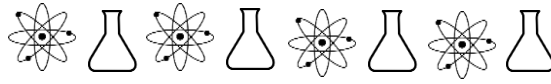


EP Biology Printables: Levels 1-4



This book belongs to:



What Did You Learn?

Answer the following questions about the chapter you read. Fill in the bubble next to the correct answer.

Which of these describes organisms?

- ☐ environment
- ☐ abiotic
- ☐ biotic

Which of these is an example of a population?

- ☐ a herd of elephants
- ☐ a child
- ☐ a sycamore tree

Which of these is *not* necessary for life?

- ☐ food
- ☐ sleep
- ☐ air

What are the simple things that a group of like beings use every day?

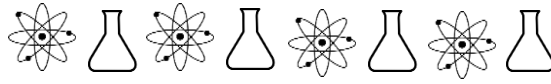
- ☐ nutrients
- ☐ resources
- ☐ organisms

Which of these is *biotic*?

- ☐ pencil
- ☐ pond slime
- ☐ house

Which of these is *abiotic*?

- ☐ desk
- ☐ algae
- ☐ zebra



What Did You Learn?

Answer the following questions about the chapter you read. Fill in the bubble next to the correct answer.

What is the largest organ in your body?

- ☐ muscles
- ☐ skin
- ☐ heart

How much of your body weight is made up of muscle?

- ☐ not quite one quarter
- ☐ almost all
- ☐ nearly half

Muscles cannot _____, they can only _____.

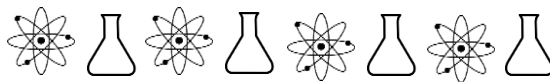
- ☐ push/pull
- ☐ pull/push
- ☐ lift/drop

By what are muscles attached to bones?

- ☐ ligaments
- ☐ tendons
- ☐ organs

Which of these is the job of your bones?

- ☐ help you move
- ☐ give you your shape
- ☐ protect your organs
- ☐ all of these



What Did You Learn?

Fill in the blank with the word that best fits.

bones	cartilage	cells	contract
dermis	ligaments	muscles	organs
skin	tendons		

parts of the body with special jobs

---

protects you from diseases

---

building blocks

---

your body has over 600

---

your body starts with over 300

---

to shorten

---

connect muscles to bones

---

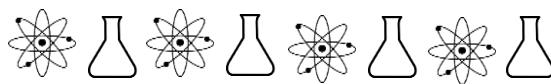
connect bones to bones

---

cushion between bones

---

new sheets of skin cells inside



What Did You Learn?

Fill in the blank with the word that best fits.

acid   esophagus   kidneys   large intestine
small intestine   smooth   stomach   ulcer
villi   waste products

long tube between throat and stomach_____

holds onto food until it's needed _____

breaks down food into small pieces
for blood to carry through body _____

move food from small intestine to blood_____

takes water out of food _____

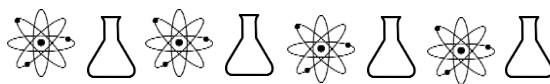
clean waste products from blood _____

kills bacteria on food that's been eaten_____

type of muscle found in digestive system_____

leftovers of food used in the body _____

a hole burned in the stomach _____

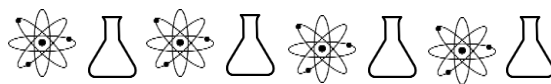


What Did You Learn?

Fill in the blank with the word that best fits.

esophagus	large	liver	lungs	pancreas
skeletal	small	smooth	stomach	

You use your _____ muscles to pick up an apple and take a bite. When you swallow the bite of apple, it heads down your _____ and into the acidic storage of your _____. There, _____ muscles hold onto your food until it's ready to be moved on in the digestion process. The apple's next stop is your _____ intestine, where the apple gets broken down into tiny pieces for transport to your blood. Your _____ adds enzymes and the apple-blood goes through your _____ where poison and waste are filtered out. The clean blood is sent to your _____ for oxygen. The unused portion of the apple heads to your _____ intestine and then out of the body.



Word Search

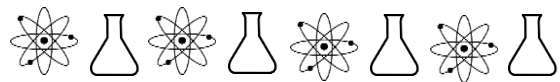
Find the digestion words in the word search.

X	K	D	K	Q	Z	N	P	Q	Q	I	V	D	F	I	V
E	Z	G	B	K	L	S	T	O	M	A	C	H	J	O	S
D	O	G	I	P	A	N	C	R	E	A	S	C	C	K	M
Y	C	Q	C	V	W	Z	J	S	S	Z	L	D	A	M	L
G	A	L	L	B	L	A	D	D	E	R	T	S	P	V	X
L	J	R	U	Z	B	F	V	R	B	P	P	J	B	E	M
E	I	D	I	G	E	S	T	I	O	N	A	V	N	J	W
O	S	V	E	Q	U	Q	R	M	O	E	Y	I	O	R	N
C	G	O	E	J	E	E	S	T	L	Q	T	S	T	F	F
N	N	U	P	R	U	B	N	I	T	S	E	L	H	R	A
H	L	B	R	H	A	K	B	Z	E	P	D	T	V	E	W
I	R	A	V	J	A	Z	V	T	Y	M	C	E	J	C	D
S	V	J	G	Z	D	G	N	O	G	M	F	U	F	T	X
C	L	C	W	F	W	I	U	L	B	L	E	Q	P	U	E
J	T	S	X	X	C	S	J	S	W	C	F	S	B	M	U
U	R	R	O	G	F	T	Z	I	F	S	R	D	A	X	G

bile
liver
rectum

digestion
intestine
pancreas
stomach

enzymes
esophagus
gallbladder



Experiment Worksheet

Fill out this worksheet as you work through the experiment.

Question: How does chewing affect digestion?

Container	Contents	Observations
1	Whole candy in water	
2	Broken candy in water	
3	Whole candy in vinegar	
4	Broken candy in vinegar	

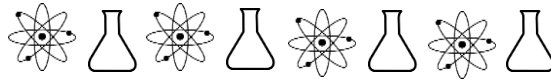
Conclusion: _____

_____

_____

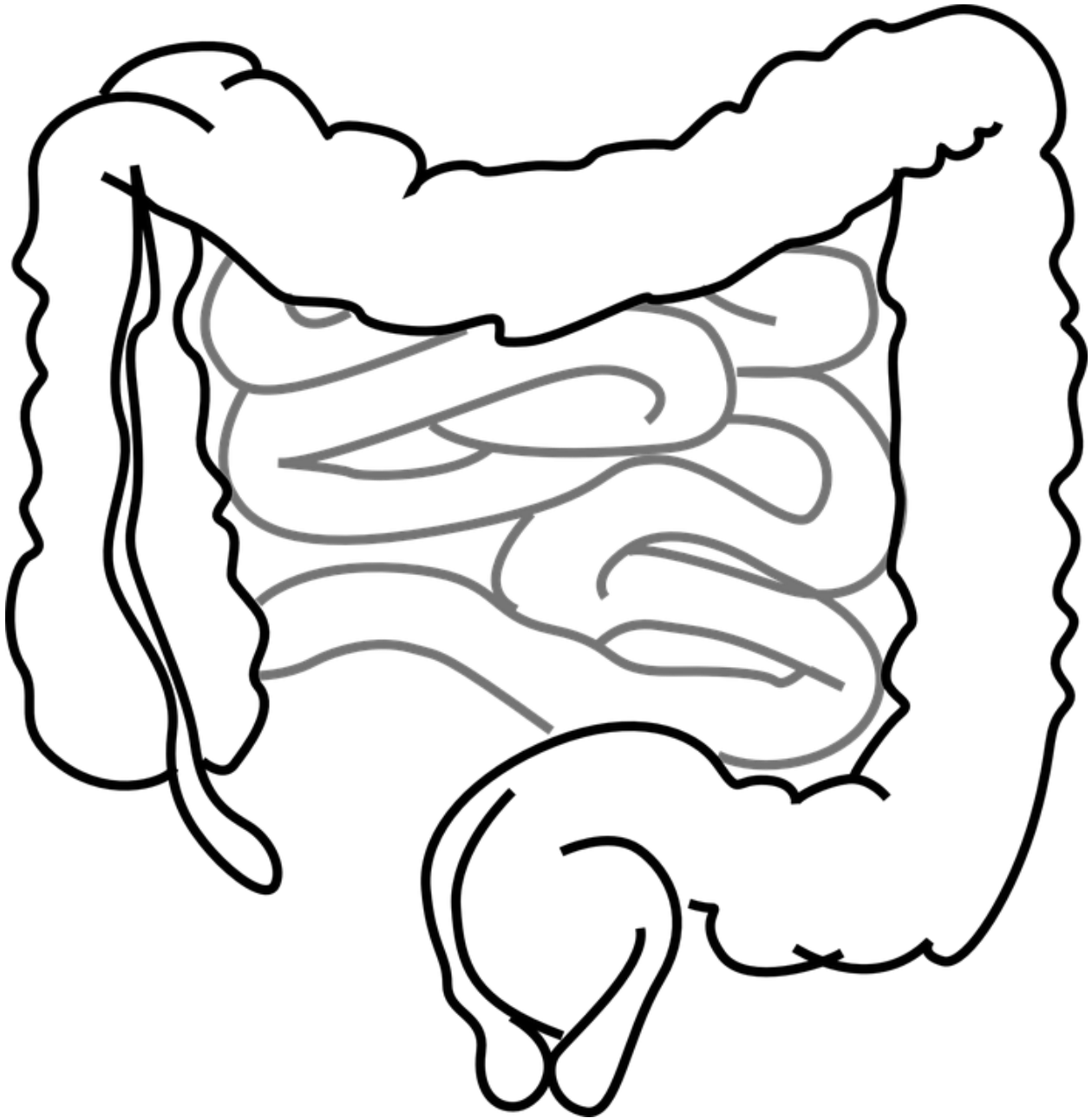
_____

_____



Intestines

Color each part of the intestines a different color. Label the key at the bottom with the colors you use for each part.



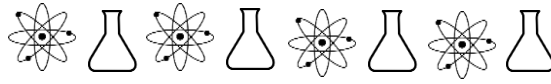
☐ small intestine

☐ appendix

☐ anus

☐ large intestine

☐ rectum



What Did You Learn?

Fill in the blank with the word that best fits.

arteries   capillaries   cardiac   plasma
red blood cells   veins   white blood cells

anything relating to the heart

---

move blood away from the heart

---

move blood back to the heart

---

smallest branch of arteries

---

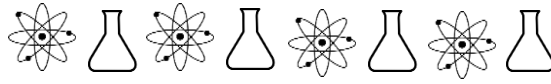
clear liquid that makes up blood

---

carry oxygen in the blood

---

attack infection in the blood



Review the Terms

Unscramble the words and write their definitions.

R A E E T I S R

P A A I L C I R E L S

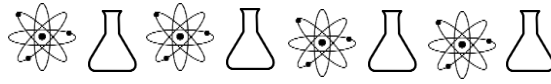
D A C R C I A

R D C E D E L O L B O L S (3 WORDS)

N E V I S

T W S L I E E O B L H O D C L (3 WORDS)

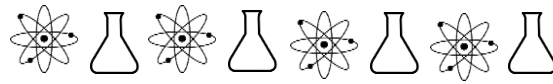
L M A P A S



Red Blood Cell Journey

Describe the journey of a red blood cell through the body. You can write it in the first person if you'd like.





Word Search

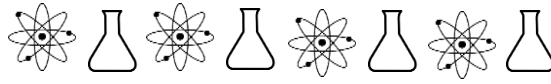
Find the words in the word search.

C	A	H	Q	O	S	Y	B	L	O	O	D	Q
C	I	T	E	U	X	J	O	R	C	Y	T	V
A	G	R	R	A	T	Y	O	F	V	G	P	E
P	C	B	C	I	R	H	G	V	R	P	Y	N
I	X	X	V	U	U	T	Z	E	P	L	A	T
L	W	L	E	G	L	M	E	A	N	A	R	R
L	D	H	I	D	A	A	X	I	F	S	T	I
A	E	X	N	M	L	L	T	D	D	M	E	C
R	E	J	S	R	J	T	H	I	R	A	R	L
I	D	D	F	W	F	B	L	L	O	Y	I	E
E	G	R	V	V	Z	O	H	T	B	N	E	E
S	K	C	R	U	O	U	W	X	A	J	S	D
P	G	F	G	S	T	H	J	O	U	A	V	V

arteries
capillaries
oxygen

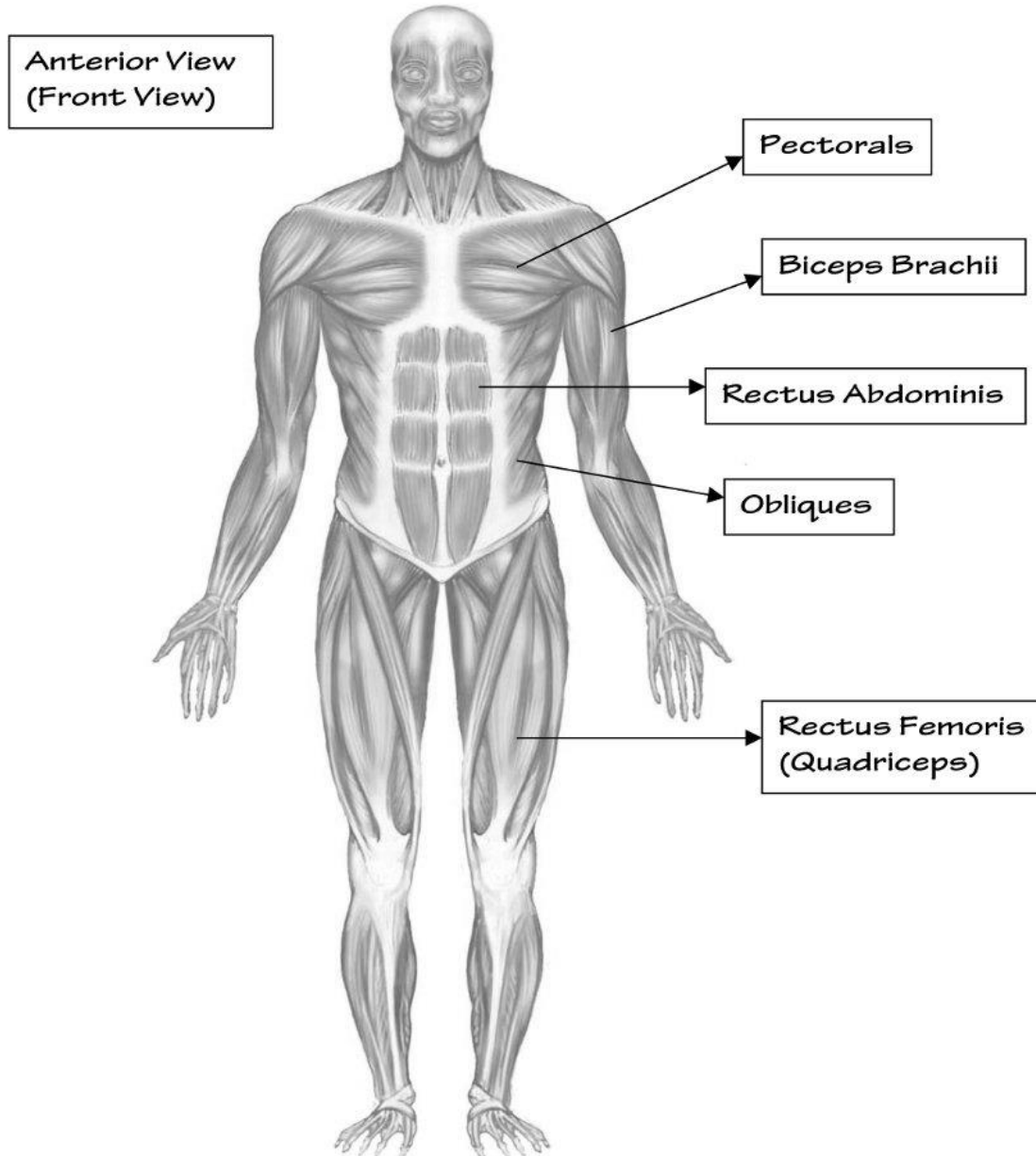
atrium
circulation
plasma
ventricle

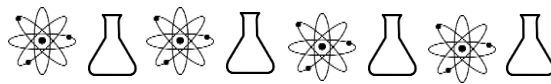
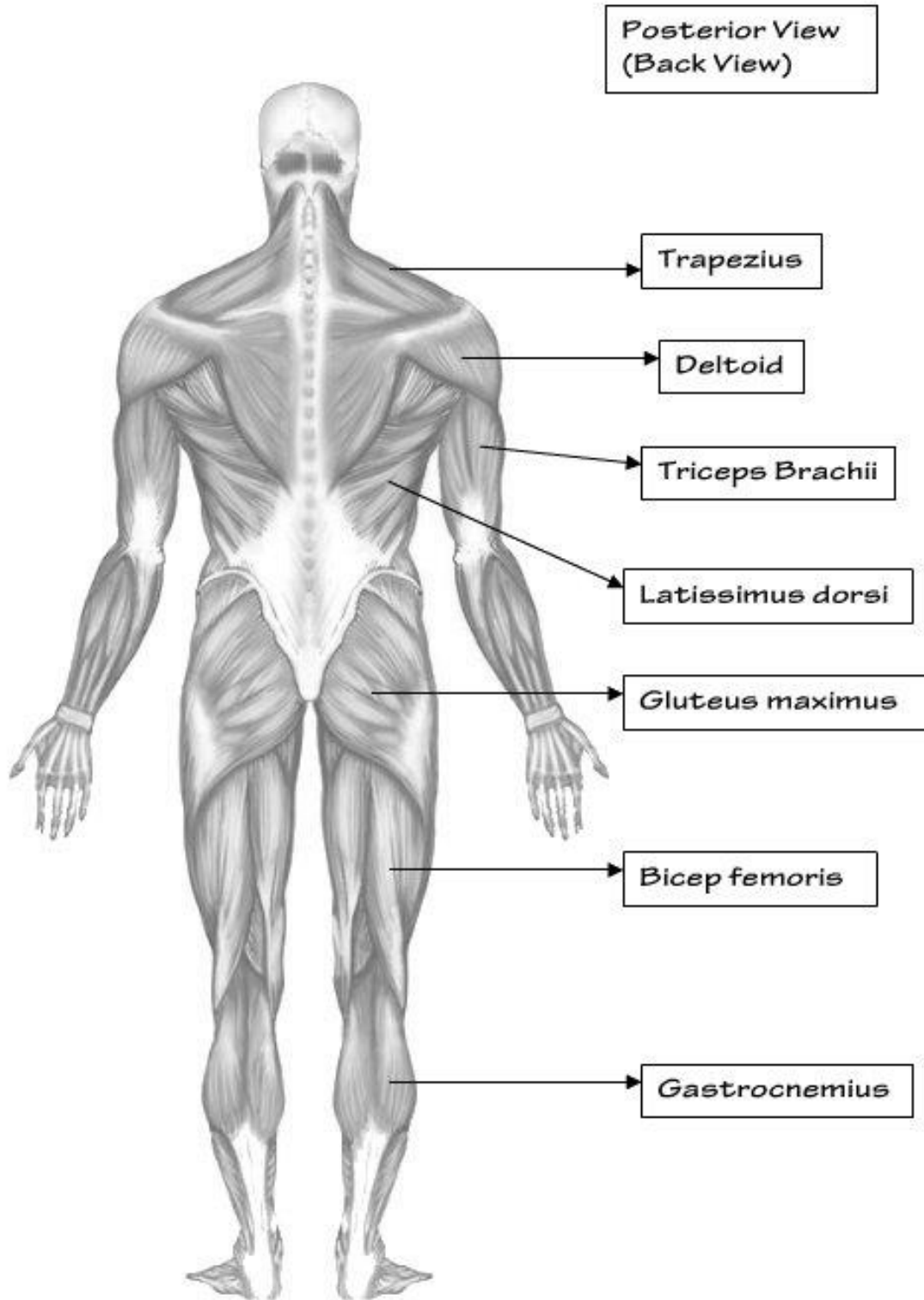
blood
heart
veins

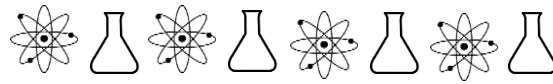


Muscle Coloring Pages

Color the muscles using the directions on the site.







Word Search

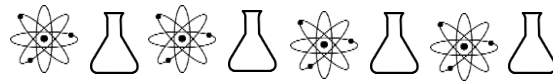
Find the words in the word search.

A	A	X	O	D	H	J	T	M	O	V	Z	K	X	N
J	R	E	S	P	I	R	A	T	O	R	Y	Z	H	W
E	U	B	N	B	U	X	S	M	H	U	F	S	E	T
W	L	A	B	R	H	C	G	Q	L	R	M	X	A	L
I	P	O	G	N	P	T	N	A	J	T	H	J	N	Z
A	I	M	I	V	E	Y	U	L	F	A	D	I	G	E
E	D	G	U	H	A	G	L	H	L	J	N	I	H	I
H	E	A	E	G	C	E	Y	E	M	H	N	R	I	L
C	O	R	C	L	Z	N	P	X	A	H	P	B	M	O
A	T	H	T	Z	H	M	O	L	O	C	U	T	S	E
R	G	P	S	X	T	K	E	R	U	K	Y	H	X	V
T	O	A	A	N	V	L	R	R	B	Y	N	X	Y	L
Z	L	I	V	A	A	P	J	Z	W	R	Y	K	N	A
H	R	D	N	T	I	A	J	V	E	L	L	A	U	V
Y	R	N	S	Y	Z	I	I	U	A	D	T	M	R	D

alveoli
exhale
oxygen

bronchiole
inhale
respiratory

diaphragm
lungs
trachea



Word Search

Find the words in the word search.

E	J	B	S	X	L	S	H	F	A	Z	N	T	I	Z	X
U	U	X	U	R	E	T	H	R	A	J	C	G	Y	G	M
X	T	F	U	D	Y	V	C	Q	X	A	T	A	B	Q	W
S	T	K	R	T	Z	H	C	Y	R	Z	T	B	N	G	Q
U	V	I	E	V	O	V	K	T	Y	S	O	Q	B	Y	Q
J	M	K	T	I	U	G	Y	K	I	A	N	N	I	R	X
X	S	K	E	Z	B	R	D	M	I	C	P	H	O	X	S
X	R	L	R	S	A	B	N	I	M	D	F	V	H	S	T
U	B	P	T	N	T	L	V	E	O	S	N	D	J	N	V
R	F	E	I	E	H	A	L	W	P	Q	S	E	H	V	A
I	J	R	Y	P	R	D	V	Q	M	H	M	R	Y	T	P
N	U	A	Z	V	O	D	K	D	X	D	R	Q	S	S	H
E	H	F	B	L	O	E	G	S	B	I	A	O	V	O	Z
V	J	Z	T	L	M	R	K	F	L	U	I	D	N	F	B
P	I	N	Y	L	E	E	H	G	I	O	X	L	P	S	H

bathroom

kidneys

urethra

bladder

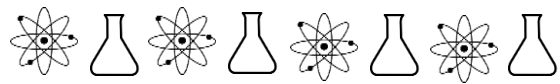
nephrons

urinary tract

fluid

ureter

urine



Word Assembly

Reassemble the words by writing them on the lines.

spin	lobe	hemisphere
occipital	cere	brum
right	temporal	stem
parietal	ves	lobe
cere	left	flexes
lobe	brain	al cord
ner	re	hemisphere
bellum	frontal	lobe

_____

_____

_____

_____

_____

_____

_____

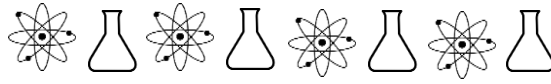
_____

_____

_____

_____

_____



What Did You Learn?

Fill in the blank with the word that best fits.

cerebellum	cerebrum	frontal lobe	left hemisphere
nerves	occipital lobe	parietal lobe	reflexes
right hemisphere	temporal lobe		

problem-solving part of the brain _____

controls hearing and smelling _____

helps with balance and controls
reflexes _____

controls vision _____

creative part of the brain _____

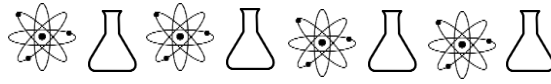
contains the four lobes of the brain _____

send sensory messages to spinal cord _____

controls speech and movement _____

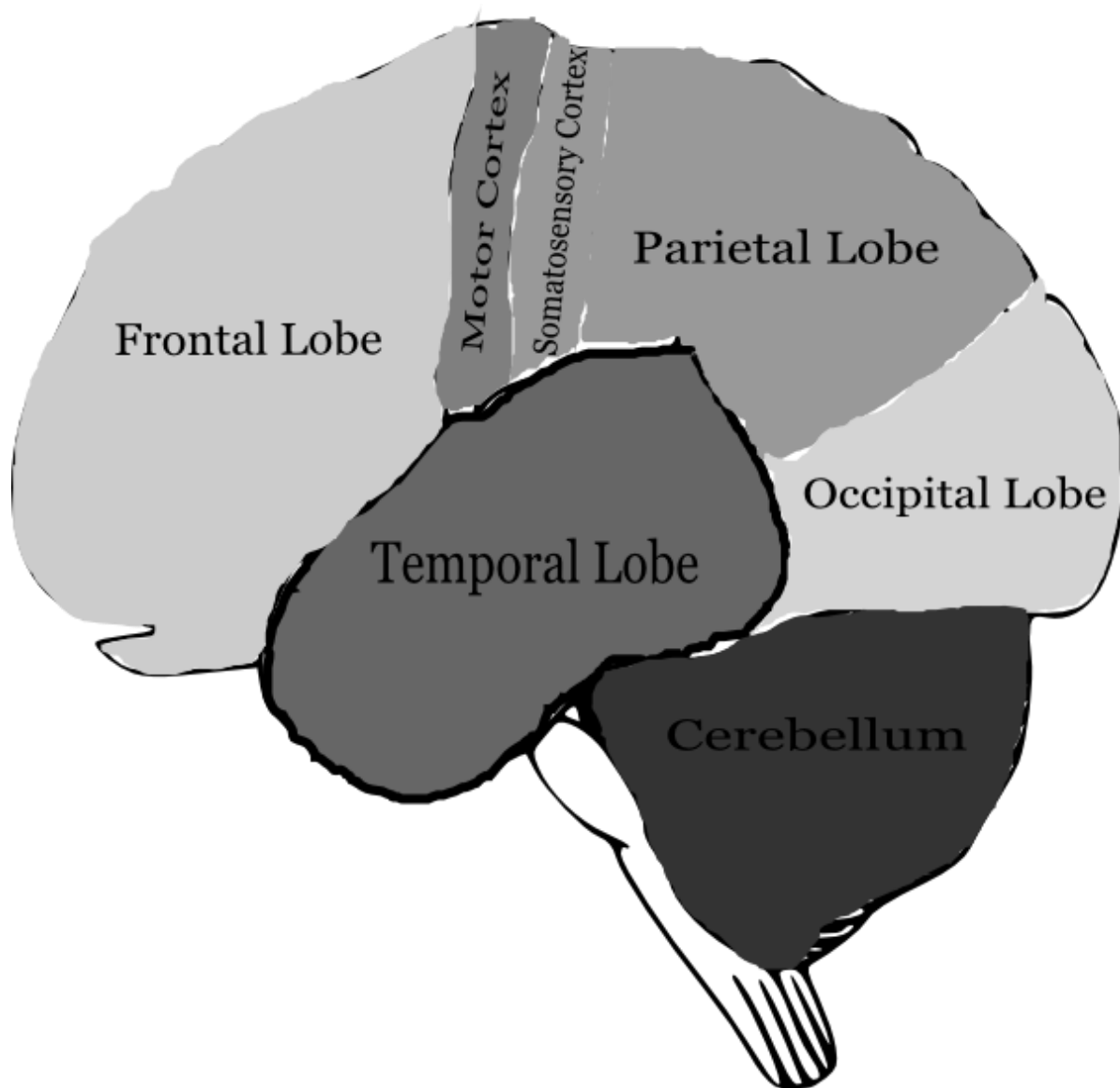
involuntary actions of the body _____

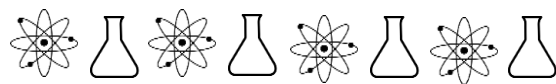
controls feelings of touch and pain _____



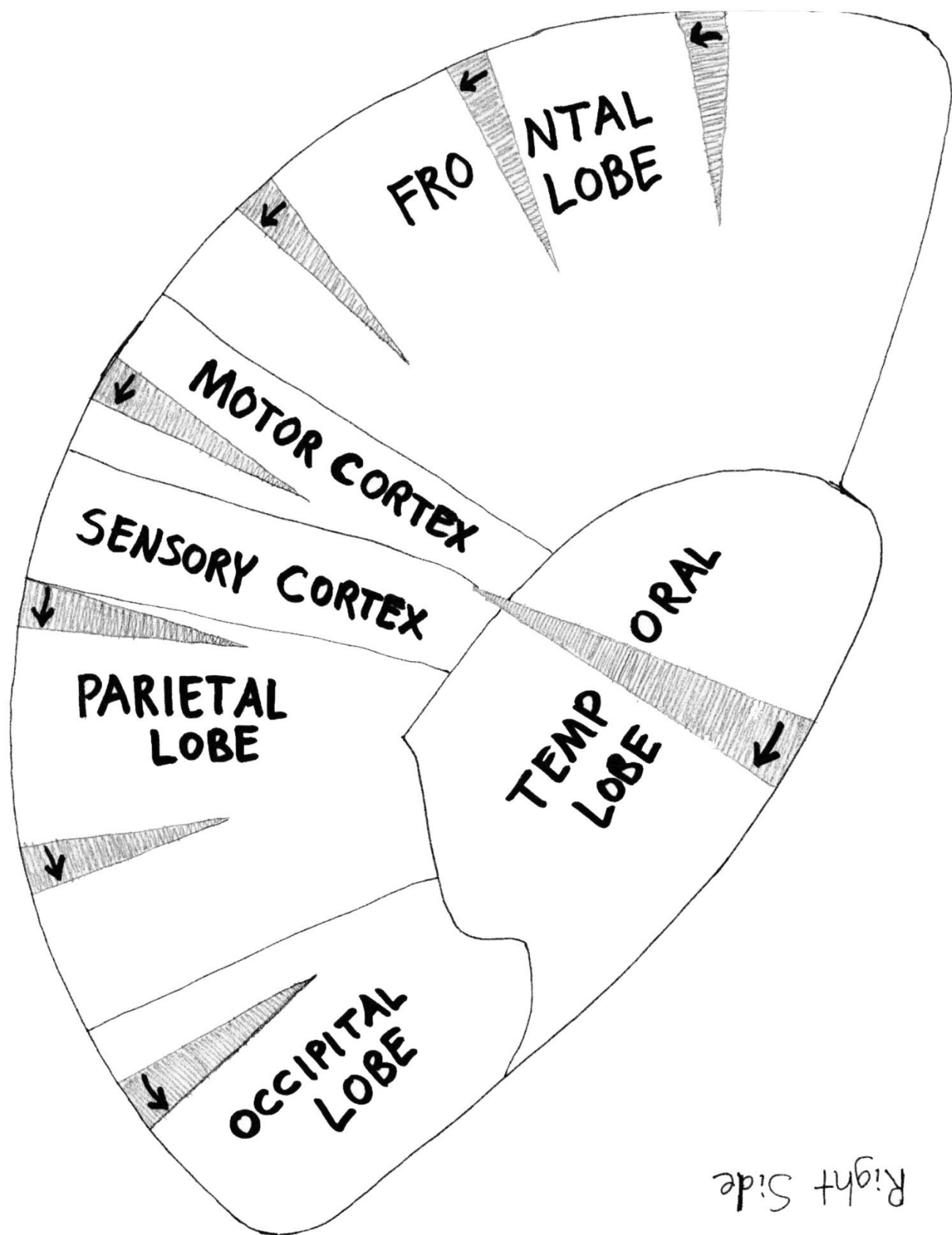
Assemble the Brain

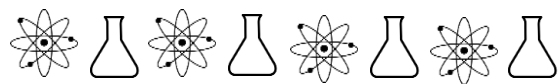
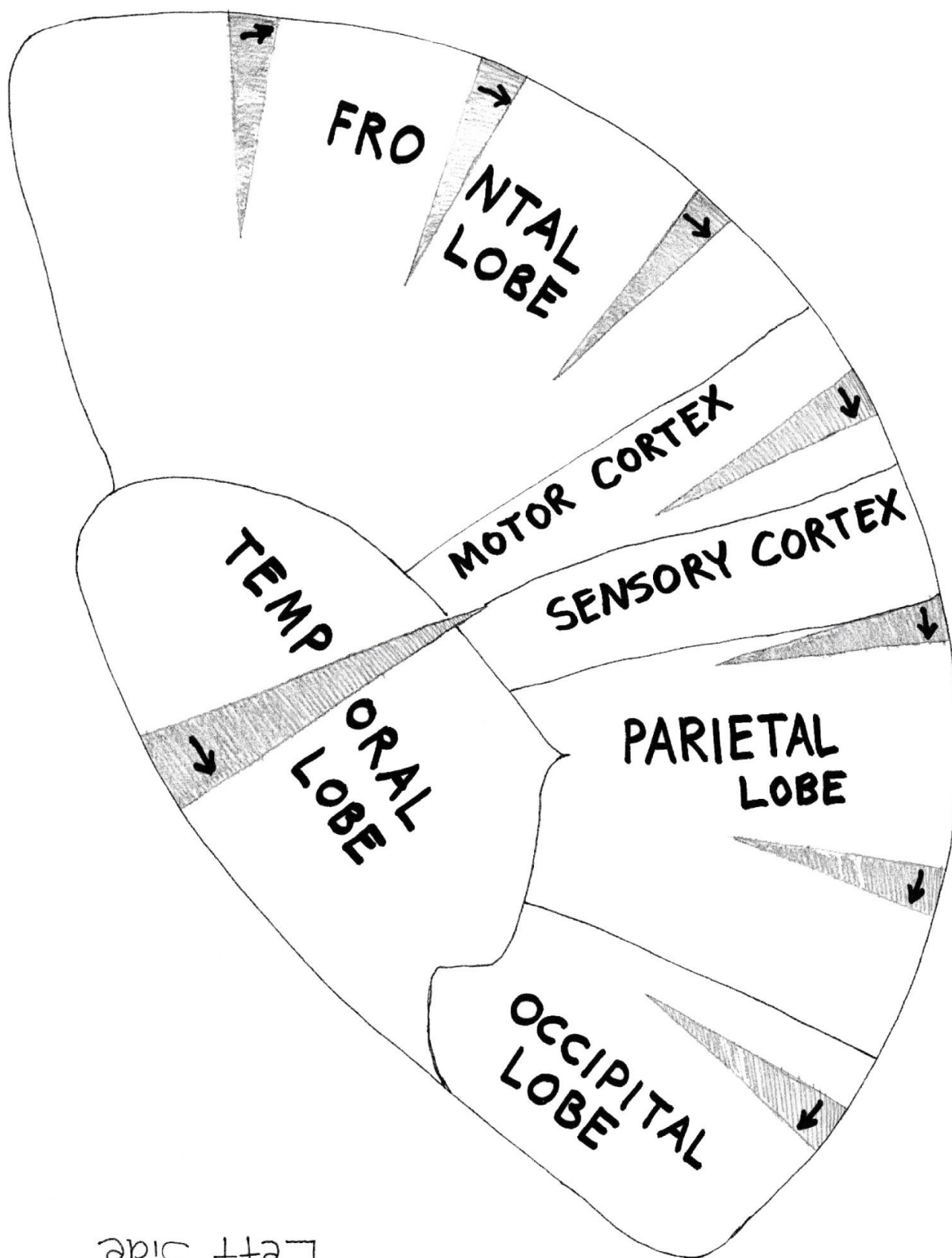
Study this brain before cutting out the various sections. Mix them up and see if you can put the brain back together correctly. Let others in your family try as well.



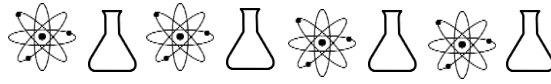


Brain Hat





Left Side



What Did You Learn?

Answer the following questions about the chapter you read. Fill in the bubble next to the correct answer.

What is the part of the eye through which light enters?

- ☐ pupil
- ☐ iris
- ☐ retina

Which part of the eye takes a picture of what is seen and sends it to the brain?

- ☐ pupil
- ☐ iris
- ☐ retina

Which of these parts of the body contain nerve endings?

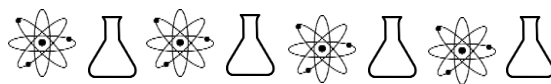
- ☐ hair
- ☐ fingernails
- ☐ fingers

Which of these experiences sound waves first?

- ☐ ear
- ☐ eardrum
- ☐ cochlea

Which of these is not one of the five senses?

- ☐ touch
- ☐ smell
- ☐ humor



What Did You Learn?

Fill in the blank with the word that best fits.

cochlea   eyelashes   eyelids   iris
nerve endings   pupil   skin
sound waves   tears

colorful part of the eye

---

vibrations in the air causing noise

---

act like the hairs in the nose to
keep dirt away

---

sense temperature and pain

---

filled with fluid and hairs

---

changes in size depending on light

---

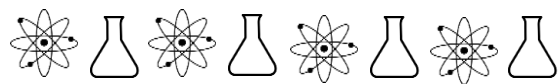
keep your eyes wet and clean

---

the largest sense organ

---

act like windshield wipers to keep
dirt away



Secret Message

Use the key to decode the message.

A	B	C	D	E	F	G	H	I	J	K	L	M
5	3	10	16	6	21	25	13	18	7	23	19	1

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
11	4	9	2	17	15	20	26	8	24	12	22	14

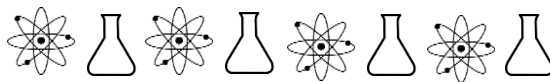
15 6 11 15 6 4 17 25 5 11 15 15 6 11 16

1 6 15 15 5 25 6 15 20 4 20 13 6

3 17 5 18 11 20 13 5 20 10 4 11 20 17 4 19

15 1 6 19 19' 15 18 25 13 20' 20 5 15 20 6'

20 4 26 10 13' 5 11 16 13 6 5 17 18 11 25'



What Did You Learn?

Fill in the blank with the word that best fits.

brain   external senses   mucus   saliva
sense organ   smelling   taste buds

include hearing, sight, taste, touch,
and smell

_____

organ that controls what the body does

_____

part of your sense of taste

_____

sense sour, salty, bitter, and sweet

_____

liquid created in the mouth to help
with taste and digestion

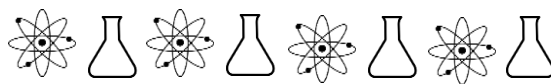
_____

the one for taste is the tongue

_____

fluid used to trap junk that enters
your nose

_____



What Did You Learn?

Fill in the blank with the word that best fits.

canals   echo   echolocation   electric sense
infrared vision   internal senses   phototropism

include hunger, thirst, and pain

_____

when a sound wave returns to the
source of the sound

_____

some animals use this to navigate,
communicate, and find food

_____

the use of an electric charge to
move and survive

_____

curved tunnels inside the ears

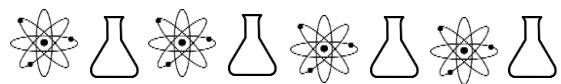
_____

the ability of a plant to grow
toward the sun

_____

useful for seeing at night

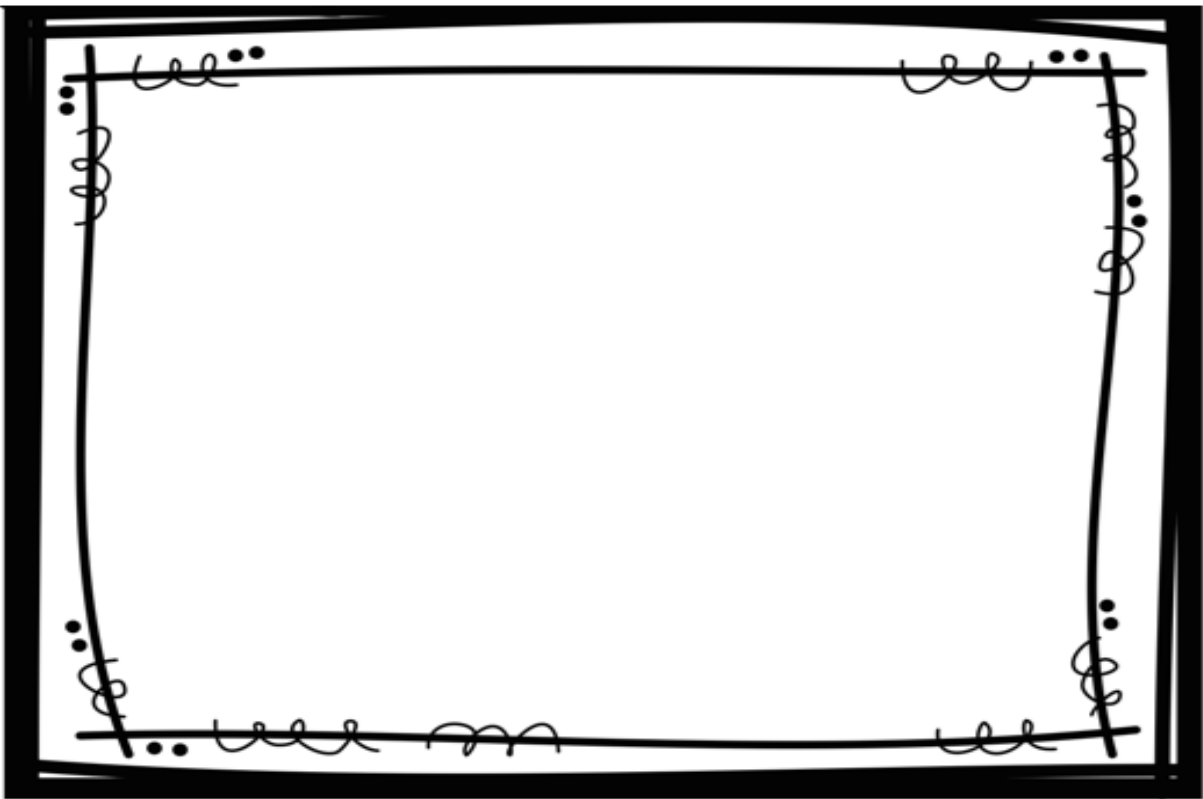
_____

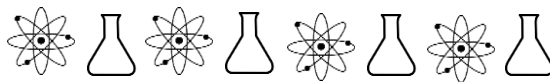


Prokaryotic and Eukaryotic

Use this sheet to record the differences (on the lines) and similarities (in the box) of prokaryotic and eukaryotic cells.

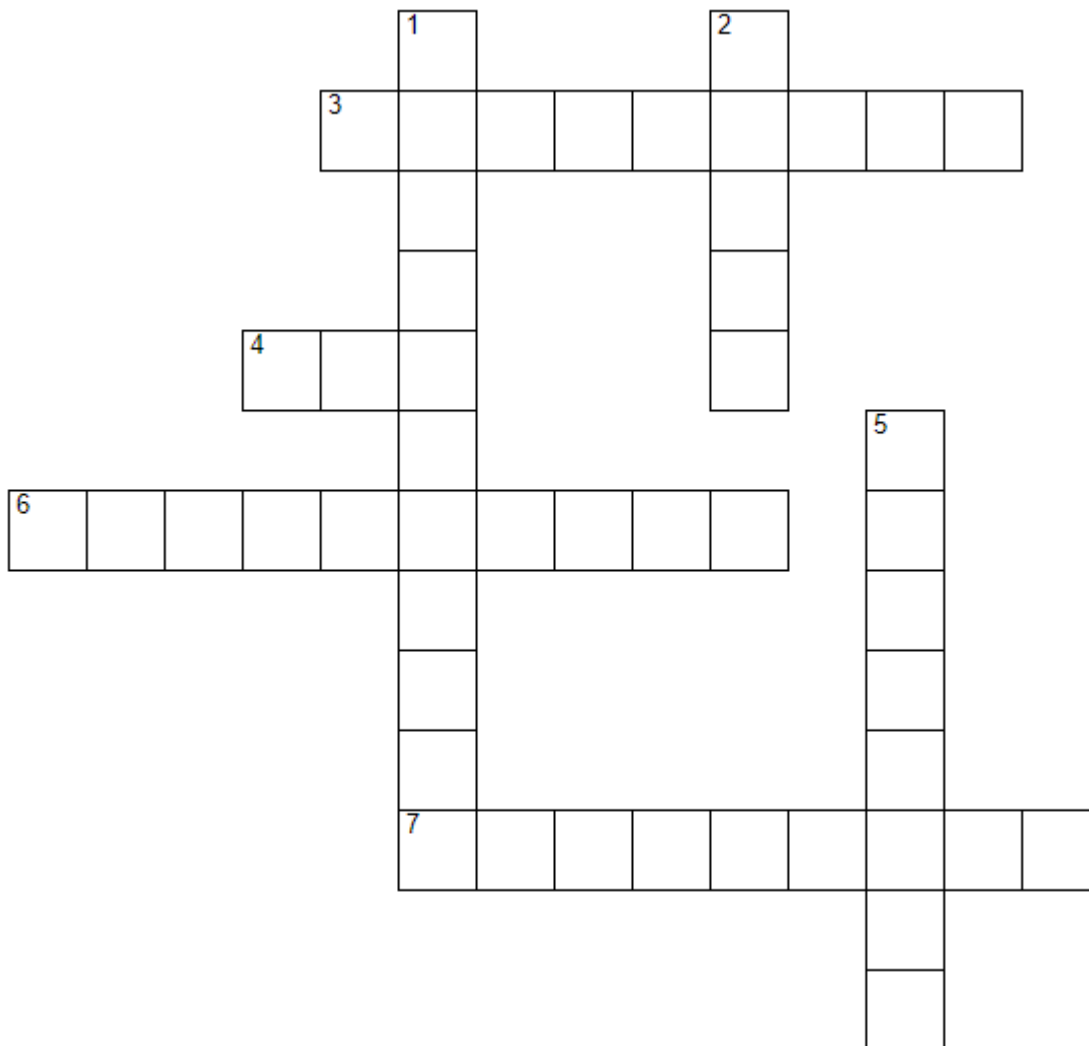
Prokaryotic	Eukaryotic





What Did You Learn?

Use the clues to fill in the crossword puzzle.

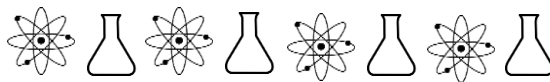


Across:

3. small structures inside a cell with a specific job
4. the instructions for making everything an organism needs for survival
6. type of cell that contains organelles
7. gooey fluid that fills up a cell

Down:

1. type of cell found in bacteria
2. building blocks
5. nutrients, water, and air enter and exit a cell through this



What Did You Learn?

Answer the following questions about the chapter you read. Fill in the bubble next to the correct answer.

The covering that surrounds the cell and protects it is known as what?

- ☐ cytoplasm
- ☐ DNA
- ☐ membrane

Which type of cell has organelles?

- ☐ prokaryotic
- ☐ eukaryotic
- ☐ both

Which type of cell reacts to changes in the environment?

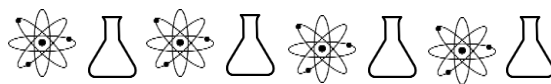
- ☐ prokaryotic
- ☐ eukaryotic
- ☐ both

Which type of cell is found in the bacteria kingdoms?

- ☐ prokaryotic
- ☐ eukaryotic
- ☐ both

Which of these is in order from largest to smallest?

- ☐ kingdom, population, tissue, organ, organism, cell
- ☐ kingdom, tissue, organism, population, organ, cell
- ☐ kingdom, population, organism, organ, tissue, cell
- ☐ kingdom, organism, population, tissue, organ, cell



What Did You Learn?

Fill in the blank with the word that best fits.

biodiversity	cells	cytoplasm	eukaryotic
kingdom	organelles	organisms	prokaryotic
reproduction			

small structures inside cells that
have specific jobs

_____

make up everything inside your body

_____

populations are made up of individual

_____

making another of your own kind

_____

all the different kinds of life that exists

_____

type of cell found in bacteria

_____

largest grouping for living things

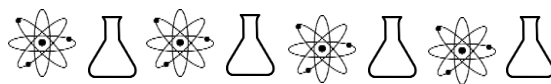
_____

gooey fluid that fills a cell

_____

type of cell found in animals

_____



What Did You Learn?

Reassemble the words by writing them on the lines.

organ	mitoch	ribo
ondria	nuc	tein
leus	some	elle
cyto	pro	plasm

_____	_____	_____
_____	_____	_____

Fill in the blank with the word that best fits.

RNA   ribosomes   DNA   nucleus   proteins

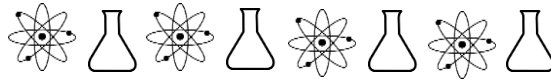
the boss of the cell _____

the office which contains the boss _____

these decode the message _____

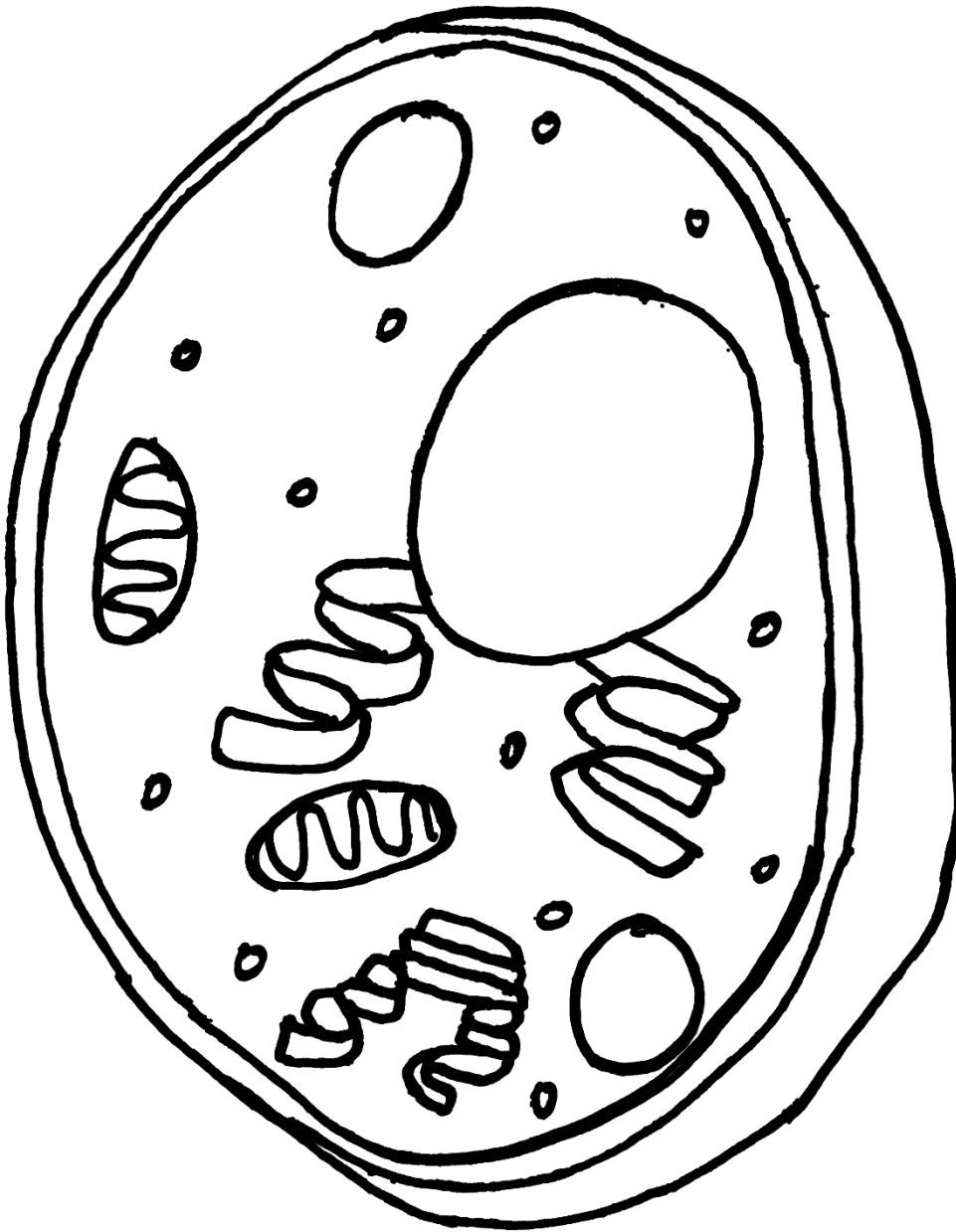
new messages read by organelles _____

the message sent into the cytoplasm _____



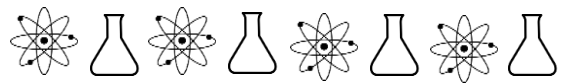
Animal Cell

Color the animal cell according to the key at the bottom.



Nucleus – red
Ribosomes – orange
ER – brown
Lysosome – green

Mitochondria - blue
Vacuole - purple
Golgi body - pink
Cytoplasm - yellow



Secret Message

Use the key to decode the message.

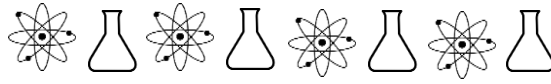
A	B	C	D	E	F	G	H	I	J	K	L	M

N	O	P	Q	R	S	T	U	V	W	X	Y	Z

_____

_____

_____



Unscramble

Unscramble the words below, and then write definitions for each on the lines.

LOBGDYOIG (2 wds.) _____

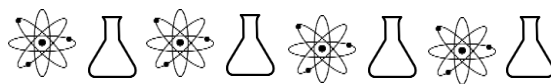
YHLHORLOCPL _____

ZMEEYNS _____

ALELCLWL (2 wds.) _____

THRLCOPLOAS _____

OLMSOSYE _____



Experiment Worksheet

Fill out this worksheet as you work through the experiment.

Question: _____

Hypothesis: _____

_____

Materials: _____

_____

Procedure: _____

_____

_____

_____

_____

Observations/data: _____

_____

_____

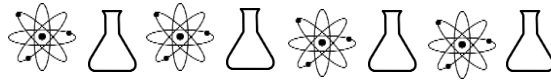
_____

_____

Conclusion: _____

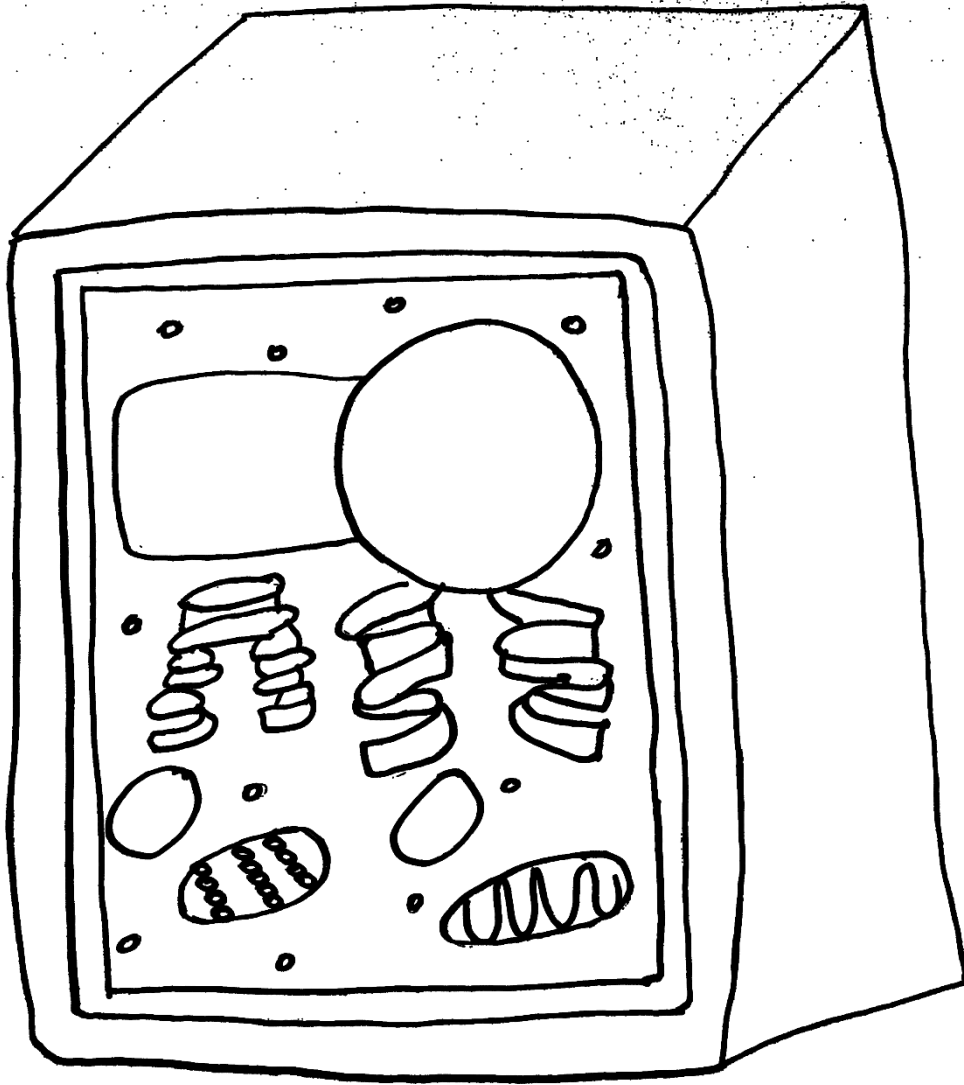
_____

_____



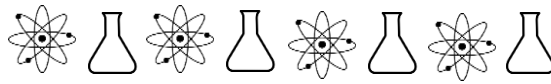
Plant Cell

Color the plant cell according to the key at the bottom.



Nucleus – red
Ribosomes – orange
ER – brown
Chloroplast – green

Mitochondria - blue
Vacuole - purple
Golgi body - pink
Lysosome - yellow



What Did You Learn?

Fill in the blank with the word that best fits.

cell wall   chlorophyll   chloroplast   Golgi body
lysosome   photosynthesis   vacuole

removes the cell of waste

---

organelle only found in plant cells

---

wraps proteins into a bundle

---

using sunlight, nutrients, and water
to make food

---

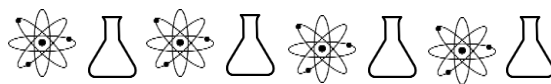
chemical that soaks up sunlight
to use for energy

---

stores extra water and nutrients

---

a stiff structure that surrounds the
cell and protects it



Fill in the Blanks

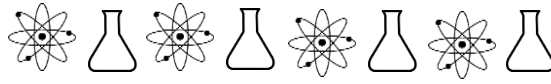
Fill in the blanks of the sentence using the words in the box.

bacteria   flagella   liquid   push   whip

The _____ is a long _____ that helps
to _____ a _____ through _____.

Fill in the blanks of this chart with a "yes" or "no."

	Plant cell	Animal cell	Bacteria cell
cell membrane	yes		yes
cell wall		no	yes
chlorophyll	yes		some
chloroplast		no	no
cytoplasm	yes	yes	
DNA	yes		yes
ER		yes	no
Golgi body	yes	yes	
lysosome		yes	no
mitochondria	yes		no
nucleus		yes	no
ribosome	yes	yes	
vacuole	yes		no



Unit Review

Fill in the blank with the word that best fits.

cytoplasm   DNA   Golgi body   lysosome
mitochondria   nucleus   ribosomes   vacuole

removes the cell of waste

---

contains the instructions

---

transport and packing station of the cell

---

the largest organelle in a cell

---

turns nutrients into energy

---

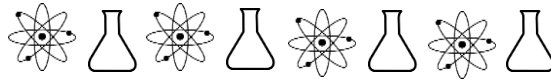
the warehouse of the cell

---

gel-like substance that fills a cell

---

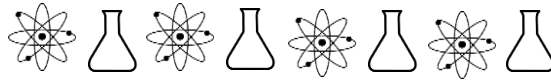
the decoders



Organelle Review

Gather objects to represent each of the organelles on the list.

Organelle	Function	Object selected
cell wall	protects plant/ bacteria cells	
chlorophyll	collects sunlight in plants	
ER	highway; sends messages	
flagella	helps bacteria cell move	
Golgi body	packages proteins	
lysosome	gets rid of waste	
mitochondria	makes energy for the cell	
nucleus	houses the DNA	
ribosome	decode; make proteins	
vacuole	stores water and nutrients	



Word Search

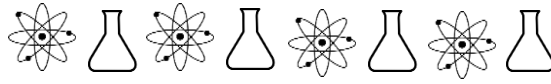
Find the immune system words in the word search.

C	E	L	B	I	W	N	G	O	Z	N	N	G	T	U	A	T
Z	M	O	N	D	E	B	L	T	O	O	N	K	Z	S	A	G
Q	C	Y	I	N	K	T	F	P	U	C	U	P	X	J	I	E
X	N	M	M	J	J	E	Y	Q	V	K	W	F	B	S	R	V
N	Z	O	M	Z	V	K	H	X	Z	P	I	T	D	H	E	N
A	R	A	U	V	Q	Z	T	V	W	G	E	I	I	Q	T	V
K	A	O	N	D	P	V	B	E	G	A	S	O	G	M	C	D
S	L	L	E	C	D	O	O	L	B	E	T	I	H	W	A	U
Y	A	O	S	T	D	Y	X	I	A	C	P	S	F	P	B	P
I	P	S	Y	H	L	X	V	S	O	B	Y	K	X	G	P	Q
W	K	V	S	Y	I	A	E	B	H	F	Z	I	G	E	E	L
B	F	C	T	Q	V	K	K	E	T	Z	O	N	P	G	O	N
C	Z	N	E	M	Y	Z	O	S	Y	L	A	B	N	O	P	U
P	J	U	M	M	C	H	O	M	F	N	V	S	R	Z	B	Z
Y	M	W	B	X	W	W	R	U	K	D	J	Y	F	U	V	L
M	W	B	X	Y	T	E	U	X	D	J	U	H	D	P	L	Y
O	U	F	W	F	U	J	R	M	Q	Z	J	H	G	E	L	U

bacteria
lysozyme

disease
skin

immune system
white blood cells



What Did You Learn?

Fill in the blank with the word that best fits.

allergy   antibiotics   lysozyme   immune system
infection   white blood cells

immune system over-working to
get rid of something

---

result when the immune system
misses bacteria

---

protects the body from things that
can hurt it

---

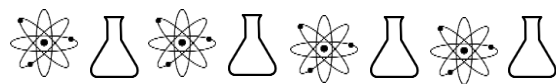
chemicals that attack bacteria

---

bacteria-destroying enzyme

---

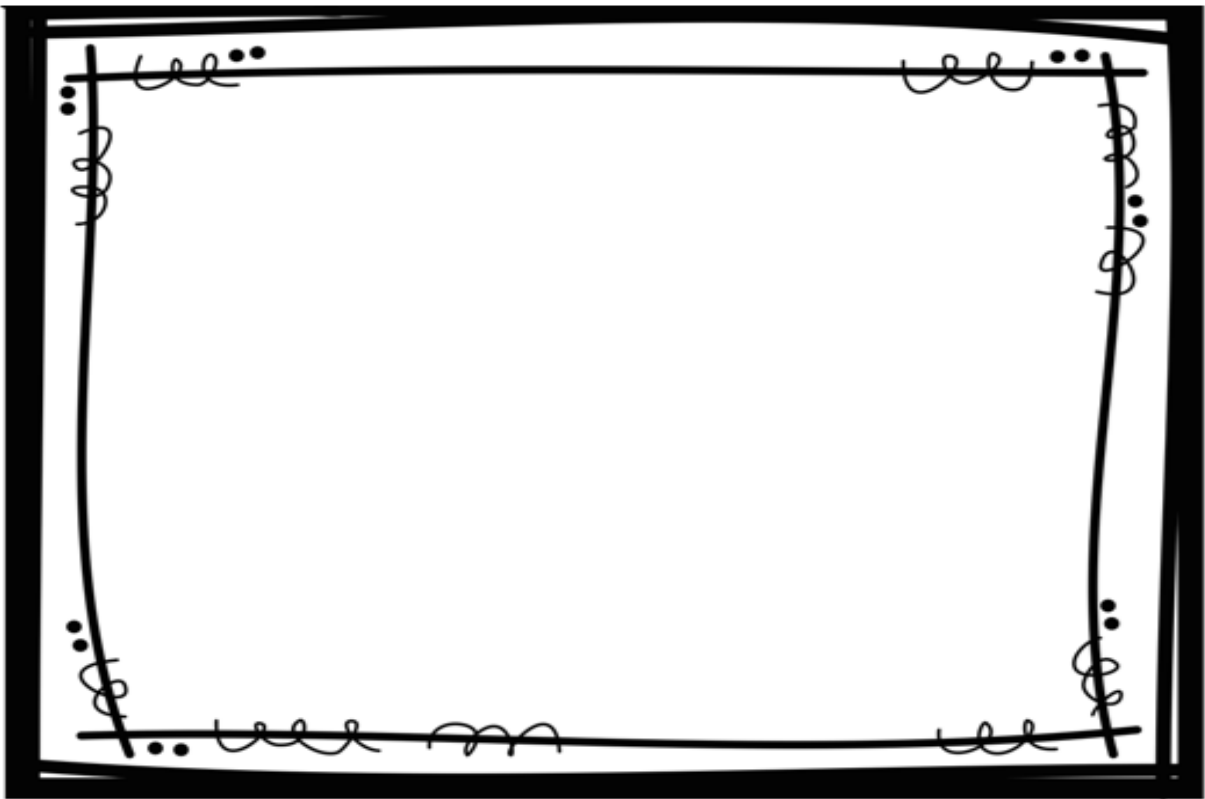
attack foreigners in the body

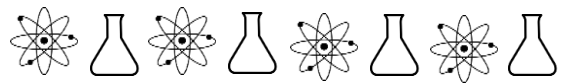


Red and White Blood Cells

Use this sheet to record the differences (on the lines) and similarities (in the box) of red and white blood cells.

Red blood cells	White blood cells

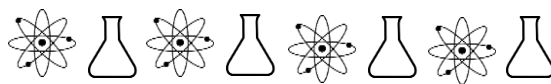




Data Chart

Use this sheet to record your findings.

Cup #	Contents	Prediction	Result
1	nothing		
2	meat		
3	antibacterial agent		
4	meat and antibacterial agent		



Unit Review

Fill in the blank with the word that best fits.

cell wall   chlorophyll   ER   eukaryotic   flagella
Golgi body   lysosome   mitochondria   nucleus
prokaryotic   vacuole

turns nutrients into energy

_____

single-celled organisms

_____

whip-like tail to help with movement

_____

surrounds and protects some cells

_____

contains the DNA

_____

uses sunlight to make food

_____

more complex cells

_____

bundles proteins

_____

gets rid of waste

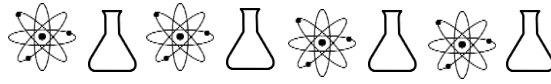
_____

sends protein messages to organelles

_____

stores extra water and nutrients

_____



Unit Review

Answer the following questions about the unit. Fill in the bubble next to the correct answer.

Which of these represents the boss and office of a cell?

- ☐ DNA and nucleus
- ☐ ER and ribosomes
- ☐ Golgi body and lysosome

Which of the following is true?

- ☐ prokaryotic cells are found in plants
- ☐ eukaryotic cells have organelles
- ☐ prokaryotic and eukaryotic cells have chlorophyll

Which of these surrounds an animal cell?

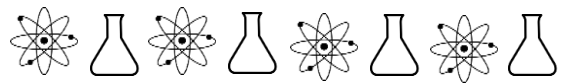
- ☐ flagella
- ☐ cell membrane
- ☐ cell wall

Which of these surrounds a plant cell?

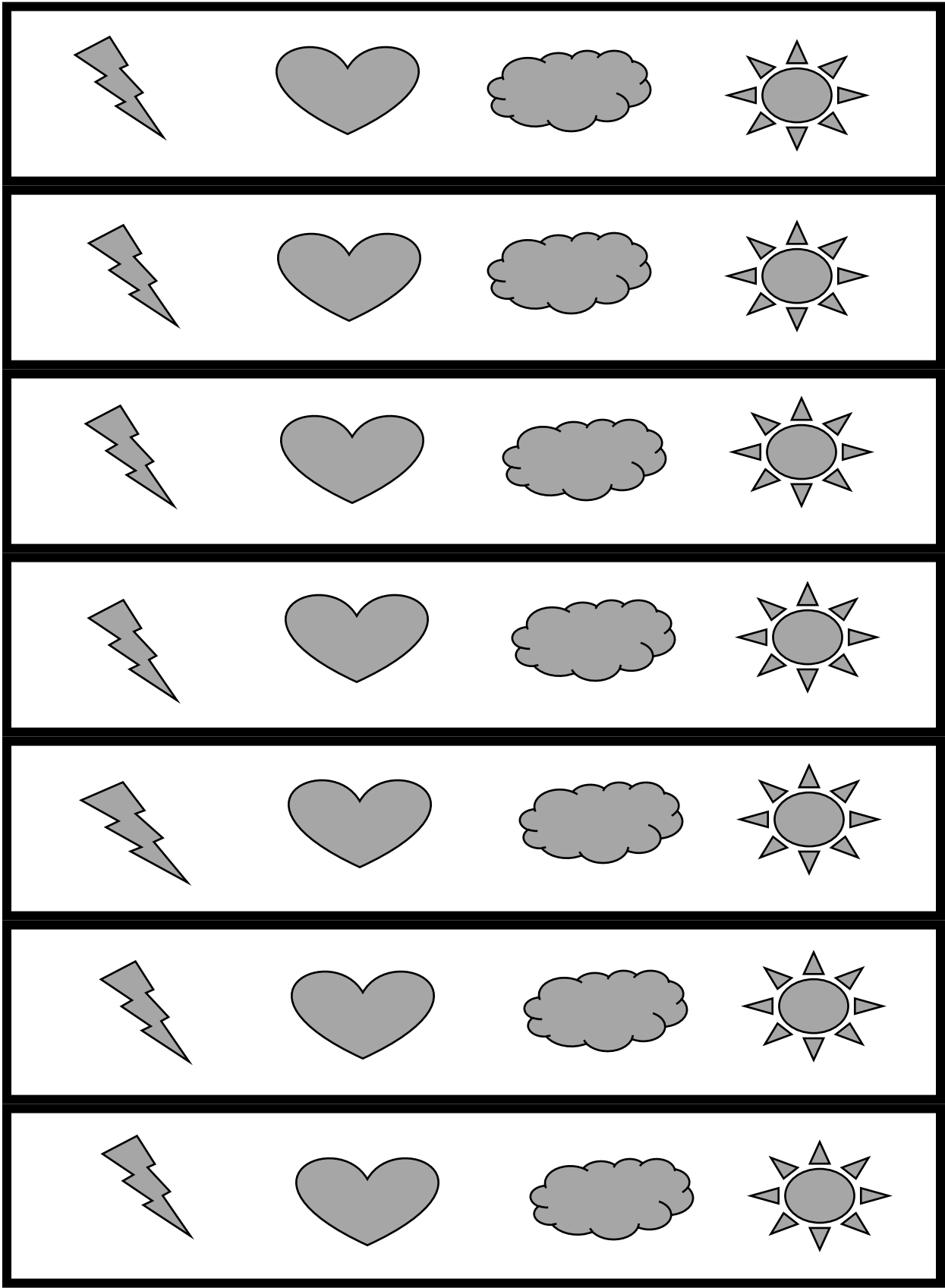
- ☐ flagella
- ☐ cell membrane
- ☐ cell wall

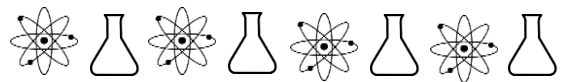
The gel-like substance that fills a cell is known as what?

- ☐ membrane
- ☐ mucus
- ☐ cytoplasm
- ☐ chloroplast

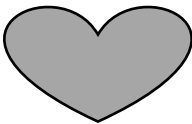
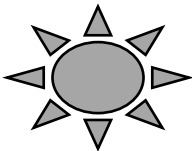
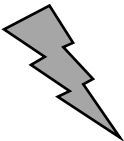
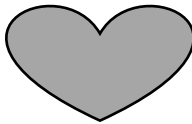
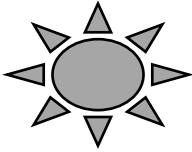
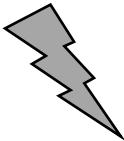
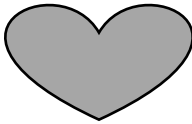
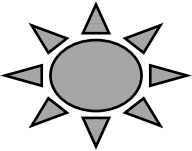
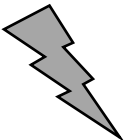
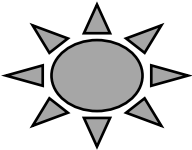
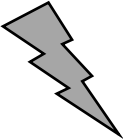
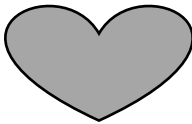
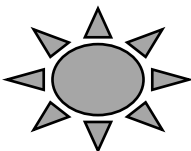
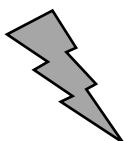
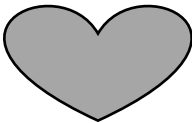
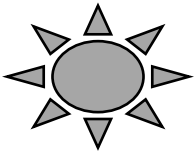
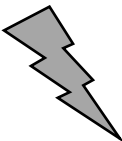
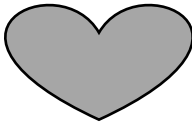
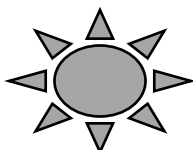
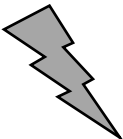


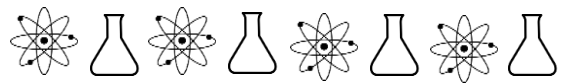
DNA



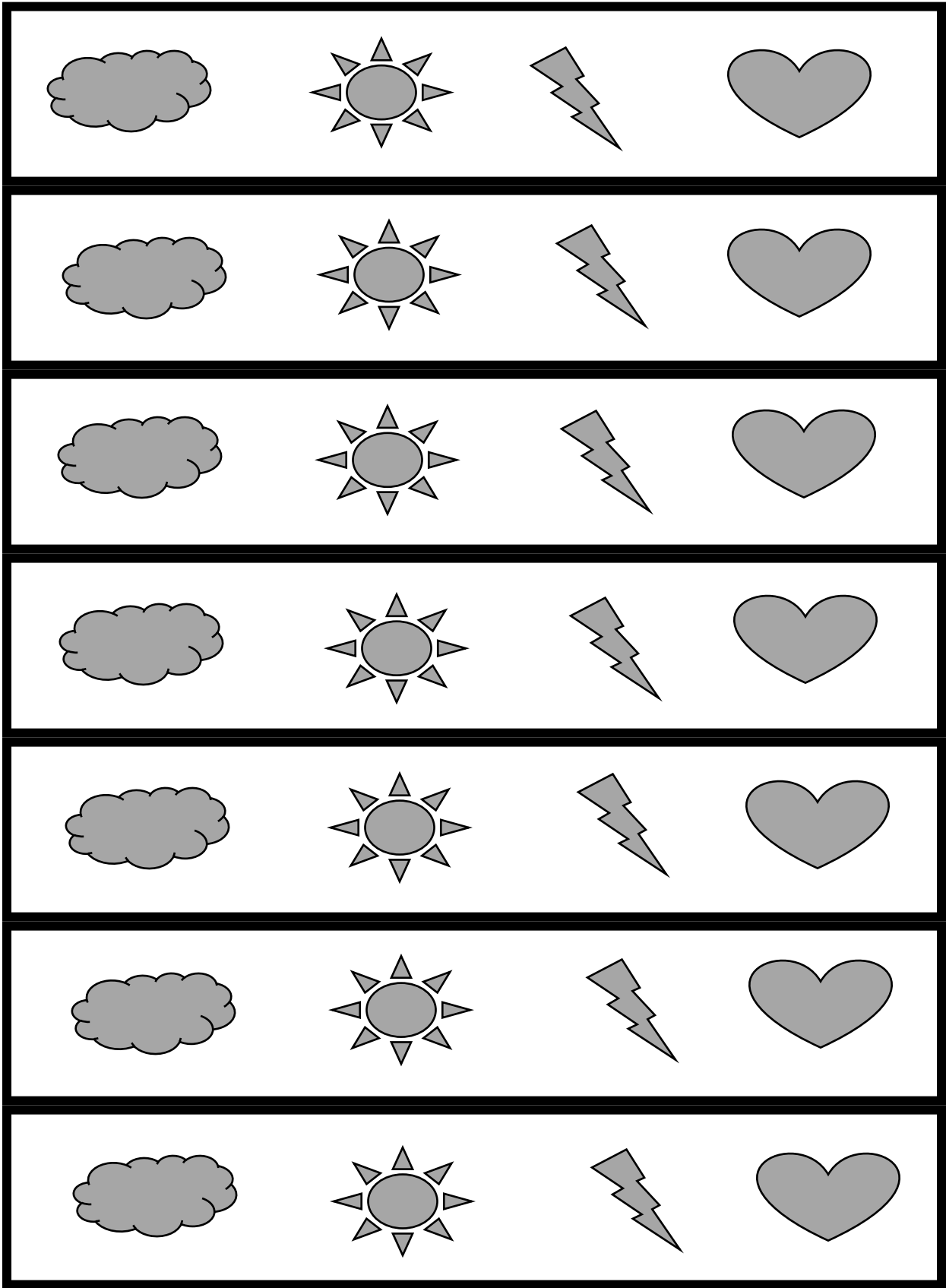


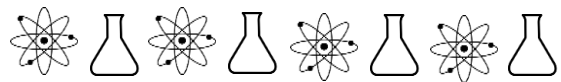
DNA

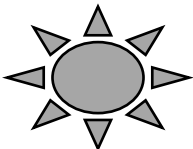
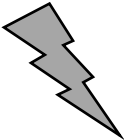
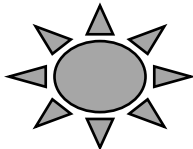
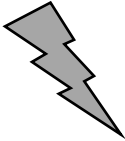
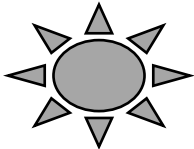
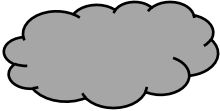
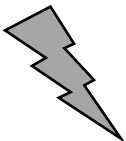
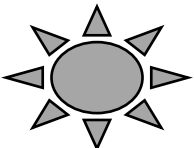
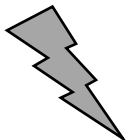
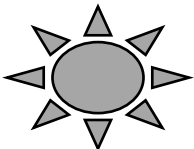
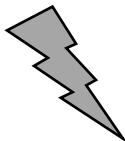
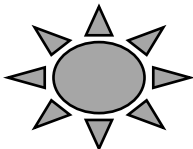
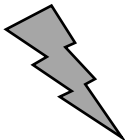
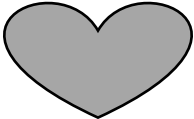
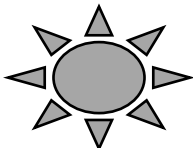
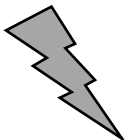


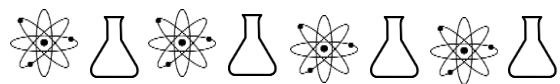
DNA





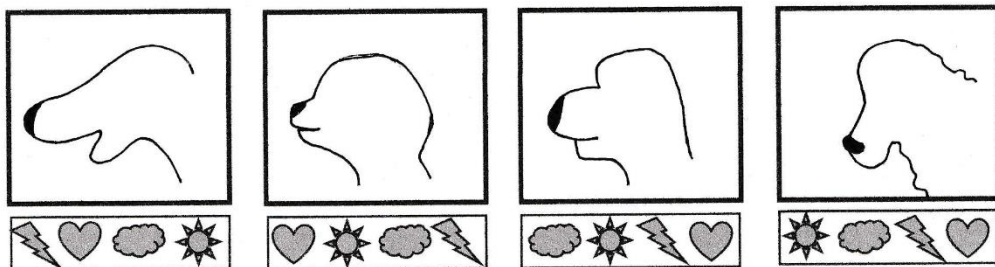
DNA

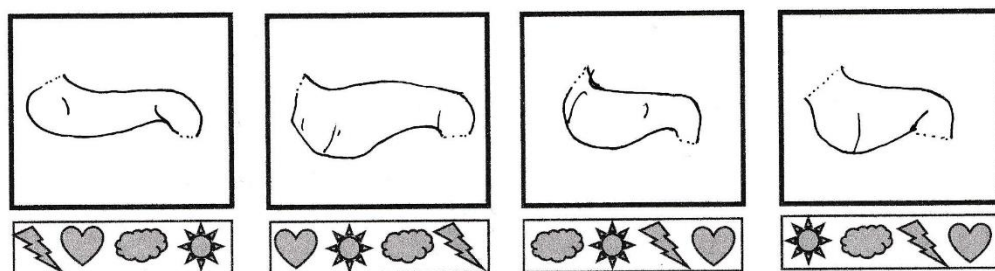


Dog Traits

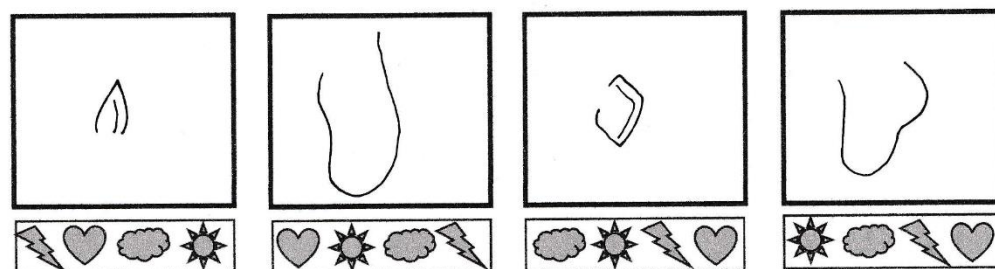
Head Shape



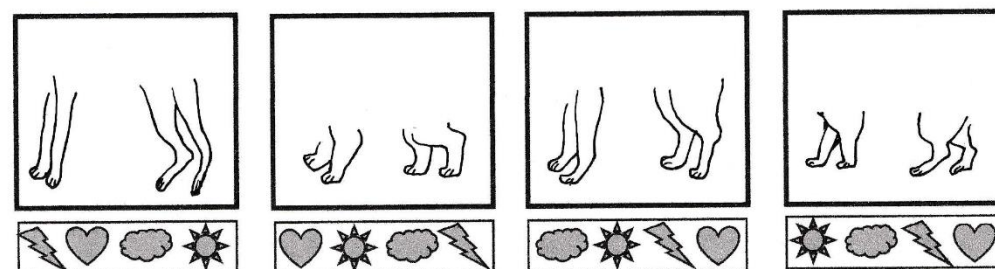
Body Shape

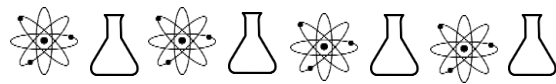


Ears



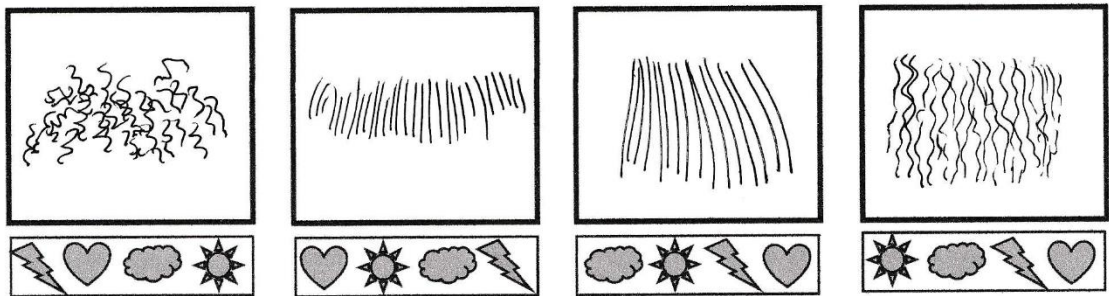
Legs



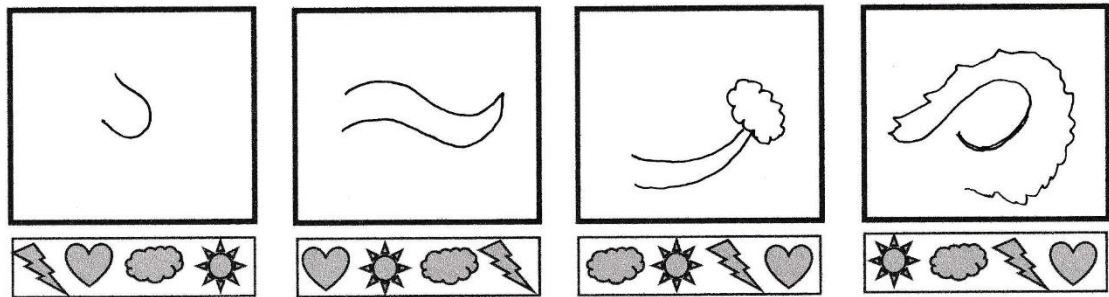


Dog Traits

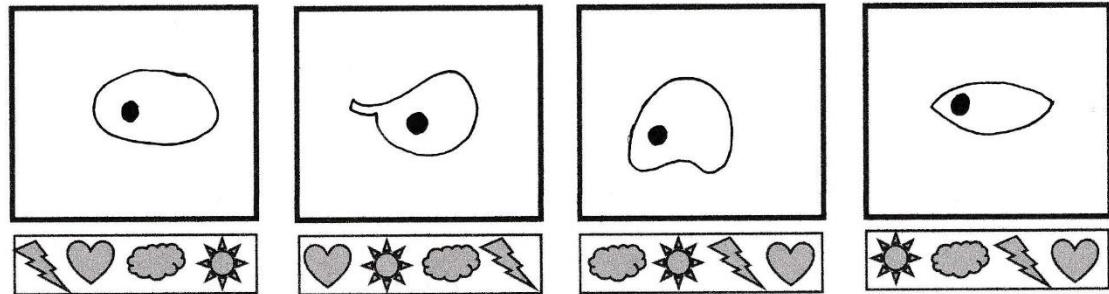
Hair



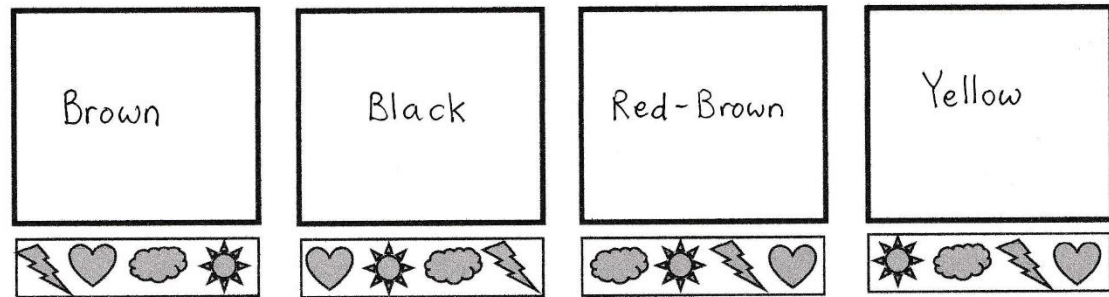
Tail

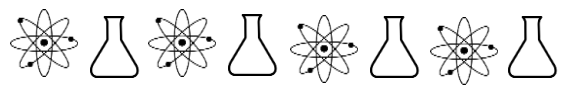


Eyes

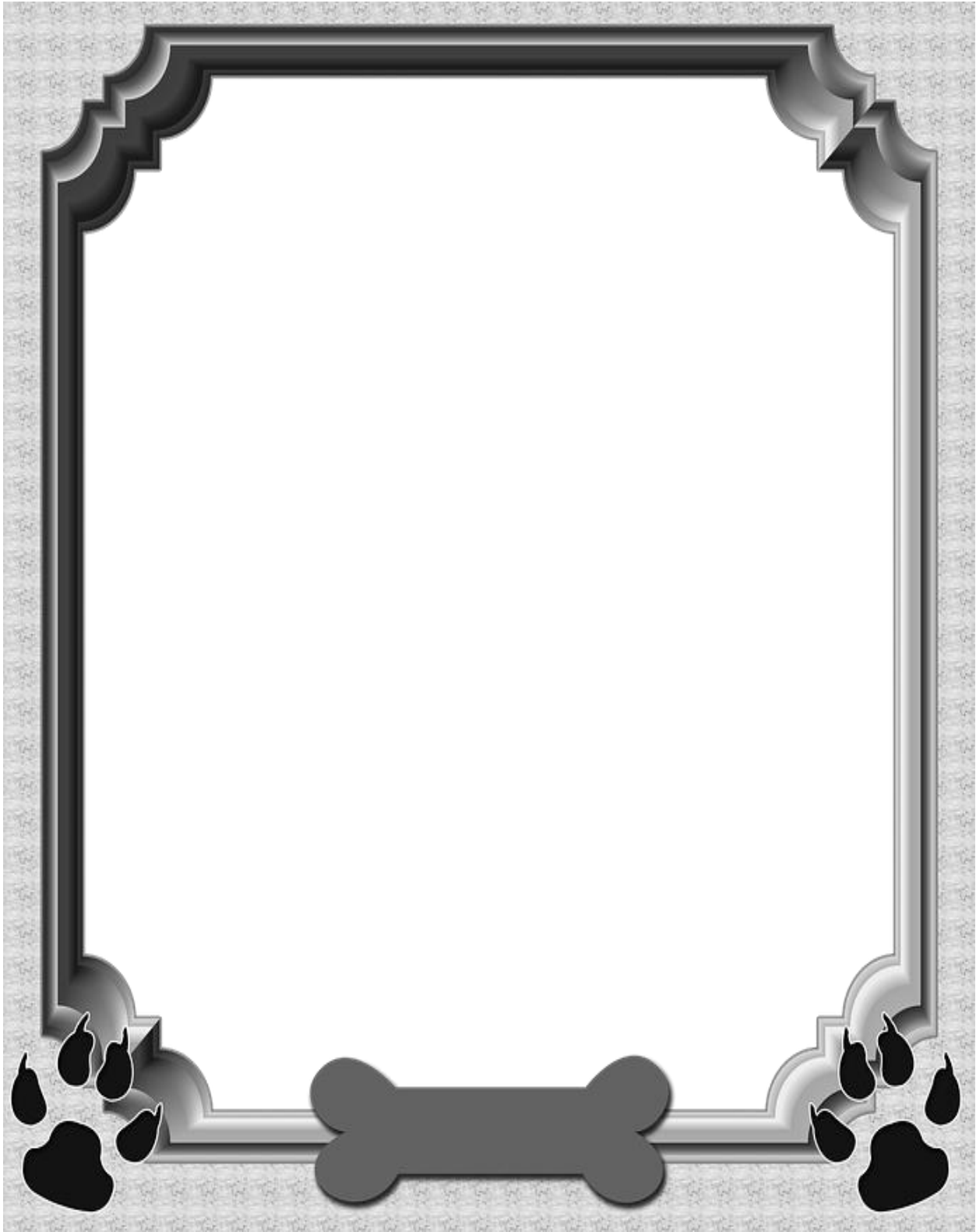


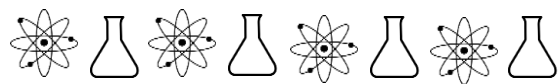
Coat





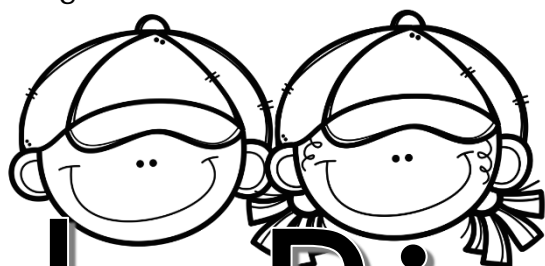
My Dog



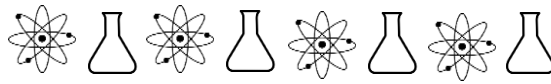


Body Bingo

This page is your body bingo board.

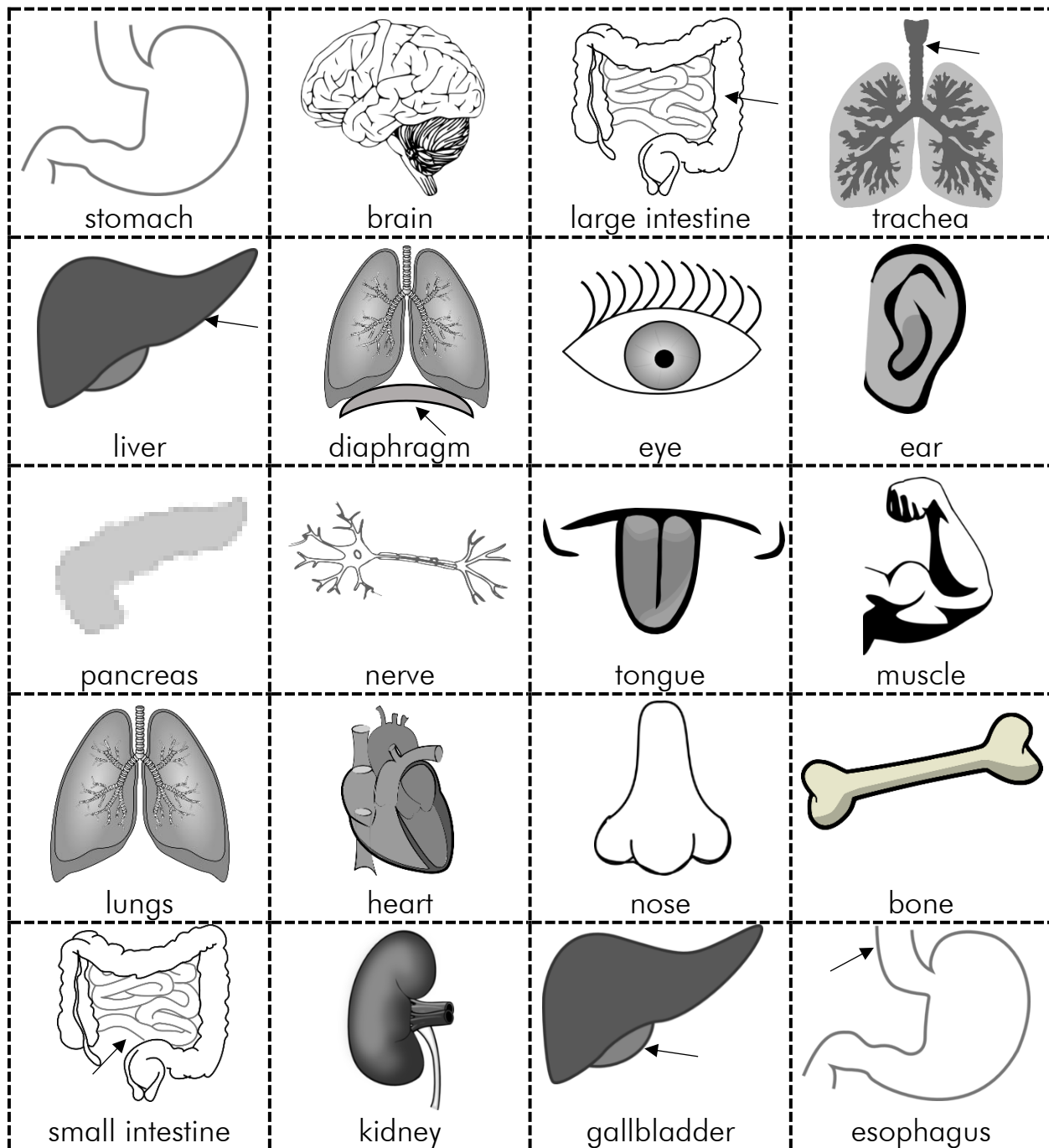


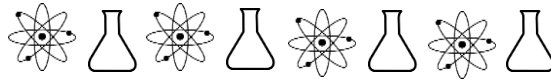
Body Bingo



Body Bingo

Cut out the pieces and arrange them on your board in a random order. There are more pieces than squares for variation purposes.

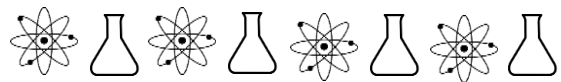




Body Bingo

Have someone read out the questions and see if you have the answer on your bingo board. Can you figure it out without the answer being given to you?

1. This part controls all your body systems. (brain)
2. This part mixes your food into a paste. (stomach)
3. This part leads from the mouth to the stomach. (esophagus)
4. This helps you digest sugars. (pancreas)
5. This organ has a part called the pupil. (eye)
6. This muscle allows the lungs to expand. (diaphragm)
7. Vitamins and minerals pass into blood here. (small intestine)
8. This body part moves your bones. (muscles)
9. If you "swallow wrong," your food tries to go here. (trachea)
10. This body part is made up of valves. (heart)
11. This organ keeps your blood clean. (liver)
12. This organ filters the liquid in your body. (kidney)
13. This organ stores bile. (gall bladder)
14. Taste buds can be found here. (tongue)
15. These transfer oxygen from the air to your blood. (lungs)
16. This organ removes extra water from your food. (large intestine)
17. This organ includes the cochlea. (ear)
18. These send sensory messages to your spinal cord. (nerves)
19. This gives your body structure and support. (bone)
20. This body part is responsible for smell as well as taste. (nose)

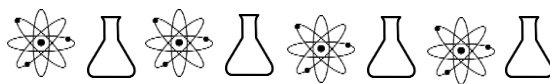


Observation Sheet

Use this sheet to record your observations.

Plants	Things that need plants





Photosynthesis

Fill in the blanks.

Gas produced by factories,
vehicles, and humans exhaling

_____



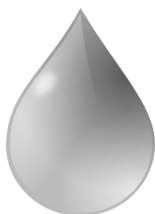
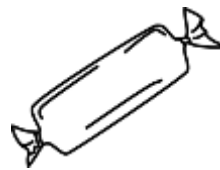
Energy source; comes from
the sun

_____



Soaked up through the roots;
carries nutrients

_____



Tree produces this to
use as its food

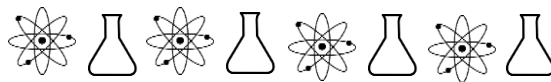
_____



Tree produces this gas
humans need to survive

_____





Experiment Worksheet

Fill out this worksheet as you work through the experiment.

Question: _____

Hypothesis: _____

_____

Materials: _____

_____

Procedure: _____

_____

_____

_____

_____

Observations/data: _____

_____

_____

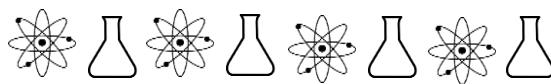
_____

_____

Conclusion: _____

_____

_____



Light and Water

Fill out this worksheet as you work through the experiment.

Plant in the dark

What I think will happen: _____

_____

What actually happened: _____

_____

Plant without water

What I think will happen: _____

_____

What actually happened: _____

_____

Plant with light and water

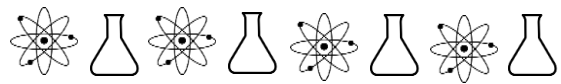
What I think will happen: _____

_____

What actually happened: _____

_____

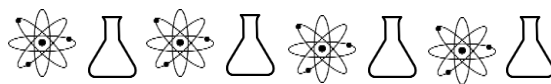




Plant Categories

Write or draw as many examples of you can think of for each category.

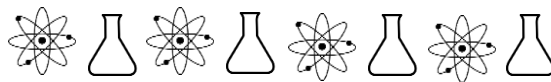
Roots	Seeds	Leaves
Fruits	Flowers	Stems



Tree Observation

Sit quietly near your tree. Take notes on your observations.

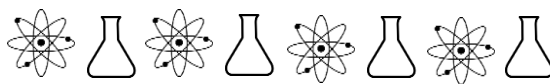
	Looking What living things do you see in and near your tree?
	Listening Do you hear animals playing or singing in the tree? Do you hear wind moving leaves or branches?
Draw the tree. Use a tape measure to record the measurement around the tree. _____	
Make a rubbing of the bark.	Touching Is the bark smooth or rough? Are the leaves soft or prickly?
Make a rubbing or trace a leaf.	Smelling What does the bark smell like? The leaves? Are there flowers on the tree?
What season is it now? What kind of tree are you observing?	Any other observations? Has the tree changed since the previous season?



Tree Observation

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What season is it now? What kind of tree are you observing?	Any other observations? Has the tree changed since the previous season?



Scavenger Hunt

Use this page for your scavenger hunt if it is currently fall.

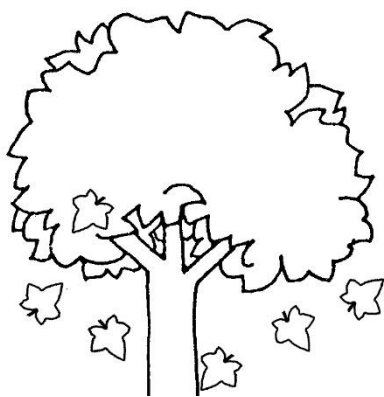
Fall



Look for these:

-  A falling leaf
-  A crawling insect
-  A bird
-  3 different color leaves
-  A seed
-  A flying insect
-  Animal tracks

Colors found: _____



Listen for these:

-  Something moved by the wind
-  Leaves crunching
-  An animal's call
-  An insect

What else do you hear?

Touch these:

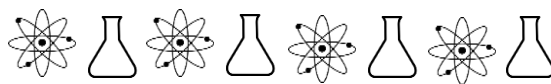
-  A crunchy, crinkly leaf
-  A smooth rock
-  Tree bark

What did it feel like?

Smell these:

-  Campfire
-  Pine cones

What else do you smell?



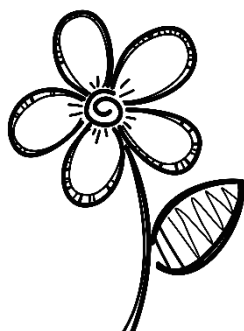
Scavenger Hunt

Use this page for your scavenger hunt if it is currently spring.

Spring

Look for these:

- * Mud
- * A bird
- * A small wildflower
- * Weeds
- * A crawling insect
- * New leaves on a tree
- * A bird's nest
- * A tall wildflower
- * A worm
- * A flying insect



Touch these:

- * A warm, sunny spot
- * A shady, cool spot
- * Flower petals
- * A smooth rock
- * Wet mud
- * Tree bark

What did it feel like?

Listen for these:

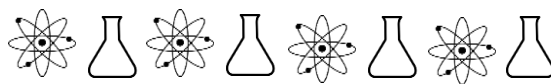
- * Something moved by the wind
- * A bird's song/call
- * An animal's call
- * An insect

What else do you hear?

Smell these:

- * A flower
- * Grass

What else do you smell?



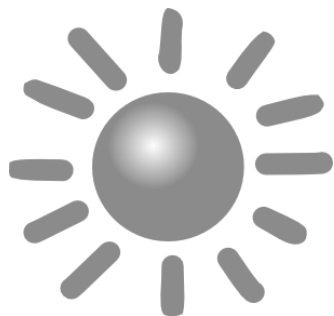
Scavenger Hunt

Use this page for your scavenger hunt if it is currently summer.

Summer

Look for these:

- ☀️ A bird flying
- ☀️ Fruit or berries
- ☀️ A crawling insect
- ☀️ Something red: _____
- ☀️ Something green: _____
- ☀️ A bird walking
- ☀️ Mushroom
- ☀️ A flying insect



Touch these:

- ☀️ Something hot from the sun
- ☀️ A smooth rock
- ☀️ Somewhere cool and shady
- ☀️ Tree bark

What did it feel like?

Listen for these:

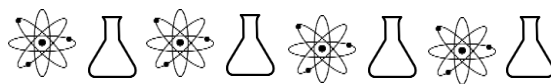
- ☀️ A flying insect
- ☀️ Something moved by the wind
- ☀️ An animal's call

What else do you hear?

Smell these:

- ☀️ A flower
- ☀️ Grass

What else do you smell?



Scavenger Hunt

Use this page for your scavenger hunt if it is currently winter.

Winter



Look for these:

- ❄️ Animal tracks
- ❄️ An acorn or pinecone
- ❄️ Berries on a plant
- ❄️ Trees with no leaves
- ❄️ A bird
- ❄️ A feather
- ❄️ Something with thorns
- ❄️ Trees with a few leaves



Listen for these:

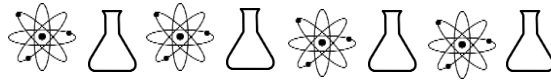
- ❄️ An animal's call
- What animal did you hear?
- ❄️ Something moved by the wind
- What else do you hear?

Touch these:

- ❄️ Something wet
- ❄️ A smooth rock
- ❄️ Smooth tree bark
- ❄️ Rough tree bark
- ❄️ A pinecone

Smell these:

- ❄️ Hot cocoa!
  - ❄️ A crackling fire
- What else do you smell?



Soil Observations

Fill out this worksheet as you observe your soil.

I found in the soil: _____

_____

_____

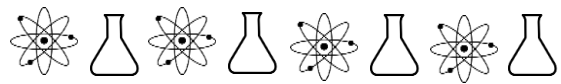
I think that in the soil there might also be: _____

_____

_____

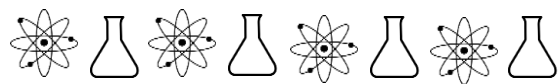
Measure how deep your soil is: _____

Draw a picture of your soil or the things you found in it.



Soil Square Observations

Use the boxes to record your observations.



Soil Substitute Observations

Use the boxes to record your observations.

1.	2.	3.
4.	5.	6.
7.	8.	9.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

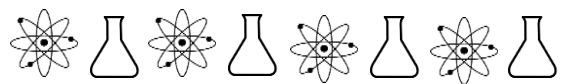
8. _____

9. _____

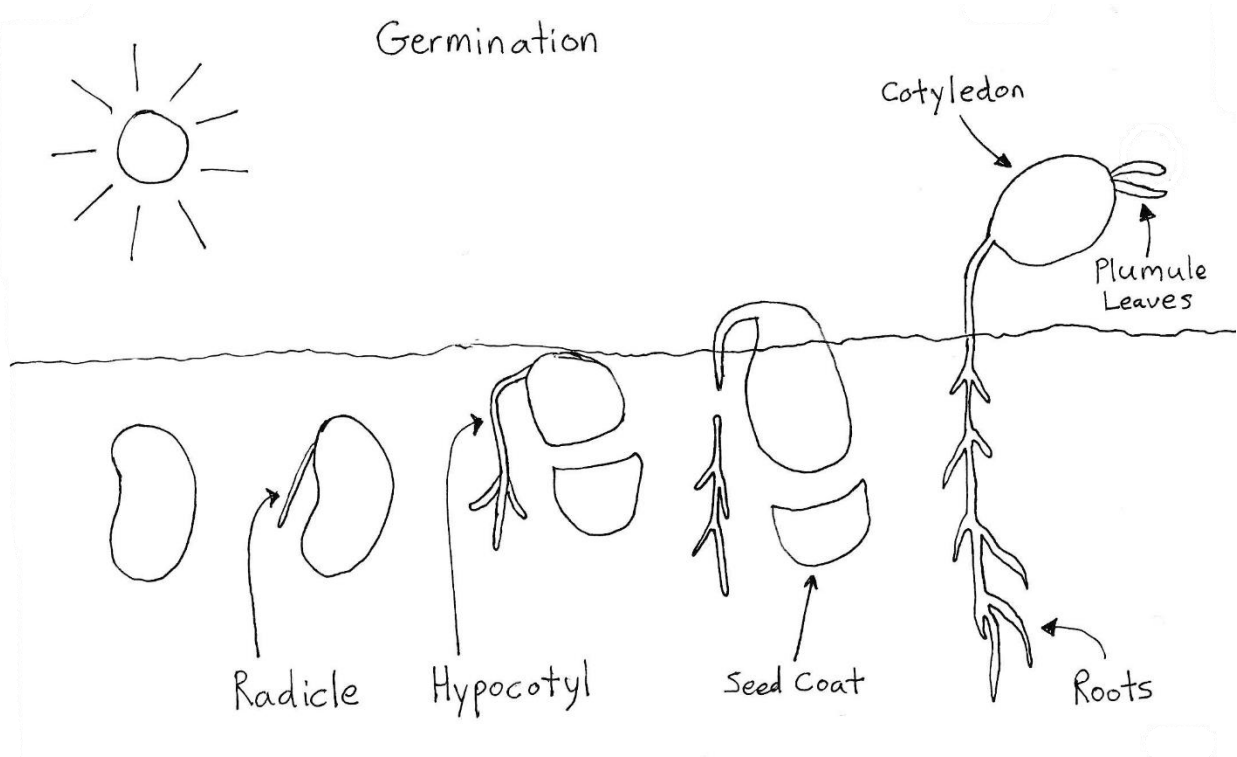
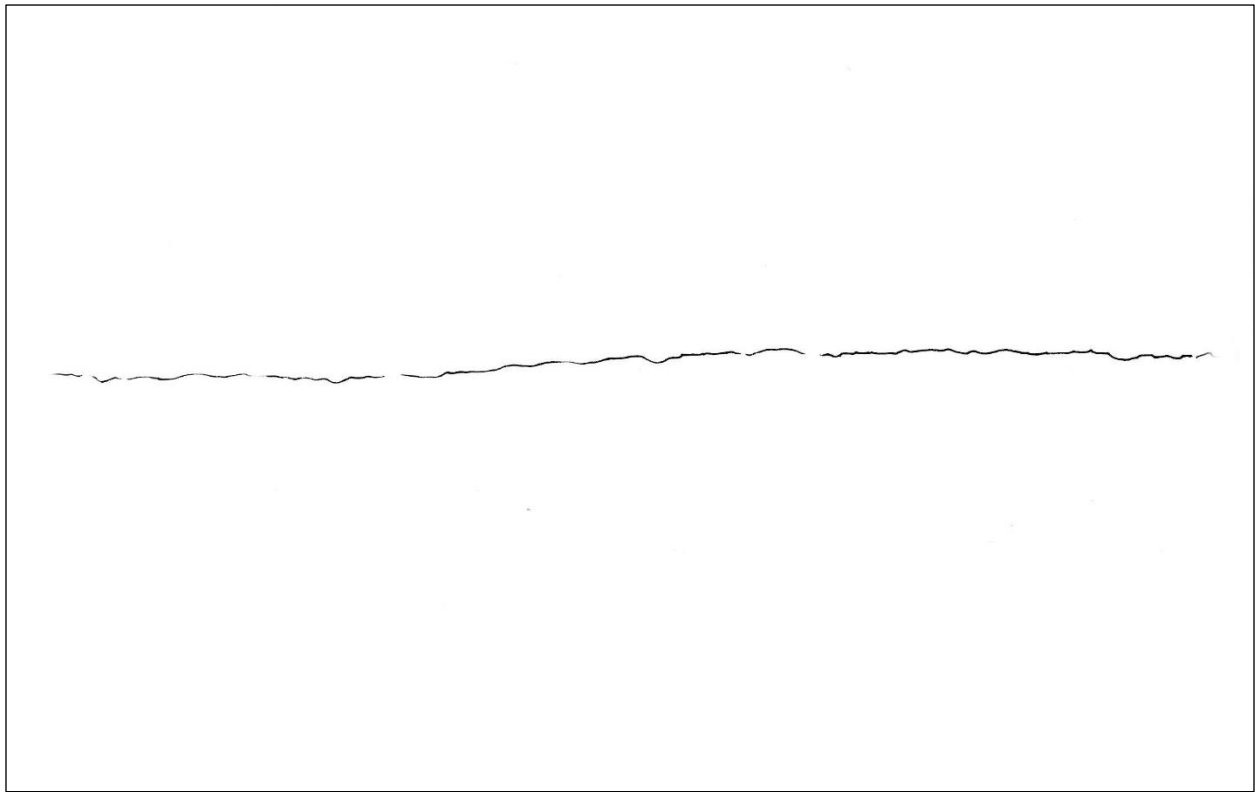
Germination Observations

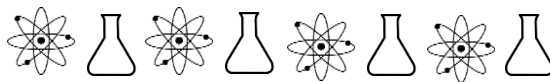
Use the boxes to record your observations.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.



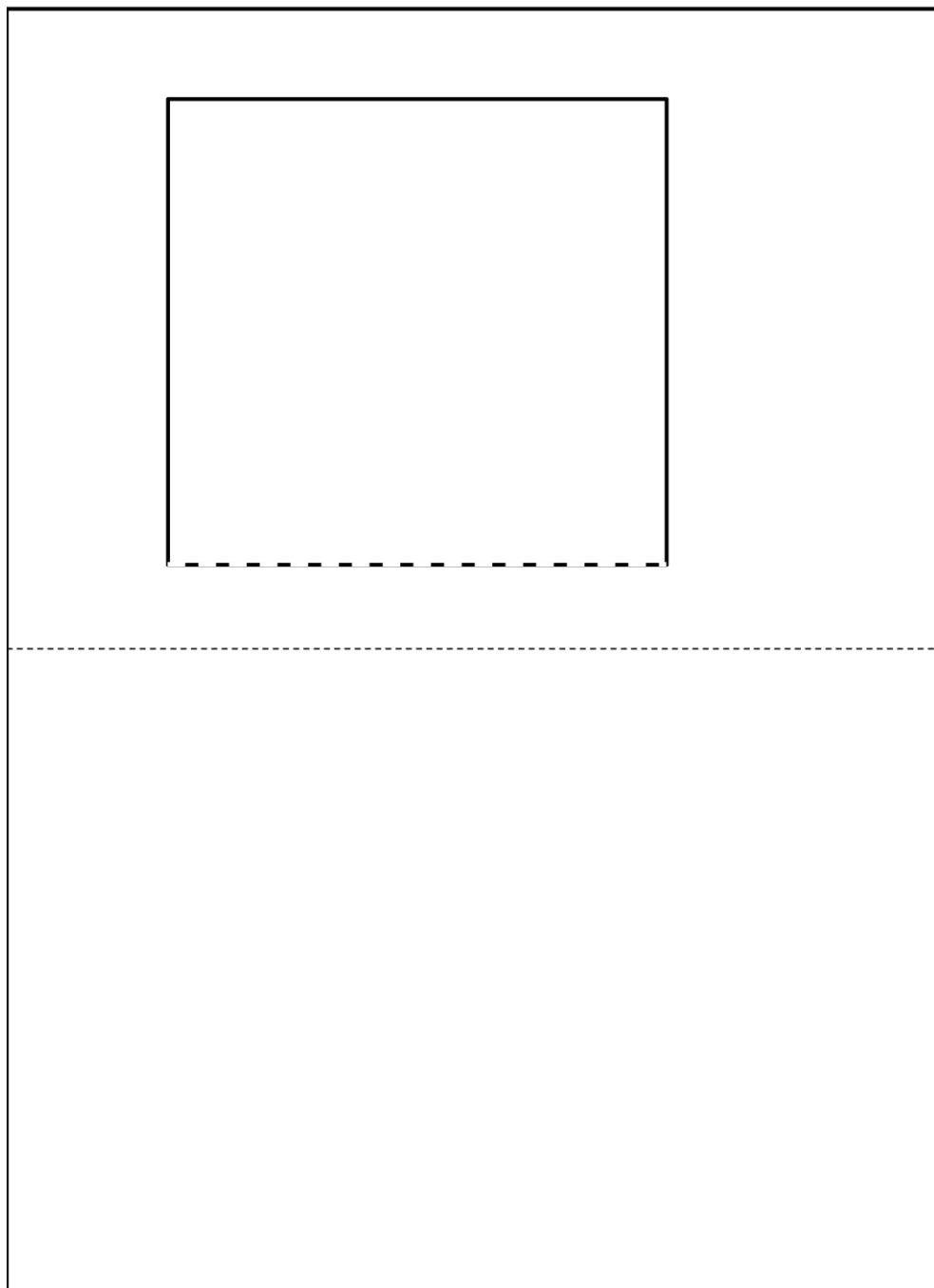
Germination





Minibook Template

Use this template to make your minibook.



COVER

4-Window Minibook

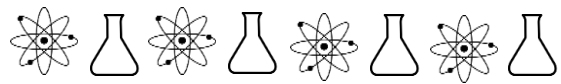
Valley fold

Mountain fold

Before cutting,
lightly number the
pages with a
pencil.

Cut on solid lines.
Fold on dotted
lines.

BACK

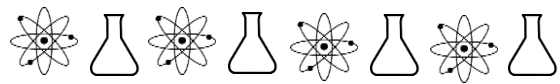
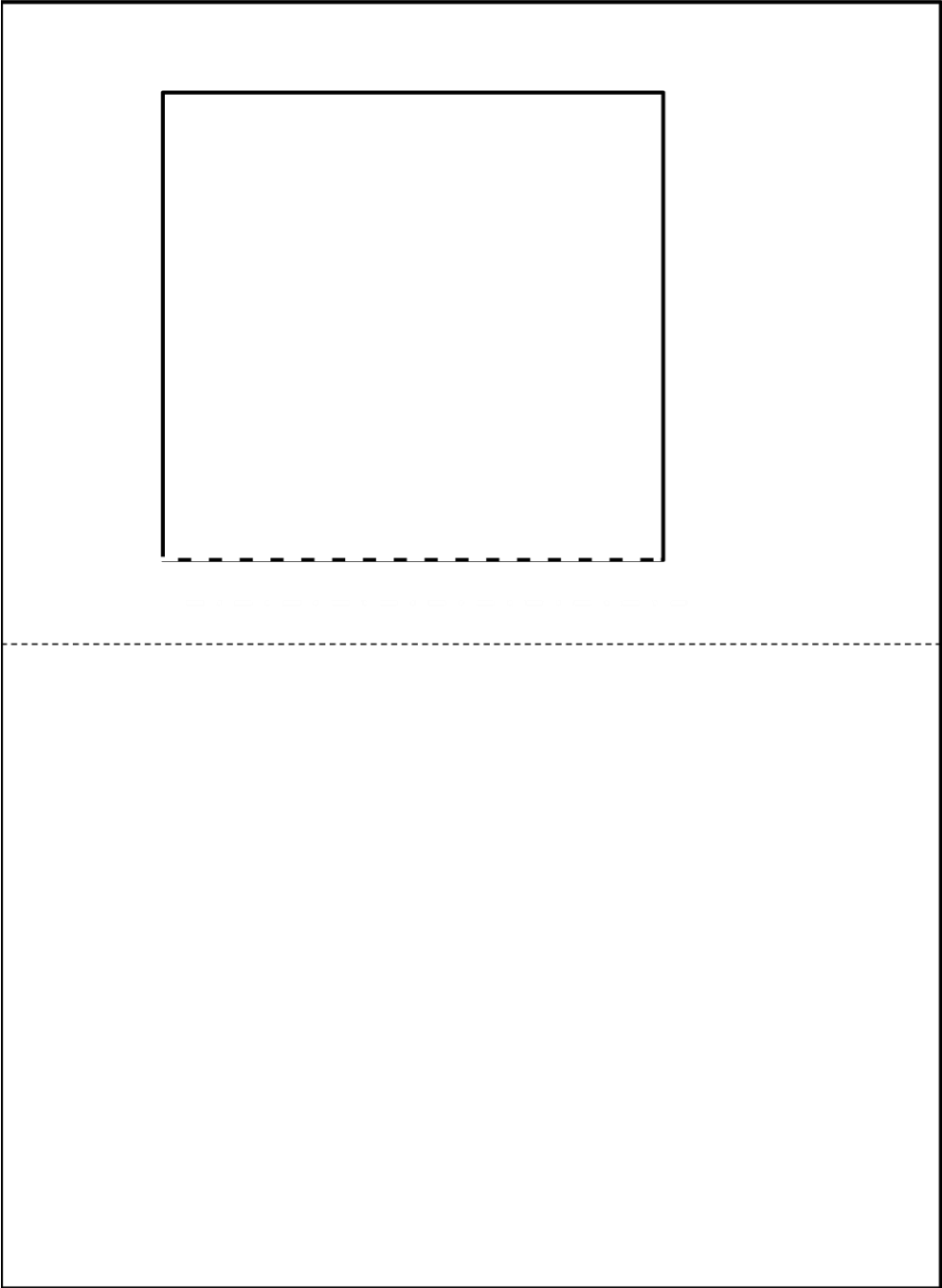


PAGE 6

Glue this sheet
to the inside of
cover/back.

Valley fold

PAGE 1

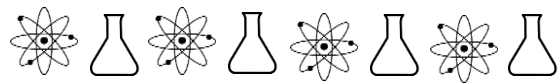


PAGE 2

Valley fold

Mountain
fold

PAGE 5

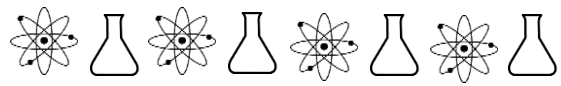


PAGE 4

Glue this sheet
to the inside of
pages 2/5.

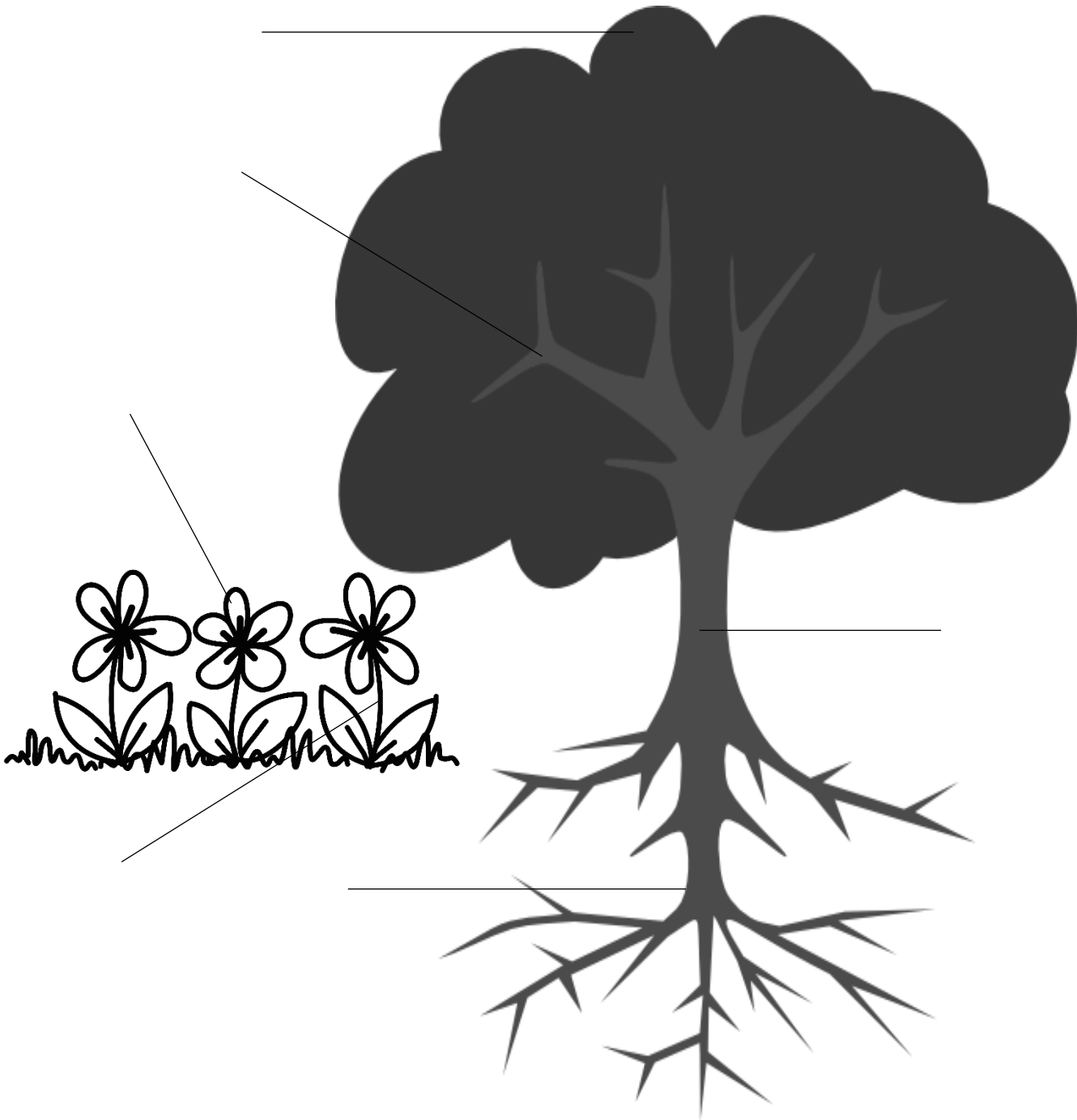
Valley fold

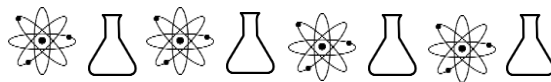
PAGE 3



Plant Parts

Label the plant parts.



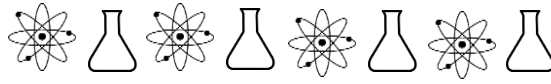


Does it Come from a Plant?

Do the following come from plants? Fill in the chart with yes or no. If the item does come from a plant, name the plant it comes from.

Object	Yes or No/ Name of Plant
Paper clip	
Tea/tea bag	
Rope	
Knife	
Cotton ball	
Thread	
Toothpicks	
Chopsticks	
Paper	
Marble	





Leaf Rubbings

Use this page for your first leaf rubbing.

Height at the tallest point: _____

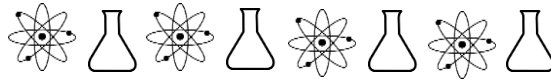
Width at the widest point: _____

Color: _____

Texture (How does it feel?): _____

Any other observations: _____

_____



Leaf Rubbings

Use this page for your second leaf rubbing.

Height at the tallest point: _____

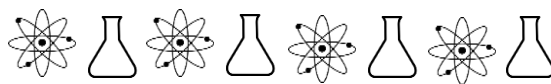
Width at the widest point: _____

Color: _____

Texture (How does it feel?): _____

Any other observations: _____

_____



KWL Chart

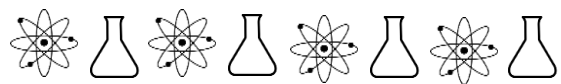
Fill in the sections of this chart as you work through the project.

Topic: _____

What I Know

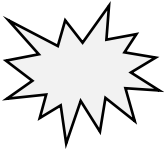
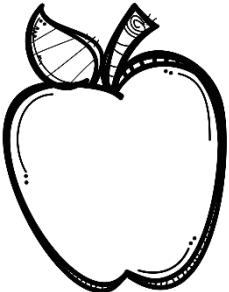
What I Want to Know

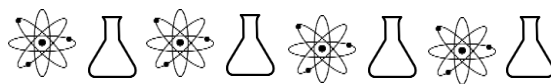
What I Learned



Reproduction Cartoon

Draw the process from pollen to fruit.

 Pollen
 Fruit



KWL Chart

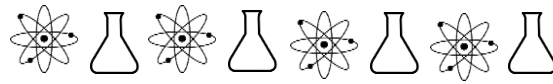
Fill in the sections of this chart as you work through the project.

Topic: _____

What I Know

What I Want to Know

What I Learned



Word Search

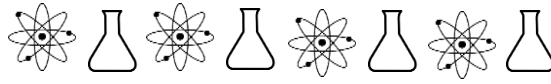
Find the plant words in the word search.

P	H	V	P	T	C	L	A	G	S	N	F	N	L
X	H	W	D	B	O	O	O	P	R	H	G	O	A
V	W	O	D	Y	Q	I	N	E	L	L	T	N	W
W	A	N	T	C	S	B	F	I	E	I	Y	F	J
J	V	S	A	O	H	Y	S	Y	F	E	F	L	C
N	L	Y	C	A	S	E	X	D	V	E	S	O	Q
Q	L	G	K	U	M	Y	W	L	R	K	R	W	B
T	E	P	Z	O	L	G	N	B	I	V	W	E	O
I	X	P	Z	P	F	A	Y	T	S	X	L	R	E
H	T	I	E	H	H	A	R	S	H	J	E	I	G
P	H	H	D	C	W	F	Y	E	E	E	E	N	C
R	T	M	O	S	S	B	J	C	N	B	S	G	O
V	Q	W	U	W	F	P	O	Q	K	P	X	I	F
M	A	U	T	O	T	R	O	P	H	I	C	N	S

autotrophic
moss
rhizomes

conifer
nonflowering
vascular

fern
photosynthesis



What Did You Learn?

Fill in the blank with the word that best fits.

autotrophic   conifer   fern
moss   nonvascular   rhizomes

an example of a non-flowering,
vascular plant

---

doesn't produce flowers, but does
produce seeds

---

make their own food

---

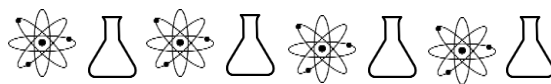
areas on a root where a new plant
can grow

---

cannot move water from roots to
stem to leaves

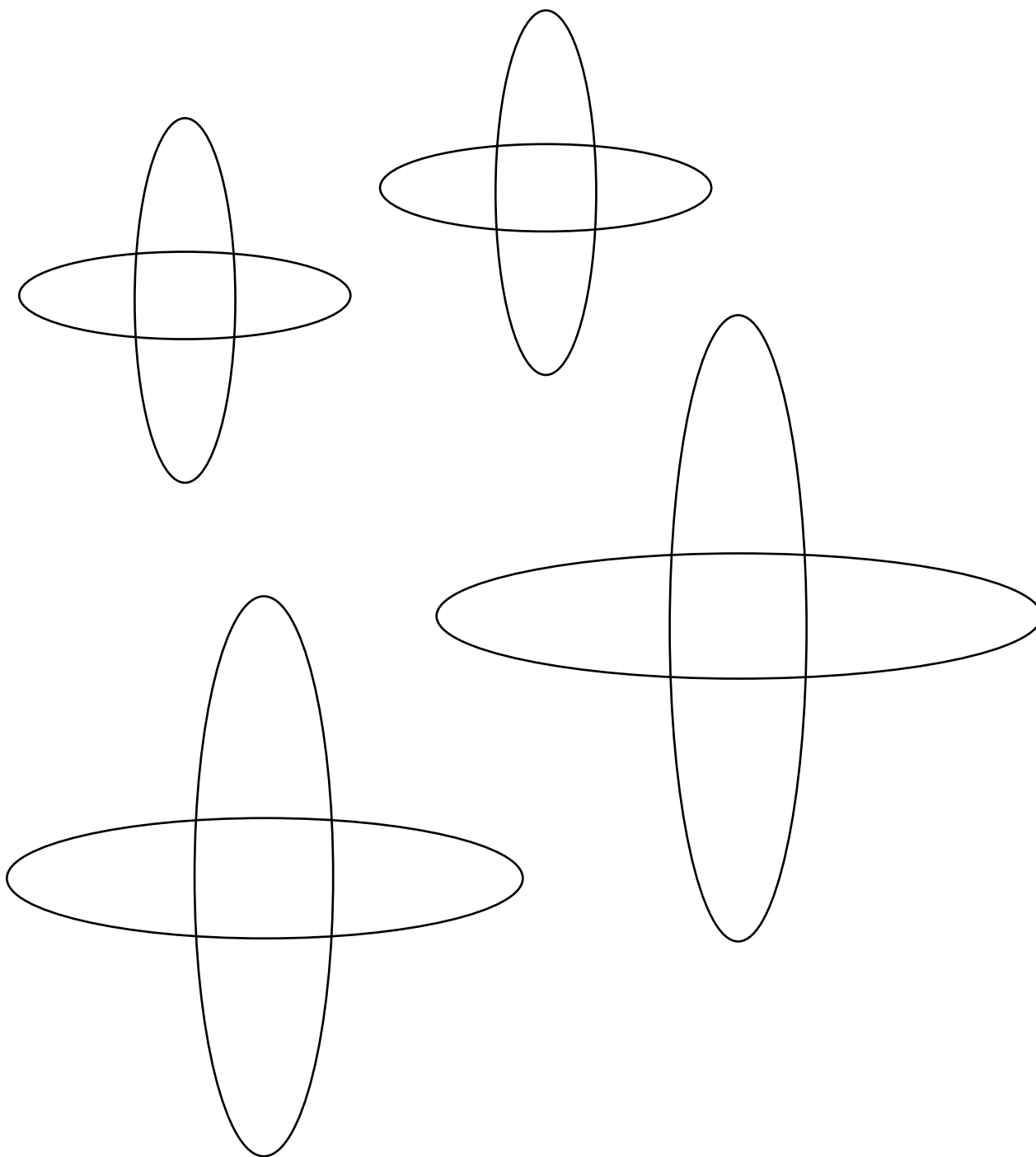
---

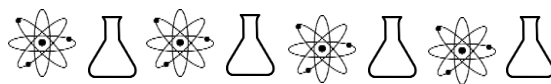
an example of a nonvascular plant



Petal Sheet

Use these paper flowers to complete the experiment.





What Did You Learn?

Fill in the blank with the word that best fits.

algae   decomposers   enzymes
heterotrophic   protozoans   slime molds

chemicals made by an organism to
help the organism

---

animal-like protists

---

do not make their own food

---

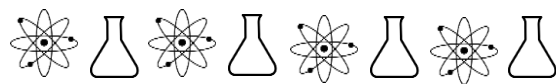
plant-like protists

---

these break down biotic material
into more useful forms

---

fungus-like protists



Scientific Method Lapbook

Complete these lapbook pieces for lessons 151 and 152.

Glue this side to the lapbook

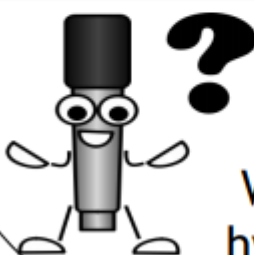


What is the Scientific Method?

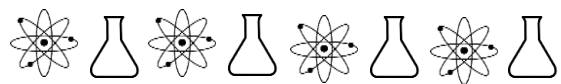
Steps of the Scientific Method piece:
Cut out on outer lines. Accordion
fold leaving title section on top.
Write one step in each section.

Steps of the Scientific Method

Glue this side to the lapbook



What is a hypothesis?



Scientific Variables

Cut on the dark black lines. Fold on the center line and glue to your page where instructed. Under each flap, write a description of that variable.

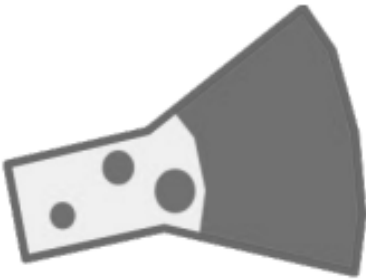
Glue this side to the lapbook



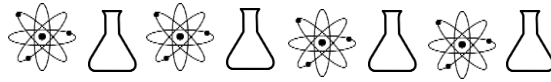
Control Variables



Dependent Variable



Independent Variable



The Scientific Method

Put the steps of the scientific method in order.

 Make observations

 Identify the problem

 Study the data

 State your hypothesis

 Collect and record data

 Make conclusions

 Test your hypothesis

1. _____

2. _____

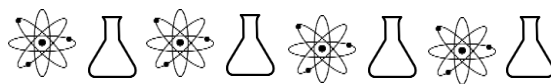
3. _____

4. _____

5. _____

6. _____

7. _____



Form a Question

Formulate your question and fill it in here. You can cut out the pieces if you'd like to make a lapbook.



Who?

What?

Where?

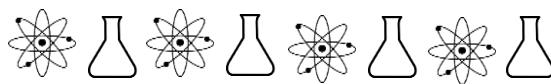
When?

Why?

Which?

How?

My Question _____



Research Notes

Use these pages to make notes on your topic.

Topic: _____

Resource 1: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 2: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 3: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 4: _____

Info: _____

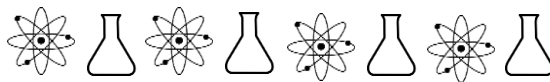
Info: _____

Info: _____

Info: _____

Info: _____

Info: _____



Resource 5: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 6: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 7: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 8: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 9: _____

Info: _____

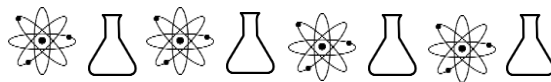
Info: _____

Info: _____

Info: _____

Info: _____

Info: _____



Hypothesis and Variables

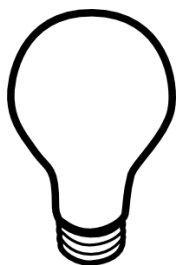
Use this page to record your hypothesis and variables. You can cut the pieces out if you're making a lapbook.

My Hypothesis: _____

_____

_____

_____



My independent variable(s):

_____

_____

_____

_____

My controlled variable(s):

_____

_____

_____

_____

Variables

Independent:

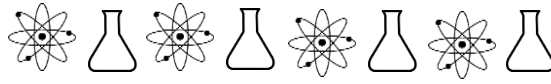
What I will
change

Dependent:

What I will be
measuring and
observing

Controlled:

What I will keep
the same

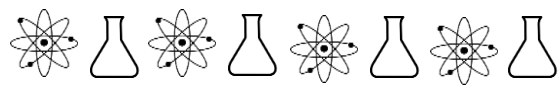


My Experiment

Use these pages to record your materials and the steps in your experiment. It's okay if you don't fill up all of the space.

My Materials: _____



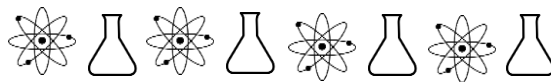


Steps in My Experiment



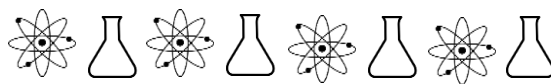












Form a Question

Formulate your question and fill it in here. You can cut out the pieces if you'd like to make a lapbook.



Who?

What?

Where?

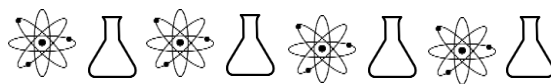
When?

Why?

Which?

How?

My Question _____



Research Notes

Use these pages to make notes on your topic.

Topic: _____

Resource 1: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 2: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 3: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 4: _____

Info: _____

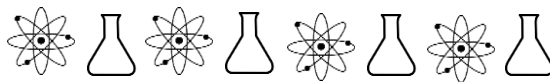
Info: _____

Info: _____

Info: _____

Info: _____

Info: _____



Resource 5: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 6: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 7: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 8: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Info: _____

Resource 9: _____

Info: _____

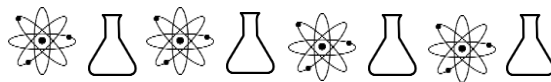
Info: _____

Info: _____

Info: _____

Info: _____

Info: _____



Hypothesis and Variables

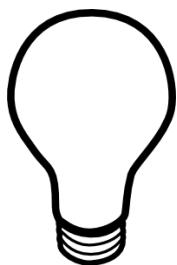
Use this page to record your hypothesis and variables. You can cut the pieces out if you're making a lapbook.

My Hypothesis: _____

_____

_____

_____



My independent variable(s):

_____

_____

_____

_____

My controlled variable(s):

_____

_____

_____

_____

Variables

Independent:

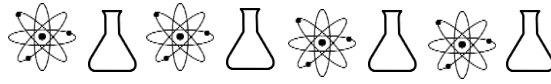
What I will
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Dependent:

What I will be
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What I will keep
the same

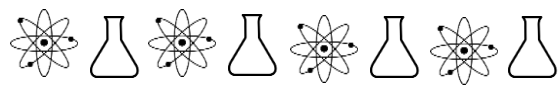


My Experiment

Use these pages to record your materials and the steps in your experiment. It's okay if you don't fill up all of the space.

My Materials: _____



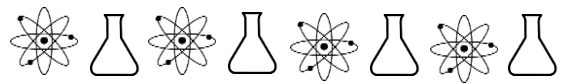


Steps in My Experiment



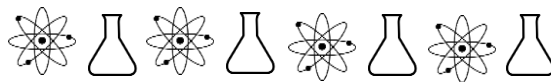












Tree Observation

Sit quietly near your tree. Take notes on your observations.

	Looking What living things do you see in and near your tree?
	Listening Do you hear animals playing or singing in the tree? Do you hear wind moving leaves or branches?
Draw the tree. Use a tape measure to record the measurement around the tree. _____	
Make a rubbing of the bark.	Touching Is the bark smooth or rough? Are the leaves soft or prickly?
Make a rubbing or trace a leaf.	Smelling What does the bark smell like? The leaves? Are there flowers on the tree?
What season is it now? What kind of tree are you observing?	Any other observations? Has the tree changed since the previous season?