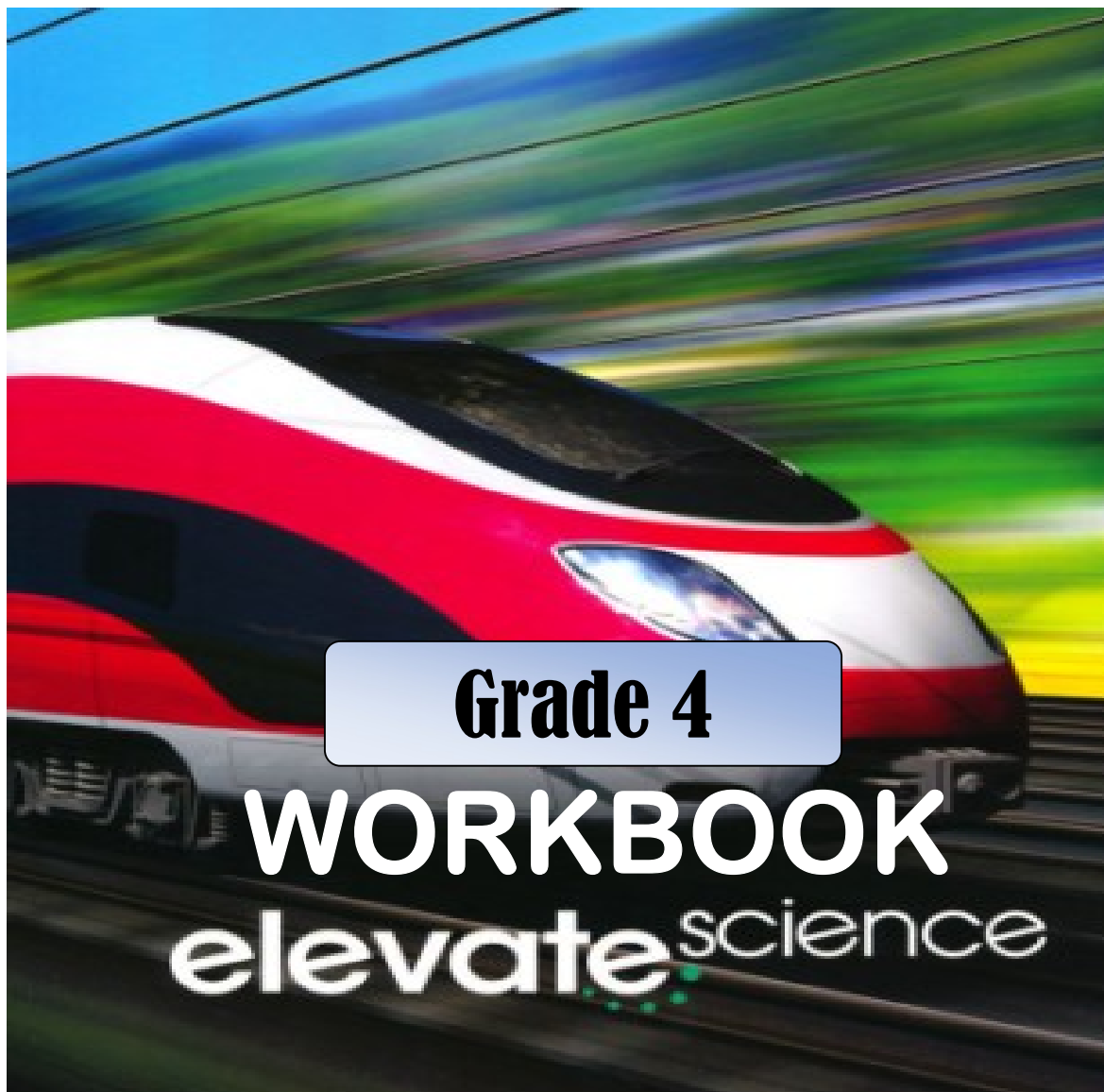


AL NOOR INTERNATIONAL SCHOOL
Riyadh, Saudi Arabia
Science Department



Name: _____

Class: _____

Academic Year: _____

Table of Contents



GRADE 4

Chapter 1

Energy and Motion



Lesson 1	1-2
Lesson 2	3-4
Lesson 3	5-6
Lesson 4	7-8

Chapter 2

Human Uses of Energy

Lesson 1	9-10
Lesson 2	11-12
Lesson 3	13-14

Chapter 3

Waves and Information

Lesson 1	15-16
Lesson 2	17-18
Lesson 3	19-20

Chapter 4

Earth's Features

Lesson 2	21-22
Lesson 3	23-24
Lesson 4	25-26

Chapter 5

Earth's Natural Hazards

Lesson 1	27-28
Lesson 2	29-30

Chapter 6

The History of Planet Earth

Lesson 1	31-32
Lesson 2	33-34

Chapter 7

Structures and Functions

Lesson 1	35-36
Lesson 2	37-38
Lesson 3	39-40
Lesson 4	41-42

Chapter 8

Human body Systems

Lesson 1	43-44
Lesson 2	45-46
Lesson 3	47-48
Lesson 4	49-50



WORKBOOK CHECKLIST



LESSON	PAGE No.	✓	TEACHER'S SIGNATURE	PARENT'S SIGNATURE
		X		
Chapter 1: Energy and Motion				
LESSON 1	pp. 1 – 2			
LESSON 2	pp. 3 – 4			
LESSON 3	pp. 5 - 6			
LESSON 4	pp. 7 – 8			
Chapter 2: Humans Uses of Energy				
LESSON 1	pp. 9 – 10			
LESSON 2	pp. 11 – 12			
LESSON 3	pp. 13 – 14			
Chapter 3: Waves and Information				
LESSON 1	pp. 15-16			
LESSON 2	pp. 17-18			
LESSON 3	pp. 19-20			
Chapter 4: Earth's Features				
LESSON 2	pp. 21-22			
LESSON 3	pp. 23-24			
LESSON 4	pp.25-26			
Chapter 5: Earth's Natural Hazards				
LESSON 1	pp. 27-28			
LESSON 2	pp. 29-30			
Chapter 6: The History of Planet Earth				
LESSON 1	pp. 31-32			
LESSON 2	pp. 33-34			
Chapter 7: Structures and Functions				
LESSON 1	pp. 35-36			
LESSON 2	pp. 37-38			
LESSON 3	pp.39-40			

LESSON 4	<i>pp.41-42</i>			
Chapter 8: Human Body Systems				
LESSON 1	<i>pp.43-44</i>			
LESSON 2	<i>pp. 45-46</i>			
LESSON 3	<i>pp.47-48</i>			
LESSON 4	<i>pp.49-50</i>			

Name: _____

Date: ____/____/____

Lesson 1: Energy, Speed, and Moving Objects (use with pages 6-15)



Words to know: Write the word next to the description it matches.

Energy	Potential Energy	Kinetic Energy	Speed
--------	------------------	----------------	-------

- _____ 1. The energy of motion.
- _____ 2. Stored energy related to an objects position.
- _____ 3. The ability to do work or cause change.
- _____ 4. The distance an object moves in a specific amount of time.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Energy cannot be made nor destroyed, but it can change form and be transferred.
- _____ 2. The amount of potential energy an object has depends on its color or position.
- _____ 3. The kinetic energy of an object depends on its mass and how fast it is moving.



Explain: Tell if each statement is true or false. Explain your choice.

1. Heat, light, and electricity are some other forms of potential energy.

This statement is _____ because _____

2. Two characteristics that are often used to describe motion are direction and speed.

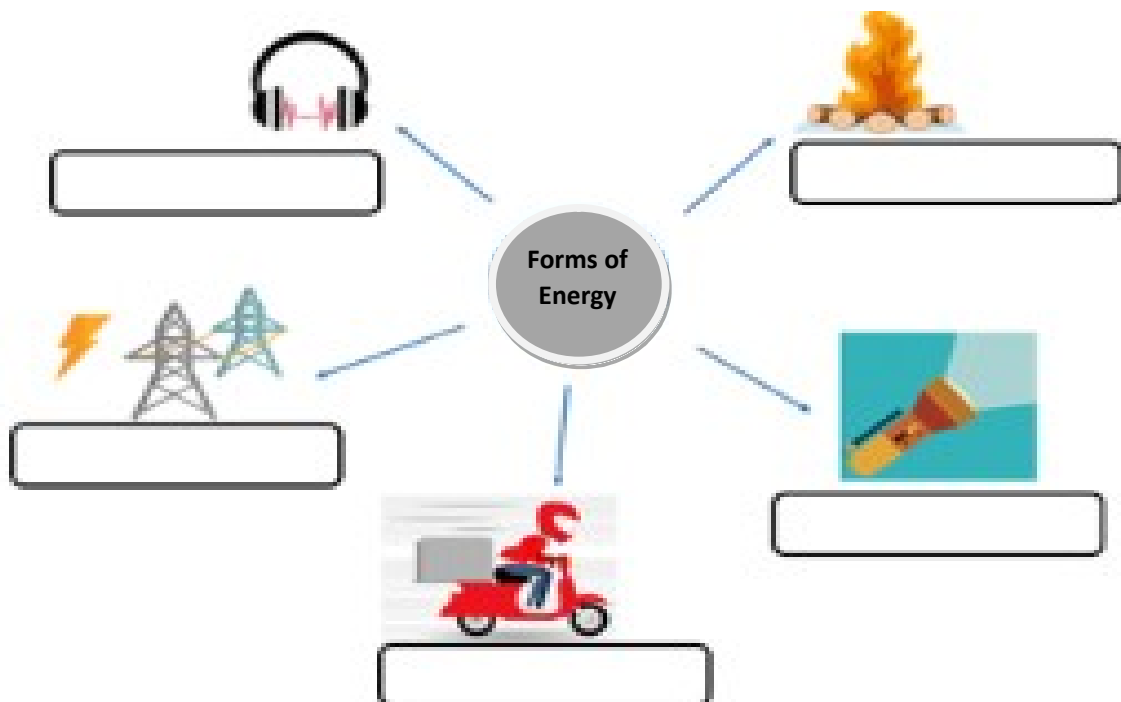
This statement is _____ because _____



Apply concepts.

1. Fill in the blanks with the suitable answer:

Light Energy	Sound Energy	Thermal Energy	Kinetic Energy	Electrical Energy
--------------	--------------	----------------	----------------	-------------------



Name: _____

Date: ____/____/____

Lesson 2: Collisions (use with pages 16-23)



Words to know: Write the word next to the description it matches.

collision

simulate

- _____ 1. Is to demonstrate or copy something to make it easier to understand.
- _____ 2. The action of one object bumping into another.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1 The sound is evidence of an energy change.
- _____ 2. Collisions can result in a change of kinetic energy to light energy, thermal energy, or other types of energy.
- _____ 3. After slamming a ball to a wall, collision will transfer the kinetic energy to thermal energy.



Explain: Tell if each statement is true or false. Explain your choice.

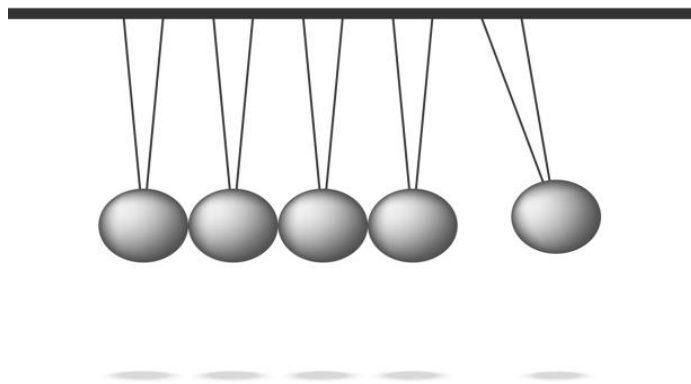
1. Hockey players use the force from their bodies to hit the puck. The harder the puck is hit, the farther the puck will travel.

This statement is _____ because _____



Apply concepts.

1. *How can you describe the transfer of energy if you moved one ball and it starts colliding with other balls?*



Name: _____

Date: ____/____/____

Lesson 3: Energy Transfer (use with pages 24-33)



Words to know: Write the word next to the description it matches.

Heat	Radiation	Light	Wave	Sound
------	-----------	-------	------	-------

_____ 1. Is a form of energy result of vibrating objects.

_____ 2. Energy that travels as a wave.

_____ 3. The transfer of thermal energy.

_____ 4. A transfer of energy.

_____ 5. A form of energy we can see.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. When heat is transferred to an object, the object's particles move slower.

_____ 2. The energy is carried away from the matter by radiation.

_____ 3. Some of the energy that is radiated to Earth from the sun can be seen as light.

_____ 4. Sound can travel through solids, liquids only.



Explain: Write the answer to the question on the line.

1. sound with a high pitch has particles that vibrate faster than a sound with a low pitch.

This statement is _____ because _____

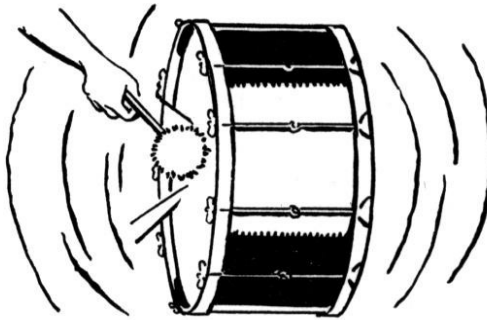
2. A sound wave moves in all directions from the source of the sound.

This statement is _____ because _____



Apply concepts.

1. How would a drum played on Earth sound different from a drum played in outer space? Explain your answer.



Name: _____

Date: ____/____/____

Lesson 4: Electric Circuits (use with pages 34-43)



Words to know: Write the word next to the description it matches.

Electric charge	Electric current	conductor	insulator	resistor
-----------------	------------------	-----------	-----------	----------

- _____ 1. A device to control the flow of electricity.
- _____ 2. A material that energy can easily flow through.
- _____ 3. A property that causes matter to have a force when it is placed near other charged matter.
- _____ 4. A material that stops the flow of electricity.
- _____ 5. The flow of charged particles in the same direction.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Electric charges can be positive (+) or negative (-).
- _____ 2. If their charges are the same, they will attract, or pull toward, each other.
- _____ 3. Wood is a good material to make electrical wires.
- _____ 4. The electric current must flow in a complete path.



Explain: Write the answer to the question on the line.

1. As we increase the resistance in an electrical circuit, the flow of charges will increase.

This statement is _____ because _____

2. When current is pushed through resistor, often the electrical energy is changed

into another form of energy, such as light or heat.

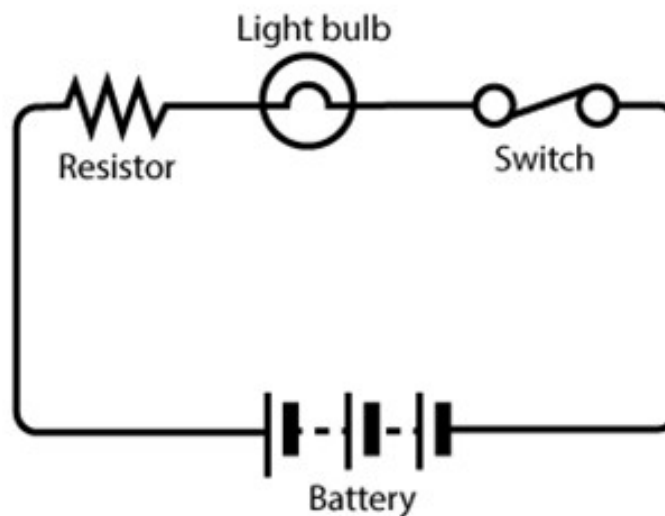
This statement is _____ because _____



Apply concepts.

1. A boy was trying to make an electric circuit, he used wires, light bulb, switch, a battery and a resistor, after connecting it the light was still off.

List all the possible solutions to make the light work.



Name: _____

Date: ____/____/____

Lesson 1: Energy Conversions (use with pages 56-63)



Words to know: Write the word next to the description it matches.

<i>fuel</i>	<i>combustion</i>	<i>turbine</i>	<i>generator</i>	<i>battery</i>
--------------------	--------------------------	-----------------------	-------------------------	-----------------------

- _____ 1. A device that changes the energy of motion into electrical energy.
- _____ 2. A substance that releases energy when it burns.
- _____ 3. The burning of a fuel to produce heat and light.
- _____ 4. An object that stores chemical energy that will change into electrical energy.
- _____ 5. A device that contains a wheel with blades that rotate by the pressure of moving water, steam, or air.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. The electrical energy is produced by changing some other form of energy.
- _____ 2. During combustion, substances in the fuel combine with hydrogen to form new substances.
- _____ 3. The chemicals inside the battery are burned to produce energy.



Explain: Tell if each statement is true or false. Explain your choice. Give an example.

1. These new substances do have as much chemical energy as the original fuel.

This statement is _____ because _____

2. A physical change occurs that releases energy stored in the fuel.

This statement is _____ because _____



Apply concepts.

1. Fossils fuel are formed when living things died and went through changes underground over a very long time. These living things were plants or animals, Explain the process of transfer of the energy.

Name: _____

Date: ____/____/____

Lesson 2: Nonrenewable Energy Sources (use with pages 74-83)



Words to know: Write the word next to the description it matches.

Fossil fuel	Coal	Petroleum	Natural gas	Nuclear fuel	Uranium
-------------	------	-----------	-------------	--------------	---------

_____ 1. An energy source made from unstable elements, such as Uranium.

_____ 2. A liquid that can be burned to transfer energy.

_____ 3. A solid fossil fuel that is burned to transfer energy.

_____ 4. A group of substances that are produced by pressure and decaying organisms that are used for energy.

_____ 5. An unstable element used by humans as an energy source.

_____ 6. A gas that is burned for energy.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. Burning fossil fuels can cause significant environmental problems, such as air pollution and acidic rivers and lakes.

_____ 2. Chemical changes transformed the plant stems and leaves into a hard, black substance, called petroleum.

_____ 3. Fossil fuels cannot be used as a source of heat.





Explain: Tell if each statement is true or false. Explain your choice.

1. Fossil fuels are a nonrenewable source of energy.

This statement is _____ because _____

Write the answer to the question on the line.

2. what are the benefits of petroleum? Mention 3.



Apply concepts.

1. Explain how the formation of coal, petroleum, gas are different and how they are alike.

Name: _____

Date: ____/____/____

Lesson 3: Renewable Energy Sources (use with pages 74-83)



Words to know: Write the word next to the description it matches.

Geothermal Energy

Hydropower

_____ 1. Energy created by pressure and heat underneath the Earth's crust.

_____ 2. Energy from the movement of water.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. All the forms of energy on Earth, comes from the Moon.

_____ 2. Biomass is a renewable energy source because new plants can be replanted many times in the same place.

_____ 3. The moving water of flowing rivers can be the source of energy to turn the turbine.



Explain: Tell if each statement is true or false. Explain your choice.

1. As the atmosphere absorbs energy from the sun, temperature differences in the atmosphere cause wind to blow.

This statement is _____ because _____

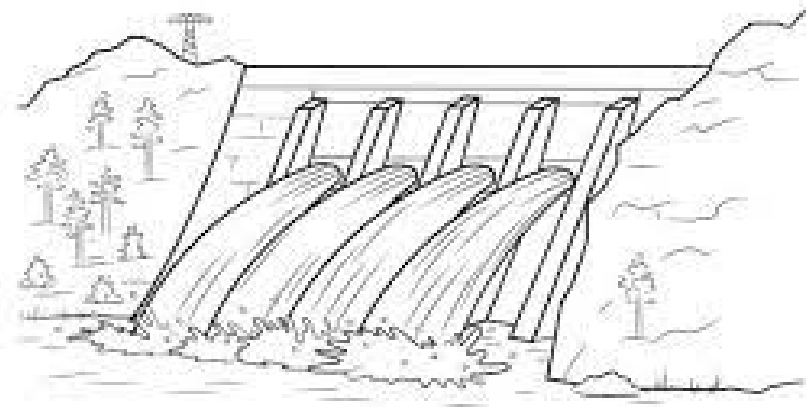
2. one limit of solar energy is that it is not available after few billions of years.

This statement is _____ because _____



Apply concepts.

1. *The main source of energy on earth is the sun, describe in your own words how the energy transferred in forms from the sun all the way to the dams.*



Name: _____

Date: ____/____/____

Lesson 1: Properties of Waves (use with pages 106-115)**Words to know: Write the word next to the description it matches.**

<i>wave</i>	<i>amplitude</i>	<i>wavelength</i>	<i>Trough</i>
<i>frequency</i>	<i>transverse</i>	<i>crest</i>	<i>longitudinal</i>

_____ 1. A wave that moves and carries energy perpendicular to the particles it travels through.

_____ 2. The bottom point of a transverse wave.

_____ 3. The greatest height of wave in its resting position.

_____ 4. A disturbance that travels in a pattern and carries energy.

_____ 5. A wave that moves in the same direction as the particles it travels through.

_____ 6. The top point of a transverse wave.

_____ 7. The distance between similar points on a wave.

_____ 8. The number of times a wave repeats itself in a certain amount of time.

**TRUE or FALSE: Write T if the statement is correct and F if not.**

_____ 1. Sound energy moves through matter.

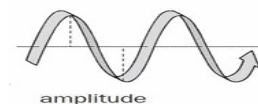
_____ 2. High frequency sound waves have a lower pitch.

_____ 3. One back and forth motion causes one complete wave.

_____ 4. Waves transfer energy through a medium and transfer the medium particles.



Explain: Tell if each statement is true or false. Explain your choice.



1. The higher the amplitude of a wave, the quieter it sounds.

This statement is _____
because _____

2. Objects that vibrate more quickly have lower frequencies.



This statement is _____ because _____



Apply concepts.

1. If you were on the moon, can you use walkie talkie device to communicate with your partners or not? Explain.



Name: _____

Date: ____/____/____

Lesson 2: Patterns of Waves (use with pages 116-123)



Words to know: Write the word next to the description it matches.

Wave period	Circular wave	Plane wave	Superposition
-------------	---------------	------------	---------------

_____ 1. A wave that is made when a line of matter is disturbed.

_____ 2. The time it takes a wave to move one wavelength.

_____ 3. Waves meeting and combining amplitudes as they move.

_____ 4. A disturbance at a single point that moves outward in all directions.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. Waves with low frequencies have shorter wavelengths.

_____ 2. When the crests of two waves meet, their two amplitudes add together.

_____ 3. Plane waves can look similar to stripes when viewed from aside.



Explain: Tell if each statement is true or false. Explain your choice.

1. when you touch a water surface, Multiple waves will spread out in all directions from the point, causing parallel lines of waves.

This statement is _____ because _____

2. *If you can observe the properties of part of a wave, you can figure out what the rest of the wave is doing.*

This statement is _____ because _____



Apply concepts.

1. *Describe how would you make a line wave and circular wave in a pool of water.*

Name: _____

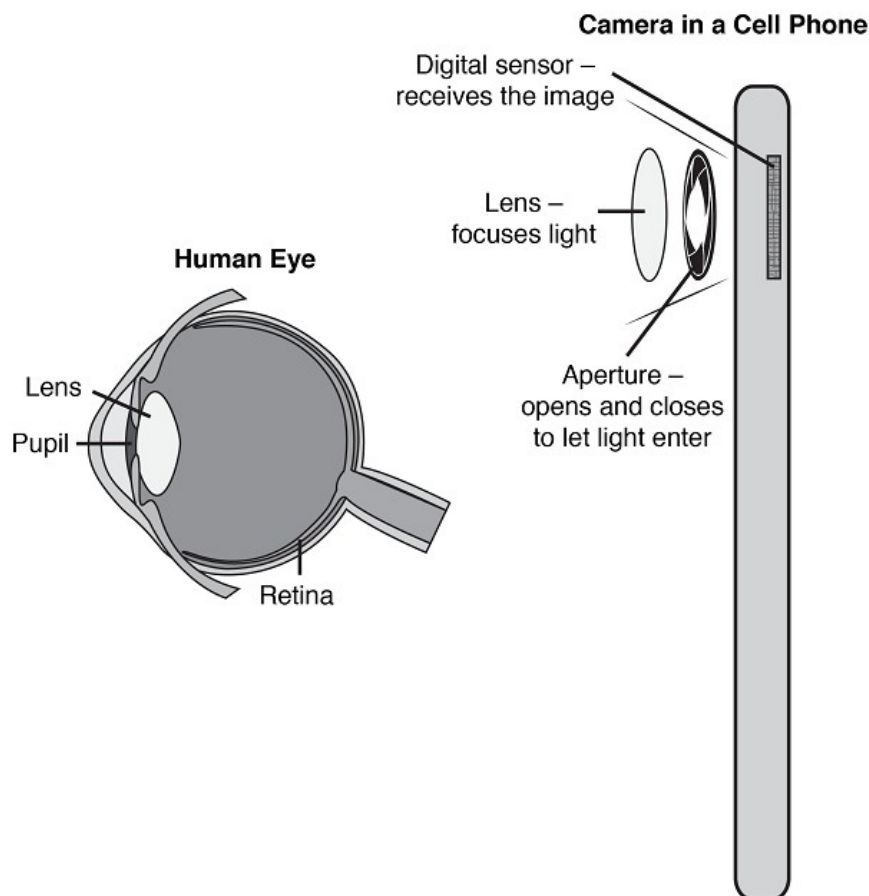
Date: ____/____/____

Lesson 3: Waves and the Electromagnetic Spectrum (use with pages 124-133)



Circle the words to complete the sentences.

1. A camera can model the parts and functions of a human eye. Compare the diagrams to complete the sentences.



The (retina / pupil / lens) of a camera functions like the lens of an eye.

The (aperture / digital sensor / lens) of a camera functions like the retina of an eye.

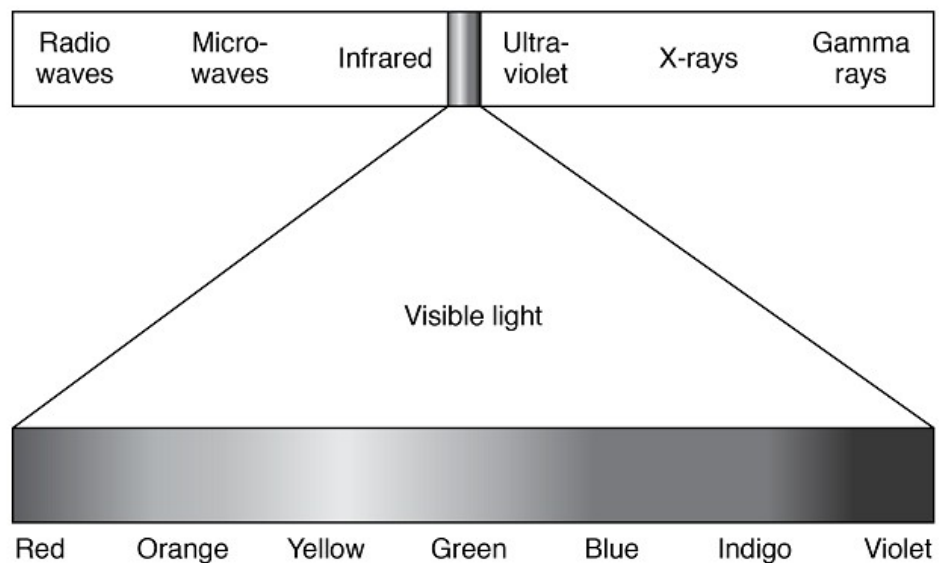
The (aperture / digital sensor / lens) of a camera functions like the pupil of an eye.

2. Number the steps in the correct order to explain how a person is able to see a dog walking on the sidewalk.

_____ Light energy is focused on the retina.
_____ Light energy is interpreted by the brain as a dog.
_____ Light energy radiates from a source.
_____ Light energy enters the eye.
_____ Light energy reflects off the dog.

Write the letters of the correct answers on the lines at left.

- _____ 3. Noelle wants to create a model of the electromagnetic spectrum.



Which type of wave on Noelle's spectrum should be labeled "absorbed by dense materials inside the human body"?

- A. blue light
- B. radio waves
- C. microwaves
- D. X-rays

Name: _____

Date: ____/____/____

Lesson 2: Patterns of Earth's Features (use with pages 166-173)



Words to know: Write the word next to the description it matches.

Canyon	Butte	Fault	trench
--------	-------	-------	--------

_____ 1. An area of the Earth's crust where tectonic plates meet.

_____ 2. A deep, narrow landform, usually found by mountains.

_____ 3. A landform in the ocean that is made when a long, narrow area of the ocean floor sinks deeper into the earth.

_____ 4. A steep hill with a small, flat top.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. As the plates crash together, mountains and volcanoes form.

_____ 2. Both earthquakes and hurricanes are the result of plates moving along these faults.

_____ 3. The whole earth crust is made of 1 big plate that shake and move.



Explain: Write the answer to the question on the line.

1. what is the cause of movement of earth tectonics?

Tell if the statement is true or false. Explain your choice.

2. *Underwater canyons, like those above ground, are high areas surrounded by steep sides.*

This statement is _____ because _____



Apply concepts.

1. *In your opinion, which is more dangerous, faults under water or at the surface of the Earth? Explain your answer.*

Name: _____

Date: ____/____/____

Lesson 3: Rocks, Minerals, and Soil (use with pages 174-183)**Words to know: Write the word next to the description it matches.**

Igneous	Sedimentary	Metamorphic
---------	-------------	-------------

- _____ 1. A group of rocks formed when particles of other rocks are combined by pressure.
- _____ 2. A group of rocks made from the products of a volcano eruption, such as magma or molten lava.
- _____ 3. A group of rocks formed when particles such as dirt, sand, and fossils settle into layers.

**TRUE or FALSE: Write T if the statement is correct and F if not.**

- _____ 1. Scientists classify rocks on how they are formed.
- _____ 2. Igneous rocks form only above the earth's surface.
- _____ 3. It takes a short time for magma to cool into igneous rocks.
- _____ 4. Most minerals break in definite patterns
- _____ 5. A mineral with greater hardness can scratch a mineral with lower hardness.
- _____ 6. The main rock particles in soil are sand, silt, and clay.

Explain: Write the answer to the question on the line.

1. When lava cools quickly, large crystals form.



This statement is _____ because _____

2. *Sedimentary rock cannot change into igneous rock.*

This statement is _____ because _____



Apply concepts.

1. *Sandstone and slate are used for building, but these rocks have different properties. Which rock would you use for a roof? Which would you use for the walls of a building? Explain.*



Name: _____

Date: ____/____/____

Lesson 4: Weathering and Erosion (use with pages 184-193)



Words to know: Write the word next to the description it matches.

Weathering

Erosion

_____ 1. The slow process where particles are removed from solids by wind or water.

_____ 2. The process where particles are slowly moved off of a solid.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. Water can cause physical weathering.

_____ 2. Canyons forms slowly over many years.



_____ 3. Chemical weathering can happen when rain mixes with chemicals in the air and interacts with the rock.



Explain: Tell if each statement is true or false. Explain your choice. Give an example.

1. Plants and animals can cause weathering.

This statement is _____ because _____



2. Wind erosion can destroy landforms or make new ones.

This statement is _____ because _____



Apply concepts.

1. Look carefully at the illustration. Why would people do this to their seashore?



Name: _____

Date: ____/____/____

Lesson 1: Tectonic Hazards, (use with pages 208-217)

Write the letter of the correct answer on the line at left.

- _____ 1. The Modified Mercalli Scale shows ratings of various earthquakes.

Modified Mercalli Scale Rating	Effect
M2.0 to M3.0	These earthquakes happen all the time, but people do not feel them.
M5.0	These earthquakes rattle buildings, knock pictures off walls, and cause minor damage.
greater than M6.0	These are serious earthquakes. Buildings crumble, bridges fall, and roads are torn apart.

An earthquake happened in the large city where the Johnson family lives. A bookcase fell and some dishes were broken in the kitchen.

Which rating of earthquake did the Johnson family experience?

- A. M2.2
- B. M3.0
- C. M5.1
- D. M9.0

2. A tsunami is a massive wave that can cause serious damage if it reaches land.

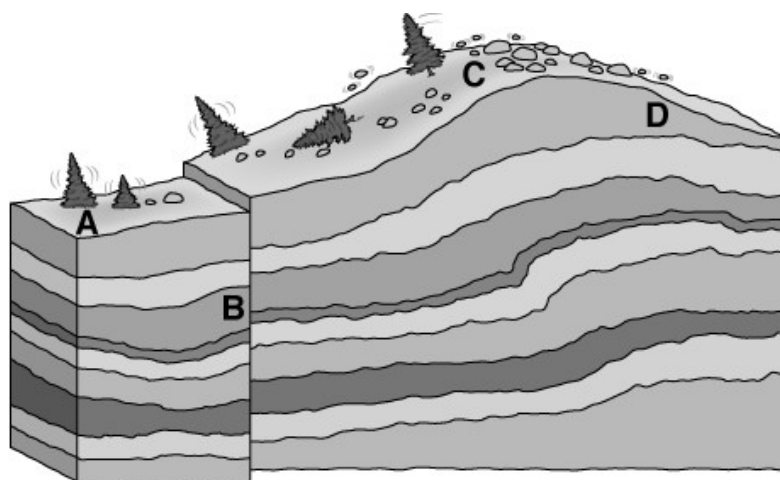


Rearrange the steps of a tsunami formation in the correct order.

- _____ Large ocean waves slow down and increase in height as they reach the coast.
 _____ Two tectonic plates slide past each other underwater, causing a large movement of water.
 _____ Large ocean waves move in all directions away from the shifting plates.
 _____ Large ocean waves form.

Fill in the blank to complete the sentence.

3. Use the diagram to answer the question.



The diagram shows an earthquake happening. At which point on the diagram did the earthquake **most likely** start? Enter the letter of the point in the box.

The earthquake **most likely** started at point _____.

Name: _____

Date: ____/____/____

Lesson 2: Weather Hazards, (use with pages 218-225)

Circle the words to complete the sentence.

1. Look at the pictures.

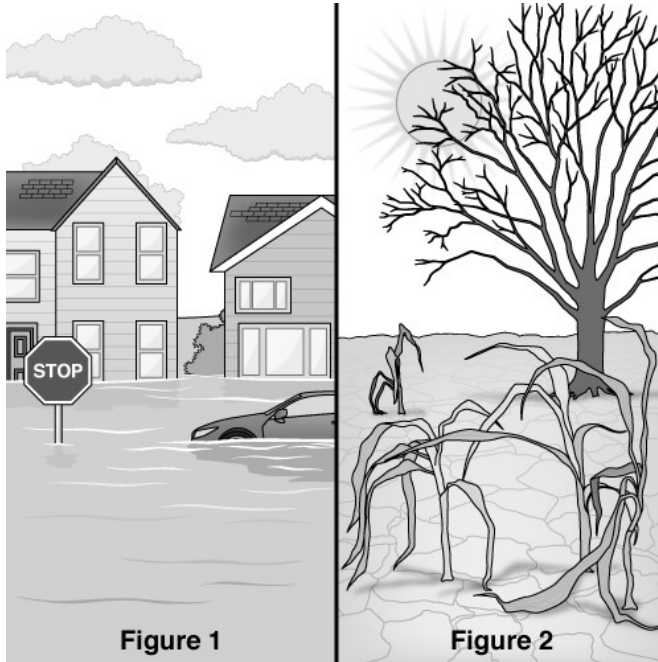


Figure 1 is showing a (drought / avalanche / flood), and Figure 2 is showing a (flood / avalanche / drought).

Use the words from the word bank to fill in the blanks.

avalanche • drought • flood • landslide

2. Write the natural hazard next to its cause.

caused by heavy rain overflowing a dam: _____

caused by new snow piling up too quickly on a steep slope: _____

caused by heat reducing moisture in the air: _____

caused by heavy rain bombarding loose soil: _____

Use words from the word bank to complete each sentence.

avalanches • drought • flooding • plants • sunlight • water

3. Look at the picture.



Water can wash away sand. If the sand is protected in bags, the sand can provide a barrier against moving water.

The sandbags placed in front of the house will most likely prevent _____. The sandbags will be able to prevent _____ from entering the building.

Name: _____ Date: __/__/__

Lesson 1: Pattern in Fossils and Rock Formations, (use with pages 248-257)



Words to know: Write the word next to the description it matches.

fossil	strata
--------	--------

- _____ 1. Remains or evidence of plants and animals that lived long ago preserved in minerals.
- _____ 2. Layers of rock.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Fossils form in a short period of time.
- _____ 2. Fossils provide clues about the environments where organisms lived.
- _____ 3. The igneous rocks are older than the rocks around them.
- _____ 4. Most fossils are found within sedimentary rocks.



Explain

1. Explain how Certain fossils can tell a geologist how old a rock is?
- _____
- _____
- _____
2. How does a body fossil of an animal form in amber?
- _____
- _____
- _____

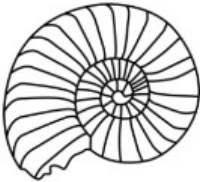




Apply concepts.

1. Suppose a scientist finds trace fossils that show a path in the sand from a snail-like animal. What might the scientist learn about the animal from these trace fossils?

2. Fossils can be classified by how they form. Study the fossil pictures and classify them according to type. Identify the following pictures whether they are **body fossil**, **cast fossil**, **mold fossil**, **trace fossil**.

skull of saber tooth tiger 	impression of shell fossil 	footprints 
Insect trapped in amber 	Animal shape made of stone 	Mammoth skeleton 

Name: _____ Date: ____/____/____

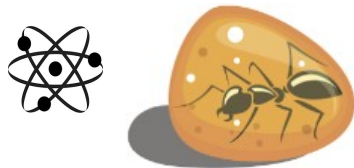
Lesson 2: Evidence of Change Form Fossils and Rocks Formation (use with pages 258-



Words to know: Write the word next to the description it matches.

Key bed	sample
---------	--------

- _____ 1. Small amount of material that is used for observation.
- _____ 2. A layer of rock that scientists can clearly identify the time in earths period in which it was formed.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Fossils show that Earth’s environment has changed.
- _____ 2. Index Fossils are fossils formed during a certain period in Earth’s history.
- _____ 3. Many scientists discovered that dinosaurs extinct because of Ice age.



Explain: Tell if each statement is true or false. Explain your choice.

1. The deeper a fossil is found buried in Earth, the older it most likely is.
- This statement is _____ because_____
- _____
- _____

2. *The processes of forming mountains are weathering and erosion.*

This statement is _____ because _____



Apply concepts.

1. *When studying a fossil, what questions would you ask to learn about the animal it came from?*

Name: _____

Date: ____/____/____

Lesson 1: Internal Structures and Functions of Plants (use with pages 282-291)



Words to know: Write the word next to the description it matches.

Structure	Function	Ovary	Vascular System
-----------	----------	-------	-----------------

_____ 1. The part of the flower that holds the eggs needed for a flower to make seeds

_____ 2. An arrangement of particles for a specific purpose.

_____ 3. Tube like parts of a plant that transport water and sugar around the plant.

_____ 4. The main action that something is made to do.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. The stem specific function is to produce eggs and provide a place for seeds to develop.

_____ 2. Chloroplasts are organs where chlorophyll pigment can be found.

_____ 3. phloem moves materials in only one direction—upward from the roots to all the plant parts.

_____ 4. During photosynthesis, plants take oxygen from the air to produce food and carbon dioxide.



Explain: Tell if each statement is true or false. Explain your choice.

1. A plant's waste products pass into the ground through its roots.

This statement is _____ because _____

2. The plants produce their food in the roots.

This statement is _____ because _____



Apply concepts.

1. The stomata are considered the lungs of the plants. Explain.

Name: _____

Date: ____/____/____

Lesson 2: External Structures and Functions of Plants (use with pages 292-299)



Words to know: Write the word next to the description it matches.

cuticle	sepal	stamen	pistil
---------	-------	--------	--------

- _____ 1. Green, leaf-like structures that protect a flower before it blooms.
- _____ 2. The part of a flower that receives pollen to make a seed.
- _____ 3. A waxy outer coating on a leaf that helps a plant store water and control the amount of water that leaves the plant.
- _____ 4. The part of the flower that creates pollen.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Plants that live in a desert environment often have thin leaves with a smooth, waxy cuticle.
- _____ 2. The thick bark protects it from the fires that often happen in its environment.
- _____ 3. A bee is one very important pollinator of flowering plants.



Explain: Tell if each statement is true or false. Explain your choice.

1. Colorful petals can be helpful to a flowering plant for pollination.

This statement is _____ because _____

2. Flowers are the organs that make seeds in flowering plants.

This statement is _____ because _____



Apply concepts.

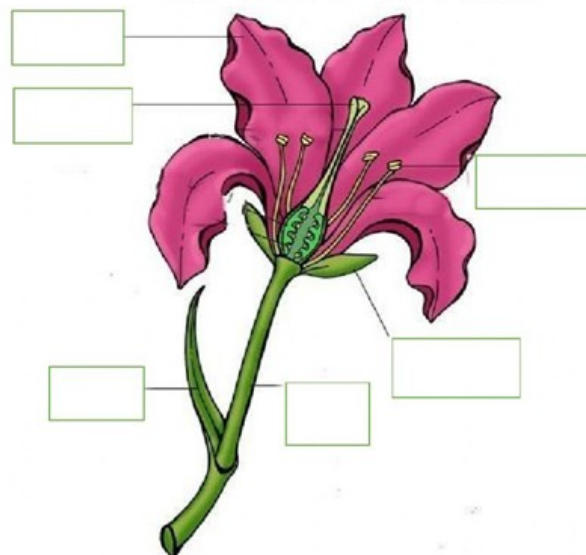
1. "The cuticle cannot completely seal the plant leaf. It must work with the stomata to make sure that air can enter the plant", Explain.



Label the following parts of the flower:

Stem	Petal	Stamen
Pistil	Leaf	Sepal

The Parts of the Flower



Name: _____

Date: ____/____/____

Lesson 3: Internal Structures and Functions of Animals. (use with pages 300-307)



Words to know: Write the word next to the description it matches.

Skeleton	Heart	Lungs	Gills	Brain
----------	-------	-------	-------	-------

_____ 1. The main respiratory organ that takes in and releases air.

_____ 2. An inner support in vertebrates made of bones.

_____ 3. An organ that moves blood to and from different areas of the body.

_____ 4. An organ that receives information from sense organs about the environment and then tells the body how to react.

_____ 5. The organ in fish and young amphibians that takes in oxygen from water.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. Animals with an internal bony skeleton are called vertebrates.

_____ 2. The heart is usually located near the center of the body.

_____ 3. Mammals are cold blooded animals and do not lay eggs.



Explain: Write the answer to the question on the line.

1. Scientists classify plants based on their height and how they reproduce.

This statement is _____ because _____



Apply concepts.

1. How would you decide if an unknown animal is a fish or an amphibian?



Classify the following animals. Write V for vertebrate and IV for invertebrate.

_____ birds

_____ crabs

_____ jellyfish

_____ fish

_____ salamander

_____ earthworm

_____ bobcat

_____ sponges

_____ Sea stars

_____ snake

Name: _____

Date: ____/____/____

Lesson 4: External Structures and Functions of Animals (use with pages 308-315)



Words to know: Write the word next to the description it matches.

Exoskeleton	characteristic
-------------	----------------

_____ 1. A hard covering on invertebrates used to maintain their shape and protect their organs.

_____ 2. A trait, feature, or quality.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. For animals that do not have an exoskeleton, other external structures provide protection.

_____ 2. Some characteristics of animal structures include color, size, and shape.

_____ 3. The bear has thick fur to protect it from predators.



Explain: Write the answer to the question on the line.

1. Vertebrate animals have exoskeleton to protect their soft body's.

This statement is _____ because _____

2. mammals, reptiles, and birds have claws to help them survive cold weather.

This statement is _____ because _____



Apply concepts.

1. *An animal's characteristics enable the animal to survive and reproduce in its environment. Give an example.*

Name: _____

Date: ____/____/____

Lesson 1: Circulatory and Respiratory Systems (use with pages 340-349)**Words to know: Write the word next to the description it matches.**

Organ system	Organ	Tissue	diaphragm	heart	Lungs
--------------	-------	--------	-----------	-------	-------

_____ 1. Group of the same kind of cells with a particular function.

_____ 2. A muscle below the lungs that helps lings take air in and push it out.

_____ 3. The main respiratory organ that takes in and releases air.

_____ 4. A group of organs that work together to take care of a specific need of the body.

_____ 5. An organ that moves blood to and from different areas of the body.

_____ 6. A group of tissues that has a specific function.

**TRUE or FALSE: Write T if the statement is correct and F if not.**

_____ 1. Air enters your body through the trachea or windpipe.

_____ 2. The lungs can expand on their own to move the air into the body.

_____ 3. Arteries are blood vessels that carry blood away from the heart.

_____ 4. Oxygen, nutrients, and other materials that are carried by blood move from the capillaries into the cells.



Explain: Tell if each statement is true or false. Explain your choice. Give an example.

1. The arteries and veins are parts of the respiratory system.

This statement is _____ because _____

2. Our body is made up of organ systems, and each system contains organs that work together, each organ is made up of cells.

This statement is _____ because _____



Apply concepts.

1. Explain how the Respiratory System is working with the Circulatory system to provide the cells with Oxygen.

Name: _____

Date: ____/____/____

Lesson 2: Skeleton, Muscles, and Skin (use with pages 350-357)



Words to know: Write the word next to the description it matches.

Skeletal system

skin

- _____ 1. The organ that surrounds and protects the body.
- _____ 2. The bones in the human body that interact to move, protect the body, and give it shape.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Our body has 260 bones that supports and gives it shape.
- _____ 2. Calcium is a mineral that is important for strong, healthy bones.
- _____ 3. Skeletal muscles are attached to your bones by tough rope-like tissues called cartilage.
- _____ 4. The outer layer of the skin called the epidermis.



Explain

1. Explain what happens to the arm muscles when you move it?



Apply concepts.

1. *There are 3 types of muscles, mention them and give example on each.*

Name: _____

Date: ____/____/____

Lesson 3: Nervous System (use with pages 358-365)



Words to know: Write the word next to the description it matches.

Sensory organ	respond
----------------------	----------------

- _____ 1. An organ that collects information about the body's surroundings, such as eyes, ears, nose, skin, and tongue.
- _____ 2. To react to a change or action.



TRUE or FALSE: Write T if the statement is correct and F if not.

- _____ 1. Nerve cells carry messages through the spinal cord to and from all parts of the body.
- _____ 2. The brain stem controls balance and coordination.
- _____ 3. The spinal cord is made up of a thick bundle of nerves.



Explain: Tell if each statement is true or false. Explain your choice.

1. The brain interprets the information it receives about conditions inside and outside the body.
- This statement is _____ because _____
- _____
- _____
2. the ear changes the vibrations into electrical signals, then these signals go the brain.
- This statement is _____ because _____
- _____
- _____



Apply concepts.

1. *Imagine you try to drink a hot tea, but it was so hot and burned your tongue.*

Describe the path of the nerve signal from the cell to the brain and the reaction.

Name: _____

Date: ____/____/____

Lesson 4: Digestive, Reproductive, and Other Systems (use with pages 366-375)



Words to know: Write the word next to the description it matches.

<i>Small intestine</i>	<i>Large intestine</i>	<i>pancreas</i>	<i>liver</i>
<i>Stomach</i>	<i>Excretory System</i>	<i>bladder</i>	<i>kidneys</i>

_____ 1. The organ that breaks down food for the body to use.

_____ 2. The organ that manages sugar in the body.

_____ 3. The organs that remove waste from the human body.

_____ 4. An organ that breaks down fats and helps with digestion.

_____ 5. An organ that stores urine in the body.

_____ 6. Two organs that filter waste.

_____ 7. The organ where most of digestion occurs.

_____ 8. The organ that takes in water from food and helps get rid of waste.



TRUE or FALSE: Write T if the statement is correct and F if not.

_____ 1. The Excretory system breaks down food into nutrients and other substances that the body can use.

_____ 2. Saliva, the liquid in the mouth, begins to chemically break down the food.

_____ 3. The organ that is responsible for digestion of sugar is pancreas.



Explain: Tell if each statement is true or false. Explain your choice.

1. The organ that filters waste from the blood is the kidneys.

This statement is _____ because _____

2. Early childhood lasts from approximately 3 to 8 months old.

This statement is _____ because _____



Apply concepts.

1. Our bodies contain defense systems that helps protecting ourselves, mention all these systems starting from outside till inside the body.
