5th Grade Science Enrichment Lessons

Parents, please use the plans below at your discretion to keep your child engaged with grade-appropriate content. The lessons listed are strictly reviewing skills that have already been taught in the classroom. We miss seeing our students daily and are truly ready for everything to return to normal. Until then, we will continue to provide resources for our students. Stay safe! Be well! - 5th Grade Science Teachers

www.Generationgenius.com has amazing science videos and is offering one month free to anyone that signs up. There are videos for K-12.

Day 11	Review Standard: Combination of many standards • Complete the "Science Scavenger Hunt"
Day 12	Review: Properties of matter • Complete the "Independent Practice" pages with P.5.5A Properties of Matter at the top right hand corner. Use STEMscopes "Properties of Matter" scope for help if needed. • Activity: **Ask for permission to complete this activity.** Fill a container with water. Find objects around the house that are okay to get wet. Make a T chart on a sheet of paper. One side should be labeled "More Dense than Water" and the other "Less Dense than Water." Test each item to see if it sinks (more dense) or floats (less dense).
Day 13	Review Standard: Solutions and Mixtures • Complete the "Independent Practice" pages with P.5.5B Solutions and Mixtures at the top right hand corner. Use STEMscopes "Solutions and Mixtures" scope for help if needed. • Watch this fun video on why your coke fizzes when you open it after being shaken. https://www.youtube.com/watch?v=sinqcBoqkEE
Day 14	Review Standard: Chemical and Physical Changes • Complete the "Independent Practice" pages with P.5.5C Chemical and Physical Changes at the top right hand corner. Use STEMscopes "Chemical and Physical Changes" scope for help if needed. • Make a list of chemical and physical changes you observe around your house throughout the day.
Day 15	Review Standard: Newton's Laws of Motion • Complete the "Independent Practice" pages with P.5.6 Newton's Laws of Motion at the top right hand corner. Use STEMscopes's "Newton's Laws of Motion" scope for help if needed. • The Pros and Cons of Friction: On a sheet of paper, make a T chart of the pros and cons of friction. On the "Pro" side, make a list of reasons friction is helpful/important. On the "Con" side, make a list of ways friction can be hurtful/bothersome.

Day 16	Review Standard: Astronomy • Complete the "Independent Practice" pages with P.5.8A Astronomy at the top right hand corner. Use STEMscopes's "Astronomy" scope for help if needed. • Watch Milky Way celestial object size comparison. https://www.youtube.com/watch?v=At0w3pnlVgc
Day 17	Review Standard: Earth, Sun, and Moon • Complete the "Independent Practice" pages with P.5.8B Earth, Sun, and Moon at the top right hand corner. Use STEMscopes's "Earth, Sun, and Moon" scope for help if needed. • Visit http://www.sciencekids.co.nz/gamesactivities/earthsunmoon.html to experiment with different dates and times regarding rotation and revolution.
Day 18	Review Standard: Food Webs • Complete the "Independent Practice" pages with P.5.3B Food Webs at the top right hand corner. Use STEMscopes's "Food Webs" scope for help if needed. • Look out your window or sit outside and create a food web of organisms you see or could see in your backyard.
Day 19	Review Standard: Human Interaction with Earth • Complete the "Independent Practice" pages with P.5.10 Human Interaction with Earth at the top right hand corner. Use STEMscopes's "Human Interaction with Earth" scope for help if needed. • Watch what happens to your stuff when you recycle it. https://www.youtube.com/watch?v=b7GMpjx2jDQ
Day 20	Review Standard: Collective Review • Complete the case test review questions. Questions are grouped according to objectives and are not in order.

How to log on to STEMscopes: Go to STEMscopes.com Click on "Log In" in the top right hand corner. Student's user ID is their **lunch number**. Their password is **learn**. Click on "Learning Resources" at the top. Click on the assigned SCOPE for the day.

** STEMscopes also has science games students can play. Just click on the "Games" tab at the top and choose a game.

** Students may also still log on to https://www.legendsoflearning.com to play science games assigned by their teacher.

**Brainpop is giving free subscriptions to families while school is closed. Brainpop has tons of science videos as well as videos from all other content areas. Parents can sign up with the following link:

https://go.brainpop.com/COVID19?utm_source=covidhub&utm_medium=hero&utm_campaign=coronavirus&utm_content=free-access

Science Scavenger Hunt

Search your home and yard to find the following items. Write down what you find.

Outside:

A living organism _____
A non-living component of the environment _____
A non-living component interacting with a living component _____
A producer _____
A consumer _____
A decomposer _____
Evidence of runoff or accumulation _____
Something that has been weathered (broken down earth) _____
Evidence of deposition _____

Inside:

Something that reflects _____
Something that would increase friction _____
Evidence of force _____
Something that uses an electrical circuit _____
A conductor _____
An insulator _____
3 things that produce light energy _____ _____ _____
3 things that use electrical energy _____ _____ _____
3 things that produce sound energy _____ _____ _____
3 things that produce thermal energy _____
An example of matter _____
A solid, a liquid, and a gas _____ _____ _____
Something that is soluble _____
Something that is more dense than water _____
Something that is less dense than water _____
Something magnetic _____
A mixture _____
A solution _____

Food Chain: Observe a food chain in your backyard. Write the food chain below. Remember: the arrows show the flow of energy.

_____ → _____ → _____ → _____

Independent Practice

Part II: Word Path Find

Directions: Read the clue and find the correct word in the box by coloring the path. The first letter is shaded.

S	E	S	T
S	N	D	A
D	H	R	A
A	T	L	H

1. The ease of scratching a smooth surface of an element

V	I	T	I
I	C	C	U
T	O	U	D
Y	N	D	Y

2. The transmission of light, heat, sound, or electricity by a substance

T	F	E	O
E	L	R	I
C	O	N	N
T	I	R	F

3. Energy bouncing off of a surface

B	Y	T	I
O	S	O	L
L	U	L	I
Y	I	U	B

4. A solid that is able to dissolve in a liquid

Independent Practice

Name: _____ Date: _____

Part I: Four Square

Directions: Fill in the four sections of the model to describe the vocabulary word or phrase.

DEFINITION	PICTURE
EXAMPLE	NON-EXAMPLE

Physical properties

DEFINITION	PICTURE
EXAMPLE	NON-EXAMPLE

Physical change

DEFINITION	PICTURE
EXAMPLE	NON-EXAMPLE

Relative density

DEFINITION	PICTURE
EXAMPLE	NON-EXAMPLE

Conductivity

Independent Practice

Name: _____ Date: _____

Part I: Word Find

Directions: Using the clues below, find the hidden vocabulary words and phrases.

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

1. Something made of all one material
2. When one substance mixes evenly in another substance
3. Two or more substances that do not mix evenly
4. To spread out evenly in a substance
5. Characteristics of matter used to describe
6. A material with tiny holes; used to sort matter of different sizes
7. A state change from liquid to gas
8. Ability to attract to a magnet

Independent Practice

Part II: Word Scramble

Directions: Use the clues in parentheses to help you unscramble the words. Write the unscrambled word or phrase in the space provided.

1. A type of matter with specific properties

   (sscetbanus) S _ _ _ _ _ _ _ _ _ _

2. Physical or chemical characteristics

   (rptsoreiep) P _ _ _ _ _ _ _ _ _ _

3. Changing from a liquid to a gas

   (taoonaepvri) E _ _ _ _ _ _ _ _ _ _ _

4. Allow liquid or small grains to pass through

   (teslrfi) F _ _ _ _ _ _ _

5. Two or more substances

   (tiemxru) M _ _ _ _ _ _ _

6. Mixed evenly throughout another substance

   (utooslin) S _ _ _ _ _ _ _ _

Independent Practice

Name: _____ Date: _____

Part I: Word Sort

Directions: Write each word or phrase under the correct category in the chart.

Word Bank

Production of precipitate	Mass	Production of gas
Color change	Size	Magnetic
Production of heat or light	Rust	Solubility
Temperature change	Color	Relative density
Hardness	Weight	Insulate heat

Physical Change	Chemical Change

Independent Practice

Part II: Word Scramble

Directions: Use the clues to help you unscramble the words. Write the unscrambled word or phrase in the space provided.

1. A new substance formed with different properties

   ___ e _____ __ h _____

2. Usually seen as bubbles

   _____ c _____ ___ ____

3. Heating and cooling, changing shape, melting and freezing

   ____ s _____ __ h _____

4. An increase or decrease in heat energy

   __ e _____ r __ __ h _____

5. Creation of a solid

   _____ c _____ ___ ____ c _____ e

Independent Practice

Name: _____ Date: _____

Part I: Diagrams

Directions: Draw a simple diagram of each word. Write the letter of the statement that explains the word next to the word.

Force	Unbalanced Force	Balanced Force

Position	Direction	Speed

1. A push or a pull that causes an object to move, stop, or change direction
2. A force not cancelled out by another force
3. How fast something is moving
4. Where something is
5. Has a net force of zero
6. A straight path

Independent Practice

Part II: True Statements

Directions: Circle the word in parentheses that makes the statement true.

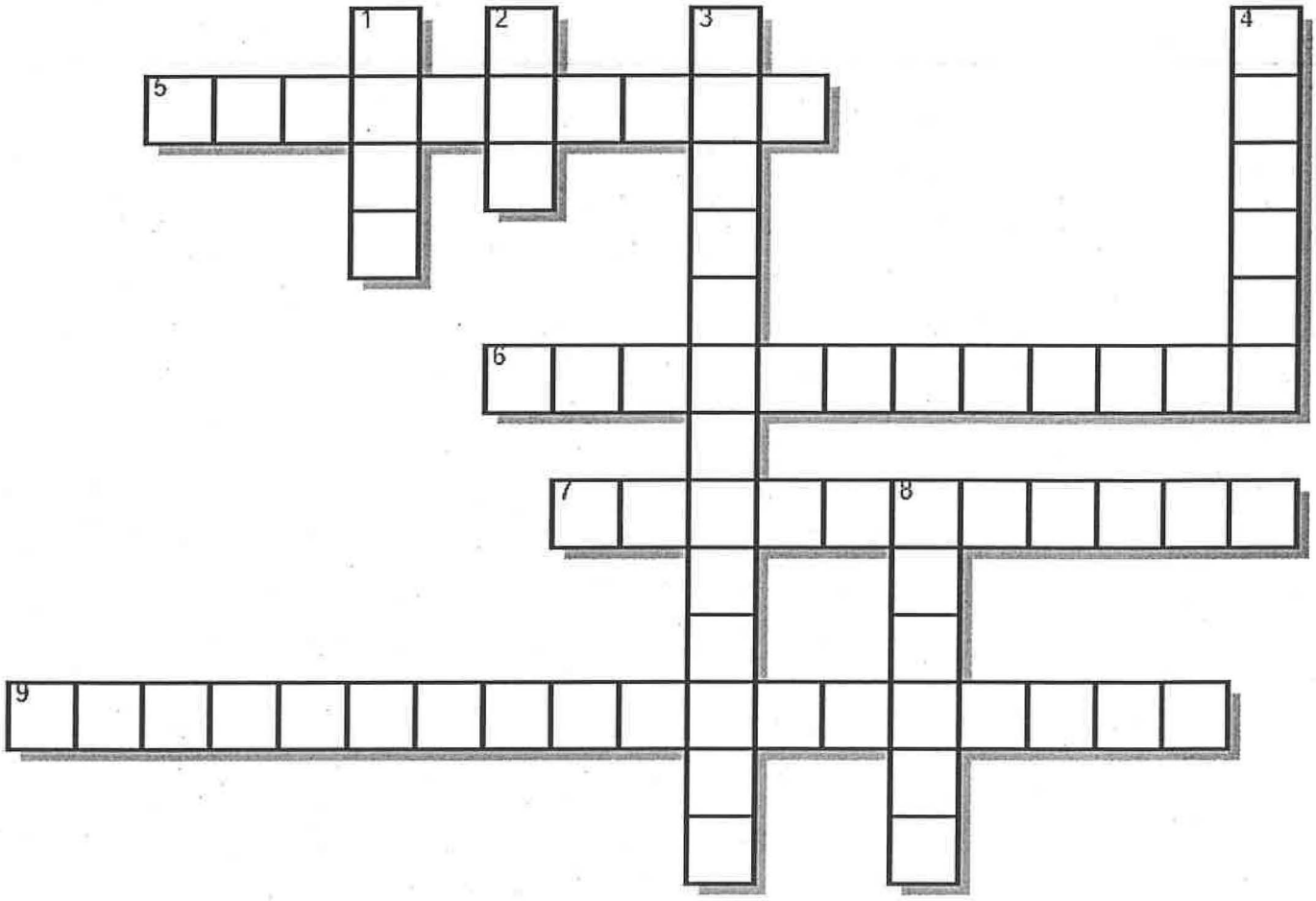
1. A toy car is pushed across a room, which shows a change in its position and location. This is called (**friction**, **movement**).
2. An iron nail is (**pushed**, **pulled**) toward a magnet.
3. (**Motion**, **speed**) is when an object is moving faster than other objects nearby, resulting in a noticeable difference.
4. A baseball player wears cleats to increase the (**position**, **friction**) between his shoes and the ground.
5. A person standing behind another on a swing will (**pull**, **push**) to continue movement.
6. If no motion happens, the forces are considered (**unbalanced**, **balanced**).
7. Opening a door is an example of a(n) (**balanced**, **unbalanced**) force.
8. A change in (**direction**, **speed**) would be turning left or right.

Independent Practice

Name: _____ Date: _____

Part I: Crossword

Directions: Use the clues to fill in the crossword puzzle with the correct words.



Across

5. Making a complete turn around a center
6. Located between Mars and Jupiter
7. The Sun, Moon, planets, comets, asteroids, and everything else that moves around the Sun
9. How a star looks from Earth

Down

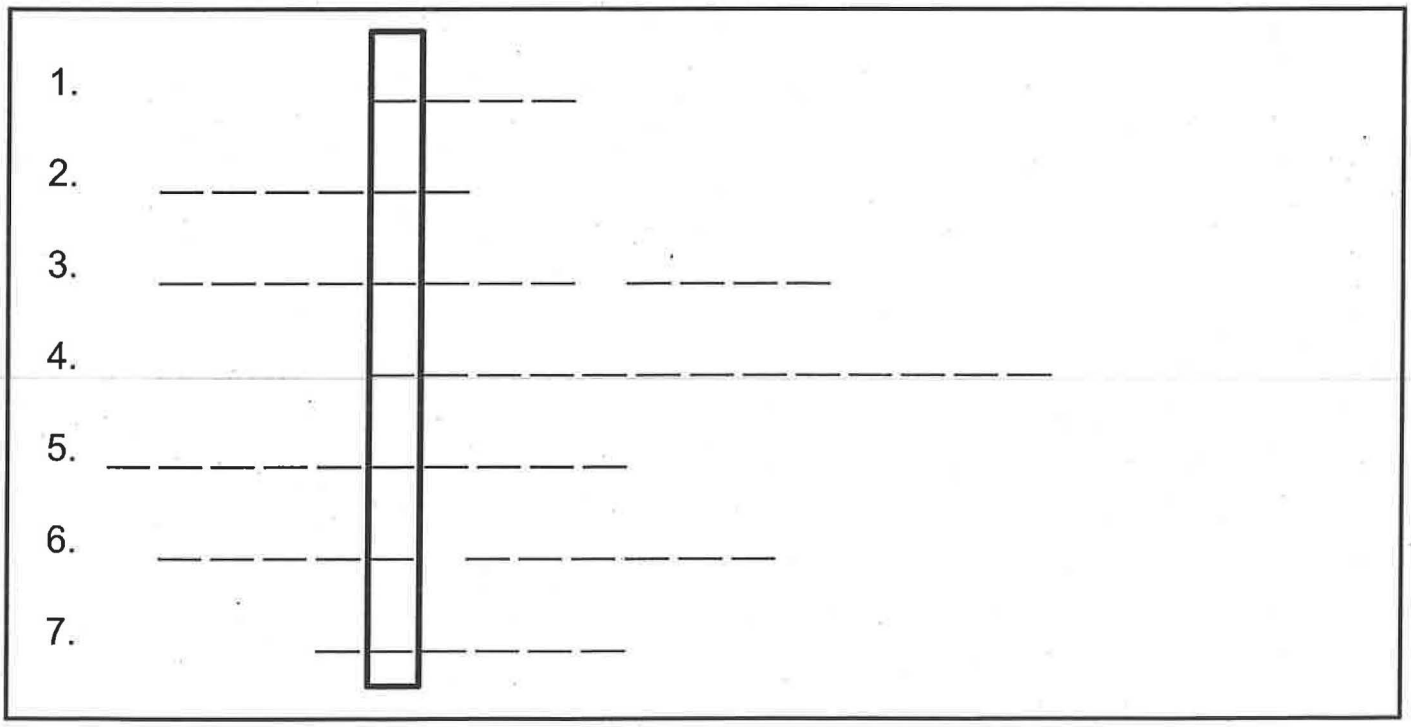
1. Earth's natural satellite
2. The center of the solar system
3. A pattern formed by stars
4. A round object that revolves around the Sun
8. A group of independent or interacting parts that form a complex whole

Independent Practice

Part II: Secret Word

Directions: Use the clues to complete the puzzle and find the secret word.

1. Can be seen as it revolves around Earth
2. A round object that revolves around a star in a solar system
3. A group of many rocks; found mostly between Mars and Jupiter
4. A pattern formed by stars; used to tell stories from ancient civilizations
5. Making a complete turn around a center
6. The Sun and all the objects that move around it
7. Parts working together to make a functioning whole



Independent Practice

Name: _____ Date: _____

Part I: Word Find

Directions: Read the clue and find the correct word in the box. The first letter of the word is shaded..

E	C	I	D
S	T	T	S
E	S	O	L
I	C	U	R

1. The beginning of winter and summer

T	D	R	C
N	E	C	S
P	I	L	T
S	E	E	I

2. A shadow created by a celestial object

S	N	A	S
T	L	A	E
A	O	S	R
G	N	N	O

3. Caused by the tilt of Earth during revolution

E	T	I	L
R	A	O	N
O	T	R	T
V	D	S	A

4. Causes day and night on Earth

Independent Practice

Part II: That Is a Lie!

Directions: Each statement below contains something that makes it untrue. Rewrite the statement to make it accurate, and explain the change needed.

1. A solar eclipse happens when the Moon passes into Earth's shadow and lasts for several minutes.

   New statement: _____

   _____

   Reasoning: _____

   _____

   _____

2. The lunar cycle takes a year and is due to light reflecting off Earth.

   New statement: _____

   _____

   Reasoning: _____

   _____

   _____

3. The seasons are a result of Earth being closer to the Sun or farther away during its rotation around the Sun.

   New statement: _____

   _____

   Reasoning: _____

   _____

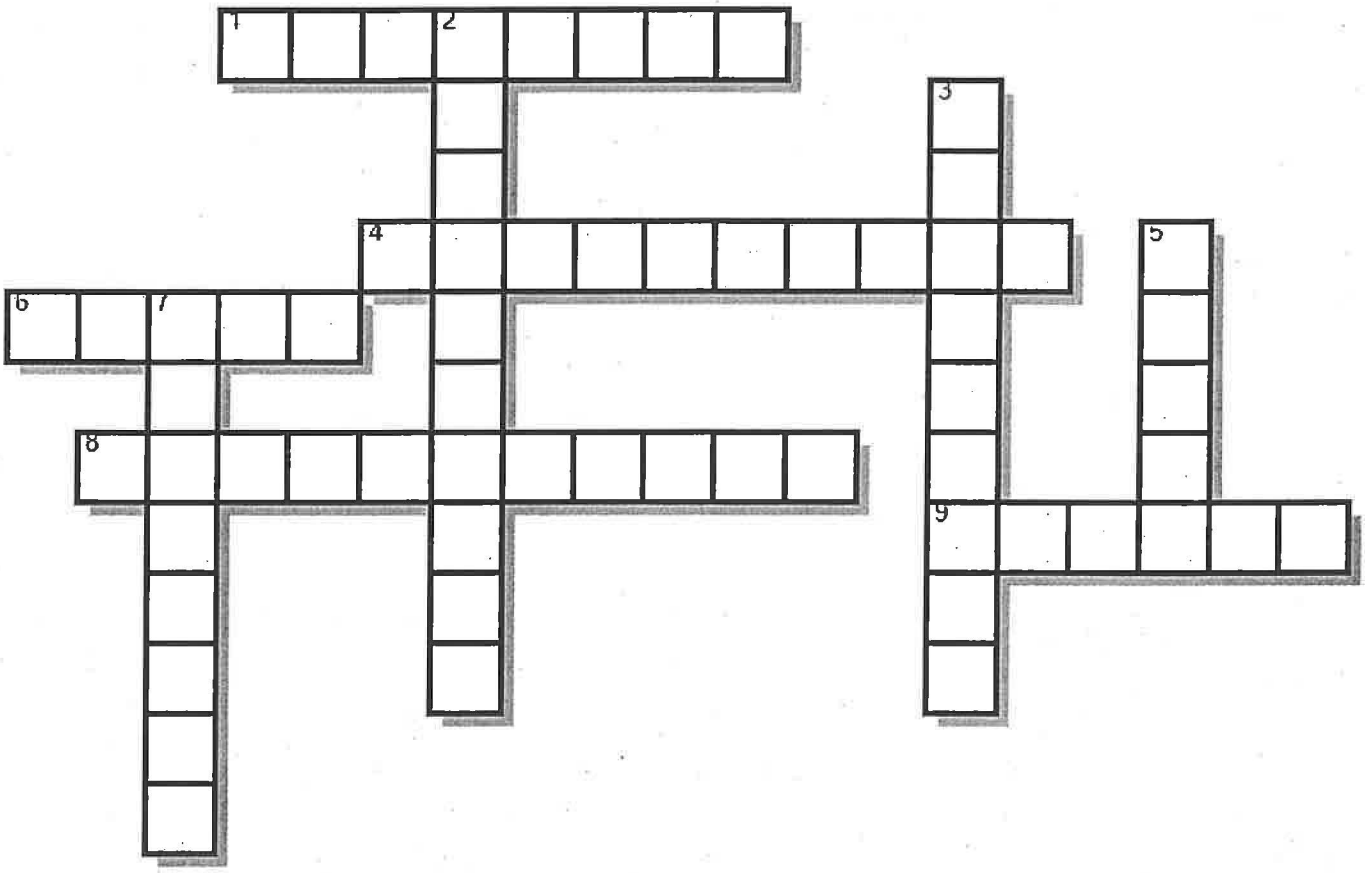
   _____

Independent Practice

Name: _____ Date: _____

Part I: Crossword Puzzle

Directions: Use the clues to fill in the crossword puzzle with the correct words.



Across

1. An organism that makes its own food
4. All the members of the same species in a given area
6. The role of an organism in an ecosystem
8. All of the living and nonliving things found in an area
9. When an organism has everything it needs to grow and survive

Down

2. Examples of this are fungi and bacteria.
3. All of the living and nonliving things found in an area and how they interact
5. Breaks down organic matter
7. Gets energy from eating other organisms

Independent Practice

Part II: Alike and Different

Directions: Write how each pair of words are alike and different.

1. Food web and food chain

   Alike: _____

   _____

   Different: _____

   _____

2. Ecosystem and environment

   Alike: _____

   _____

   Different: _____

   _____

3. Producer and consumer

   Alike: _____

   _____

   Different: _____

   _____

Independent Practice

Name: _____ Date: _____

Part I: Code Break

Directions: Read each clue and write the word or phrase using the code. Match each number under the line to the pair of letters for that number. Decide which letter to use to correctly spell the word or phrase.

AB	CD	EF	GH	IJ	KL	MN	OP	QR	ST	UV	WX	YZ
1	2	3	4	5	6	7	8	9	10	11	12	13

1. Something valuable that humans use

   _ _ _ _ _ _ _ _
   9 3 10 8 11 9 2 3

2. The maximum population an area can sustain

   _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
   2 1 9 9 13 5 7 4 2 1 8 1 2 5 10 13

3. Things humans can do to preserve ecosystems

   _
   2 8 7 10 3 9 11 1 10 5 8 7 10 10 9 1 10 3 4 5 3 10

4. All the living and nonliving things in a given space

   _ _ _ _ _ _ _ _ _ _ _
   3 7 11 5 9 8 7 7 3 7 10

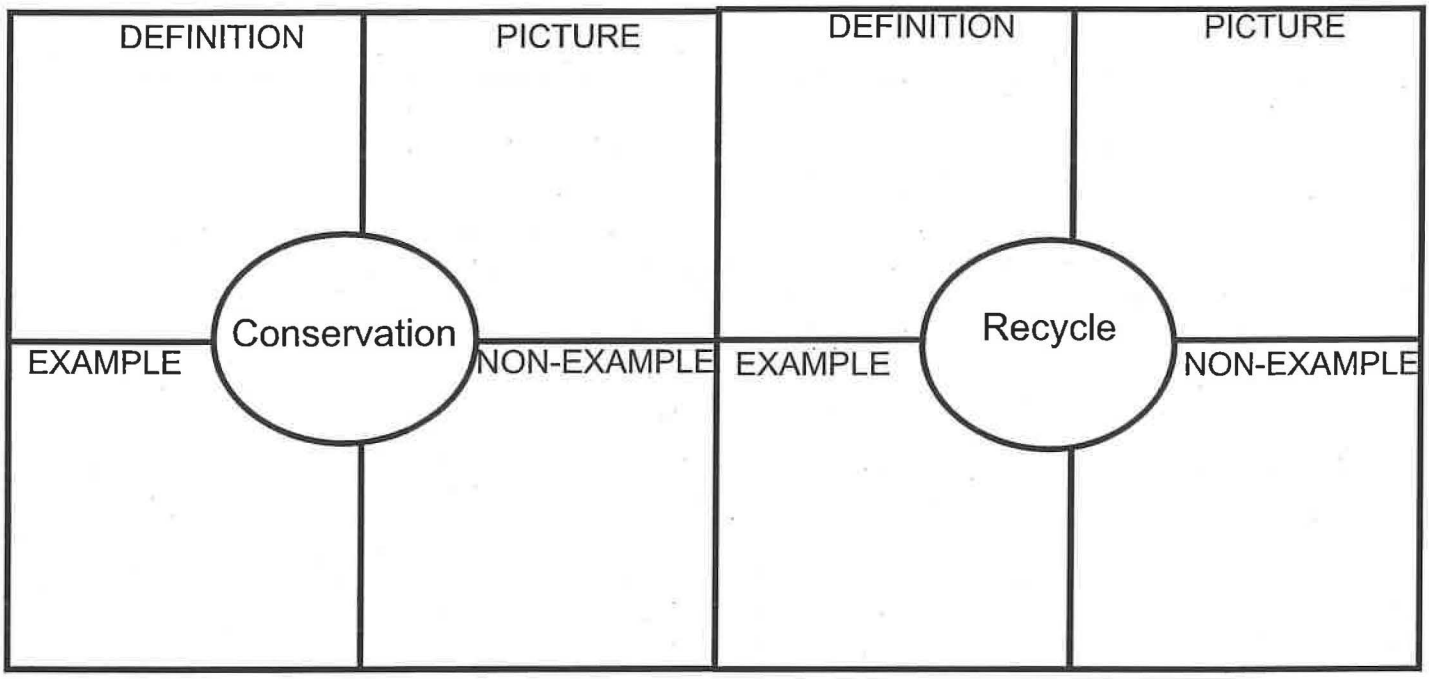
5. Caused by natural forces, not man-made forces

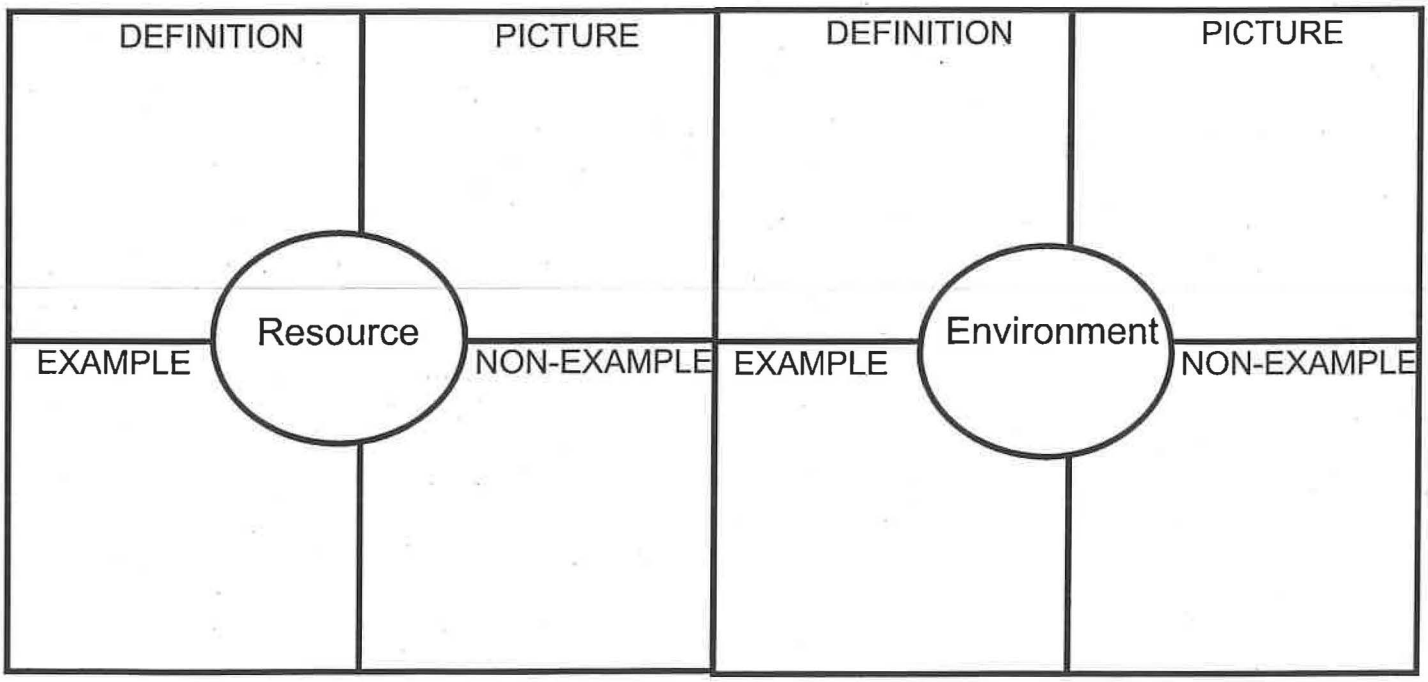
   _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
   7 1 10 11 9 1 6 2 5 10 1 10 10 3 9

Independent Practice

Part II: Four Square

Directions: Fill in the four sections of the model to describe the vocabulary word or phrase.



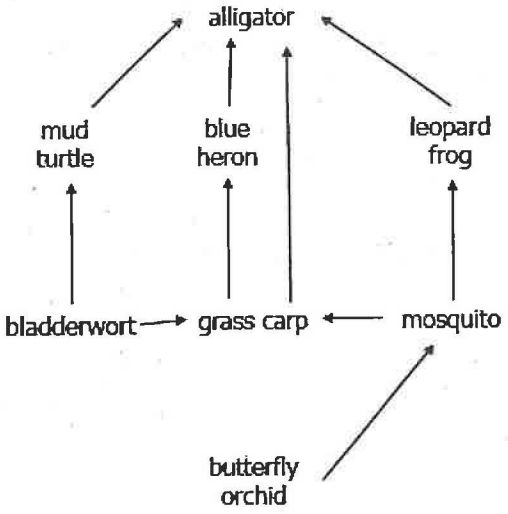


mon

Life Science

Case Test Review Questions (not numbered in Order

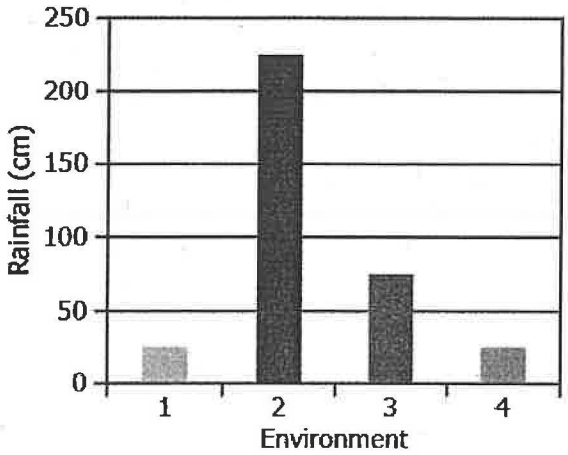
2. Study the diagram of a food web.



If there is an increase in the grass carp population, which population of organisms would decrease *most quickly*?

A bladderwort
B blue heron
C leopard frog
D mud turtle

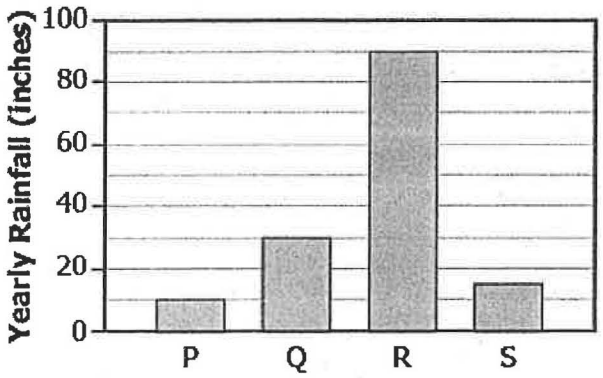
21. A student examines a graph showing rainfall totals in four different environments.



Based on the graph, which environment *best* supports the growth of tall trees?

A Environment 1
B Environment 2
C Environment 3
D Environment 4

9. The data shows the yearly rainfall in four different biomes, P-S.



Which choice *correctly* pairs the biome with its name and a type of organism that lives there?

A P: grassland and ferns

B Q: desert and cacti

C R: rainforest and monkeys

D S: deciduous forest and deer

12. Green plants that grow on the rainforest floor use photosynthesis to survive.

Which statement *best* describes how these plants have adapted so that photosynthesis can occur?

A The roots of the plants grow deeper into the soil to absorb water quickly.

B The stems of the plants are less flexible to allow the plants to move back and forth.

C The leaves of the plants are bigger to catch any sunlight that reaches the rainforest floor.

D The roots of the plants are wider to absorb more oxygen quickly.

38. Which source supplies the energy that green plants need for photosynthesis?

A coal

B sunlight

C water

D wind

1. **Which human activity *most directly* affects the environment in a negative way?**

   A mining

   B planting trees

   C recycling

   D walking to school

5. **A local government allows hunters to hunt three adult male deer in a year. What would be the effect if hunters could hunt more than three adult male deer in a year?**

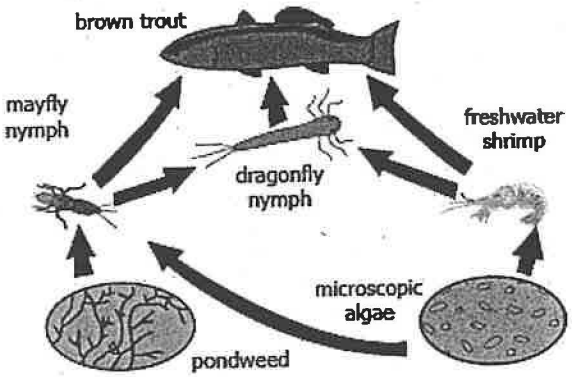
   A The populations of organisms the deer eat would decrease.

   B The populations of organisms the deer eat would remain the same.

   C The populations of organisms the deer eat would increase.

   D The populations of organisms the deer eat would increase suddenly and then decrease.

28. **The diagram shows a food web of a pond ecosystem.**



Which table *correctly* classifies the organisms of the food web according to their roles?

A

Producer	microscopic algae
Primary Consumer	pondweed
Secondary Consumer	mayfly nymph; freshwater shrimp
Top-Level Consumer	dragonfly nymph; brown trout

B

Producer	microscopic algae; pondweed
Primary Consumer	dragonfly nymph
Secondary Consumer	mayfly nymph; freshwater shrimp
Top-Level Consumer	brown trout

C

Producer	pondweed; microscopic algae
Primary Consumer	mayfly nymph; freshwater shrimp
Secondary Consumer	dragonfly nymph; brown trout
Top-Level Consumer	brown trout

D

Producer	pondweed
Primary Consumer	brown trout
Secondary Consumer	dragonfly nymph
Top-Level Consumer	mayfly nymph; freshwater shrimp

Forces

30. Which action should be taken to *decrease* the amount of friction from a wooden floor?

A Place carpet on the floor.

B Make dents in the floor.

C Scratch the floor.

D Wet the floor.

36. Examine the image of an airplane in flight.

The forces acting on an airplane are balanced. Which statement *best* describes the motion of the airplane?

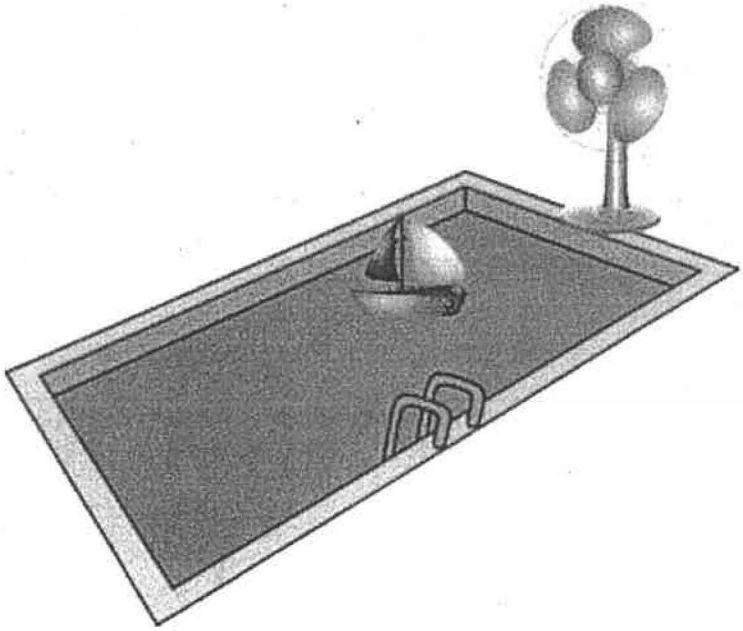
A The plane is slowing down and losing altitude.

B The plane is speeding up and rising.

C The plane is moving at a constant speed and losing altitude.

D The plane is moving at a constant speed in a straight line.

39. Examine the diagram.



The sailboat is powered by a fan. If the force of the fan stops, what will *most likely* happen to the motion of the boat?

A The boat will change direction.

B The boat will travel toward the fan.

C The boat will speed up.

D The boat will slow down.

3. A student conducts an activity to find how the distance traveled by an object changes with the amount of force applied to it. The student pushes a marble with varying forces on the same surface and records the distances the marble travels before coming to rest. The table shows the forces applied on the marble in different trials.

Trial	Force (N)
1	1.1
2	1.7
3	0.7
4	0.9

In which trial would the marble *most likely* travel the *least* distance?

A Trial 1

B Trial 2

C Trial 3

D Trial 4

4. Which action can a student take to make orange juice less concentrated?

A Mix the orange juice with water.

B Cool down the orange juice in the freezer.

C Mix two cans of orange juice together.

D Heat the orange juice until it comes to a boil.

11. A student rolls a toy car across different surfaces with the same amount of force and records the distances the toy car travels in a table.

Surface	Distance Traveled (cm)
felt	16
wax paper	48
sandpaper	32
cloth	27

Which statement *accurately* describes a surface's amount of friction and its cause?

A Felt has the most friction because the toy car travels the least distance.

B Felt has the least friction because the toy car travels the greatest distance.

C Wax paper has the most friction because the toy car travels the greatest distance.

D Wax paper has the least friction because the toy car travels the least distance.

23. When gravity exerts a force on an object in the air, in which direction will the object move?

A The object will move up.

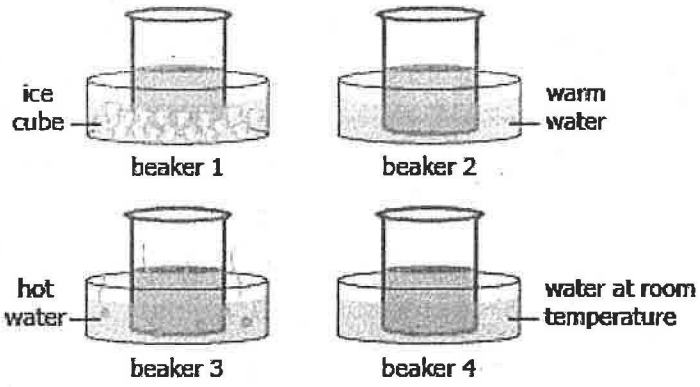
B The object will move down.

C The object will move forward.

D The object will move backward.

Properties of Matter Matter

19. A group of four students conduct an experiment to study how temperature affects the rate at which a solute dissolves in a solvent. They fill four identical beakers each with 250 mL of water and place each beaker in a tray with water at different temperatures, as shown.



Each student adds 50 g of salt to each beaker and records the time it takes the salt to dissolve using a stopwatch. In which beaker will the salt take the *least* time to dissolve?

A beaker 1

B beaker 2

C beaker 3

D beaker 4

35. A student wants to test the densities of several items to see which item is the most dense. Which test should the student perform to determine which item is the *most* dense?

A Weigh the items on a scale.

B Time how long it takes for the items to hit the ground when dropped from the same height.

C Observe the items in different liquids, and see which items float and sink.

D Measure the lengths of the items using a ruler.

34. A group of students must design a vessel to carry 100 pennies across a tub of water. The group designs and constructs a vessel.

Which step should the students take next?

A Make improvements to their vessel.

B Define the problem the vessel addresses.

C Build a backup vessel.

D Test the vessel they constructed.

8. **A recycling center has a box containing a mix of paper, plastic, and metal. The different materials need to be sorted.**

Which material(s) can magnets help sort?

A metal

B paper

C paper and plastic

D plastic and metal

7. **Which activity would result in the formation of a new compound?**

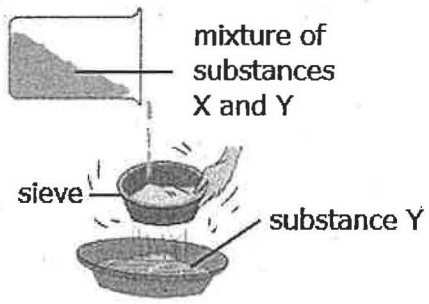
A adding sugar to water

B baking a flour-water mixture for a cake

C cutting lettuce for a salad

D stirring chocolate syrup in milk

32. **A student mixes 15 g of substance X and 15 g of substance Y in a 50 mL beaker. Substances X and Y have different particle sizes. The student sifts the mixture and observes that only substance Y passes through the sieve, as shown.**



What type of change does this process show, and why?

A Irreversible change; mixing substances X and Y forms a new substance.

B Reversible change; mixing substances X and Y forms a new substance.

C Irreversible change; the sieve can separate substances X and Y.

D Reversible change; the sieve can separate substances X and Y.

20. Which statement *best* describes mixtures and solutions?

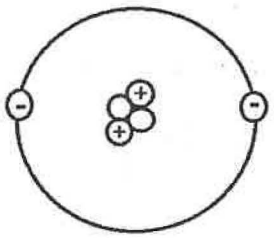
A Mixtures and solutions are both made of one substance.

B Mixtures are made of two or more substances, and solutions are made of one substance.

C Mixtures are made of one substance, and solutions are made of two or more substances.

D Mixtures and solutions are both made of two or more substances.

17. A student draws a helium model.



Which statement *best* describes the helium model?

A It is a helium atom.

B It is a helium compound.

C It is a helium mixture.

D It is a helium solution.

31. A student transfers two substances (1 and 2) from one closed container to a larger closed container. The table shows the properties of each substance after the transfer.

Substance	Mass	Volume	Color	Shape
1	remains unchanged	takes the volume of the container	remains unchanged	has no definite shape
2	remains unchanged	remains unchanged	remains unchanged	takes the shape of the container

How should the student classify each substance?

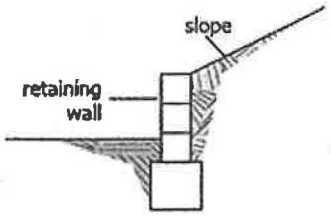
A Substance 1: solid; Substance 2: gas

B Substance 1: gas; Substance 2: solid

C Substance 1: solid; Substance 2: liquid

D Substance 1: gas; Substance 2: liquid

29. A student on a hike notices that rocks have broken apart and fallen on the slope of a hill. The student is worried that falling rocks could injure hikers and designs a model of a retaining wall that could be built to support the hill's slope and prevent rocks from falling. The diagram shows the structure of the prototype made by the student, and the table lists three different models for the retaining wall. The student tests each model by sliding 25 rocks on the slope and records the results in the table.



Model	Height of Retaining Wall (inches)	Material Used for Retaining Wall	Number of Pebbles Held Back by Retaining Wall
1	9	wood	14
2	15	wood	21
3	15	concrete	21

Based on the results, what is the *most* important feature for the retaining wall to block the *most* rocks?

A having a tall retaining wall

B having a short retaining wall

C having a wooden retaining wall

D having a concrete retaining wall

24. A student empties a bag of wrapped candies with assorted flavors onto a table. Which statement *best* describes the contents of the bag?

A The bag contains a mixture because there is no water.

B The bag contains a solution because the substances keep their physical properties.

C The bag contains a mixture because it is made of two or more substances.

D The bag contains a solution because it can be separated into different substances.

15. A student wants to separate a mixture of solids by size. Which method should the student use?

A chromatography

B evaporation

C filtration

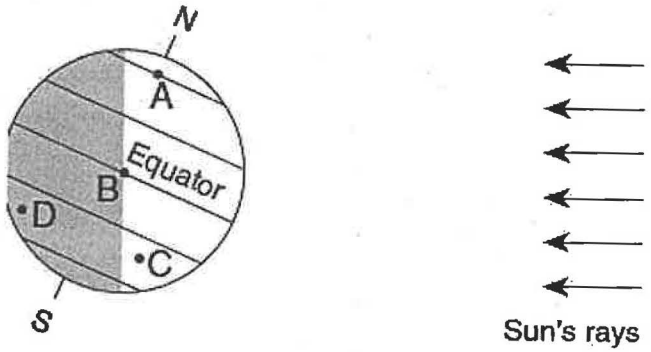
D sifting

Earth and Space

14. What results from Earth rotating on its axis?

A days
B months
C seasons
D years

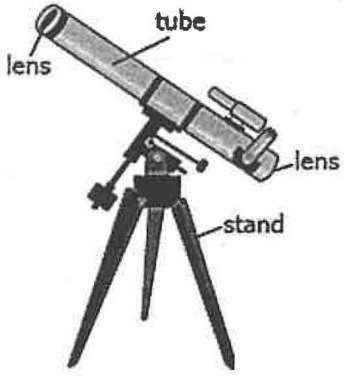
33. The diagram shows Earth as seen in space with locations on Earth's surface labeled A-D.



When Earth is tilted toward the Sun as shown, which location experiences the *greatest* number of daylight hours?

A location A
B location B
C location C
D location D

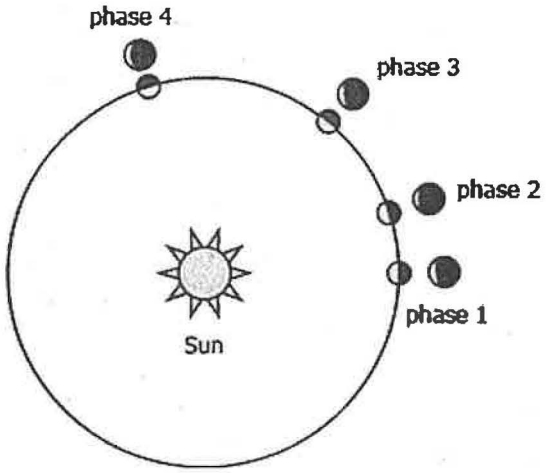
13. A telescope is made using lenses aligned inside a tube.



How does the telescope help gather knowledge about objects in the solar system?

A The telescope predicts how planets move around the Sun.
B The telescope calculates the exact sizes of planets.
C The telescope helps observe the surface features on the Moon.
D The telescope helps detect meteors that are close to Earth's surface.

6. **Aristotle's model of the solar system had Earth at its center. After many years, Galileo observed the phases of Venus from Earth and created a different model of the solar system, as shown in the image.**



Based on Galileo's observations, what changed in human understanding of the solar system?

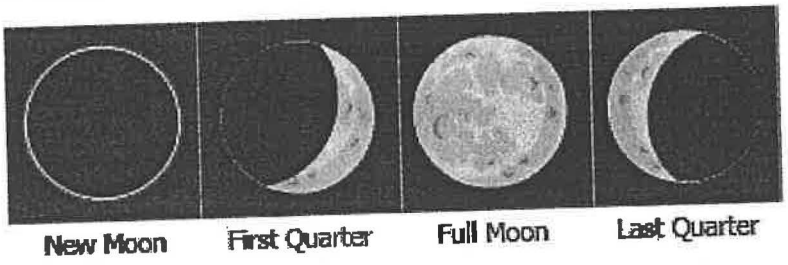
A All planets revolve in circular paths.

B Venus revolves around Earth.

C The Sun is at the center of the solar system.

D Earth is not part of the solar system.

10. **A student collects images of the Moon at different times of the month, as shown.**



Which option explains the cause for the change in the appearance of the Moon?

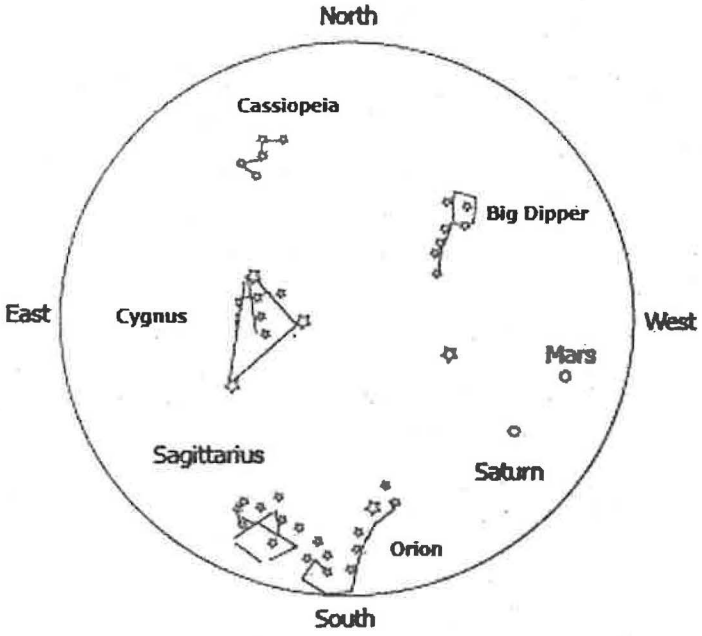
A Earth revolves around the Sun.

B The Moon revolves around Earth.

C The Moon rotates on its own axis.

D The Sun rotates on its own axis.

37. A map of stars and planets during winter in the Southern Hemisphere helps predict the motions of some constellations.



Which constellation is *most* visible in the night sky of the South during the winter?

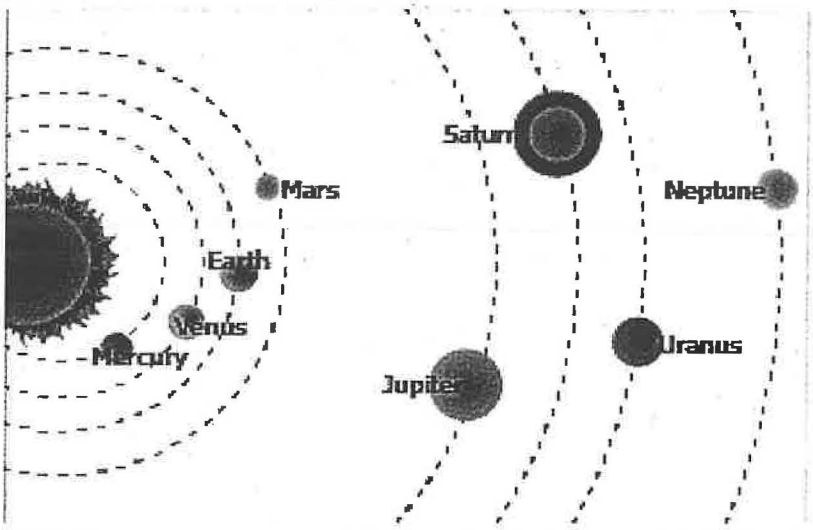
A Big Dipper

B Cassiopeia

C Cygnus

D Orion

16. A student creates a diagram to represent the solar system, as shown.



The student wants to label the terrestrial planets that have rocky surface compositions. Which planets should the student label?

A Earth, Mars, Jupiter, and Saturn

B Earth, Mars, Saturn, and Uranus

C Mercury, Earth, Mars, and Neptune

D Mercury, Venus, Earth, and Mars

18. A scientist claims that the Hubble Space Telescope can aid in the search for life-forms on other planets. Which statement supports the claim made by the scientist?

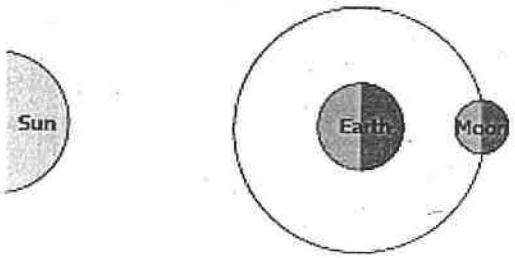
A The telescope can show planets that are similar to Earth.

B The telescope gives a clear view of stars forming.

C The telescope can magnify possible fires on other planets.

D The telescope gives a clearer view of distant galaxies.

25. The diagram shows the positions of the Sun, Moon, and Earth.



Based on the positions shown, which phase of the Moon will people on Earth see?

A crescent moon

B full moon

C new moon

D quarter moon

40. As part of an activity, two glowing bulbs, A and B, of the same intensity are arranged side by side on a table. A student stands 1 m from the table and observes that the bulbs appear equally bright.

What change would make bulb B appear less bright than bulb A?

A moving bulb B closer to the student

B moving the student farther from the table

C reducing the current flow to bulbs A and B

D placing bulb B farther away from the student

26. The table lists possible methods for reducing greenhouse gas emissions.

Method	Description
1	Increase the use of renewable sources of energy.
2	Use coal as the fuel for new energy needs.
3	Change from natural gas to fossil fuel power plants.
4	Decrease the amount of energy lost during transfer.

Which methods would help reduce greenhouse gas emissions?

A Methods 1 and 4 only

B Methods 2 and 3 only

C Methods 1, 2, and 3

D Methods 1, 2, and 4