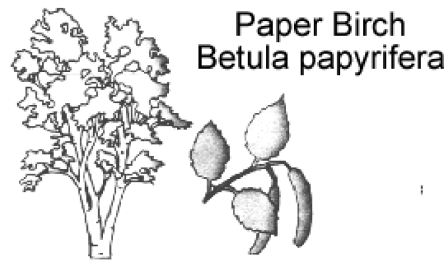
1.		2.			
Describe_____		Describe_____			
3.		4.			
Describe_____		Describe_____			
	length	width		length	width
1			3		
2			4		

CONCLUSIONS: How are leaves different?

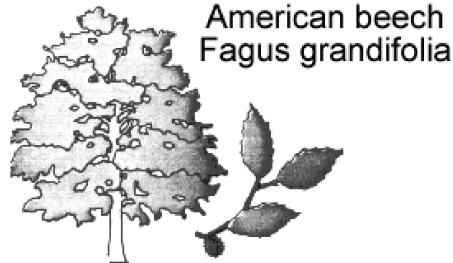
ANGIOSPERMS



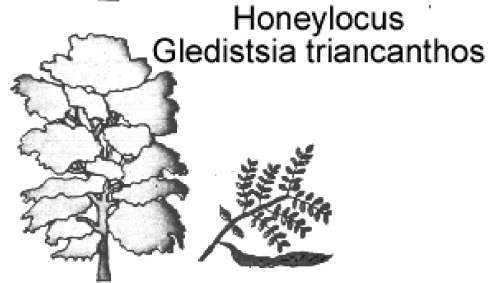
Acer saccharum
Sugar Maple



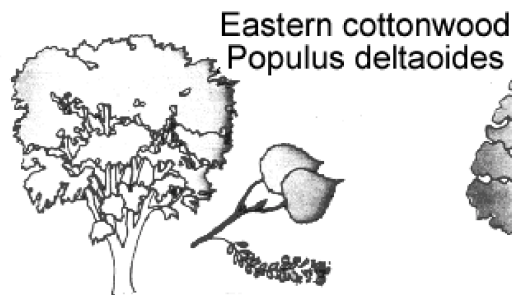
Paper Birch
Betula papyrifera



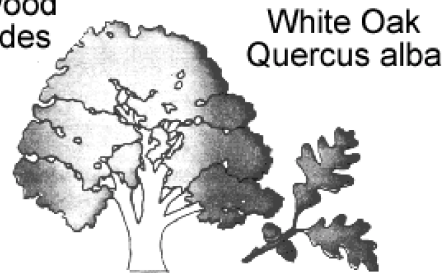
American beech
Fagus grandifolia



Honeylocust
Gleditsia triacanthos



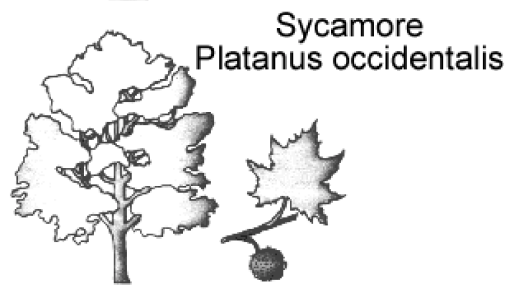
Eastern cottonwood
Populus deltoides



White Oak
Quercus alba



American Elm
Ulmus americana



Sycamore
Platanus occidentalis

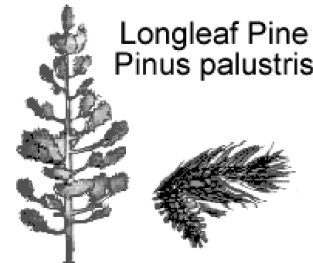
GYMNOSPERMS



Eastern Hemlock
Tsuga canadensis



Douglas Fir
Pseudotsuga menziesii



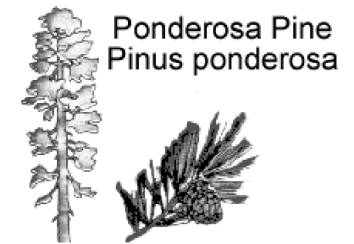
Longleaf Pine
Pinus palustris



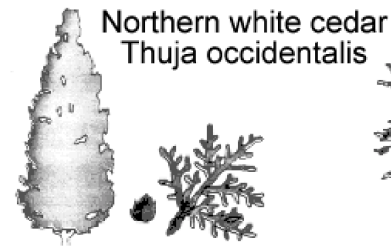
Balsam Fir
Abies balsamea



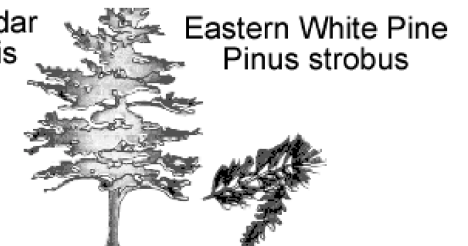
White Spruce
Picea glauca



Ponderosa Pine
Pinus ponderosa



Northern white cedar
Thuja occidentalis



Eastern White Pine
Pinus strobus

Leaf Description



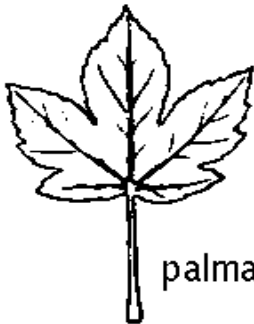
lance-shaped



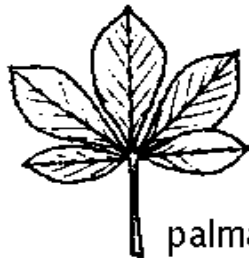
oblong



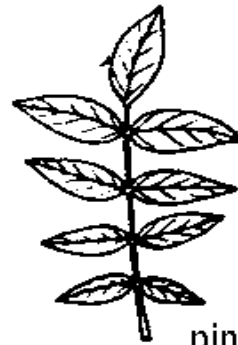
oval



palmate



palmate
(complex)



pinnate



scales



needles
in
bundles



simple

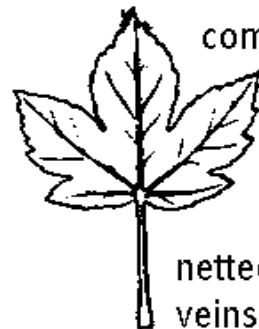
parallel
veins



elliptical



lobed

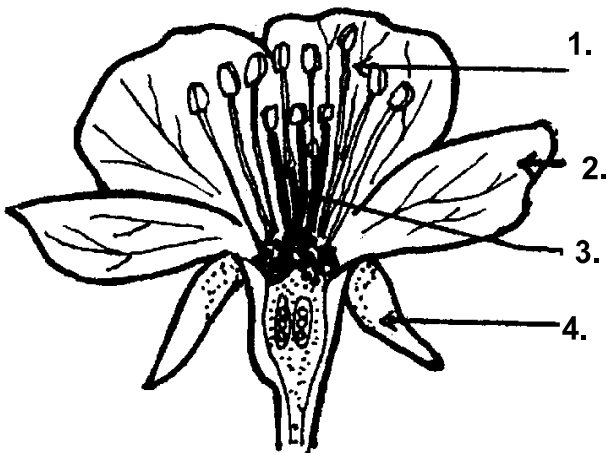


compound

netted
veins

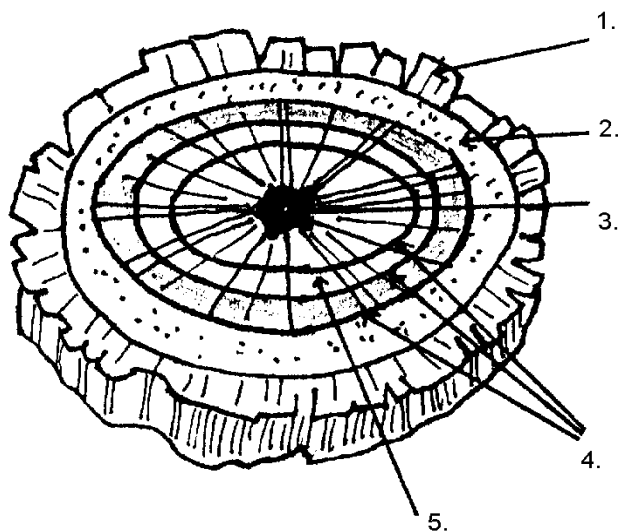
THE FLOWER

1. _____
2. _____
3. _____
4. _____

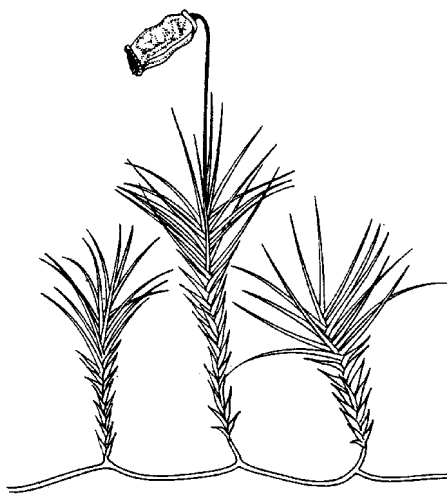


THE TREE

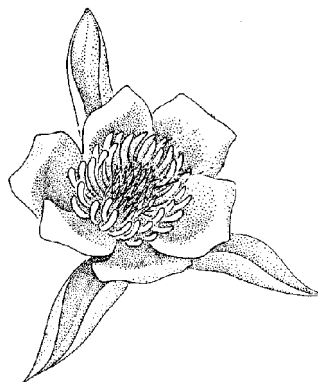
1. _____
2. _____
3. _____
4. _____
5. _____



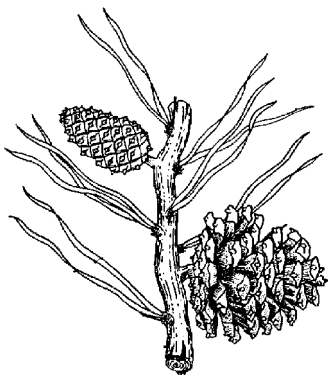
BRYOPHYTA



ANGIOSPERMS



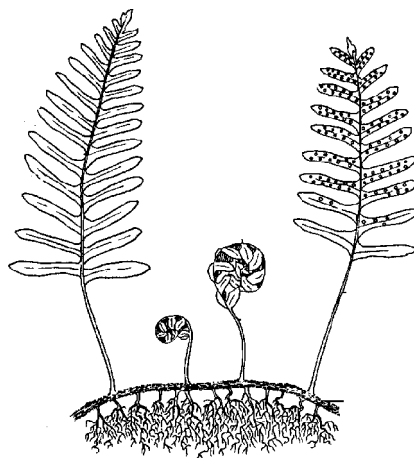
GYMNOSPERMS



HORSETAILS



FERNS



LIFE CYCLE - PLANTS (2B)

PROBLEM: How can you distinguish gymnosperms from angiosperms?

PREDICTION: _____

MATERIALS: plant specimens, angiosperms/gymnosperms guide

PROCEDURE: Draw and try to identify the part your specimen is from. Decide whether they are angiosperms or gymnosperms.

1. TYPE PART	2. TYPE PART
3. TYPE PART	4. TYPE PART
5. TYPE PART	6. TYPE PART
7. TYPE PART	8. TYPE PART

CONCLUSIONS: What are some differences between angiosperms and gymnosperms?

LIFE CYCLE - NATURAL ENVIRONMENT (2A)
PRE



PROBLEM: Are worms helpful to soil?

MATERIALS: dead leaves, worms, a large glass jar, gardening tools (or spoons), containers, sand, soil

Cover the top layer of soil with dead leaves. Then cover the whole jar with a dark cloth or put it in a dark place because the worms have to think they are underground. Return the worms to the soil when finished with the lab.

START	DAY _____	DAY _____
-------	-----------	-----------

1. Where were the leaves on the first day you looked?

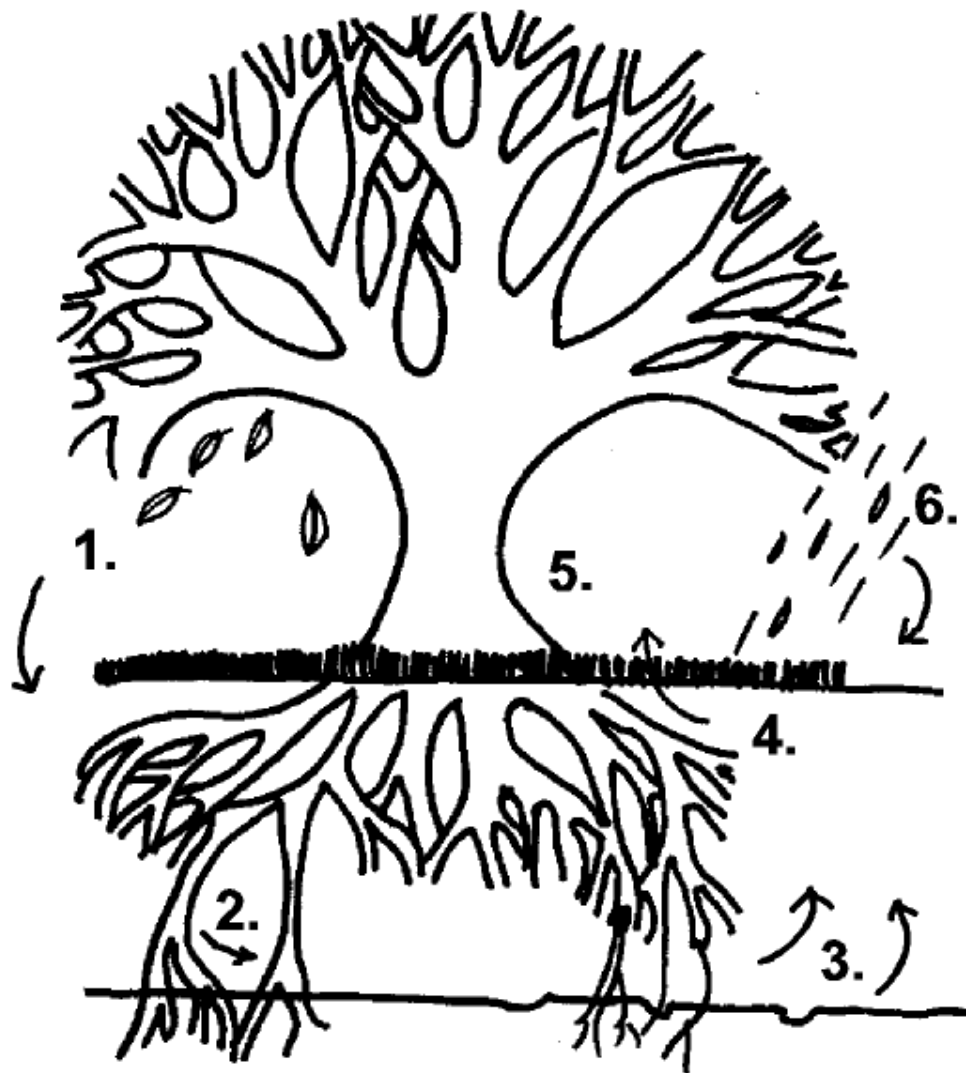
2. Describe the jar.

1. Where are the leaves on the second day you looked?

2. Describe the jar.

CONCLUSIONS: Why are worms helpful to soil?

LIFE CYCLE - NATURAL ENVIRONMENT (2A)
POST

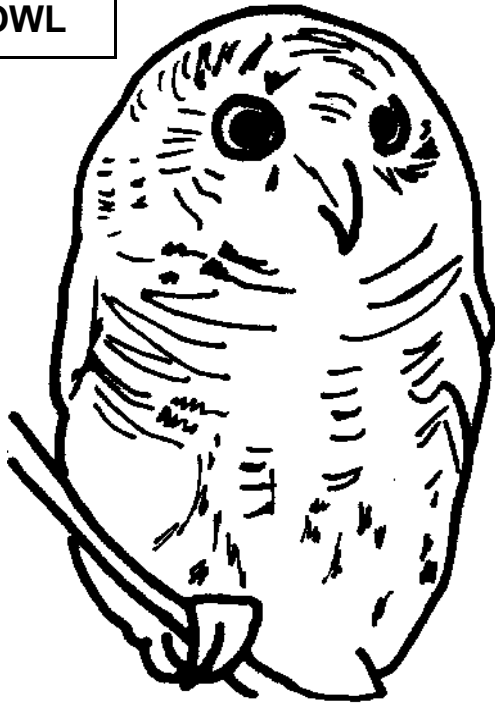


Write down the steps of the Nutrient Cycle.

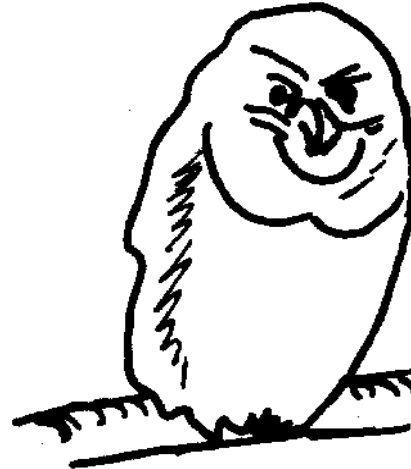
1.	4.
2.	5.
3.	6.

LIFE CYCLE - NATURAL ENVIRONMENT (2B)
PRE

ELF OWL



SPECTACLED OWL



PEL'S FISHING OWL



SCOPS OWL



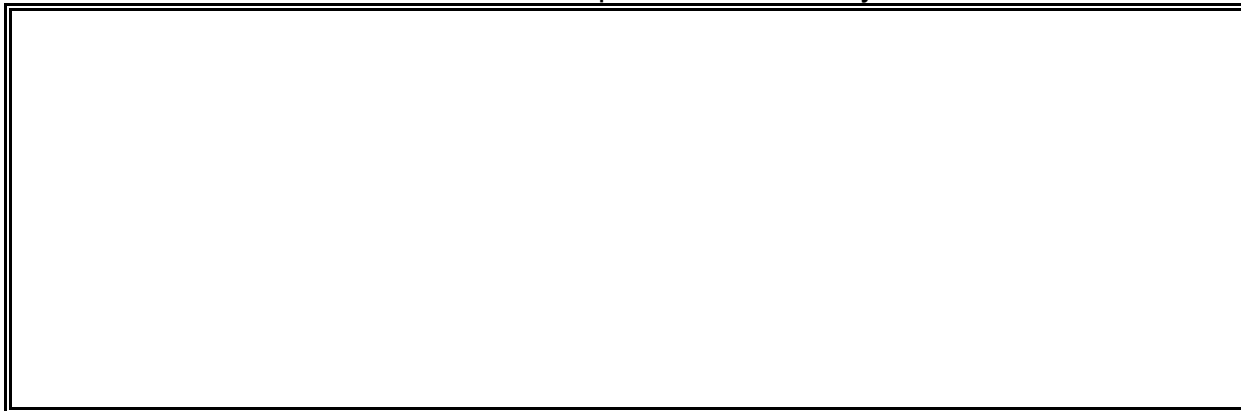
LIFE CYCLE - NATURAL ENVIRONMENT (2B)

PROBLEM: Can one determine what the food chain of an owl is?

PREDICTION: _____

MATERIALS: owl pellets, fork, styrofoam meat tray, microscope or hand lens

PROCEDURE: Place the pellet on the meat tray and carefully separate the fur from the bones. Look at the fur under the microscope and draw what you see.



Look at the bones with your microscope or hand lens and see if you can determine some of the bones. Refer to the Eyewitness Book on Skeletons. Record what types of bones you see.

Look at the skull of the critter. Does it look like any of the pictures below. Circle the one it looks like. Can you guess what the animal the owl ate looked like?



CONCLUSIONS: What is the food chain of this Great Horned Owl?

