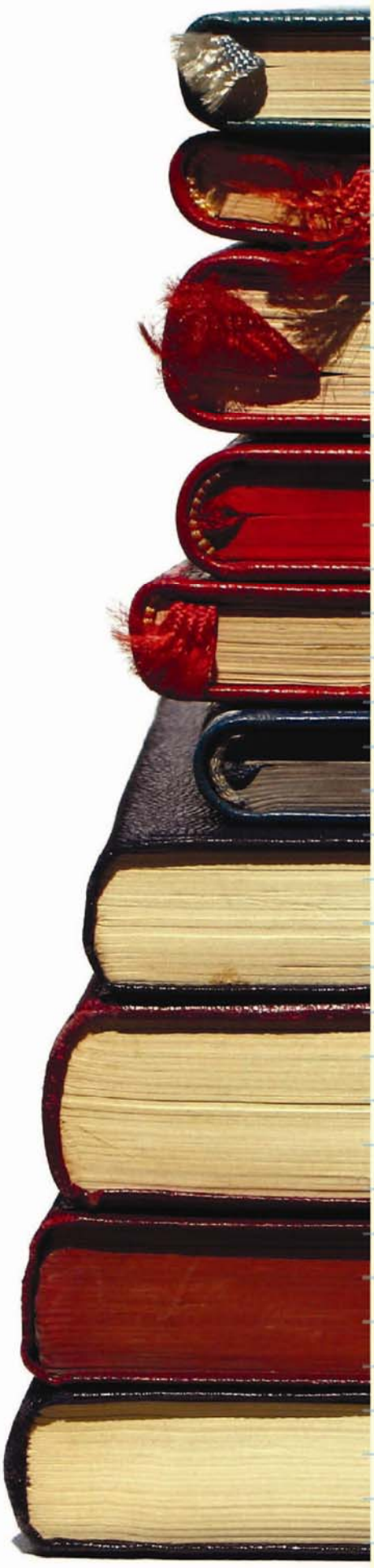


Comprehensive Curriculum

Revised 2008

Grade 3
Science

Louisiana Department of
EDUCATION

Paul G. Pastorek, State Superintendent of Education

Unit 1, Activity 3, Student Temperature Data Sheet

Name _____ # _____

Data Collection

Fahrenheit								**Celsius**							
	Start	5	10	15	20	25	30		Start	5	10	15	20	25	30
Cup 1								**Cup 1**							
Cup 2								**Cup 2**							
Cup 3								**Cup 3**							

Name _____ # _____

Fahrenheit (color in red) \ **Celsius** (color in blue)

110°						
100°						
90°						
80°						
70°						
60°						
50°						
40°						
30°						
	5	**10**	**15**	**20**	**25**	**30**

Elapsed Time in <u>Minutes</u>

Unit 1, Activity 3, Weather Journal

Name _____ Date _____

Can you forecast or predict what the weather will be like tomorrow or the next day or the day after that? Read on to find out how this can be done.

Weather is not easy to predict. Over the next several days you will predict what the weather will be like and check your predictions with what the experts predict the weather will be like. So get ready for an exciting Weather Journey!

Day :_____

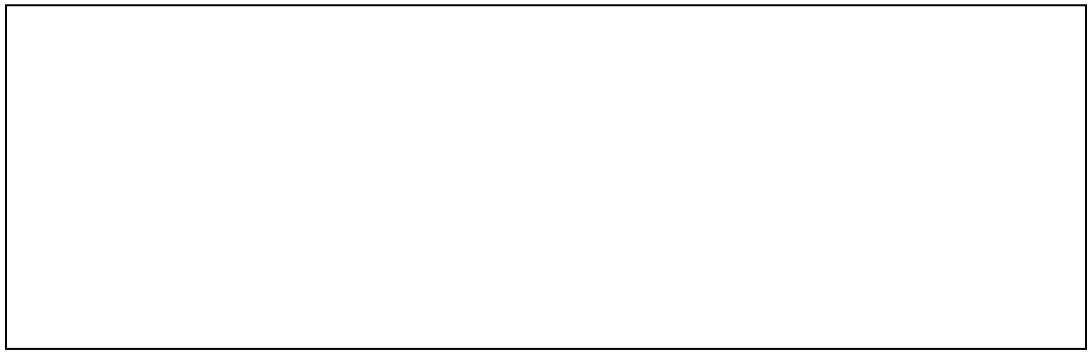
YOUR PREDICTION**:** Predict what the weather will be like for the next 3 days.

Temperature:
_____ Fahrenheit _____Celsius

Condition (cloudy, rainy, sunny, windy, and so on):
Using Words: _____

_____

Draw a picture:



Day: _____

EXPERT'S PREDICTION: Find the weather forecast for the next 3 days. You can get it from the Internet, TV, or a newspaper.

Temperature:
_____ Fahrenheit _____ Celsius

Condition (cloudy, rainy, sunny, windy, and so on):
Using Words: _____
_____

Draw a picture:

Day: _____

ACTUAL WEATHER: For each day of the week, fill in the actual weather conditions.

Temperature:
_____ Fahrenheit _____ Celsius

Condition (cloudy, rainy, sunny, windy, and so on):
Using Words: _____
_____

Draw a picture:

GROUP NAMES	

What Are Things Made of?	
OBJECT **Draw or cut picture from magazine**	**What is it made of?**
Example:	**I am made from wood.**

TALLY TABLE	
wood	
plastic	
paper	
metal	

Directions:
Use these guidelines when recording data in your Science Learning Log. Make sure to write neatly and in complete sentences.

Your Experiment

- What are you trying to find out? What are you investigating? HINT: This is your testable question.
- What do you think will happen in your investigation (hypothesis)?
- What are you going to use (materials)? HINT: Drawing a picture might help.
- What are you going to do?
- What do you need to measure or look for? Think about how you will record (data) what you measure or what you see. HINT: You might find it useful to write your results in a table.
- What do you expect to happen? What do you think you will see? Why do you think this?

Carrying out the Experiment

- What did you see? Was it what you expected? Can you see any patterns in what you saw or what you measured?
- What have you found out (conclusion)? Can you explain what you have found out?
- If you did the experiment again, would you do anything differently? Could you make it more accurate?

Unit 1, Activity 7, Science Investigations Rubric

Name _____

Title of experiment or activity _____

Lab Partner(s) _____, _____, _____

Lab Report Rubric

Teacher	Criteria	Student
1 point for each Total 5	Clear and Appropriate Heading, Title, Problem, Testable Question, and Hypothesis	1 point for each Total 5
5 points possible	All Materials listed	5 points possible
20 points possible (all labels should be in place, etc.)	Appropriate presentation of data and observations, including graph(s), chart(s), drawing(s), etc.	20 points possible (all labels should be in place, etc.
15 points possible	Conclusion addresses problem and states knowledge gained. Answers all questions.	15 points possible
5 points possible	Overall neatness and grammar	5 points possible
_____	Total points earned from both sides = Lab Grade	_____

Grade earned _____

Teacher Comments: _____

_____

Will They Sink or Float?

1. Look at the container of objects in front of you. Which objects do you think will sink in water? Which do you think will float?
2. Divide the objects into 2 piles: a Sink Pile and a Float Pile. List the objects you put in each pile.

Objects I think will Sink	Objects I think will Float

Does It Sink?

1. Test each of the objects in your Sink Pile by filling the container with water. Record what happens on the chart below.

Object	Prediction	Result

2. Were there any objects that were able to float or sink that surprised you?

_____

_____

Does It Float?

1. Test each of the objects in your Float pile by putting them in the container of water. Record what happens on the chart below.

Object	Prediction	Result

3. Were there any objects that were able to float or sink that surprised you?

_____

_____

Name _____

Directions: In the first vertical column labeled OBJECT, list the names of common objects, devices, etc. that produce energy. Place an X in the box that corresponds to a type of energy that the item in the vertical column produces.

OBJECT	HEAT	LIGHT	ELECTRICAL	MECHANICAL

Group Member Names	

Temperature in Fahrenheit				Temperature in Celsius			
	10 minutes	**20 minutes**	**30 minutes**		**10 minutes**	**20 minutes**	**30 minutes**
Light colored box				**Light colored box**			
Dark colored box				**Dark colored box**			

My prediction:

What color clothing would you want to wear on a hot, sunny day? Explain your choice.

What color clothing would you choose for a very cold, sunny day? Explain your choice.

Group Member Names	

Solar Cooker Data Sheet

Inside the Solar Cooker		**Outside the Solar Cooker**	
Time	**Observations: words and pictures**	**Time**	**Observations: words and pictures**
15 minutes			
30 minutes			
45 minutes			

Draw a picture below of a solar powered machine that you have invented. Write a short caption below the picture that describes your solar powered machine.

Group Member Names	

How well did your group work together? Circle the correct smiley face.



Hypothesis _____

_____

Procedure _____

_____

_____

_____

_____

_____

MELTING TIME

Material Used	Why I chose this material	Time Began	Predict how long to melt the ice	Actual Melting Time

Unit 3, Activity 1, Moving Objects Data Sheet

Name _____

Unit 3, Activities 1 and 3, Vocabulary Self-Awareness Chart

Name _____

Directions: Use the following symbols to rate your understanding of each word with either a "+" (understand well), a "√" (limited understanding or unsure), a "-" (don't know). You may use the blank boxes to fill in with new vocabulary words you learned from Unit 1 that are not listed on this chart.

Vocabulary Self-Awareness Chart

Word	+	-	√	Example (using words & pictures)	Definition
incline plane					
push					
pull					
forces					
friction					
gravity					
simple machines					

Unit 3, Activity 2, Tennis Ball Race Data Sheet

Group Names		

Trail #	# of Books	Distance Traveled		Time
		inches	cm	

Unit 3, Activity 3, Rolling Toy Race Data Sheet

Group Names		

How well did your group work together? Circle the correct smiley face.



Trial # (in 1 minute)	Material Used	Distance Traveled prediction	actual distance
	sandpaper		
	aluminum foil		
	construction paper		
	smooth surface		
	carpet		

Friction Winners!

Rank materials from which one is **best for slowing** an object down to **least effective for slowing** an object down. Before ranking the materials, the data from the multiple trails will have to be averaged. That number will then be used to determine the winner.

1st Place _____

2nd Place _____

3rd Place _____

4th Place _____

5th Place _____

Unit 3, Activities 4, Simple Machines Data Sheet

Name _____ Date _____
Center Number _____ Simple Machine used: _____

Answer the following questions using complete sentences.
Did you find the task at this center difficult WITHOUT using the simple machine? Why?

_____

_____

Was it easier to perform the task using the simple machine? Why?

_____

_____

Did the simple machine help you? YES or NO Explain:

_____

_____

.....

Simple Machine Data Sheet

Name _____ Date _____
Center Number _____ Simple Machine used: _____

Answer the following questions using complete sentences.

Did you find the task at this center difficult WITHOUT using the simple machine? Why?

_____

_____

Was it easier to perform the task using the simple machine? Why?

_____

_____

Did the simple machine help you? YES or NO Explain:

_____

_____

Unit 4, Activity 2, Vocabulary Self-Awareness Chart

Name _____

Directions: Use the following symbols to rate your understanding of each word with either a "+" (understand well), a "√" (limited understanding or unsure), a "-" (don't know). You may use the blank boxes to fill in with new vocabulary words you learned from Unit 4 that are not listed on this chart.

Vocabulary Self-Awareness Chart

Word	+	-	√	Example (using pictures)	Definition
igneous rocks					
sedimentary rocks					
metamorphic rocks					
fossils					

Unit 4, Activity 2, Types of Rocks

Name _____

Directions: Use rocks from your collection to complete the table below. Draw and color the picture of your rock.

Sedimentary Rocks Formed from pieces of material that have settled into layers.		**Igneous Rocks** Formed from rock that was once melted but has cooled and hardened.		**Metamorphic Rocks** Formed when sedimentary, igneous, or other metamorphic rock has been changed by heat and pressure.	
Examples	**Pictures**	**Examples**	**Pictures**	**Examples**	**Pictures**

Name _____

Place a check in the "agree box" if you agree with the statement. Place a check in the "disagree box" if you do not agree with the statement.

AGREE	STATEMENT	DISAGREE
	I will find igneous, sedimentary, and metamorphic rocks in our school yard.	
	I will find only igneous rocks in our school yard.	
	I will find only sedimentary rocks in our school yard.	
	I will find only metamorphic rocks in our school yard.	
	I will not find any rocks in our school yard.	
	I will not find lots of rocks in our school yard.	

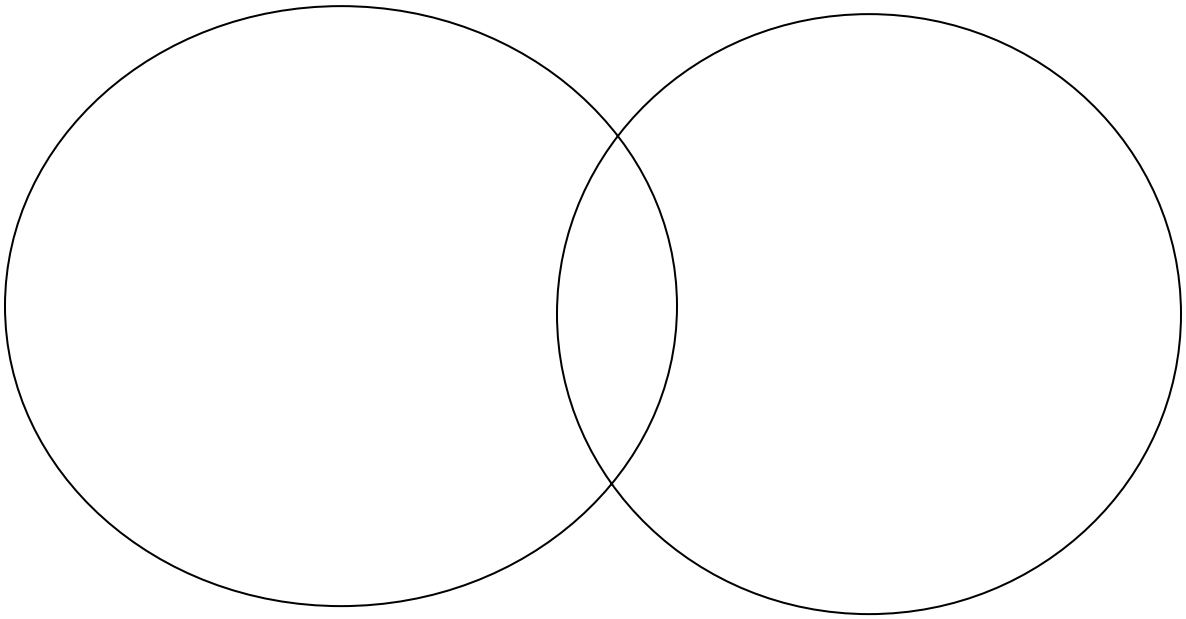
Name _____

Directions: Use the chart below to record data about various types of soil. Remember to carefully examine the soil and look closely at the color and texture. Please note if there is any type of odor to the soil.

	Sand	Humus	Clay
color			
texture (gritty, soft, etc.)			
odor			

Use the Venn diagram below to compare the potting soil to the soil found near your school.

Potting Soil **School Soil**



Name _____

Directions: Read each statement below. If you believe the statement is True, put an X in the Agree column. If you believe it is False, put an X in the Disagree column. After completing the activity, share your answers with the class.

Agree	Statement	Disagree
	We only need healthy food and water to maintain a healthy body.	
	Shelter is not a basic need that all animals have.	
	ALL animals have the same basic needs.	
	We need to exercise regularly to maintain a healthy body.	
	Most children need about 10 hours of sleep every night.	

Unit 5, Activity 1, Anticipation Guide Answer Key

Name _____

Directions: Read each statement below. If you believe the statement is True, put an X in the Agree column. If you believe it is False, put an X in the Disagree column. After completing the activity, share your answers with the class.

Agree	Statement	Disagree
	We only need healthy food and water to maintain a healthy body.	X
	Shelter is not a basic need that all animals have.	X
X	ALL animals have the same basic needs.	
X	We need to exercise regularly to maintain a healthy body.	
X	Most children need about 10 hours of sleep every night.	

Name _____

A. Keep track of the amount of sleep you get for one whole week.

Sleep Chart

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Time I went to sleep (p.m.)							
Time I woke up (a.m.)							
Number of hours I slept							

B. Answer the following questions about your sleep record.

1. On which night did you get the most sleep? _____
2. On which night did you get the least sleep? _____
3. Did the amount of sleep you got affect the way you felt the next day? For example, did you feel grumpy, tried, or energetic? Explain your answer.

   _____

   _____
4. Do you find it easy or difficult to get enough sleep? Why do you think this is so?

   _____

   _____

Unit 5, Activity 2, Food Journal

Name _____

Directions: Fill in the chart with the food that you eat for the next seven days. Under the Food Groups' column, write the food group and how many servings of food you had from that group for the whole day. For example, if you had 3 glasses of milk in 1 day and 1 serving of ice cream, you would write milk group and put 4 tally marks under milk. If you do not have enough space on this chart, you may draw another chart on a separate sheet of paper.

FOOD JOURNAL					
DAY	**Breakfast**	**Lunch**	**Dinner**	**Snacks**	**Food Groups**
Mon.					
Tues.					
Wed.					
Thurs.					
Fri.					
Sat.					
Sun.					

Unit 5, Activity 2, Food Label Scavenger Hunt Chart

Name _____

Find a food that has …. Write the name of the food on the blank line.

- 0 grams of total fat _____
- sugar is the first ingredient _____
- 100 calories or less _____
- at least 5% of the recommended daily allowance of vitamin C
- over 250 milligrams of sodium _____
- 10 milligrams or less of cholesterol _____
- 30 grams or less of total carbohydrate _____
- more than 15 grams of total fat _____
- more than 2% of the recommended daily allowance of iron _____

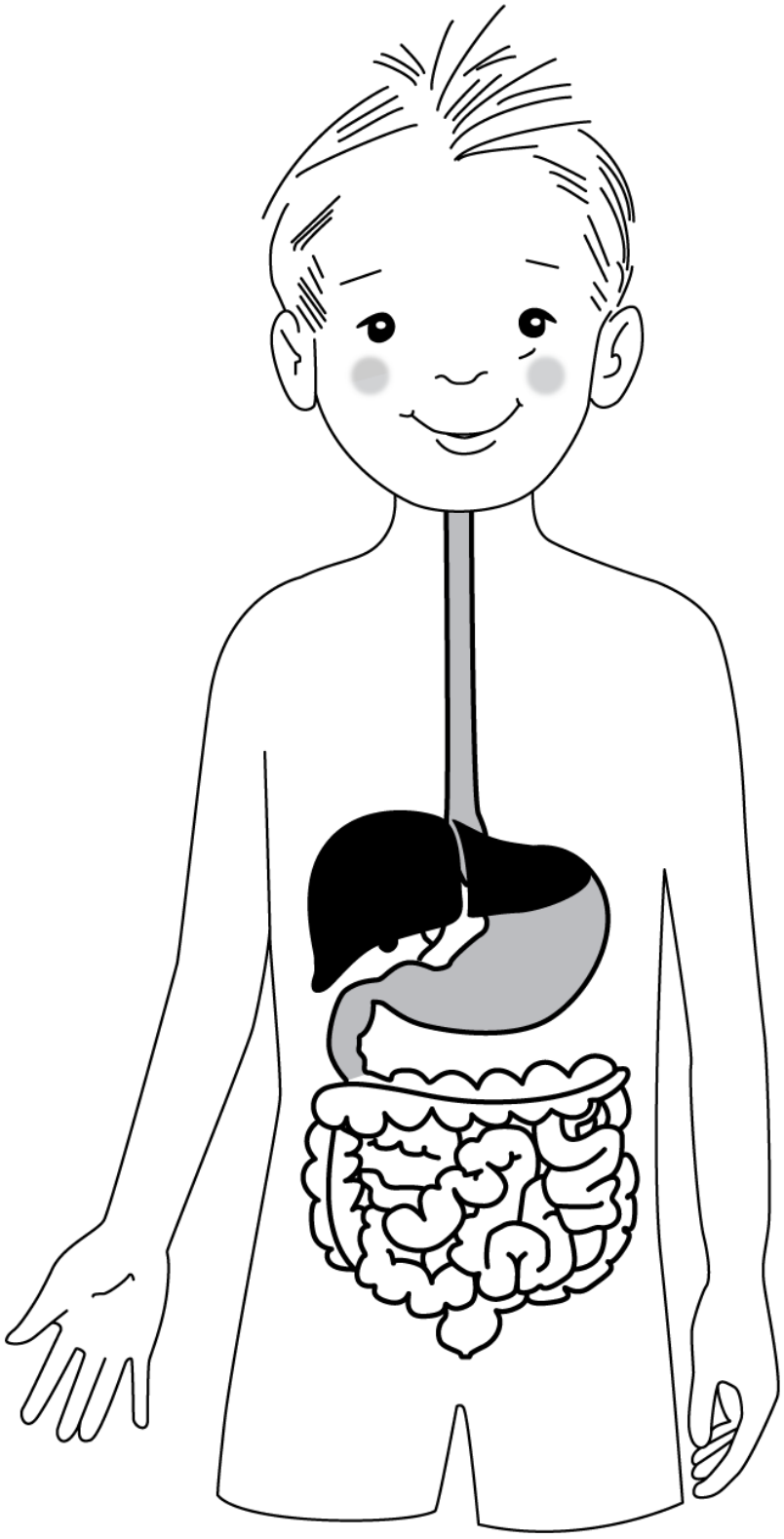
Name _____

Steps to Digestion

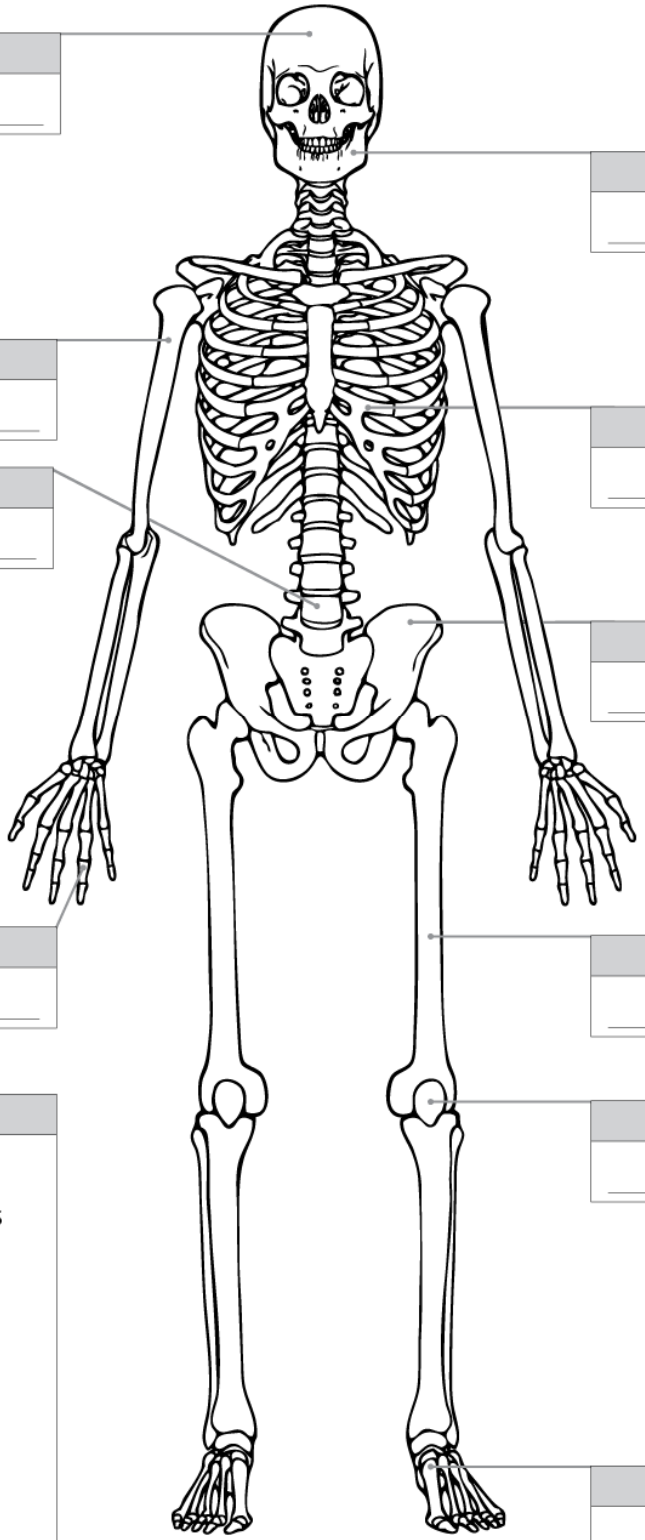
Nutrients enter the bloodstream through the lining of the small intestine.
The small intestine takes the thick liquid and absorbs the nutrients through its lining.
The large intestine absorbs water and passes on the unused parts.
The esophagus in your throat pushes the food down to your stomach.
Then, the large intestine takes over.
Your stomach mixes the food with acid until the food is a thick liquid.
You grind the food in your mouth and mix it with your saliva.

Nutrients enter the bloodstream through the small intestine's lining. ***(5)***
The small intestine takes the thick liquid and absorbs the nutrients through its lining. ***(4)***
The large intestine absorbs water and passes on the unused parts. ***(6)***
The esophagus in your throat pushes the food down to your stomach. ***(2)***
Then, the large intestine takes over ***(7)***
Your stomach mixes the food with acid until the food is a thick liquid. ***(3)***
You grind the food in your mouth and mix it with your saliva. ***(1)***

Digestive System



Name the Bones



cranium

mandible

humerus

rib cage

vertebrae

pelvis

phalanges

femur

patella

metatarsals

Word Box

arm bone
finger bones
hipbone
kneecap
skull
backbone
foot bones
jawbone
ribs
thighbone

- cranium – *skull*
- mandible – *jaw bone*
- humerus – *arm bone*
- vertebrae – *backbone*
- rib cage – *ribs*
- pelvis – *hipbone*
- femur – *thighbone*
- patella – *kneecap*
- metatarsals – *foot bones*

Name _____

Complete information needed for this outline with information about the skeletal system learned in class.

The 5 Functions of the Skeletal System

I. Structure and Support

_____

II. Protection of Vital Organs

_____

_____

_____

_____

III. Storage of Fat and Calcium

_____

_____

IV. Production of Red Blood Cells

_____

_____

_____

_____

V. Providing Leverage for Movement

_____

_____

_____

_____

The 5 Functions of the Skeletal System

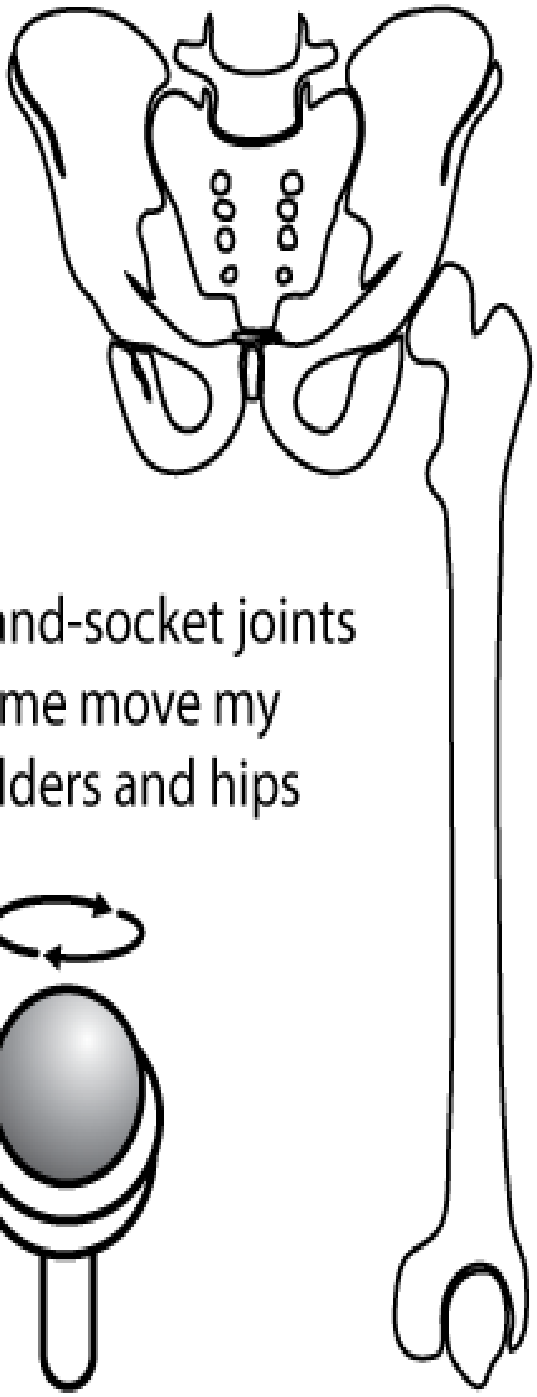
- Structure and support – spinal column helps us stand tall

- Protection of vital organs:
  The bones in the top of my *skull* protect my brain.
  The bones in the *rib cage* protect the heart and lungs.
  The bones in the *backbone* protect the nerves inside.

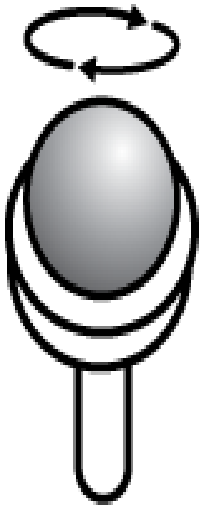
- Storage of fat and calcium – Minerals, like calcium are needed for strong bones.

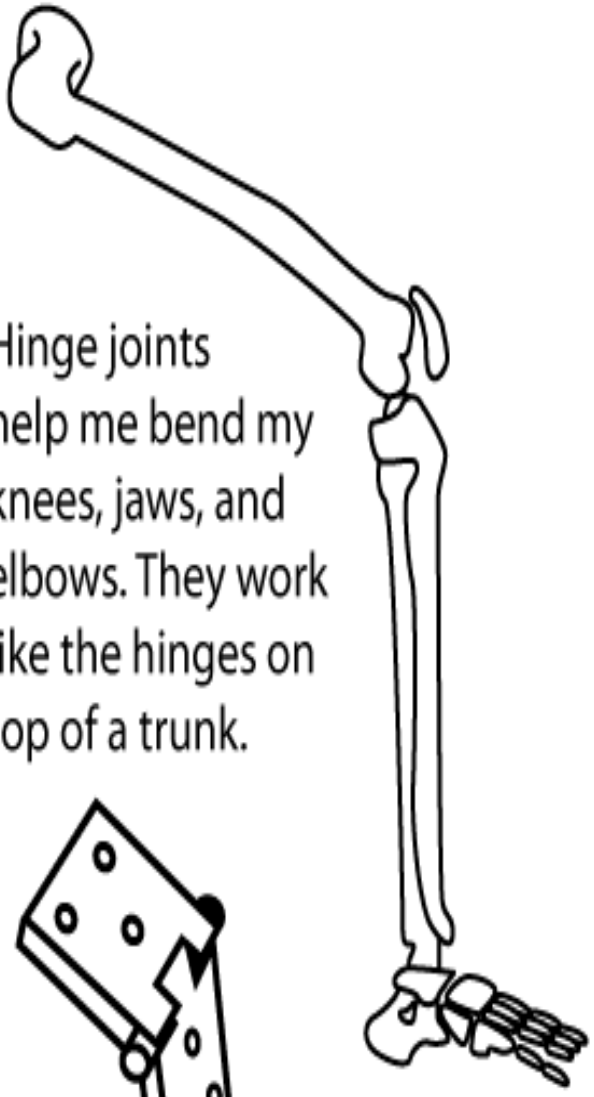
- Production of red blood cells – Many bones have red blood cells inside them that make new blood for the body. Some bones also store minerals that help make the body work.

- Providing leverage of movement – Bones cannot bend. Therefore, the *joints* in the body help the body to bend, turn, and twist. The area where bones come together is called a joint. Like strong rubber bands, *ligaments* hold the bones together. See the Ball and Socket and Hinge Diagram BLM



Ball-and-socket joints help me move my shoulders and hips





Hinge joints help me bend my knees, jaws, and elbows. They work like the hinges on top of a trunk.

Name _____

- Mammals – have fur or hair, use lungs to breathe, give birth to live young, and feed its young with milk
  Examples – humans, dogs, cats

- Reptiles – covered with scales, lay eggs on land and breathe with lungs,
  Examples – snakes, turtles, lizards

- Amphibians – begin life in the water and move onto land as adults; lay eggs in water
  Examples – frogs, salamanders

- Insects – a major group of arthropods; have segmented body parts (head, thorax, abdomen) supported by an inside skeleton (exoskeleton)
  Examples – ants, ladybugs, dragonflies

- Arthropods – include insects, crustaceans; have segmented body with appendages on each segment; all arthropods are covered by a hard outside skeleton (exoskeleton).
  Examples – spiders, crabs, crawfish

- Birds – have feathers, two legs, and wings
  Examples – sparrows, hawks, eagles

Lightness or Darkness?

1. Cover half of the shoebox with foil.
2. Place the worm in the box just below the edge of the foil. Wait a few minutes.
3. Where does the worm go?

Wet or Dry?

1. Cover half of the shoebox with a wet paper towel.
2. Place the worm in the box, on the edge of the paper towel. Put the lid on the box. Wait a few minutes.
3. Where does the worm go?

Finding Food

1. Put the worm on one side of the box. Put a small amount of apple peelings, banana peels, and apple core on the other side of the box. Wait several minutes and watch what the worm does.
2. Draw a path that the worm took in the box.
3. Did the worm find the food?

Other potential investigative topics could focus on the worm's response to temperature (hot and cold), to acid (dilute vinegar water), preference to sand or soil, etc.

Unit 6, Activity 1, Shadows Data Sheet

Name _____

Time	Month	How long is your shadow?	Where is the Sun in the sky? Remember, to NEVER look directly at the Sun.

When was your shadow the longest? _____

When was your shadow the shortest? _____

Name _____ Date_____

Name of Planet _____

Where is it located in the Solar System with respect to the other planets? For example, is it the 1st, 2nd, etc, planet in the Solar System?

_____

Diameter (how big around) of planet:

_____

Length of rotation ("day")

_____

Distance from the Sun

_____

Describe what the planet looks like.

_____

_____

_____

List 2 interesting facts that you learned about this planet:

1. _____

_____

_____

2. _____

_____

_____

Name _____

List living and non-living components observed during your backyard walk.

Living Components	Non-living Components

Write a paragraph explaining how components of an ecosystem depend on each other, using information learned in this activity. Explain negative and positive changes that take place when humans change the environment. Use complete sentences, capitalize, and punctuate where necessary.

_____

_____

_____

_____

_____

_____

On the back of this page, draw an area around your home. The drawing should include animal and plant life such as bugs, trees, etc. Write a paragraph telling how the animal and plant life coexist.

Unit 7, Activity 2, Ecosystems Data Sheet

Name _____

List living and non-living components observed in your backyard walk, the terrarium, and the aquarium.

Terrarium		
Object	Living	Non-Living
Aquarium		
Object	Living	Non-Living
Backyard		
Object	Living	Non-Living

Name _____

Vocabulary:
1. A **renewable resource** is a natural resource that can be replaced by natural processes over time.
2. A **nonrenewable resource** is a natural resource that can never be replaced once it is used. The supply is limited.

Directions:
1. Fill in the chart by listing resources in the first column.
2. Put an **X** in either the "renewable" or "nonrenewable" column for each item.
3. In the last column, write why you think the resource is renewable or nonrenewable.

Resource	Renewable	Nonrenewable	Reason

THE RESOURCEFUL REPORTER

EXTRA! EXTRA! READ ALL ABOUT IT!
RENEWABLE vs. NONRENEWABLE RESOURCES

Reporter: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Group Members _____

_____

Criteria	0	1	2	3	Total
Written Facts					
Report includes answers to these questions about the animal: • Why were they once considered endangered? • What was done that caused them to recover?					x2
Report content is accurate and complete with factual information (habitat, life span, physical characteristics, population, movement, migration, family life and offspring, eating habits).					x3
Correct mechanics: Complete sentences, capitalization, punctuation, etc.					x2
Resources are cited					x2
Animal Picture and Map					
Picture is complete, neat, and colored to resemble the actual animal.					x2
The background depicts the animal's real habitat.					x2
Louisiana map is drawn and area where the animal lives is identified.					x2
Oral Presentation					
Students discuss the following: • Three facts about the animal • Why they were once considered endangered • What was done that caused them to recover					x3
Clear voice and eye contact is made with the audience during presentation.					x2
Total					

Name _____

Rain Gauge Data

		Amount of Precipitation	
Date	Day	Inches	Centimeters

Wind Vane Data

Date	Day	Prediction of wind direction by observing surroundings such as trees, bushes, etc.	Actual wind direction

Wind Sock Data

Use the information from the Wind Scale Table below to record observations you made about the wind speed.

Date	Day	Estimation of wind speed

Wind Scale			
Speed (km/h)	**Description**	**Objects Affected**	**Windsock Position**
0	No breeze	No movement of wind	Sock hangs down
6-19	Light breeze	Leaves rustle, wind vanes move, wind felt on face	Sock blows slightly
20-38	Moderate breeze	Dust and paper blow, small branches sway	Sock extended 2/3 of way
39-49	Strong breeze	Umbrellas hard to stay open, large branches sway	Sock straight out