

Name: _____

Grade : _____ Section : _____

Academic Year: _____

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Topic 1

Lesson 1: Motion? (Refer to pages 6 – 15)

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

Position

Distance

Motion

Speed

Direction

_____ 1. is a measure of how slow or fast something can move.

_____ 2. A change in the position of an object.

_____ 3. How far something travels.

_____ 4. The way an object moves/faces.

_____ 5. The place where an object is.

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

_____ 1. The maglev trains move faster than regular trains.

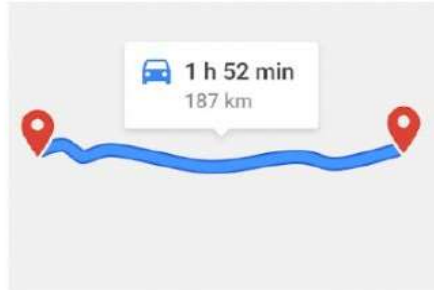
_____ 2. These words (to the right of, behind, or above) describe directions.

_____ 3. Speed is written as distance per unit of time.

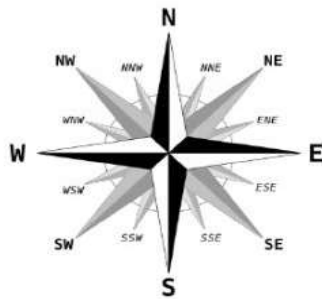
Choose a word for the picture:

Distance, Position, Direction

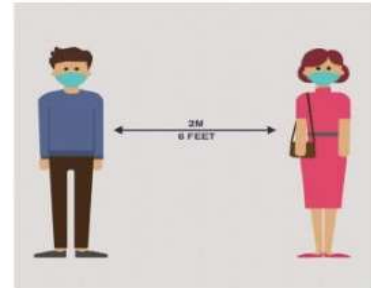


















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Topic 1

Lesson 2: Patterns in Motion (use with pages 16 – 23)

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

Predict

Pattern

_____ 1. To tell what will happen in the future.

_____ 2. Any regularly repeated movement.

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

_____ 1. Skaters move slower if they hold their arms out wide.

_____ 2. A ball does not move in a straight line if you give it a push.

_____ 3. A wind chime will swing if the wind stops blowing.

Summarize:

What are some patterns in motion you observe in your daily life?

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Lesson 3: Forces and Motion (Refer to pages 24 – 33)

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

- _____ 1. A force that pulls objects toward Earth. **a. force**
- _____ 2. Is a force that goes against the motion **b. friction**
- _____ 3. A push or a Pull **c. non-contact forces**
- _____ 4. Forces that can act at a distance. **d. gravity**

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

- _____ 1. There are two types of contact forces.
- _____ 2. The force cannot change the direction of an object.
- _____ 3. Gravity is non contact force.
- _____ 4. Magnets can either attract or repel other magnets.

Cause and Effect

How does the amount of force you exert on an object affect its motion?

Name: _____ Date: ____/____/____

Lesson 4: Balanced and Unbalanced Forces. (Refer to pages 34 – 43)

Words to Know: Match each term with its definition.

Write the letter of the correct answer.

a. net forces

c. balanced force

_____ 1. Two opposite forces of equal strength.

_____ 2. The sum of forces acting on an object.

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

_____ 1. The greater the tension on the spring, the less the spring will stretch.

_____ 2. Force is measured in a unit called Newtons (N).

Encircle the letter of the correct answer.

Look at the picture.

Describe the net force on the ball.

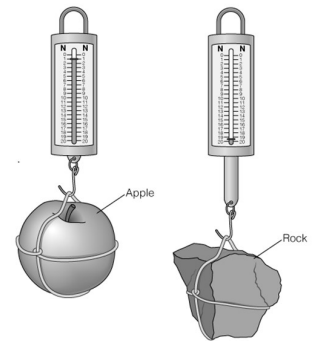


- a. The net force is 0 because there are no forces on the ball.
- b. The net force is 1 because there is one force on the ball.
- c. The net force is 0 because the forces on the ball are balanced.
- d. The net force is 1 because the forces on the ball are balanced.

Fill in a word that correctly completes the sentence.

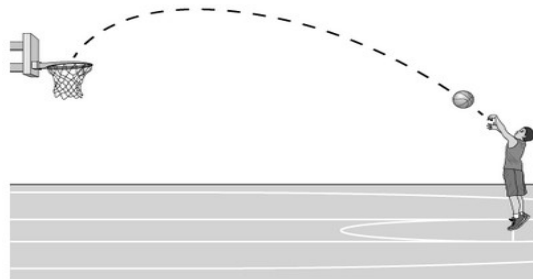
Look at the pictures of two spring scales measuring force.

The scale with the rock shows a greater net force than the scale with the apple.



Use the information below to answer questions 3 and 4.

Sami plays basketball. He likes to practice his free throws. The picture shows the path the ball takes when Sami is shooting a free throw.



Circle the place on the diagram of the ball's path that causes force to overcome gravity.

Encircle the letter of the correct answer.

When Sami is throwing the ball, are the forces balanced or unbalanced?
How do you know?

- a. The forces are balanced because the ball moves down.
- b. The forces are balanced because the ball moves up.
- c. The forces are unbalanced because the ball moves down.
- d. The forces are unbalanced because the ball moves up.

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Topic 2

Lesson 1: Electric Forces. (Refer to pages 56 – 65)

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

<i>electric charge</i>	<i>neutral</i>	<i>repel</i>
<i>electric force</i>	<i>static discharge</i>	<i>attract</i>

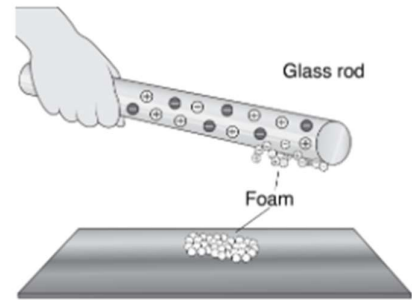
- 1- _____. is both objects have negative electric charges.
- 2- Matter has an overall positive charge or a negative charge is _____.
- 3- The matter is _____. if the number of positive and negative charges are the same.
- 4- If there are two objects one has (+) and the other one has (-) they will _____.
- 5- _____. is the transfer of the particles that have an electric charge between objects that are not touching.
- 6- The push or pull of charged objects on each other is an _____.

Answer:

What is the difference between conductor and insulator materials?

Explore: Use the information below to answer questions 1, 2, and 3.

Kim rubs a glass rod with a silk cloth. She moves the glass rod close to some foam. Look at the picture of the rod and foam.



Use the word bank to fill in the blanks below.

positive • neutral • negative

The glass rod has a _____ electric charge.

The foam pieces have a _____. electrical charge.

Circle the words that correctly complete the sentences.

The glass rod and the foam have an **(insulator / electric force)** between them.
Since the charges of the two objects are **(the same / neutral / different)**,
it causes the glass rod and the foam to **(repel / attract)**.

Encircle the letter of the correct answer.

Kim slowly moves the glass rod farther away from the foam and observes what happens to the foam. What question is Kim most likely trying to answer?

- a. How does electric force change when the charge on one material changes?
- b. How does the length of the glass rod affect electric force?
- c. How does distance affect the strength of electric force?
- d. How can electric force between two objects be observed?

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Topic 2

Lesson 2: Magnetic Forces (Refer to pages 66 – 77)

Words to Know: Write a definition for each term.

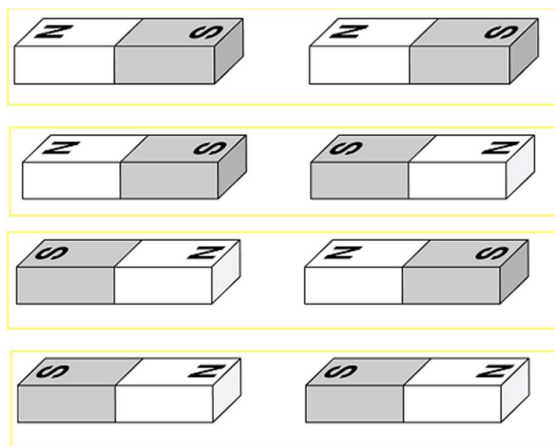
1. Permanent magnets: _____
2. Magnetic field: _____
3. Natural magnet: _____

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

- ____ 1. Earth is a large magnet with north and south poles.
- ____ 2. The closer the metal gets to the magnet, the weaker the pull will be.
- ____ 3. North pole of a magnet attracts north pole.

Explain: The picture shows the poles of magnets interacting.

Circle the pairs of magnets that will attract each other. Choose two correct answers.

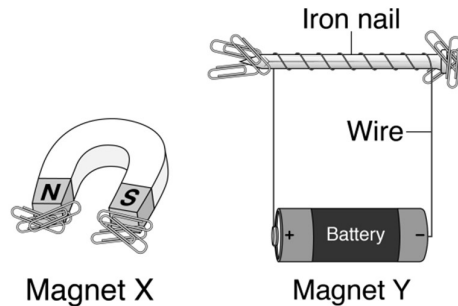


Apply Concepts

Encircle the letter of the correct answer.

Paper clips are made of steel wire.

The picture shows paper clips around two different types of magnets.



Why are the paper clips bunched at the ends of each magnet?

- a. The magnetic forces at the poles of each magnet are strongest, so they attract more paper clips.
- b. The paper clips are only touching the poles, so they are not attracted to other parts of the magnet.
- c. Some parts of each magnet repel the paper clips, but the poles of each magnet attract the paper clips.
- d. There is only current flowing through the ends of each magnet.

Name: _____

Date: ____/____/____

Topic 3

Lesson 1: Water and Weather (Refer to pages 90 – 99)

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

Atmosphere

Weather

Climate

Humidity

_____ 1. What the air is like in a place in a single moment.

_____ 2. Pattern of weather in a place over many years.

_____ 3. The amount of water vapor in the atmosphere.

_____ 4. The blanket of air that wraps around the planet.

Draw a line to match each sentence to the part of the water cycle it describes.

Water vapor particles join together and turn back into liquid form.

Condensation

Water collects into drops, and the drops become too heavy and fall back to Earth.

Evaporation

Water particles go into the air as water vapor.

Precipitation

The table shows the ground temperatures of three cities on January 12.

Ground Temperatures on January 12	
City	Ground Temperature
Omaha, Nebraska	12°C
Columbus, Ohio	0°C
Phoenix, Arizona	16°C

On January 12, the cities shown in the table each experienced precipitation. The precipitation falls through the air. It passes from cold temperatures through warmer air before hitting the ground. What best describes the precipitation in Columbus, Ohio, on that date?

- A.** rain
- B.** freezing rain
- C.** sleet
- D.** snow

Name: _____

Date: ____/____/____

Topic 3

Lesson 2: Seasonal Weather Changes (Refer to pages 100 –109)

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

Temperature

Predict

Barometric pressure

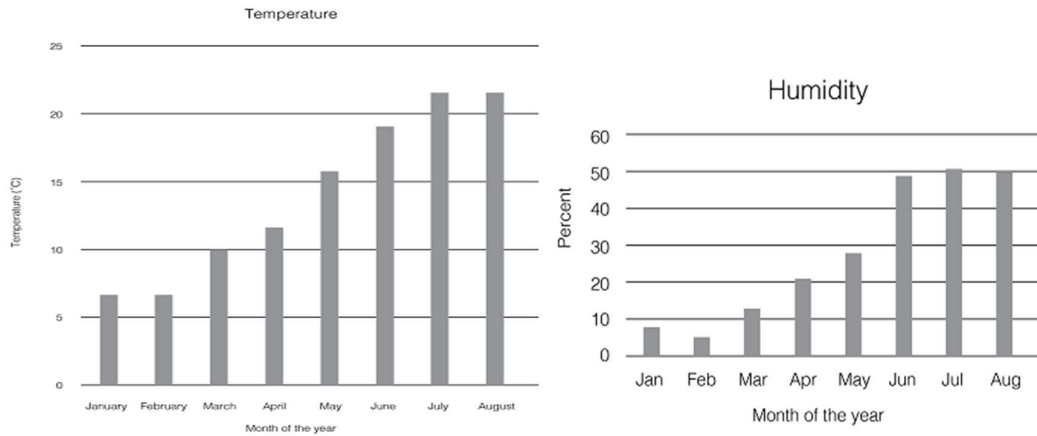
- _____ 1. Tell what is likely going to happen in the future.
- _____ 2. A measure of how cold or hot something is.
- _____ 3. The weight of the air pushing down on anything beneath it.

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

- _____ 1. Weather does not affect what we wear, what we do, and where and how we live.
- _____ 2. Weather graphs show the weather over a few days only.
- _____ 3. The weather can be affected only by temperature.
- _____ 4. To keep track of the seasonal weather changes, scientists compare the weather patterns of the present to weather pattern from the past.
- _____ 5. Weather satellites are not accurate weather tools, and they do not provide precise weather reports.

Encircle the letter of the correct answer.

The graphs show the temperature and humidity data for a city from January through August.



Which best describes the pattern shown in the graphs?

- A.** As the humidity goes up, the temperature goes down.
- B.** As the humidity goes up, the temperature goes up.
- C.** As the temperature goes up, the humidity goes down.
- D.** As the temperature goes down, the humidity stays the same.

Name: _____

Date: ____/____/____

Topic 3

Lesson 3: Weather Hazards (Refer to pages 110 –119)

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

_____ 1. Caused by heavy rains.

a. storm

_____ 2. The damages caused by major storms.

b. tornado

_____ 3. One of the largest types of storms

c. drought

_____ 4. A disturbance in the atmosphere with a lot of wind.

d. hurricane

_____ 5. A large mass of swirling wind

e. flood

_____ 6. A long period with little or no rain

f. impact

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

_____ 1. The surface of the earth can become cooler because of the volcano.

_____ 2. Carbon dioxide does not affect climate change.

_____ 3. Burning fuels can cause the climate to get warmer.

_____ 4. The amount of carbon dioxide in the atmosphere is increasing because of humans.

Fill in the gaps with the correct word.

swirling - snow- destruction- dangerous- temperature- powerful- lightning-
precipitation- floods

A weather hazard is_____weather that can hurt people.

Severe thunderstorms bring_____.and heavy rain. They can cause
flash_____ Tornadoes are strong, _____winds.

Hurricanes are the largest, most_____ storms.

Their wind, rain, and waves can cause flooding

and_____Blizzards bring so much_____ that homes can
be buried.

A heat wave is when the ----- is higher than usual for two or more
days.

Drought occurs when there is not enough_____

Mention three countries in the world you know have the most hazardous weather.

Name: _____ Date: ____/____/____

Topic 4

Lesson 1: Climate (Refer to pages 132 –141)

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

Climate- elevation- latitude- polar- temperate – tropical- equator-

- _____ 1 . Pattern of weather in a place over many years.
- _____ 2. A climate that is mild.
- _____ 3. A climate that is warm throughout the year.
- _____ 4. An imaginary line around the middle of the planet.
- _____ 5. A measure of how far north or south of the
equator a place is.
- _____ 6. A measure of how high above ground
something is.

Use the information below to answer questions 2 and 3.

Charlotte recorded summer and winter climate data for four cities in the table.

Climate Data				
City	Average summer temperature	Average summer precipitation	Average winter temperature	Average winter precipitation
W	3°C	2 cm	0°C	1 cm
X	28°C	18 cm	26°C	32 cm
Y	24°C	12 cm	8°C	14 cm
Z	18°C	10 cm	3°C	19 cm

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

_____ 1. Based on the data in the table, which city has a tropical climate?

- A. City W
- B. City X
- C. City Y
- D. City Z

_____ 2. Which **best** describes the climate in City W?

- A. City W is warm in the summer and cold in the winter. It is dry all year.
- B. City W is cold in the summer and in the winter. It is wet in the summer and dry in the winter.
- C. City W is cold in the summer and in the winter. It is dry all year.
- D. City W is warm in the summer and in the winter. It is dry all year.

Name: _____ Date: ____/____/____

Topic 4

Lesson 2: Climate Change (Refer to pages 142 –151)

Words to Know: Write the right letter next to the description it matches.

a. greenhouse effect	b. green house gazes	c. climate change

-----1. how the atmosphere traps energy from sunlight and keeps Earth warm

-----2. A change in temperature, precipitation, or other weather pattern over time

-----3. Gazes that help trap some of the energy in the atmosphere

Explain: Why do scientist use tree rings to study the climate change?

How can tree rings help them?

Name: _____ Date: ____/____/____

Topic 4

Lesson 3: World Climates (Refer to pages 152– 161)

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

_____ 1. Countries around the world have similar climates.

_____ 2. The amount of precipitation in a country determines its climates.

_____ 3. Scientists use temperature to classify wet climates around the world.

_____ 4. All the deserts around the world are hot places.

Compare:

How do climates vary?

Hypothesize:

Make a prediction that explains whether or not a desert climate has always been a desert climate.

Name: _____

Date: ____/____/____

Topic 5

Lesson 1: Life Cycles (Refer to pages 174 - 183)

Words to Know: Match the definition to its correct term.

- | | |
|--|--------------|
| 1. A living thing such as a plant or an animal | a. diverse |
| 2. Different kinds of something | b. organism |
| 3. It makes more organisms of the same kind | c. reproduce |

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

- _____ 1. All living things go through a life cycle.
- _____ 2. All seeds come in same shapes, sizes, and colors.
- _____ 3. Animals have the same way to protect their eggs.
- _____ 4. Mammals start developing the egg inside the mother's body.

Determine:

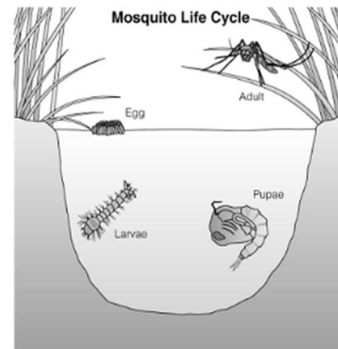
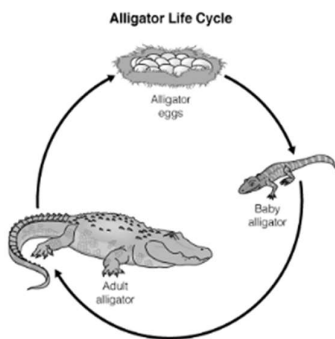
What stage in a life cycle keeps the same kind of organisms living after others have died?

Use the information below to answer questions 3, 4, and 5.

A student created life cycles of two different organisms.
Write the letter of the correct answer on the line at left.

_____ 3. **What is similar between the two life cycles? Select two correct answers.**

- A. Both life cycles have adults.
- B. Both life cycles need the same environment for the organisms to grow.
- C. Both life cycles include reproduction.
- D. Both life cycles have eggs in nests.



4. Complete the sentences to describe how the alligator life cycle differs from the mosquito life cycle.

When a mosquito is first born, it is called (an egg / a larva / an adult).
But, when an alligator is first born, it is called (a baby / an egg / an adult)

5. The two life cycles show that the two organisms are **(diverse / exactly alike)**.

Compare:

In what ways are a tree and a chicken the same?



Name: _____

Date: ____/____/____

Topic 5

Lesson 2: Inherited Traits (Refer to pages 184 - 193)

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

<i>Trait</i>	<i>Inherit</i>	<i>Variation</i>
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- 1- _____ means you got something from your parents or ancestors.
- 2- Differences in organisms from the same parents called _____.
- 3- _____ is a feature of organism such as the way body works/looks.

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

_____ 1 . All animals know how to walk and feed themselves as soon as they are born.

_____ 2. Offspring look exactly like their parents.

Use the information below to answer the question.

A farmer grows peas. The farmer is experimenting with different combinations of peas parents to see if he can produce a new variety of pea to sell.

In the first experiment, the farmer combines a round pea plant with a Wrinkled pea plant. The table shows the results of this combination.

Pea Experiment 1	
Type of pea	Number of offspring
round	600
wrinkled	200
round and wrinkled	0

Circle the words to complete these sentences.

In Experiment 1, the offspring are (all wrinkled/ mostly round / mostly wrinkled / all round).

This means the farmer (did / did not) get a new variety of pea because none are both round and wrinkled.

Explain: Two cats produced kittens with black fur.

Why did the kittens have black fur?

Name: _____ Date: ____/____/____

Topic 5

Lesson 3: Traits Influenced by the Environment (Refer to pages 194 - 203)

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

environment

influence

1- The environment has an _____ on inherited traits.

2- _____ it is what surrounds a thing.

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

_____ 1 . Water and soil are the only factors in an environment that influence inherited traits.

_____ 2 . Sunlight is an important factor that affects the traits of plants.

Summarize:

How does the environment affect the shape of the saguaro cactus?

Compare:

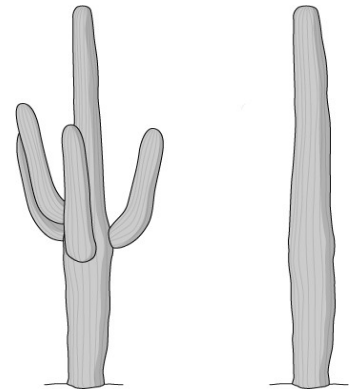
Describe the difference between the inherited traits of saguaro cactuses and the traits caused by the environment?

Encircle the letter of the correct answer.

The pictures show two of the same type of cactuses. The cactuses have the same parents.

These cactuses inherited the same basic shape pattern from their parents, but they each have a different number of branches.

Why do the cactuses have different shapes?



- A.** The amount of water they get influences their shape.
- B.** The trait they get from one parent influences their shape.
- C.** The cactus with no branches gets more sunlight.
- D.** The cactus with many branches gets less wind.

Name: _____ Date: ____/____/____

Lesson 1: Survival of Individuals (Refer to pages 216 – 223)

Circle the words to complete the sentence:

Dana wrote the following argument about why a bear has fur. Which words are missing from her argument?

A bear's fur is (a habitat / an adaptation / an environment).

The fur helps the bear stay warm so that it can (survive / die off / pollinate) and reproduce.

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

_____ 1.A trait that helps a living thing survive in its environment is called adaptation

_____ 2.The fur helps the bear stay warm so that it can die off.

Hypothesize:

What might be some other adaptations needed for an individual cactus to survive better than others cactuses in a desert environment?

Name: _____ Date: ____/____/____

Lesson 2: Survival of Groups (Refer pages 224–231)

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

migrate

advantage

survive

- _____ 1. Animals do tasks together to stay alive.
- _____ 2. Animals making groups and helping each other.
- _____ 3. Animals move to a new place, and change their environment.

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

- _____ 1 . Animals may do many tasks to stay alive.
- _____ 2 . Animals have only one way of living in groups.

Assess:

Do only small animals form groups?

Animals live in groups to survive in their environment.

Draw lines to match each group of animals to the advantage they get.



Raise young



Keep warm



Share work



Prey capture

Name: _____ Date: ____/____/____

Lesson 3: Survival When Environments Change (Refer to pages 232 –243)

Words to Know: Write the right letter next to the description it matches.

_____ 1. Its roots store food and water to make it survive
While it's dormant.

a. Bats

_____ 2. They stay in a state of rest during winter when
There's no food.

b. Butterflies

_____ 3. They migrate to a warmer place when seasons
Change and they return when it's spring.

c. Caladiums

**When seasons change, animals respond in different ways to help
them survive. Write the word that describes each survival response.**

Hibernation • molting • migration

Skunks rest when less food is available. _____

Geese fly south for the winter. _____

Snakes shed their skin as they grow. _____

Bears find a cave nearby to rest for the winter. _____

Dogs shed their fur when seasons change. _____

Sharks swim to warmer temperatures. _____

Circle the words to complete the sentences.

Human actions such as **(conservation / cutting down trees)** could cause animals to migrate and find a new habitat. Plants respond to changes in their environment by **(migrating / becoming dormant)**.

List 3 factors that cause environmental changes.

Assess:

Explain one change that can be made by humans to better protect the natural habitats of animals and plants.

Name: _____

Date: ____/____/____

Topic 7

Lesson 1: Fossils (Refer to pages 258 - 267)

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

fossil

extinct

_____ 1- The remains or traces of a living thing from long ago

_____ 2- Plants or animals that are no longer living on Earth.

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

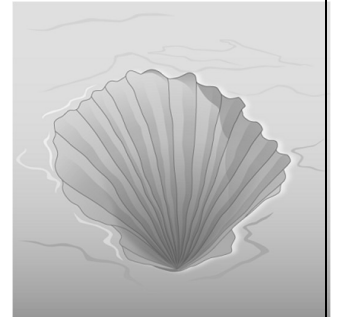
_____ 1. All organisms form fossils.

_____ 2. Not all fossils are found in rock.

_____ 3. Footprints are evidence that animal walked in the place.

Use the information below to answer questions 1 and 2.

Look at the picture of a fossil shell.



Encircle the letter of the correct answer.

Choose two correct statements about the picture.

A. The shell is a fossil mold.

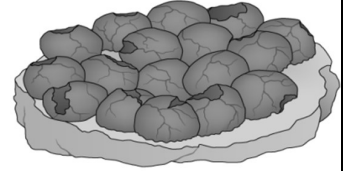
B. The shell is a trace fossil.

C. The fossil was made when a shelled animal became trapped in sap.

D. The fossil tells scientists that this kind of shelled animal once existed.

Use the information below to answer questions 1 and 2.

You are on vacation and visiting an area where dinosaurs once lived. You find a fossil dinosaur nest that looks like the fossil in the picture. A fossil can give information about the living thing that left the fossil.



1 What kind of fossil is shown in the picture?

- A.** mold fossil
- B.** cast fossil
- C.** trace fossil
- D.** amber

2 Study the fossil for evidence about the once-living organism that left it. Choose two things you learned about the organism by studying the fossil nest.

- A.** The nest was left by an animal because plants do not lay eggs.
- B.** The animal probably lived on land and built its nest on the ground because all the eggs are together.
- C.** The animal probably lived on land and built its nest in a tree because all the eggs are together.
- D.** The animal made its nest in the water because all the eggs are together.

Circle the words to complete the sentence.

The fossil in the picture is evidence that a **(snake-like creature / shelled animal stinging insect / wild animal)** once existed in the location.

Name: _____

Date: ____/____/____

Topic 7

Lesson 2: Fossils as a Record (Refer to pages 268 - 277)

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

<i>data</i>	<i>fossil record</i>
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_____ 1. It gives a total number of fossils found.

_____ 2. information or facts about something.

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

_____ 1. Fossil records did not give any clue about organisms.

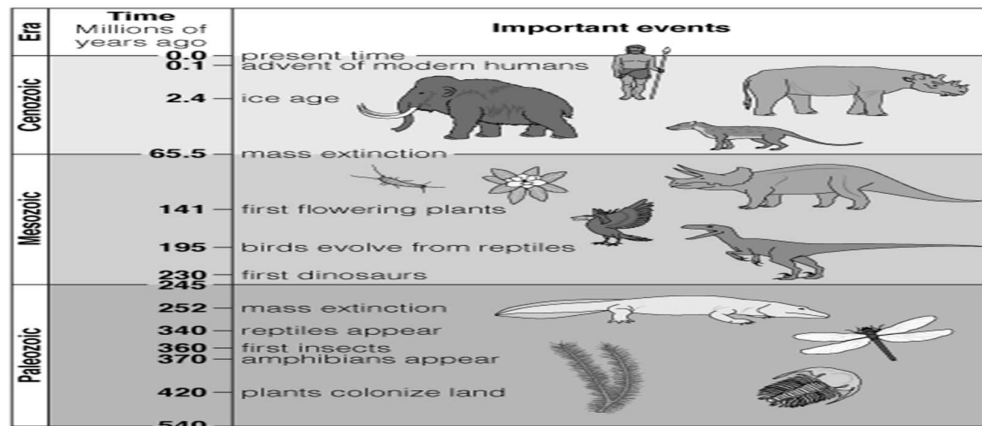
_____ 2. The age of a fossil is an important piece of data.

_____ 3. Early animals of Paleozoic's era lived in ocean.

Name the eras of the geologic time scale.

Use the information below to answer questions 1 and 2.

Look at the picture. It shows when some organisms first appeared in the fossil record. The picture also shows when mass extinctions occurred. A *mass extinction* is an event when most of the organisms on Earth die and become extinct.



Encircle the letter of the correct answer.

Based on the data in the chart, which two statements are correct?

- A. All insects became extinct in the Mesozoic era.
- B. Plants first grew on land during the Paleozoic era.
- C. An ice age occurred in the Mesozoic era that killed all plants
- D. Dinosaurs became extinct between the Mesozoic and Cenozoic eras.