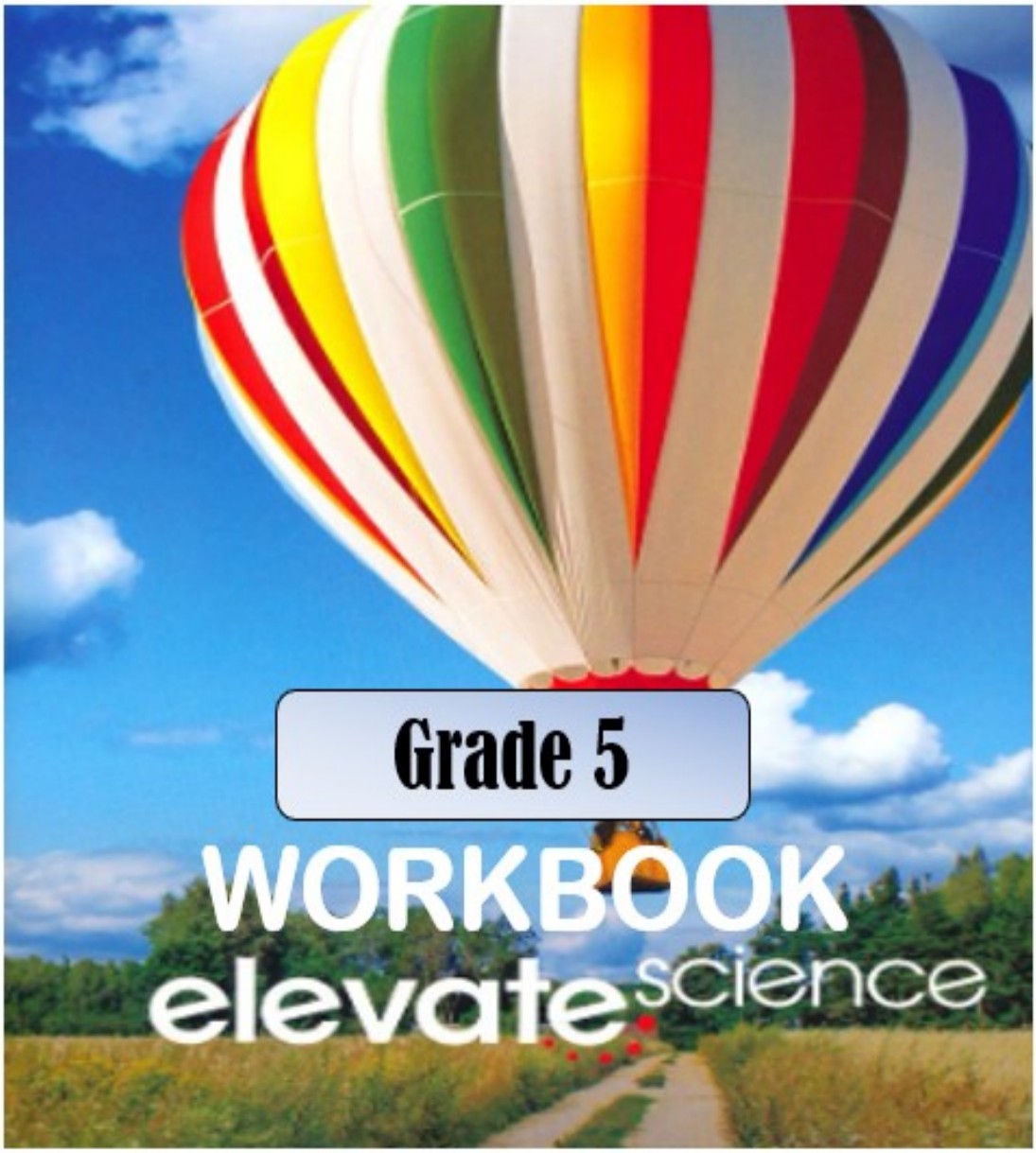
وزارة التعليم
Ministry of Education

AL NOOR INTERNATIONAL SCHOOL
Riyadh, Saudi Arabia
Science Department



Name: _____

Class: _____

Academic Year: _____

Table of Contents

GRADE 5

Topic1 Properties of Matter

Lesson 1.....	1
Lesson 2.....	3
Lesson 3.....	5

Topic 2 Changes in Matter

Lesson 1.....	7
Lesson 2.....	9
Lesson 3.....	11
Lesson 4.....	13

Topic 3 Earth's Systems

Lesson 1.....	15
Lesson 2.....	17

Topic 4 Earth's Water

Lesson 1.....	19
Lesson 2.....	21
Lesson 3.....	23

Topic 6 Solar System

Lesson 1.....	25
Lesson 2.....	27
Lesson 3.....	29

Topic 7 Patterns in space

Lesson 1.....	*31*
Lesson 2.....	*33*
Lesson 3.....	*35*

Topic 8 Energy and Food

Lesson 1.....	*37*
Lesson 2.....	*39*
Lesson 3.....	*41*

Topic 9 Matter and Energy in Ecosystem

Lesson 1.....	*43*
Lesson 2.....	*45*
Lesson 3.....	*47*

WORKBOOK CHECKLIST

Lesson	Page No.	X	Teacher's Signature	Parent's Signature
Topic 1: Properties of Matter				
Lesson 1	*pp. 1 – 2*			
Lesson 2	*pp. 3 – 4*			
Lesson 3	*pp. 5 – 6*			
Topic 2: Changes in Matter				
Lesson 1	*pp. 7-8*			
Lesson 2	*pp. 9-10*			
Lesson 3	*pp. 11-12*			
Lesson 4	*pp. 13-14*			
Topic 3: Earth's Systems				
Lesson 1	*pp. 15 – 16*			
Lesson 2	*pp. 17 – 18*			
Topic 4: Earth's Water				
Lesson 1	*pp. 19-20*			
Lesson 2	*pp. 21-22*			
Lesson 3	*pp. 23-24*			
Topic 6: Solar System				
Lesson 1	*pp. 25-26*			
Lesson 2	*pp. 27-28*			
Lesson 3	*pp. 29-30*			
Topic 7: Patterns in Space				
Lesson 1	*pp. 31-32*			
Lesson 2	*pp. 33-34*			
Lesson 3	*pp. 35-36*			
Topic 8: Energy and Food				
Lesson 1	*pp. 37-38*			
Lesson 2	*pp. 39-40*			

Lesson 3	*pp. 41-42*			
Topic 9: Matter and Energy in Ecosystems				
Lesson 1	*pp. 43-44*			
Lesson 2	*pp. 45-46*			
Lesson 3	*pp. 47-48*			

Part 1

Name: _____ **Date:** _____

Lesson 1: Observe Matter (use with pages 6-15)

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

solubility ***measure*** ***observe***

1. _____ *is the process you use your senses to gather information about.*
2. _____ *is a property of material that refers to how well it dissolves in another material.*
3. _____ *is comparing a property to a standard unit, or value, for that property.*

True or False: Write T if the statement is correct and F if not, then correct the mistake:

_____ *1. Pound is a unit used to measure the distance between two points.*

_____.

_____ *2. Using standard units means that someone else will be able to know the exact amount you refer to.*

_____.

_____ *3. The measure of how much space a material takes up is called "volume".*

_____.

_____ *4. all substances have the same solubility in water at same temperature.*

_____.

_____ *5. when you observe something, you can use the information you gather to describe what you observed.*

_____.

_____ *6. If you connect the battery and light with string instead of copper wire, the light will turn on.*

_____.

Apply Concepts

8. *A girl is preparing to make a cupcake, she mixed some flour with cold water, but it was so thick and did not form properly in the cup, her mother advised her heat up the water a bit, do you think temperature will affect solubility? Think of another factor that can affect it.*

_____

_____

_____

_____

_____

Part 1

Name: _____ ***Date:*** _____

Lesson 2: Model Matter (use with pages 16 – 25)

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

Atom ***Molecule*** ***Atomic Theory*** ***compound***

1. The atoms of different elements are joined together in a particular way to form a _____.

2. The smallest particle of a compound that still has the properties of that compound is called a _____.

3. The smallest part of an element that still has the properties of an element is called an _____.

4. The idea that everything is made of small particles is known as _____.

True or False: Write T if the statement is correct and F if not, then correct the mistake:

_____ *1. The atom* ***can*** *be seen with a regular microscope.*
_____
_____.

_____ *2. The water molecule is made out of hydrogen and oxygen atoms.*
_____.

_____ *3. Changing the kinds of atoms in a molecule result in a different molecule.*
_____.

_____ *4. Even when mixed, elements and molecules still keep their unique properties.*
_____.

_____ *5. If we replace the atoms that form water, hydrogen and oxygen, we will have a new compound.*

_____.

_____ ***6.*** *When we dissolve spoon of sugar in water, that mean the sugar disappeared and can't be restored again.*

_____.

Apply Concepts

Is a compound simply a mixture of two or more elements? explain?

_____

_____

_____

_____

_____

Part 1

Name: _____ ***Date:*** _____

Lesson 3: Properties of Matter (use with pages 26 – 31)

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

mass ***temperature*** ***volume***

1. _____ *is the amount of space an object takes up.*
2. _____ *is the measure of how fast the particles move.*
3. _____ *is the amount of matter in a substance.*

True or False: Write T if the statement is correct and F if not.

1. _____ *Graduated cylinder is used to find the volume of a liquid.*

2. _____ *Sandpaper has a rough texture.*

Explain: write your answer on the space provided.

3. why might scientists measure the mass of an object rather than the weight of an object?

_____

_____

_____

5. what do you know for certain about the particles that make up a very hot liquid?

_____

_____

_____

Apply Concepts

6. you have been given an orange liquid and told to describe its properties. What methods would you use to observe, measure, and describe the physical properties of this orange liquid without changing it?

_____
_____
_____
_____.

Part 2

Name: _____ **Date:** _____

Lesson 1: States of Matter? (use with pages 48 – 55)

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

solid ***liquid*** ***gas***

1._____ a substance that has a definite shape and volume.

2._____ a substance without a definite shape or volume.

3._____ a substance that has a definite volume but no definite shape.

True or False: Write T if the statement is correct and F if not, then correct the mistake:

_____ *1. Water **has more than three** forms.*

_____.

_____ *2. The particles of the gases **are far apart** from each other.*

_____.

_____ *3. Boiling point of a liquid is **the temperature at which it occurs**.*

_____.

_____ *4. There are **three** states of matter: solid, liquid, and gas.*

_____.

_____ *5. Dew forming on grass is **an example of condensation**.*

_____.

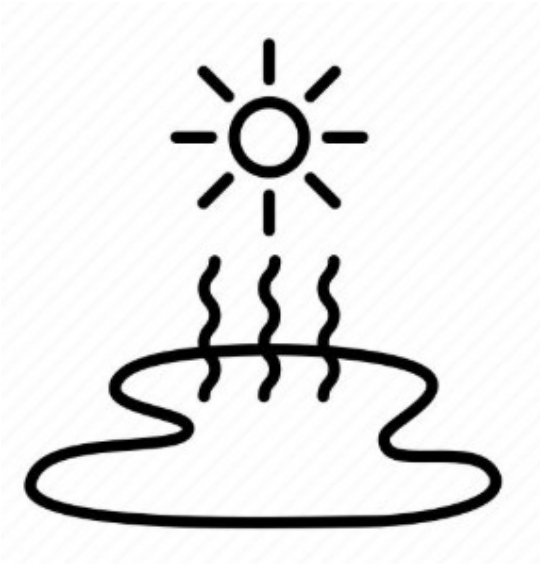
Apply Concepts

1. Look at the illustration. What causes the phase change of water shown in the illustration? How do you know?

_____

_____

_____



Part 2

Name: _____ ***Date:*** _____

Lesson 2: Physical Changes (use with pages 56– 63)

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

Physical change ***Establish***

1._____ Is a change in some properties of matter that does not form a different kind of matter.

2._____ to demonstrate or show something.

True or False: Write T if the statement is correct and F if not, then correct the mistake:

_____ *1. Breaking a glass is a* ***Physical change.***

_____.

_____ *2. The railroad track appears to be warped or bent because of the* ***Train weight****.*

_____.

_____ *3. If the temperature of a liquid is high enough,* ***particles will change to a gas only at the surface****, but also throughout the liquid.*

_____.

_____ *4. A physical change occurs when matter changes state, as from a liquid to a gas.*

_____.

_____ *5. When the temperature gets cold enough, the particles can only vibrate in place, they cannot slide past each other so the liquid becomes a solid.*

_____.

Apply Concepts

1. *what clued could tell you if physical change has occurred in a substance?*

_____

_____

_____

_____

_____

_____

Part 2

Name: _____ ***Date:*** _____

Lesson 3: Chemical Changes (use with pages 64 – 73)

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

Chemical change ***Conservation of matter*** ***Rust*** ***Chemical reaction***

1._____ a new substance that results when iron is left outside.

2._____ a change in which one or more types of matter change into other types of matter with different properties.

3._____ is when you observe one or more substances change into one or more new substances.

4. _____ is a law states that in any chemical change or physical change, the total mass of the matter does not change.

True or False: Write T if the statement is correct and F if not.

_____ *1. Freezing is a* ***Chemical change.***

_____.

_____ *2. Chemical changes* ***can happen only at high temperatures****.*

_____.

_____ *3. All Chemical changes occur* ***really fast.***

_____.

_____***4. A****n increase in temperature usually slows down a chemical reaction.*

_____.

_____***5.*** *Evidence of chemical change may include the release of heat or light only.*

_____.

Apply Concepts

1.What are the differences between the chemical change and physical change?

_____

_____

_____

_____

Part 2

Name: _____ ***Date:*** _____

Lesson 4: Mixtures and Solutions (use with pages 78 – 85)

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

Mixture ***Solution***

1._____ is a mixture in which substances are spread out evenly and do not settle to the bottom of the container.

2._____ is when different materials are placed together, but each material in the mixture keeps its own properties.

True or False: Write T if the statement is correct and F if not.

_____ *1. All parts of a mixture can be* ***easily*** *separated from the rest of the mixture.*

_____.

_____ *2. The substance that in* ***dissolved in a solution is called the solute****.*

_____.

_____ *3****. All solutions*** *are made by dissolving a solid in a liquid.*

_____.

_____*4. A gas cannot be dissolved in a liquid.*

_____.

_____***5.*** If someone mixed sugar with salt, he cannot separate it easily.

_____.

Apply Concepts?

To separate a solution, you have to cause a physical change to one or more of its components, explain how?

_____

_____

_____

_____

Part 3

Name: _____ ***Date:*** _____

Lesson 1: Geosphere and Biosphere (use with pages 102 – 109)

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

Lithosphere ***Biosphere*** ***Geosphere***

4. _____ *is an earths system that includes all living things, including humans.*
5. _____ *is the earth system that includes rocks, soil, and sediments.*
6. _____ *is made up of the outer, rocky parts of earth and includes the crust and the outer, rigid part of the mantle.*

True or False: Write T if the statement is correct and F if not.

_____*1. Living things can be found* ***in the biosphere****.*

_____*2. Rivers, lakes, glaciers and oceans are part of the* ***lithosphere.***

_____ *3. Air, water, and the sun are nonliving, but* ***they are part*** *of the geosphere.*

_____ *4. The lithosphere is not only the outer layer of land, it also* ***forms the bottom*** *of the ocean.*

.

Tell if statement is TRUE or FALSE. Explain your choice.

1. *The biosphere is able to support so many kinds of living things.*

This statement is _____ *because* _____

_____

_____

2. *If a part of a system is damaged or missing, the system will not as well-or may not work at all.*

This statement is _____ *because* _____

_____

_____

Apply Concepts

1. Explain how each of earths four spheres contributes to the existence of life.

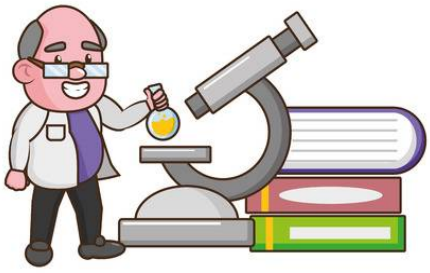
_____

_____

_____

_____

_____



Part 3

Name: _____ ***Date:*** _____

Lesson 2: Hydrosphere and Atmosphere (use with pages 110 –119)

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

hydrosphere ***atmosphere*** ***distinguish***

1. _____is the layer of mixed gases that surrounds earth.

2. _____ is all the water on, under, or above earth's surface.

3. _____ to make a clear difference.

True or False: Write T if the statement is correct and F if not.

_____ 1. Nitrogen and oxygen are the main gases in the atmosphere.

_____ 2. The atmosphere allows all kinds of rays to pass through.

_____ 3. An example of hydrosphere and atmosphere working together is a hurricane.

_____ 4. The hydrosphere is made up of mostly fresh water.

_____ 5. Earths spheres do not interact with one another.

_____ 6. Sunburn is actually caused by ultrasound.

_____7. The pressure of the air affects the kind of precipitation that will fall.

Apply Concepts

1.Think of an interaction between lithosphere, atmosphere, hydrosphere, biosphere and describe it your way.

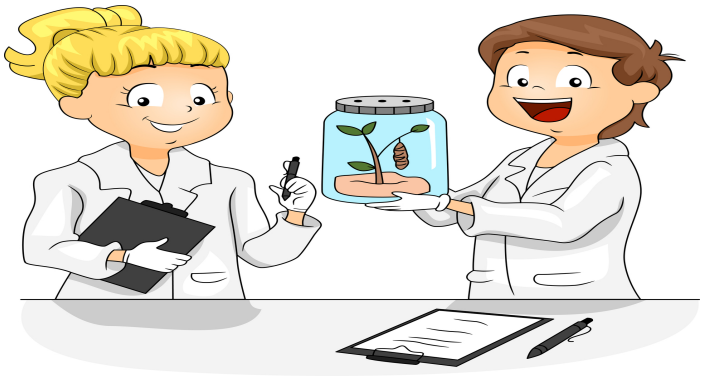
_____

_____

_____

_____

_____



Part 4

Name: _____ **Date:** _____

Lesson 1: water cycle (use with pages 144– 153)

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

precipitation ***condensation*** ***evaporation*** ***water cycle***

1. _____ *is the process of changing liquid water into water vapor.*
2. _____ *is the change from water vapor to liquid water.*
3. _____ *is the continuous movement of water on Earth.*
4. _____ *water falls in clouds as rain, snow, sleet, or hail.*

True or False: Write T if the statement is correct and F if not.

_____*1. Sleet is a* ***type of precipitation****.*

_____*2. Hail* ***develops*** *in freezing temperature.*

_____*3. Water cycle* ***can affect*** *the climate.*

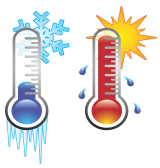
Explain: Tell if each statement is true or false. Explain your choice.

1. *The water cycle is the result of weather and climate.*

   This statement is _____ *because* _____

   _____

   _____



2. *Temperature has no effect on water's phase.*

   This statement is _____ *because*_____

   _____

   _____

Apply Concepts

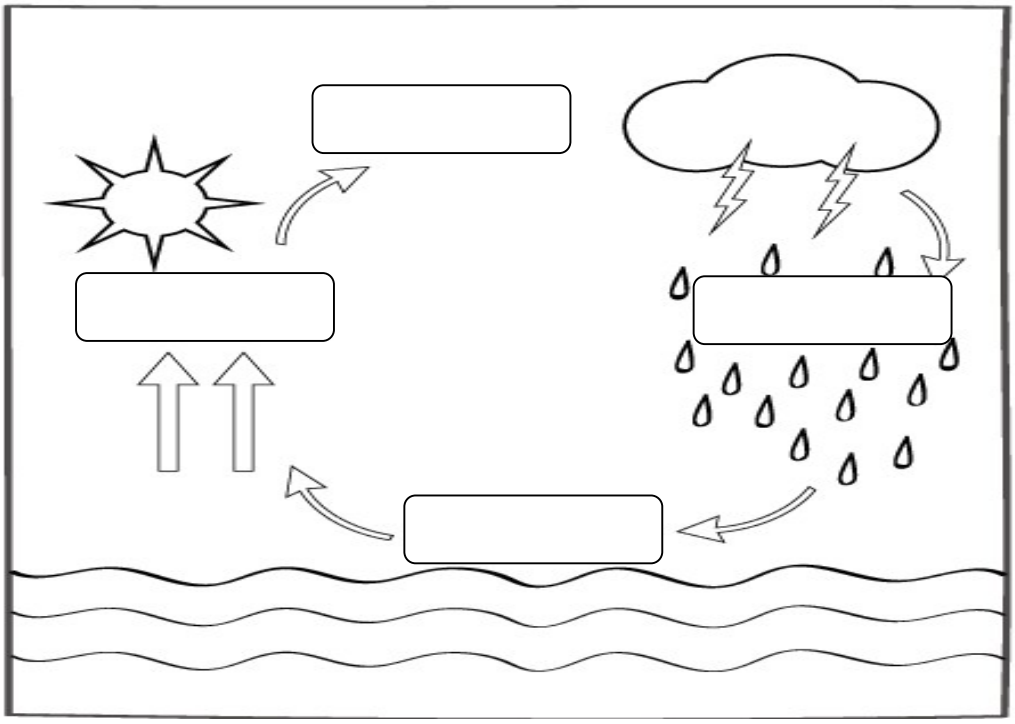
1. *Describe how water travels through the water cycle. Then label the given picture below using the word bank provided.*

_____

_____

_____

_____



collection ***precipitation*** ***condensation*** ***evaporation***

Part 4

Name: _____ ***Date:*** _____

Lesson 2: Earth's Freshwater (use with pages 154 – 161)

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

Aquifer	*Glacier*	*Reservoir*

1._____ is a slowly moving body of ice on land.

2._____ is underground water supplies.

3._____ is places to collect and store water.

True or False: Write T if the statement is correct and F if not.

_____*1. Water **covers most** of the Earth's surface.*

_____*2. **All** of the Earth's water **is fresh water**.*

_____*3. Water in the river **moves downhill.***

Tell if statement is TRUE or FALSE. Explain your choice.

1. Most of the water on Earth is ready to drink.

This statement is _____ because_____

_____

_____

2. Ocean water, river water, and well water are all types of surface water.

This statement is _____ because_____

_____

_____

Apply Concepts

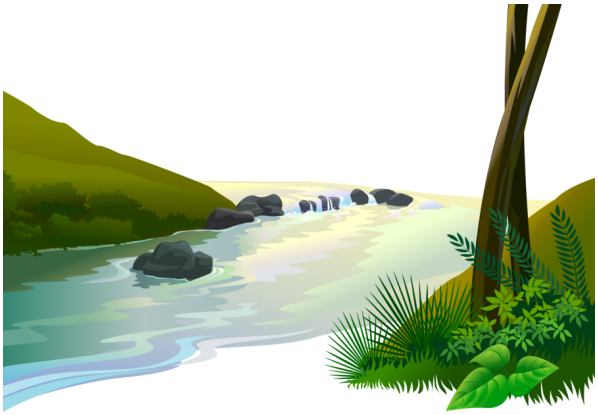
1. *A sales person for a bottled water company says that the water is taken straight from a river and put into the bottle. Is he telling the truth?*

_____

_____

_____

_____



Part 4

Name: _____ ***Date:*** _____

Lesson 3: Earths Ocean (use with pages 162 – 173)

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

Circulation ***Tides*** ***Salinity***

1._____ is the rising and falling patterns caused by the pull of gravity.

2._____ is the amount of salt dissolved in water.

3._____ is a swirling motion of ocean water around the globe.

.

True or False: Write T if the statement is correct and F if not.

_____ 1. The hydrosphere can be divided into two main sections, salt water and fresh water.

_____2. Deep ocean water receives more sunlight than surface water.

_____ 3. Surface currents are caused by wind.

.

Tell if statement is TRUE or FALSE. Explain your choice.

1. All oceans have the same salinity.

This statement is _____ because _____

_____

_____

2. Animals living in the ocean suffer when oil coats the water.

.

This statement is _____ because _____

_____

_____

Apply Concepts

1. Think of a way to prevent pollution of shorelines and save the environment.

_____

_____

_____

_____

_____

_____

Part 6

Name: _____ ***Date:*** _____

Lesson 1: Brightness of the sun and other stars (use with pages 236 – 245)

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

Star ***solar flares***

1._____ is when energy heats the sun so much that it causes particles to explode into outer space.

2._____ Is a huge ball of very hot matter that gives off energy.

True or False: Write T if the statement is correct and F if not.

_____*1. Stars are gigantic balls of very hot gases.*

_____*2. The atmosphere of the sun has 4 layers.*

_____*3. Stars are always in the same place.*

Tell if statement is TRUE or FALSE. Explain your choice.

1. The sun is one of the largest stars in the galaxy.
This statement is _____ because

_____

_____

2. Stars that are hotter will be brighter than stars that are not as hot.

This statement is _____ because _____

_____

_____

Apply Concepts

9. If you look at a star at 7 p.m. and again at 9 p.m., will it be in the same spot? Explain.

_____

_____

_____

Part 6

Name: _____ ***Date:*** _____

Lesson 2: Inner Solar System (use with pages 246 – 254)

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

Moon ***Solar system*** ***Inner planets*** ***Orbit***

1._____ is natural object that revolves around a planet

2._____ are the four closest planets to the sun.

3._____ is a system of eight planets and the sun along with moons, asteroids, and comets.

4._____is the curved path of an object around a star, a planet, or a moon.

True or False: Write T if the statement is correct and F if not.

*_____1. There are **10 planets** revolving around the sun.*

*_____2. Objects in the solar system **do not stay** in their orbits.*

*_____3. Venus is the **fourth planet** in the solar system.*

Tell if statement is TRUE or FALSE. Explain your choice.

1. The force of Earth's gravity keeps Earth in its orbit around the sun.
This statement is _____ because _____
_____
_____

Apply Concepts

1. How is Mercury different from the other inner planets?

_____

_____

_____

2. What causes Venus to be one of the brightest objects in the night sky?

_____

_____

Part 6

Name: _____ ***Date:*** _____

Lesson 3: Outer solar system use with pages 254 – 261)

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

Outer planet ***asteroid*** ***comet***

_____*1. is chunks of ice and dust or rock that have stretched-out orbits around the sun*

_____*2. is chunk of rock that measures in size from meter to several kilometers in diameter.*

_____*3. The four planets in our solar system beyond Mars.*

True or False: Write T if the statement is correct and F if not.

_____*1. Jupiter has only one moon.*

_____*2. Uranus rotates to its side.*

_____*3. Several probes have been sent to explore the outer planets.*

Tell if statement is TRUE or FALSE. Explain your choice.

1. Saturn is the only planet that has rings that orbit it.

This statement is _____ *because* _____

_____

_____

2. Jupiter has a longer day than Earth.

This statement is _____*because*_____

_____

_____

Apply Concepts

1. Study the picture. Which planet is shown? Describe three characteristics of this planet.

_____

_____

_____

2. Enumerate the 8 planets starting nearest from the Sun.

1. _____ 5. _____

2. _____ 6. _____

3. _____ 7. _____

4. _____ 8. _____

Part 7

Name: _____ **Date:** ___/____/_____

Lesson 1: Earth Gravitational Force (use with pages 278-283)

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

Gravity	*Exert*

_____*1. To apply strength or effort.*

_____*2. A force that pulls objects toward each other.*

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

_____*1. Only objects that have small amounts of mass exert, or apply, gravitational forces that you can feel.*

_____*2. Earth's gravity always pulls objects toward Earth's center.*

_____*3. The gravity of the sun holds Earth and other objects in space in their orbits.*

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

1. Gravity is a constant force. It cannot be "turned off," even when objects float or rise.

This statement is _____

*because*_____

_____

_____

2. Everything that has mass exerts, or applies, an electrical force on other objects.

This statement is _____

*because*_____

_____

_____

Apply concepts

1. *Why might scientists measure the mass of an object rather than the weight of an object? Explain.*

_____

_____

_____

_____

_____

Part 7

Name: _____ **Date:** ___/____/_____

Lesson 2: Earth`s movements in Space. (use with pages 284-293)

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

axis	*revolution*	*rotation*	*pattern*

_____*1. One full orbit of an object around another object.*

_____*2. An imaginary line that goes through the center of an object.*

_____*3. Objects or events that occur in the same order or manner.*

_____*4. One whole spin of an object around its axis.*

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

_____*1. Earth is the center of the universe.*

_____*2. One rotation of the earth is what we call a year.*

_____*3. The number of daylight hours change as the season change.*

Explain: Write your answer on the space provided

1. Earth orbits the sun in a circular pattern.

This statement is _____ *because* _____

_____

_____

_____

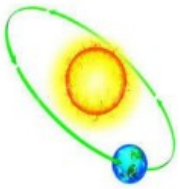
2. During the day, the sun appears to move across the sky because of Earth's

revolution.

This statement is _____ because _____

_____

_____



Apply concepts

1. Explain what causes Earth's seasons, even though Earth is always tilted the same way during its revolution around the sun.

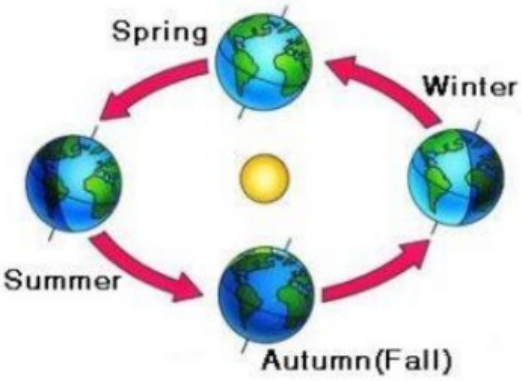
_____

_____

_____

_____

_____



Part 7

Name: _____ **Date:** ___/____/_____

Lesson 3: Patterns over Time? (use with pages 294-305)

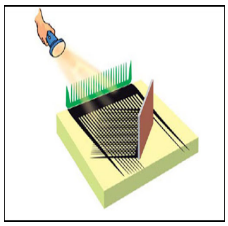
Words to know: Write the word next to the description it matches.

shadow	***constellation***

_____*1. A dark area or shape made by an object or organism blocking a source of light.*

_____*2. Imaginary pictures formed by stars that are used to help identify stars.*

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



_____*1. A larger shadow will from if you move the object closer to the light source.*

_____*2. The shadow is longer at noon time.*

_____*3. Many stars that are farther than the sun from Earth are much brighter.*

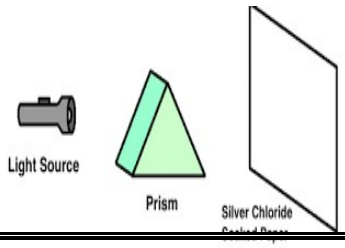
Explain: Tell if each statement is true or false. Explain your choice. Give an example.

1. An object that light passes through it will have a darker shadow than an object that reflects or absorbs light rays.

This statement is _____*because*_____

_____

_____



2. The moon does produce its own light, that's why we can see it during day and night.

This statement is _____because_____

_____

_____

_____

Apply concepts

1. The sun is not the brightest or the biggest star in the universe, yet we don't see other stars during the day, explain why.

_____

_____

_____

_____

_____

Name: _____ Date: ___/____/_____

Part 8

Lesson 1: Energy and Food (use with pages 320-327)

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

herbivore	carnivore	omnivore

_____1. *An animal that eats only other animals for energy.*

_____2. *Animals that can eat both plants and animals for energy.*

_____3. *Animals that eat only plants to get energy.*

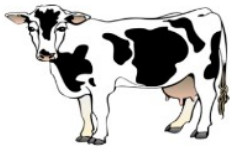
TRUE or FALSE: Write T if the statement is correct and F if not.

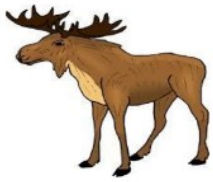
_____1. *Trophic levels sort animals and plants according to what covers their bodies.*

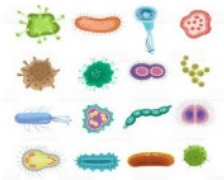
_____2. *Plants make their own food, so they are called consumers.*

_____3. *Predators are at the top of food chain.*

Label each organism as a producer, consumer, or decomposer.







Apply concepts

1. Put these organisms in order according to how energy moves between them in the food chain: PLANT, SNAIL, SEA GULL, CRAB. Describe the role of each organism in the food chain.

Plant

Snail

Seagull

Crab

Organism	*Role in the Food Chain*
Crab	
Plant	
Sea gull	
Snail	

Part 8

Name: _____ **Date:** ___/____/_____

Lesson 2: How plants Make Food (use with pages 328-337)

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

photosynthesis	***chlorophyll***

_____*1. The green substance in plant cells that absorbs light energy and helps the plant perform photosynthesis.*

_____*2. The process that plants use to make glucose using carbon dioxide, light, and water and producing oxygen.*

Identify the materials being described. Pick your answer from the box.

Carbon dioxide ***Oxygen*** ***Sugar*** ***Sunlight*** ***Water***

_____*1. Most often this is absorbed by the roots.*

_____*2. This is the source of energy used to make sugar.*

_____*3. This enters the plants through the holes at the bottom of the leaves.*

_____*4. When the chloroplasts absorb more sunlight, more of this can be made.*

_____*5. During photosynthesis, this is release through the holes at the bottom of the leaves.*

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

1. Cellular respiration occurs mostly in plant's nucleus.

This statement is _____*because*_____

_____

_____

2. To reduce transpiration, many desert plants open their stomata only at night. This statement is _____because_____

_____

_____

Apply concepts

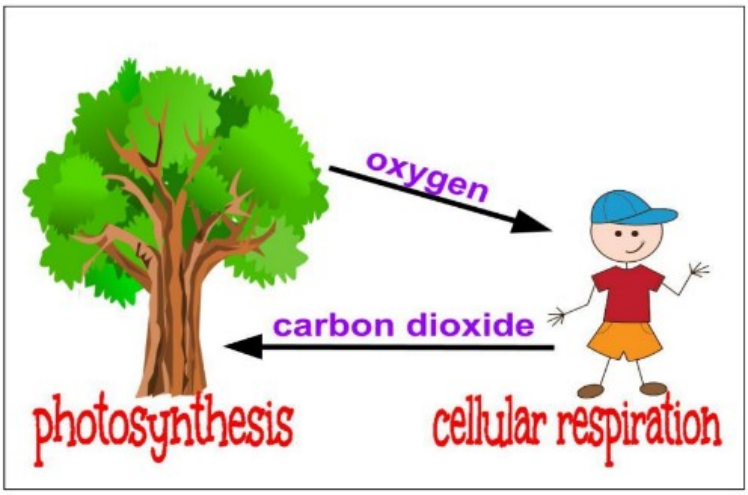
1. Explain how photosynthesis and cellular respiration work together to give plants energy.

_____

_____

_____

_____



Part 8

Name: _____ **Date:** ___/____/_____

Lesson 3: How animals use food (use with pages 338-345)

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

endotherm	*ectotherm*	*metabolism*

_____*1. An animal that depends on its environment to warm its body.*

_____*2. The chemical processes animals use to break down and build molecules.*

_____*3. An animal that uses energy from their body to keep their body at a steady temperature.*

.

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

_____*1. 37 °C (98.6 °F) That is the normal body temperature for a human.*

_____*2. The speed of an ectotherm's metabolism does not depend on temperature.*

_____*3. Locomotor movements involve moving the body from one place to another place.*

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

1. The chemical energy in an animal's food can be transformed into the thermal energy.

This statement is _____ *because* _____

_____

_____

2. *To stay warm, small animals break down more food to release heat.*

This statement is _____because_____

_____

_____

Apply concepts

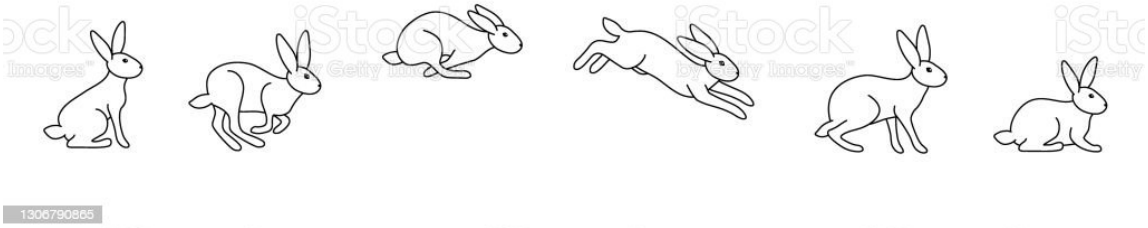
1. *Twisting, shaking, bending, and stretching are all nonlocomotory movements, Explain the difference between nonlocomotory movement and locomotor movement.*

_____

_____

_____

_____



Part 9

Name: _____ **Date:** ___/____/_____

Lesson 1: Ecosystems (use with pages 360-367)

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

Ecosystem	*Abiotic*	*Biotic*	*community*

_____*1. Living part of an ecosystem.*

_____*2. The way living things and nonliving things in an area interact.*

_____*3. All organisms living in an ecosystem.*

_____*4. Nonliving parts of an ecosystem.*

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

_____*1. The biotic parts of an ecosystem can be as small as a bacterium or as large as the tallest tree on Earth.*

_____*2. The community's members depend on one another to fill needs, such as mates or protection.*

_____*3. Ecosystems can be any size. They can be as small as a drop of water or larger than an entire forest.*

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

1. Regardless of their size, all ecosystems consist of abiotic components only that interact.

This statement is _____ *because*_____

_____

_____ .

2. *You need the same amount of force to throw a basketball 3 meters as you need to throw a golf ball 3 meters.*

This statement is _____ because_____

_____

_____.

Apply concepts

1. *Water, temperature, and sunlight determine the number and types of organisms that can live in an ecosystem, explain how these factors affect the diversity.*

_____

_____

_____

_____

Part 9

Name: _____ ***Date:*** ___/____/_____

Lesson 2: Organisms within Ecosystems

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

Producer	***Decomposer***	***Microbe***
Food chain	***Food web***	***Consumer***

_____*1. An organism that is too small to see.*

_____*2. An organism that breaks down the bodies of dead organisms.*

_____*3. A model of the transfer of energy that shows how all of the organisms in an ecosystem interact that looks like overlapping food chain.*

_____*4. An organism that can make its own nutrients, usually with energy from the sun.*

_____*5. A model that shows how matter and energy flow from one organism to another.*

_____*6. An organism that needs to eat another to survive, such as herbivores, carnivores, and omnivores.*

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

_____ *1. Food chain is ordered from consumer to producer.*

_____ *2. Omnivores eat both plants and animals.*

_____ *3. Without producers, matter and energy would not be available to other organisms in an ecosystem.*

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

1. the consumers get their energy from the sun.

This statement is _____ because_____

_____

_____ .

2. small fungi and bacteria are examples of decomposers.

This statement is _____ because_____

_____

_____

Apply concepts

1. Imagine that decomposers don't exist, explain what will happen to the environment? Will the food chain and food web will be affected?

_____

_____

_____

_____

_____

_____

_____

Part 9

Name: _____ **Date:** ___/____/_____

Lesson 3: Change Within Ecosystems

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

succession	***competition***

_____*1. When two or more organisms need to use the same limited resource to survive.*

_____*2. A series of changes in a community of an ecosystem.*

.

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

_____*1. When plants and animals return to disturbed or damaged land, it's called primary succession.*

_____*2. The number of each species changes over time to maintain stability of the ecosystem.*

_____*3. If a plant competes with another plant, most likely both will survive.*

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

1. one of the characteristics of a healthy ecosystem is shortage in supply of water and air.

This statement is _____ *because*_____

_____

_____ .

2. if fire burned a forest, during the first 5 years, the trees will grow back and animals will return to live in it.

This statement is _____ *because*_____

_____

_____.

Apply concepts

1. *Water, air, and sunlight determine the number and types of organisms that can live in an ecosystem, explain how these factors affect the diversity.*

_____

_____

_____

_____