

5th Grade NTI Assignments for 2022-2023

Day 1

Reading:

- Read the passage titled "States of Matter". Pay close attention to the bold words.

Writing:

- On the States of Matter page, name the correct word that explains each stage of matter changes. (**evaporation, freezing, condensation, melting**)

Science:

- Cut and sort the words in the word bank at the bottom of the States of Matter page to determine whether the object is a solid, liquid, or gas. (If you do not have scissors and glue, just use 3 different crayons to color code the objects. For example, color the word Solid blue and then all objects that are solids blue.)
- Draw how particles would look in each state: solid, liquid, and gas. Refer back to the text to determine if the particles should be drawn close together, somewhat spread out, or very spaced apart.

Day 2

Math:

- Complete the 12 problems on the Multiplication (Vertical) page. Use the back to show your work if needed. **YOU MUST SHOW YOUR WORK FOR EVERY PROBLEM.** Match your answer to one of the answers at the top of the page and write it on the line next to the correct problem.

Social Studies:

- Label the world map at the top. Use the map to answer questions 1-17.

Day 3

Reading:

- Read the passage titled "What is a Food Web".
- Highlight or underline information from the text to help you answer the 10 questions on the question page (page with 31 at the bottom).

Writing:

- On the Discover Food Webs page, write a list of producers and consumers that you see in the food web. Pay attention to the top of the page to help you determine the difference between a producer, primary consumer, and secondary consumer.

Science:

- Cut out and sort the pictures to create a food web. Use the example on the Discover Food Webs page to help you, or if you have internet access, you could search for examples of food webs. Think back to what you read in the passage to help you. Cut the pictures out and glue them onto the blank page provided. Don't forget to use arrows to signal the movement of the food web.

Day 4

Math:

- Complete the Finding Perimeter and Area worksheet. Use the back of the paper to show your work. **YOU MUST SHOW YOUR WORK FOR EACH PROBLEM.** Match your answer to one of the answers at the top and write it next to the correct number on the right side of the page.

Social Studies:

- Read the notes about primary and secondary sources at the top of the page. Using the notes, decide if each example in 1-15 is a primary or secondary source. Write the answer next to the problem number on the right side of the page.

Day 5

Reading:

- Read the passage titled "Interactions of Earth's Four Main Spheres". Highlight or underline the answers to the vocabulary crossword puzzle.

Writing:

- Restate and answer the questions on the page called Thinking About What You Read. Use the passage to help you answer the questions. Make sure that you answer with complete sentences and correct capitalization and punctuation.

Science:

- Complete the Vocabulary Crossword Puzzle. All answers can be found in the passage.
-

Day 6

Math:

- Complete the Warm-Up 116 Working with Volume worksheet. Use the formula for volume ($v = l \times w \times h$) to solve the problems. Show your work on the back of the paper. **YOU MUST SHOW YOUR WORK FOR EACH PROBLEM.**

Social Studies:

- Analyze the timeline over the History of Video Games. Use the timeline to answer questions 1-10.

Day 7

Reading:

- Read the passage titled "Saving the Planet is Everyone's Job". Highlight or underline text evidence to answer the questions on the Thinking About What You Read page.

Writing:

- Answer the questions on the Thinking About What You Read page. Be sure to answer with details that come from the text.

Science:

- Fill in the Venn Diagram comparing land pollution to air pollution. There are several facts that can be put into your venn diagram from the passage. Include information about how each type of pollution is caused, the effect that each has, and how people can reduce it. Try to list at least 3 things in each part.
-

Day 8

Math:

- Complete the Adding and Subtracting Decimals worksheet. Use the back of the paper to show your work if needed. **YOU MUST SHOW YOUR WORK FOR EVERY PROBLEM.** Match your answer to one of the answers at the top and write the answer on the line on the right side of the page.

Social Studies:

- Read The Importance of the Buffalo. Analyze the parts of the buffalo and what each part was used for. Answer questions 1-4. On the back of the paper, write a paragraph explaining why the buffalo was so sacred to Native Americans. (Think about all the uses they had from buffalo.)
-

Day 9

Reading:

- Read the passage titled "Gravity and Its Role in Our World."
- Answer the questions on the Thinking About What You Read page. Restate and answer in complete sentences. Use information from the passage to support your answers.

Writing:

- On the Communicate Your Learning page, write a paragraph (the directions say 2 paragraphs, but I am asking you to write 1) that explains what you learned about gravity from the passage. Be sure to explain the direction of gravity's pull and an explanation of gravity's force. Your answer should be supported with details from the passage.

Science:

- On the Connections to Home page, you will complete an activity that tests gravity. Complete this activity with an adult. With an adult, choose 3 to 5 items from around your house of different sizes. These items must be **non-breakable!** Make sure some items are heavy, some are light, some are big, and some are small. See what happens when you drop the different items from the same height. Draw pictures in the box that show what you discovered during this experiment. Did some items fall faster than others? Did any fall equally? Did any float slowly down?
-

Day 10

Math:

- Complete the Rounding Decimals worksheet. Answer questions 1-20. Use the back of the paper to show your work if needed. **YOU MUST SHOW YOUR WORK FOR EVERY PROBLEM.** Write your answers on the blanks on the right side of the page.

Social Studies:

- Read the Checks and Balances article. Match the vocabulary term with its definition for numbers 1-10. For questions 11-14, choose the best answer choice that answers the question and underline where you found your answer in the passage. Write the number of the question next to the sentence you underline.

STATES OF MATTER

Name: _____

Matter is all around you. It's anything you can touch or feel. Determine if each of the things listed at the right is or is not matter.

After you finish categorizing the 10 items, check your answers at the bottom of the next page. How did you do?

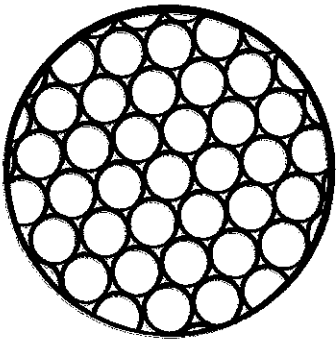
What is Matter?

Now that we know that matter can look a lot of different ways, let's dive deeper into what it is. Everything in the universe is either matter (things we can touch) or energy (the power to move or change matter). If you missed number 4, that's because light is an example of energy. You can't touch it. The rest of the things listed are all examples of matter.

- | | |
|--------------|-----------|
| 1. DESK | YES or NO |
| 2. WATER | YES or NO |
| 3. AIR | YES or NO |
| 4. LIGHT | YES or NO |
| 5. YOUR BODY | YES or NO |
| 6. BACKPACK | YES or NO |
| 7. DIRT | YES or NO |
| 8. JUICE | YES or NO |
| 9. PAPER | YES or NO |
| 10. THE SUN | YES or NO |

Matter is made up of tiny particles called atoms. These particles can combine with other atoms to become molecules. For example, two hydrogen atoms and an oxygen atom can combine to create a water molecule! The qualities of the objects around you depend on what kind of atoms they are made of and how those atoms are arranged.

Your desk is firm while the water in your bottle is able to slosh around. The reason for these differences can be found at a molecular level. The desk and the water are made of different kinds of atoms. But what if we freeze the water to become as solid as the desk? How do you explain that?



SOLID

Matter Changes State

Heat is a measure of how fast the particles of a substance are moving. When particles are moving really fast, that substance can be called "hot." When particles are moving slow, we call it "cold." A **solid** has the lowest resting temperature of all the states of matter. That means that its particles are barely moving. For that reason, they can become very closely packed together. This gives the solid the tough quality that we expect from wood, glass, and other solid things.

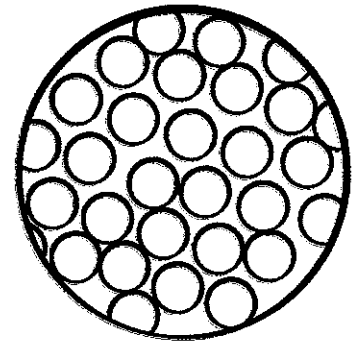
As energy is added to the solid, the particles will begin to move faster. They will vibrate and shift around. Sometimes, they may even break out of the solid structure

STATES OF MATTER

Name: _____

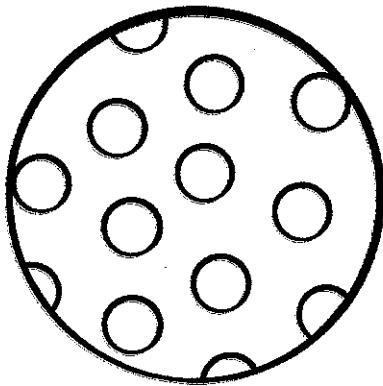
they had formed, and enter into a more flexible, or fluid state. The process we are describing is called **melting**. Melting happens whenever a solid is heated to the point that its particles become so active that they no longer hold their shape. Different substances melt at different temperatures. Scientists call this its **melting point**.

Liquids are in a state of matter with a mid-level range of heat. Their particles are freely moving around and are defined by their tendency to take the shape of whatever object they are contained in. The atoms and molecules of a liquid are still not moving fast enough to escape gravity, though.



LIQUID

When enough heat is added to liquid, the particles speed up even more. Eventually, they may break free from gravity's grip and float freely around whatever container they are in.



GAS

This process of turning liquid to gas is known as **evaporation**. A **gas** has the most energy of all the states of matter, and that means that its particles are moving the fastest. The particles move so fast, and they expand to completely fill any container they are in.

Matter can change state in the other direction as well. When a gas is cooled enough it will return to a liquid state in a process known as **condensation**. This is the process that is responsible for turning clouds to rain.

Liquid, when cooled, can return to a solid state as well. As its particles slow down they eventually reform a solid structure. This process is known as **freezing**.

How Common are State Changes?

Every substance can become all 3 states. Even rock can become liquid, which we see happen naturally in volcanoes! If we heated them even more, they would become a gas, too. Usually, in nature, temperatures don't get high or low enough for many common items to change states.

Water, on the other hand, easily changes states even at common Earth temperatures. It's not unlikely to encounter solid, liquid, and gas water all in the same day! It's considered a special quality of water that it can change state so easily. Without it, the water cycle (which supports all life on Earth) would cease to exist.

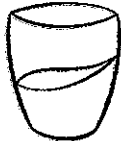
STATES OF MATTER

Name: _____

Give the correct definition for the following changes in state of matter.



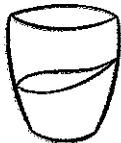
GAS



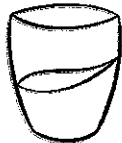
LIQUID



SOLID



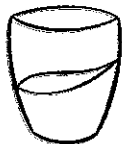
LIQUID



LIQUID



SOLID

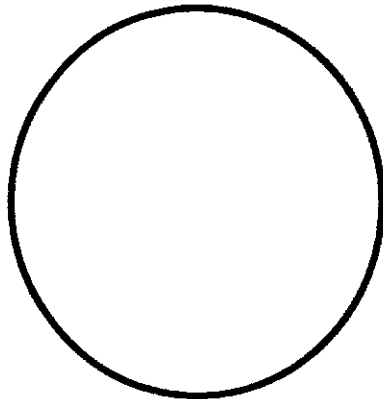


LIQUID

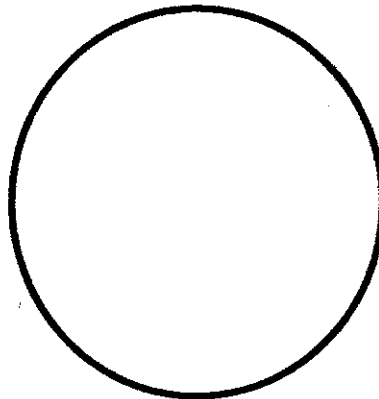


GAS

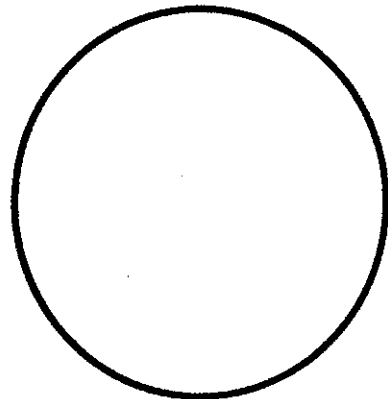
Draw the behavior of the particles in each state.



SOLID



LIQUID



GAS

STATES OF MATTER

Name: _____

Cut out the examples below. Glue the objects under their correct state of matter.

SOLID	LIQUID	GAS

WATER VAPOR	OCEAN	DIAMOND
ICE CREAM	OXYGEN	BLOOD
SMOKE	SNOW	BONE
MILK	JUICE	HELIUM
RAIN	AIR	GLASS

Solve each problem.

Answers

5,238	1,020	516	3,655
368	6,160	4,680	6,958
1,960	5,760	1,104	3,913

1)
$$\begin{array}{r} 43 \\ \times 12 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 97 \\ \times 54 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 85 \\ \times 43 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 71 \\ \times 98 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 28 \\ \times 70 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 96 \\ \times 60 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 65 \\ \times 72 \\ \hline \end{array}$$

8)
$$\begin{array}{r} 80 \\ \times 77 \\ \hline \end{array}$$

9)
$$\begin{array}{r} 23 \\ \times 16 \\ \hline \end{array}$$

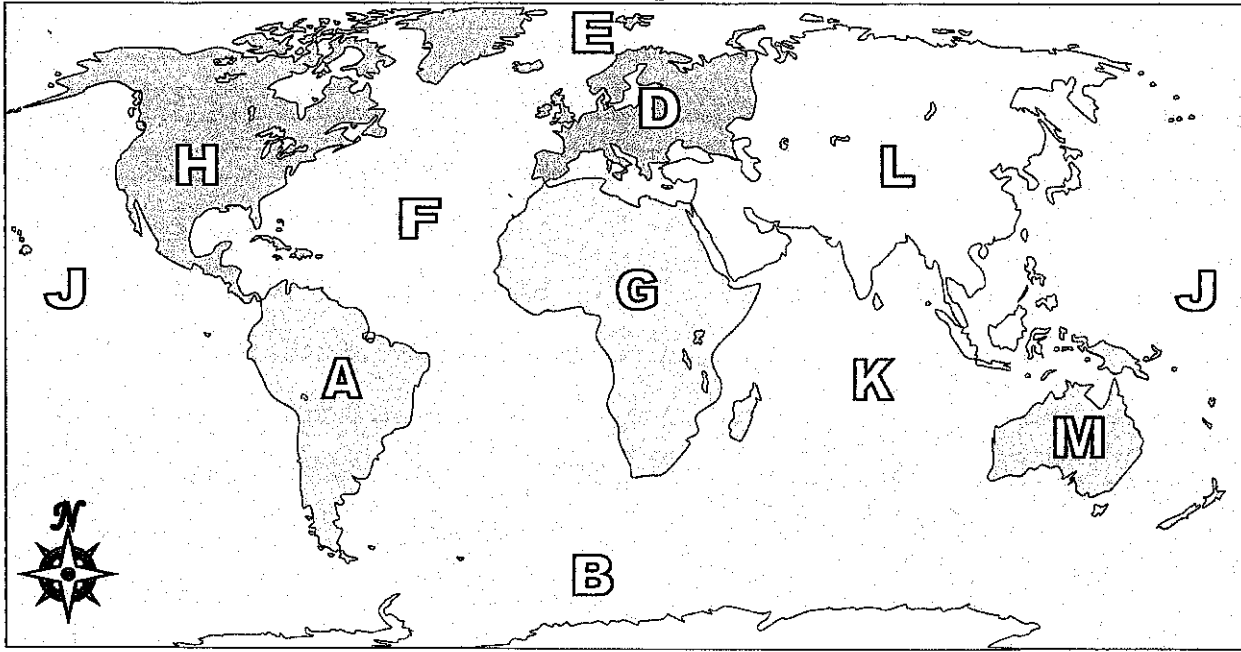
10)
$$\begin{array}{r} 60 \\ \times 17 \\ \hline \end{array}$$

11)
$$\begin{array}{r} 92 \\ \times 12 \\ \hline \end{array}$$

12)
$$\begin{array}{r} 43 \\ \times 91 \\ \hline \end{array}$$

1. _____
2. _____
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8. _____
9. _____
10. _____
11. _____
12. _____

Using the map below, determine which letter represents each continent or ocean.



Answers

- 1) North America _____
- 2) Africa _____
- 3) Australia _____
- 4) Europe _____
- 5) Atlantic Ocean _____
- 6) Asia _____
- 7) Indian Ocean _____
- 8) Antarctica _____
- 9) South America _____
- 10) Southern Ocean _____
- 11) Pacific Ocean _____
- 12) Arctic Ocean _____
- 13) If you were in South America and flew east to Australia which continent would you fly over?
A. Europe B. Asia C. Africa D. Antarctica
- 14) If you were in Europe and went south which continent would you end up in?
A. Africa B. Australia C. Asia D. North America
- 15) Which continent is not touching any other continents?
A. Europe B. Antarctica C. Asia D. Africa
- 16) Which ocean touches South America's western border?
A. Pacific Ocean B. Indian Ocean C. Atlantic Ocean D. Arctic Ocean
- 17) Which of these oceans is not touching North America?
A. Atlantic Ocean B. Arctic Ocean C. Pacific Ocean D. Indian Ocean

1. _____
2. _____
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4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

What Is a Food Web?

In an ecosystem, energy flows from producers to consumers to decomposers.

Energy from Food

A producer makes its own food. Plants, along with algae and some bacteria, are Earth's producers. Producers use energy from the sun. They change it into a different kind of energy made up of sugars and oxygen.

A consumer does not produce food, but gets energy by eating food. When you eat a plant, you take in energy stored in the plant. This energy is needed to stay warm, as well as to move. Humans and all other animals are consumers.

Food Chains

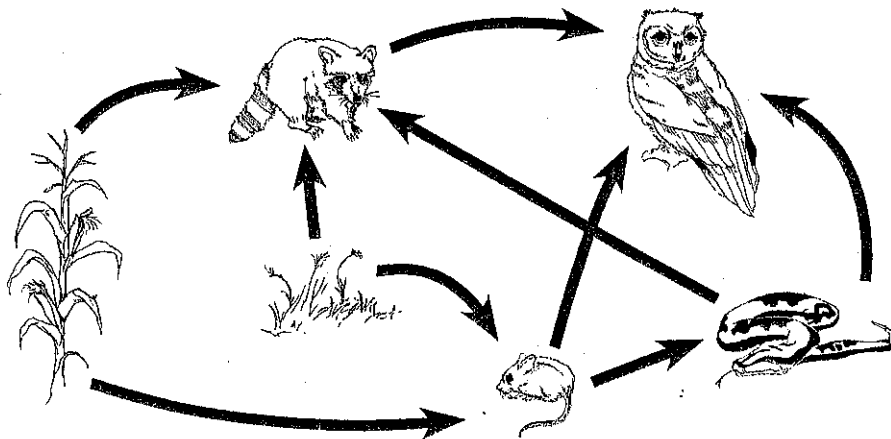
A food chain shows how energy in an ecosystem moves from one living thing to another. Producers make food. Animals called first-level consumers eat plants or other producers. Caterpillars are first-level consumers.

Some consumers eat other consumers. Many birds are second-level consumers. They eat very small consumers. Cats are third-level consumers. They eat larger consumers than birds do. However, without plants, there would be no food chain at all.

When plants and animals die, sometimes they are eaten. Decomposers, like bacteria, fungi, and worms, often break down parts of dead plants and animals and make them part of the soil.

Food Webs

A food web shows how food chains work in an ecosystem. A mouse might eat grass or seeds. It could also eat insects. A snake might eat insects and mice. An owl might eat mice and snakes. So could a raccoon.



Most consumers play the same role in every food chain they are part of. For example, a rabbit is always a first-level consumer because it is a plant eater, or herbivore. Hawks and snakes are second-level consumers. They are carnivores, or meat eaters, because they eat other animals. Animals that eat plants and animals are omnivores, meaning they “eat all.” Humans are omnivores.

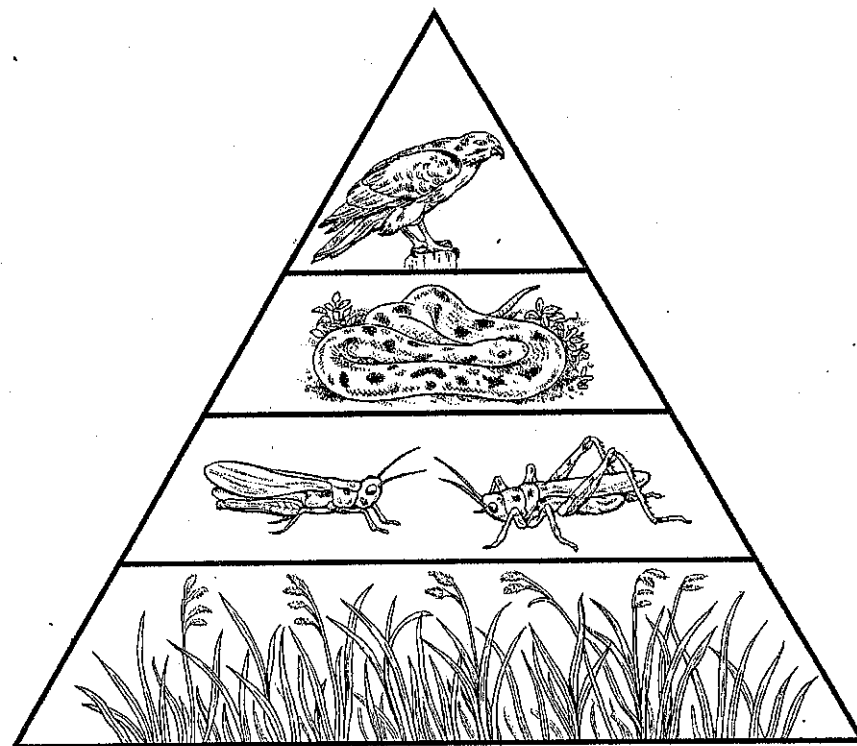
Cycles in Nature

Many things interact in ecosystems. Plants take a gas called carbon dioxide from the air. They release oxygen. Animals take oxygen from the air. They release carbon dioxide. In this cycle, plants and animals benefit each other.

Energy Pyramid

All living things use, lose, and store energy. An energy pyramid shows how energy moves through an ecosystem. Producers make up the base of the pyramid. Next are first-level consumers. Second-level and third-level consumers are in the upper levels.

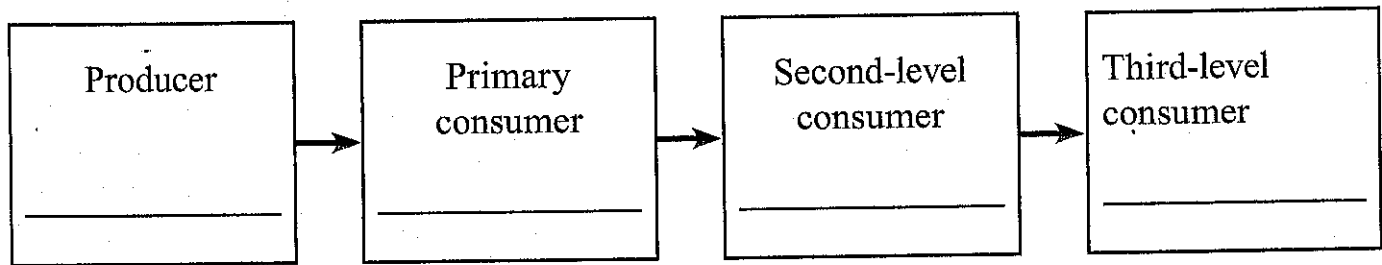
An energy pyramid helps explain populations in ecosystems. Producers usually have the largest populations because they have the most energy to use. Their energy comes straight from the sun. Energy is released every time food is digested and the energy is used to move around. Much of this energy is lost to the surrounding environment as heat. As a result, there is less energy available at each level of the pyramid. After three or four links between consumers, there is just not as much energy for an animal to use. Therefore, there are only a few third-level consumers.



What Is a Food Web?

Fill in the blanks.

1. A producer makes its own food from raw materials and energy from _____.
2. A consumer gets energy by _____ food, not producing it.
3. Write the name of a plant or animal on each part of the diagram to show a food chain.



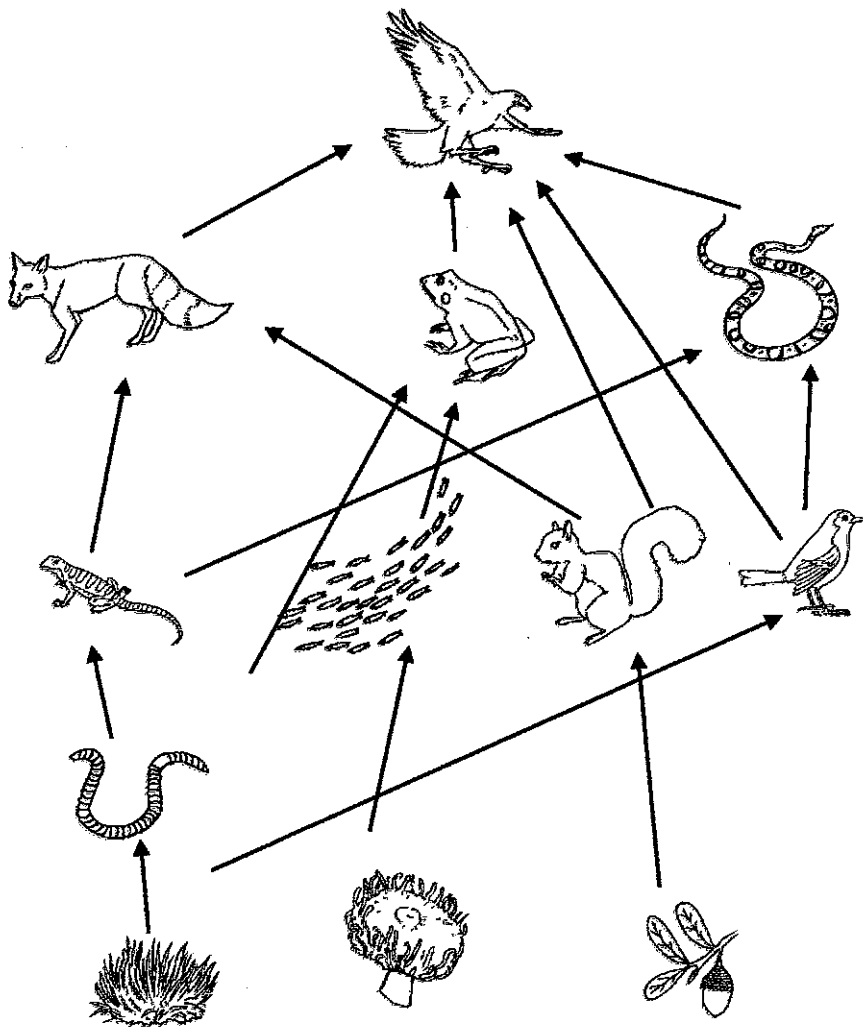
4. Bacteria, fungi, and earthworms are all _____.
5. A rabbit is a(n) _____, meaning "plant eater."
6. Hawks and snakes are _____, which means "meat eaters."
7. Animals that eat both plants and animals are called _____.
8. Animals release carbon dioxide and take in _____.
9. As a general rule, _____ have the largest populations because they have the most energy available to them.
10. **Main Idea** Describe how energy flows through an ecosystem.

Discover! Food Webs

For all ecosystems, the major source of energy is sunlight. Sunlight is transformed by producers into energy. A food web is made up of plants that are eaten by living things as well as the animals that eat those living things. The arrows in a food web go from the living thing being eaten to the animal eating it. This shows the energy going into the animal.

Producers	Primary consumers	Secondary consumers
Plants are producers. They are at the bottom of the food chain	Plant-eating animals are primary consumers. They are eaten by secondary consumers.	Meat-eating animals are at the top of the food chain.

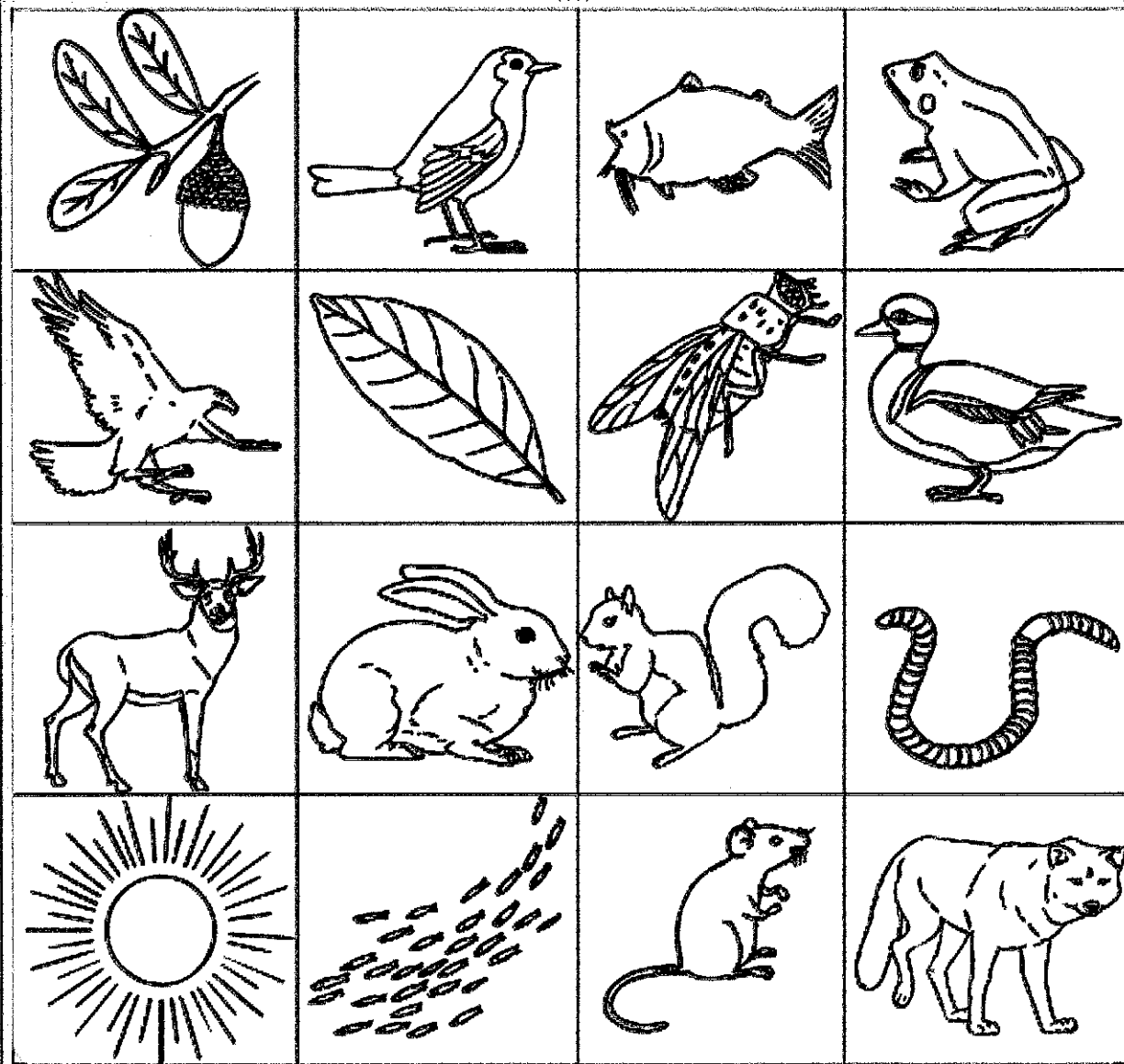
Look at the food web. List some producers and consumers that you see.



Producers
Primary Consumers
Secondary Consumers

Discover! Create a Food Web

Cut out the pictures and create a food web. Label the producers with a P, the primary consumers with PC, and the secondary consumers with SC.



Don't forget to use arrows!



Name _____

Directions: Glue your Food Web below (pictures from previous page).

Solve each problem.

7 in	42 cm ²	12 ft ²	3 ft	26 in
60 mi ²	28 mi	24 ft	5 cm	22 mi

Answers

- 1) A rug had a length of 9 feet and a width of 3 feet. What is the perimeter of the rug?
- 2) A piece of plywood was cut so its length was 6 feet by 2 feet. What is the area of the wood?
- 3) Bianca had a sheet of paper that was 9 inches long and 4 inches wide. What is the perimeter of the paper?
- 4) Tiffany was cutting out some fabric for a friend. She cut a piece that was 6 centimeters wide and had an area of 30 cm². How long was the piece?
- 5) Sarah had a sheet of paper that was 9 inches long and the area was 63 in². What is the width of the paper?
- 6) The woods behind Will's house were 6 miles wide and 10 miles long. What is the area of the woods?
- 7) Haley was cutting out some fabric for a friend. She cut a piece that was 7 centimeters wide and 6 centimeters long. What is the area of the fabric she cut out?
- 8) An island in the Indian Ocean was 4 miles wide and 10 miles long. What is the perimeter of the island?
- 9) The woods behind Edward's house were 5 miles wide and 6 miles long. What is the perimeter of the woods?
- 10) A bathroom had a length of 2 feet and a total area of 6 ft². What is the width of the bathroom?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Determine if the source would be a Primary Source(P) or a secondary Source(S).

Answers

• A **Primary Source** is information that was created at the same time as an event or by a person directly involved in the event.

Diaries, speeches, letters, official records, autobiographies.

• A **Secondary Source** is information from somewhere else or by a person not directly involved in the event.

Encyclopedias, textbooks, book reports.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

1) A play showing how Benjamin Franklin flew a kite during a lightning storm.

2) A short story describing Thomas Edison and Nikola Tesla's 'electrical' battle.

3) Anne Frank's diary describing her life during World War 2.

4) A cartoon showing how Pocahontas met John Smith.

5) A text book describing the civil rights movement.

6) A news report about the opening of a power plant.

7) A scientist explaining what it was like for Buzz Aldrin to walk on the moon.

8) A YouTube video describing how the pyramids were built.

9) An interview with Alexander Graham Bell about how he invented the telephone.

10) A radio broadcast from the day the Soviet Union launched Sputnik.

11) An autobiography about the 40th president, Ronald Reagan.

12) A book describing Christopher Columbus sailing to America.

13) A famous artist's painting of what cowboy life was probably like.

14) A journal by a cowboy about the cattle drives from Texas to Kansas.

15) The United States Constitution.



INTERACTIONS OF EARTH'S FOUR MAIN SPHERES

When you think of Earth, you probably think of our planet as a big rock covered with land and water. However, another important part of Earth is the layer of air that surrounds us. In total, the Earth is made up of four main spheres that all interact. Without each of them, Earth might not be a very friendly place for life.

What Are Earth's Four Spheres?

The Earth's four main spheres are the geosphere, hydrosphere, atmosphere, and biosphere. Each of them involves different parts of the Earth. They also interact in many different processes.

The geosphere includes Earth's rock, soil, and sediment. This system even includes melted rock, or magma, that is found deep within the earth. You experience the geosphere every day that you walk on the ground. When you walk on a sandy beach, the sand between your toes is also part of the geosphere. Sometimes, the geosphere can even be dangerous, such as when magma comes out of volcanoes as lava.



The atmosphere has five different layers. These layers are the troposphere, the stratosphere, the mesosphere, the thermosphere, and the exosphere.

The hydrosphere is all of the water we have on Earth. You might think of the oceans first, which are an important part of the hydrosphere. However, this system also includes frozen water, or ice, freshwater, and even the water found in plants and animals. Marshes and swamps are other important parts of the hydrosphere.

The third main sphere is the atmosphere. This system includes the air that surrounds our planet. You may not be able to see the air around you. But, you can feel it when the wind blows. The air is made up of many different kinds of gases, most of which are nitrogen and oxygen. Thanks to the atmosphere, the sun's rays are filtered so that they are less harmful.

Finally, comes the biosphere. This part of our Earth includes all of the living things such as plants, animals, and even bacteria and fungi. Humans are part of the biosphere as well.

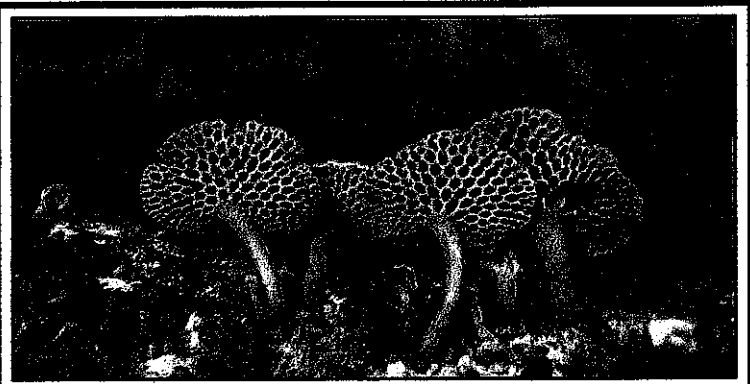
All of the planet's systems work together and interact in interesting ways. For example, the hydrosphere interacts closely with the atmosphere in the water cycle. Water evaporates from the hydrosphere to form clouds which eventually fall as rain. Another example of interaction is when the atmosphere's wind blows the sand and dirt of the geosphere, making it move. There are many other ways that the systems interact with each other. Humans, as part of the biosphere, also act on and make changes to different elements within Earth's spheres.

A Closer Look at the Hydrosphere

The hydrosphere is what makes our planet truly unique. However, the hydrosphere is often very different than the way we imagine it. We often think of the water that we use, which is freshwater. However, over 95% of the world's water is found in the oceans as saltwater. Only about 2.5% of the world's water is freshwater. Most of that freshwater is actually frozen in glaciers and ice caps. Another portion of freshwater is groundwater. Less than 1% of the freshwater is found in rivers and lakes.

Even though it's only a small percentage of the world's water, freshwater plays an enormous role in shaping the biosphere, atmosphere, and geosphere. Rainwater and streams move thousands of pounds of dirt. Many animals and plants are only able to survive by consuming freshwater. Without the hydrosphere, there may not be life on our planet at all.

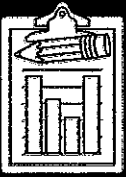
Although the hydrosphere does play a special role on our planet, all four of the main spheres together make the Earth what it is. Can you think of any other ways that these spheres interact?



The biosphere, one of four layers on Earth, is about 12 miles from top to bottom.

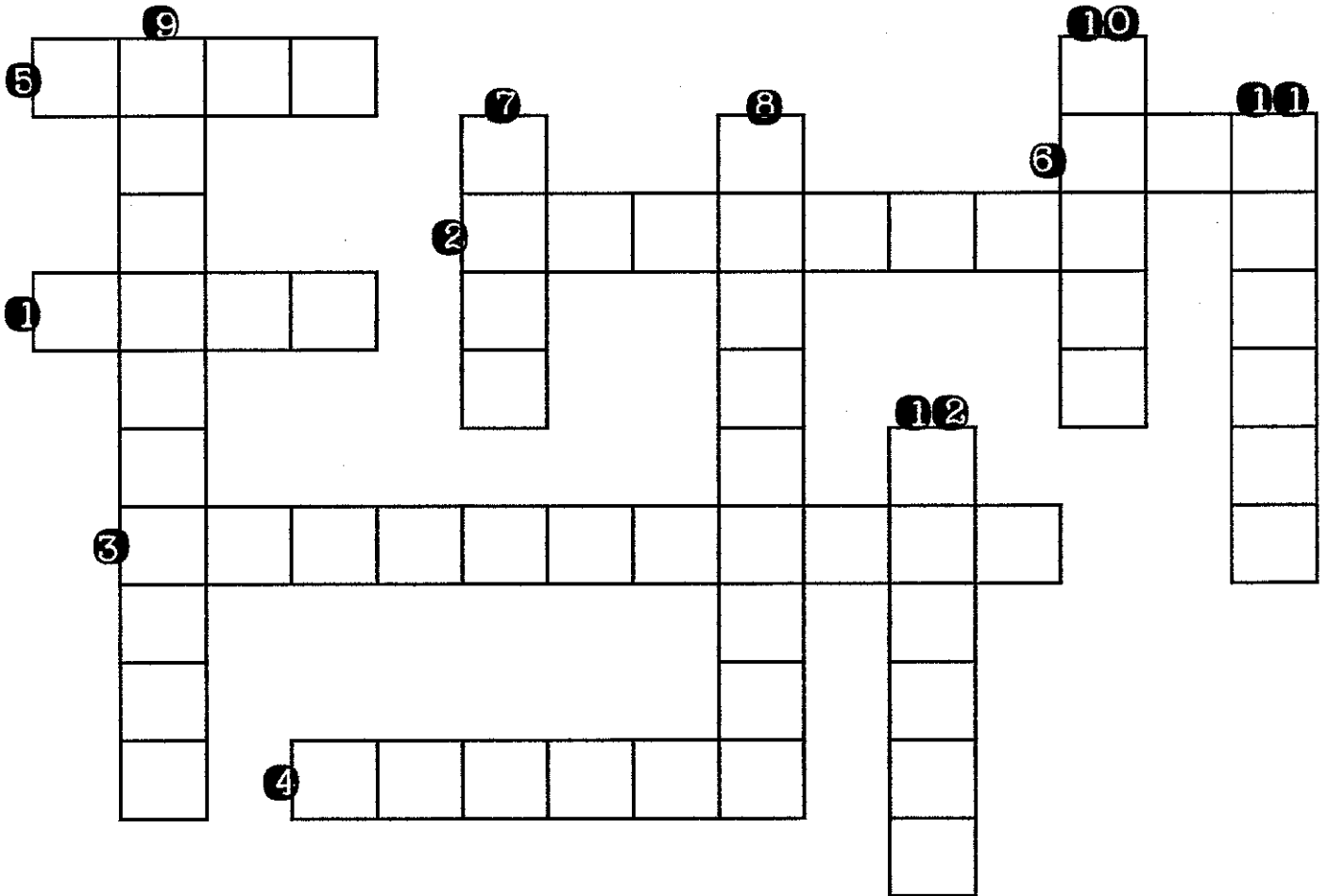


There are a few different spheres shown in this picture. Can you identify them?



VOCABULARY CROSSWORD PUZZLE

Use the clues below to complete the crossword puzzle.

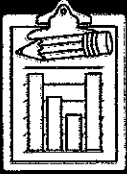


Across:

- 1 The Earth is made up of _____ main systems.
- 2 Each of Earth's systems _____ in different processes.
- 3 The _____ is all of the water we have on Earth.
- 4 The hydrosphere is what makes our planet _____.
- 5 _____ can be found in the Earth's geosphere.
- 6 _____ of Earth's systems play a special role on our planet.

Down:

- 7 These systems allow us to _____ on Earth.
- 8 The _____ includes Earth's rock, soil and sediment.
- 9 The _____ is the air that surrounds our planet.
- 10 The hydrosphere and atmosphere interact in the _____ cycle.
- 11 The biosphere is all of the _____ things on Earth.
- 12 Most of Earth's freshwater is _____ in glaciers and ice caps.



THINKING ABOUT WHAT YOU READ

Answer the questions below using details from the text. Remember to restate, answer the question in complete sentences, and prove it!

1. What is the geosphere?

2. What is the hydrosphere?

3. What is the atmosphere?

4. What is the biosphere?

5. In what ways do Earth's four main spheres interact?



Warm-Up 116

Working with Volume

NTI Day 6

Name: _____

Directions: Volume is the amount of space taken up by an object of substance. Compute the volume of these figures. The volume is computed by multiplying the length times the width times the height of an object or container ($v = l \times w \times h$). Volume is measured in cubic units.

1. A toy wooden block is 4 inches long, 2 inches high, and 3 inches wide.

What is the volume? _____

2. A container of water is 10 feet wide, 10 feet long, and 10 feet deep.

What is the volume? _____

3. An iron bar is 1 inch long, 2 inches wide, and 12 inches high.

What is the volume? _____

4. A block of ice is 1 foot long, 1 foot wide, and 1 foot high.

What is the volume? _____

5. A wooden box is 3 feet long, 2 feet wide, and 2 feet high.

What is the volume? _____

6. A classroom is 30 feet long, 30 feet wide, and 10 feet high.

What is the volume? _____

7. A cafeteria is 80 feet long, 40 feet wide, and 12 feet high.

What is the volume? _____

8. A pool of water is 20 feet long, 12 feet wide, and 6 feet deep.

What is the volume? _____

9. A toy chest is 5 feet long, 2 feet wide, and 3 feet high.

What is the volume? _____

10. An aquarium is 7 feet long, 3 feet wide, and 4 feet high.

What is the volume? _____

Now write your own question. Write the name of an object. Then write its dimensions and find its volume.

Object: _____

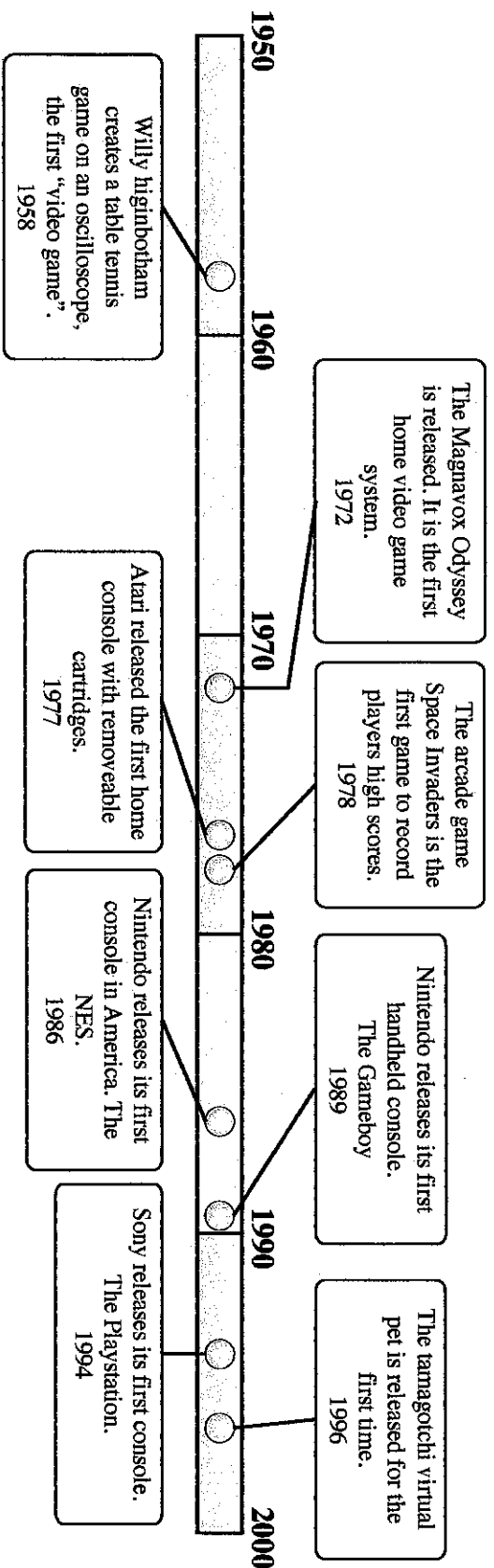
Length: _____ Height: _____

Width: _____ Volume: _____



Use the timeline to answer the questions.

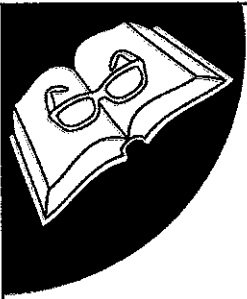
The History of Video Games



- 1) Which happened earlier? A. Nintendo released the gameboy or B. Nintendo released the NES _____
- 2) How many years after the PlayStation was released was the Tamagotchi released? _____
- 3) What year was the first video game created? _____
- 4) What year did games start to let players record their high scores? _____
- 5) What is the span (number of years shown) of this timeline? _____
- 6) What year was the Odyssey released? _____
- 7) What year did Nintendo release the NES? _____
- 8) Sony released the PlayStation 3 in 2006. Could you put this event on the timeline above? (Yes / No) _____
- 9) What is this timeline about? _____
- 10) What event happened in 1994? _____

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. Use Line
10. Use Line



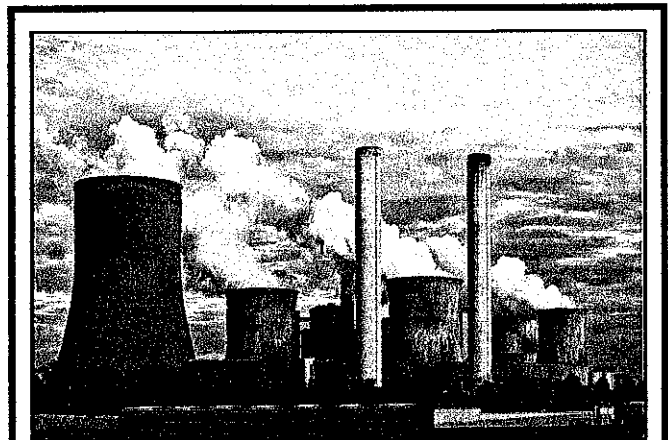
SAVING THE PLANET IS EVERYONE'S JOB

Have you ever heard of the Deepwater Horizon oil spill? Over 4.9 million barrels of oil spilled into the Gulf of Mexico. Although many people worked hard to try to clean it up, a large number of dolphins and other ocean animals died. This is just one example of many serious environmental problems our world is facing.

How People Affect the Environment

There are many environmental problems caused by the actions of people. Some of them include burning fossil fuels, agriculture, and plastic waste.

Fossil fuels are used to create the energy we need for transportation or to create electricity. For example, we use petroleum to make gas for airplanes and cars. In addition, we use fossil fuels in power plants and to make plastics. When these fossil fuels burn, they pump carbon dioxide and other pollutants into the air. This is one of the major causes of climate change. In addition, fossil fuels go through processing and refining before they can be used. These processes can cause water and air pollution.



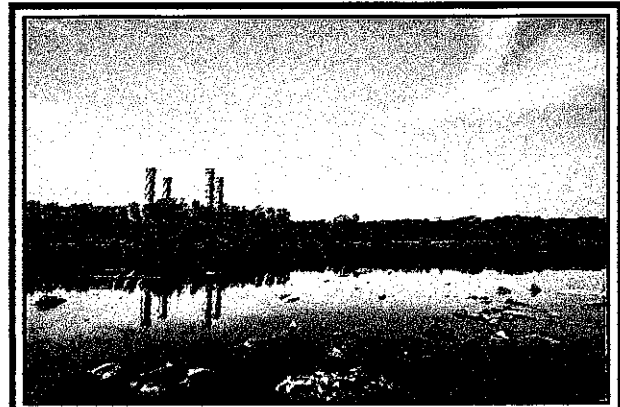
Power plants, like the one pictured above, create a lot of pollution and emit harmful chemicals. The largest and most powerful power plant on Earth is the Three Gorges Dam in China.

Agriculture is another way people have a negative impact on the environment. Many farmers try to produce as much food as possible. To do this, they use many chemicals, such as pesticides and herbicides, to kill insects and weeds. Unfortunately, these chemicals disrupt ecosystems and pollute the water in other areas. For example, a pesticide may be used to kill an insect that eats lettuce. However, it also kills helpful insects like bees and ladybugs. Or, the pesticides may run off the fields with the rain and go into streams. There, it kills all kinds of insects, bugs, or even fish.

Finally, people also create a lot of plastic waste. Our plastic bags, straws, and even our toothbrushes often end up in the ocean. Then, marine animals often mistake the plastic for food and try to eat it. Sharks and whales have been found dead with pounds and pounds of plastics in their stomachs!

Protecting Earth's Environment

The environmental problems we're facing are very serious. However, many people and communities are working to make positive changes. By changing our behavior and finding new ways to meet our needs, we can protect our planet.



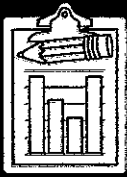
Pollution, and plastic waste, found in oceans, rivers, and lakes is having a devastating effect on our aquatic ecosystems and harming the organisms living in this environment.

One way that people are working to stop climate change is by using green energy. Energy sources such as solar and wind power are very clean. These energy sources don't release harmful gases into the air. Green energies are also helpful because they don't involve processing that can pollute the water and air. As a bonus, green energies will never run out. We'll always have sunshine and wind. Fossil fuels, on the other hand, are resources that can run out as we use them up.

There are also other ways to do agriculture. Instead of using lots of chemicals, some farmers practice organic farming. This type of farming tries to avoid causing water pollution or harming beneficial insects. Instead, they use other techniques to grow the food we eat. For example, to keep weeds from growing, farmers might apply mulch to their fields. This keeps the sun from reaching the weeds, so they don't grow as quickly. People can support this type of farming by buying from organic farmers. You can also help by buying local produce that doesn't have to be shipped in trucks that burn fossil fuels.

Finally, many people work hard to collect plastic waste so that it doesn't end up in the ocean. For example, there are companies that make new products such as shoes using recycled plastic. In addition, everyone can try to use fewer plastic items such as plastic bags.

Everyone can help protect Earth's environment. In addition to the above ideas, you can also help by telling your local authorities that the environment is important. Our leaders can decide to promote green energy like solar and wind power. They can also make laws that protect the earth from harmful chemicals. So, write a letter to your mayor, representative, or senator. Tell them that the environment is important to you!



THINKING ABOUT WHAT YOU READ

Answer the questions below using details from the text. Remember to restate, answer the question in complete sentences, and prove it!

1. How are fossil fuels harmful to the earth?

2. How can agriculture be harmful to the earth?

3. What role do plastics play in the pollution of our oceans, rivers, and lakes?

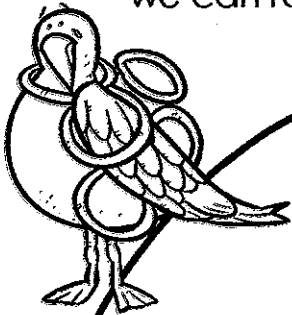
4. Who is responsible for protecting the earth and reducing human impact?

5. What are two ways that we can help reduce human impact on the earth?



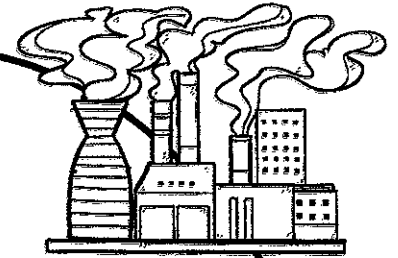
CONCEPT DEVELOPMENT

In the Venn Diagram below, compare and contrast pollution on the land and pollution in the air. Think about things that cause it, the effect that it has, and how we can reduce it. Try to list three things in each part of the diagram.



LAND

AIR



Solve each problem.

Answers

1.66	54.178	66.31	46.795
7.3	39.786	24.97	172.51
23.821	21.8	137.7	6.8

1)
$$\begin{array}{r} 95 \\ - 28.69 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 63.7 \\ - 62.04 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 59 \\ - 4.822 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 9 \\ - 1.7 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 74 \\ - 27.205 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 12 \\ + 9.8 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 22.3 \\ + 2.67 \\ \hline \end{array}$$

8)
$$\begin{array}{r} 95 \\ + 77.51 \\ \hline \end{array}$$

9)
$$\begin{array}{r} 71 \\ + 66.7 \\ \hline \end{array}$$

10)
$$\begin{array}{r} 4 \\ + 2.8 \\ \hline \end{array}$$

11)
$$\begin{array}{r} 25.78 \\ + 14.006 \\ \hline \end{array}$$

12)
$$\begin{array}{r} 12.32 \\ + 11.501 \\ \hline \end{array}$$

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

NAME _____

DATE INTI Day 8

The Importance of the BUFFALO

The buffalo played an important part in the history of our country. As long as the buffalo roamed the Great Plains, the Plains Indians grew in number and strength. The people of the Plains hunted the buffalo for food and used other parts of the animal to make clothing, tools, weapons, and other products.

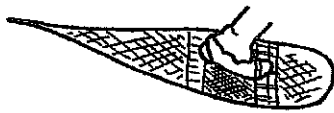
Interpret Visuals

DIRECTIONS: Study the drawings below, which show the most common buffalo products. Then answer the questions that follow.

BUFFALO PRODUCTS

MEAT

Fresh or dried for food
Muscle for thread,
bowstrings, and
webbing on snowshoes



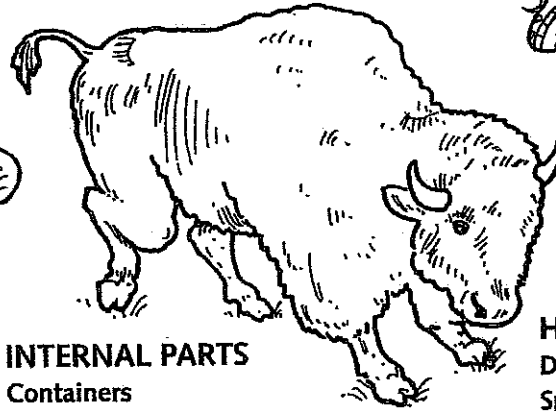
BONES

Bows
Scrapers
Other tools
Ribs for runners of
dog-drawn sleds
Toys



INTERNAL PARTS

Containers
Ingredients for paint



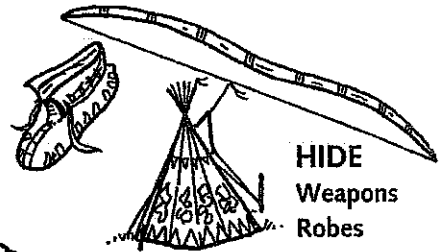
HORNS

Drinking vessels
Spoons
Ladles



HIDE

Weapons
Robes
Moccasins
Clothing
Tepee coverings
Shields
Ropes
Canoes
Bedding



HAIR

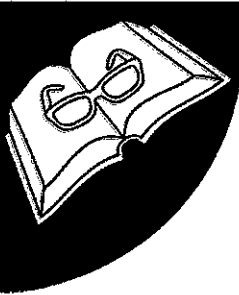
Ornamentation
Rope

1. What did the Plains Indians make from the internal parts of the buffalo?

2. Which three parts of the buffalo were used to make different kinds of weapons?

3. Which part of the buffalo was used to make housing for the Plains Indians?

4. Which part of the buffalo do you think made the most useful products?



GRAVITY & ITS ROLE IN OUR WORLD

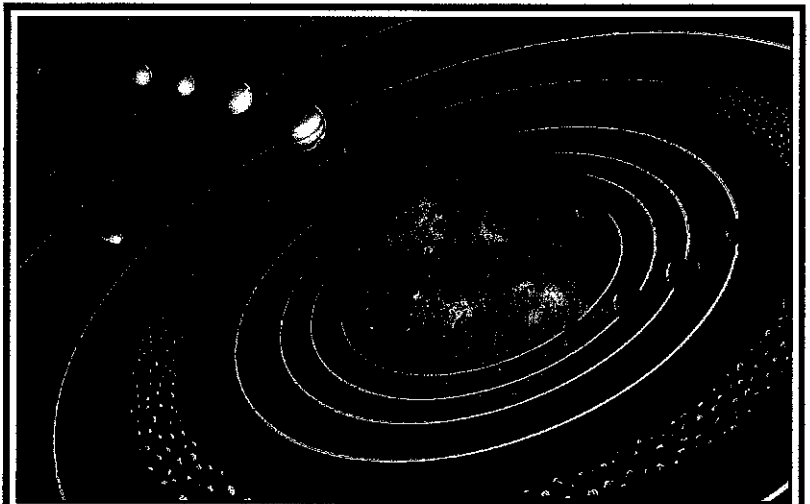
As the legend goes, Sir Isaac Newton was sitting, taking a rest under the shade of an apple tree. He was contemplating life, the world, and the universe. However, his deep thoughts were interrupted by a falling apple, which may have even hit him on the head! Surprised, this event is said to have led Newton to name the invisible force that controls so much of our world: gravity.

Newton went on to write a lot about gravity. He discovered that this invisible force is what causes an apple to fall to the ground when before it was in a state of rest, attached to the tree. He even wrote about how gravity works in space. Today, we understand a lot more about gravity than we did back when Newton was alive in the 1600s and 1700s.

What Is Gravity?

Essentially, gravity is a powerful force between objects. It affects all of the objects around you and also huge objects such as planets, asteroids, and the sun. On Earth, gravity pulls everything toward itself. That's because the Earth is a very large object and has a great amount of gravity.

In space, gravity works to keep many objects in orbit. For example, the Earth orbits the sun because of the sun's enormous gravity. In addition, the moon orbits the Earth because the Earth's gravity is much stronger than that of the moon's.



In this picture of our solar system, you can see that each of the planets orbit the sun. The inner planets are Mercury, Venus, Earth, and Mars. The outer planets are Jupiter, Saturn, Uranus, and Neptune. The planets are all held in their orbit due to the gravitational force of the sun. You can also see Earth's moon which orbits the Earth due to Earth's gravitational force.

One interesting fact about gravity is that it essentially helped Earth and the other planets to form in the first place! The gravity of dust and other matter floating in space caused that matter to contract. It pulled big clumps of it all together until a big, round ball was made. Gravity is also why the Earth and other planets are round. Gravity works to pull everything toward the center, which is why the shape of the ball is formed.

The great pulling that gravity does is what gives us and all other objects weight. In other words, weight is determined by gravity. So, if you stood on a smaller planet or space object with less gravity, you'd weigh less. For example, a person who weighs 100 pounds on Earth would weigh only 17 pounds if they stood on the moon.



When you look at the two astronauts in this picture, you will notice that the woman and the food are all floating. This happens because there is only a small amount of gravity in space.

Gravity in Action

Gravity is the reason that we can walk around on Earth without falling off. It's also the reason that when you set a book on a table, it stays put. Gravity pulls on everything toward the Earth's center. Otherwise, the world might be very different.

Just imagine how you look standing up on Earth as if you were an action figure standing on a globe. If you lived at the Earth's equator, it would look like you're walking sideways on the Earth. What if you went to Antarctica? Then, it would look like you're walking upside down! The only place on Earth it looks like you're walking upright is at the North Pole!

However, people and penguins in Antarctica don't feel like they're walking upside down. This is because gravity pulls "down" or into the center of the Earth everywhere. Yet, the direction of "down" is different depending on where you're standing. If you're in Asia, gravity pulls in the opposite direction that it pulls if you're standing in North America. Yet, for people standing in both places, "down" keeps them standing up and walking upright.

Aren't you glad that gravity exists? This force is interesting and very important. Thanks to gravity, our world, the solar system, and the universe function the way they do. Without gravity, we might all be floating around trying to catch our pencils, books, and apples as they fly all over the place. What do you think life would be like without gravity?



THINKING ABOUT WHAT YOU READ

Answer the questions below using details from the text. Remember to restate, answer the question in complete sentences, and prove it!

1. Who named gravity, and how did he come to study it?

2. What is gravity?

3. What role did gravity play in the formation of our solar system?

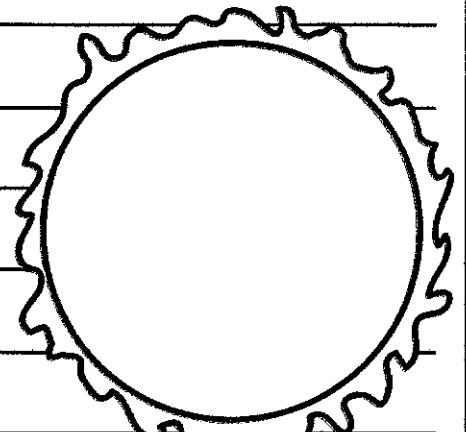
4. How does gravity affect weight?

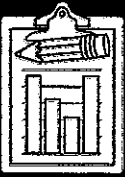
5. When we refer to gravity pulling down, what does this mean?



COMMUNICATE YOUR LEARNING

Use what you learned to write a minimum of two paragraphs about gravity.
Make sure you explain the direction of gravity's pull and an explanation of
gravitational force.





CONNECTIONS TO Home

Use the space below to create a physical or digital scrapbook about gravity. With an adult, find a few different, non-breakable objects in your home that are of various sizes. You'll want to make sure that some are heavy, some are light, some are big, and some are small. Then, see what happens when you release different objects from the same height. Draw pictures that represent your objects and explain what you discovered during this experiment.



Round each number to the correct place value.

Answers

- 1) Round to the nearest whole number. 9.8 _____
- 2) Round to the nearest whole number. 92.5 _____
- 3) Round to the nearest tenth. 20.003 _____
- 4) Round to the nearest whole number. 7.655 _____
- 5) Round to the nearest hundredth. 44.242 _____
- 6) Round to the nearest whole number. 5.5 _____
- 7) Round to the nearest whole number. 30.6 _____
- 8) Round to the nearest whole number. 78.15 _____
- 9) Round to the nearest tenth. 3.59 _____
- 10) Round to the nearest whole number. 674.1 _____
- 11) Round to the nearest hundredth. 7.329 _____
- 12) Round to the nearest hundredth. 7.306 _____
- 13) Round to the nearest tenth. 39.58 _____
- 14) Round to the nearest tenth. 415.30 _____
- 15) Round to the nearest hundredth. 55.882 _____
- 16) Round to the nearest tenth. 536.909 _____
- 17) Round to the nearest hundredth. 71.577 _____
- 18) Round to the nearest tenth. 638.105 _____
- 19) Round to the nearest hundredth. 29.738 _____
- 20) Round to the nearest hundredth. 159.243 _____

1. _____
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Checks and Balances

The Constitution of the United States created three separate branches of government: the Legislative Branch (Congress), the Executive Branch (President), and the Judicial Branch (Supreme Court). The Constitution has "checks and balances" to make sure that one branch does not become too powerful and allow each branch to keep the others in line.

Separation of Powers

The powers of the government are balanced among the three branches. Each branch possesses different powers. For example, Congress makes laws, sets the budget, and declares war. The President appoints Supreme Court judges, is the Commander in Chief of the military, and grants pardons. The Supreme Court interprets the law and can declare laws unconstitutional.

Checks

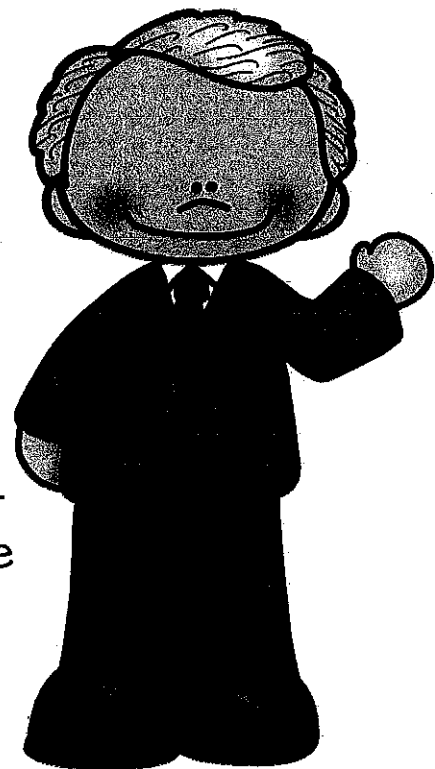
Each branch has checks on the other branches to keep each branch from becoming too powerful.

Congress

The president can check Congress by vetoing a bill. If a bill is vetoed, it goes back to Congress to be voted on again. If it is passed by a two-thirds majority, the veto is overturned and the bill becomes a law. The vice-president is the president of the Senate and becomes the deciding vote in the case of tie in the Senate. The Supreme Court can check Congress by declaring a law unconstitutional.

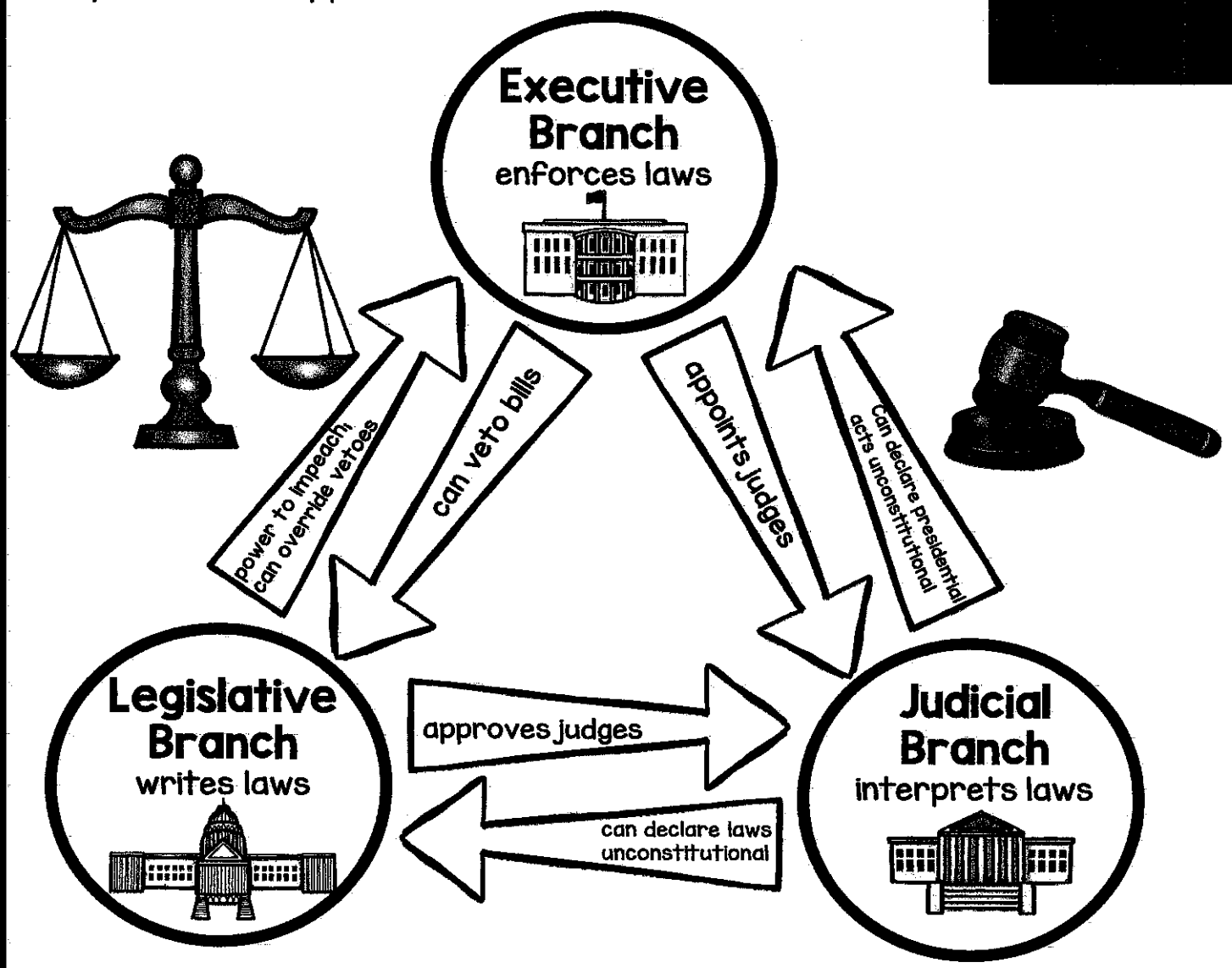
President

Congress can check the power of the president in many ways. Through impeachment, Congress votes to have the president removed from office. Two presidents, Andrew Johnson and Bill Clinton, have been impeached, but neither were removed from office. The president appoints the Supreme Court justices and other officials, but the Congress has to approve them. Generals and Admirals of the U.S. military are appointed by the president and approved by the Senate. The Supreme Court checks the president by declaring executive orders as unconstitutional.



Courts

Congress can check the power of the courts through impeachment. They can vote to remove judges from office. Many more judges have been impeached than presidents. The president checks the court's power by appointing new judges. The Supreme Court's power can swing dramatically with a single appointment. Congress plays a part in this check because they have to approve the president's appointment.



Power of the States and People

The Constitution's tenth amendment says the powers of the United States government are limited to those in the Constitution. Any other powers are kept by the States and the people. This enables States and the people to keep the federal government's power in check through the Constitution.

Name _____

Checks and Balances



Matching: Match each term with its description.

1. ___ veto	A. The president is part of this branch
2. ___ Constitution	B. The president is the Commander-in-Chief of this
3. ___ impeachment	C. Branch that makes laws
4. ___ justices	D. Document that outlines the U.S. government
5. ___ Executive	E. The Supreme Court can declare laws this
6. ___ Judicial	F. Removing from power
7. ___ military	G. Approves the president's Supreme Court nomination
8. ___ Legislative	H. The president appoints these on the Supreme Court
9. ___ unconstitutional	I. The Supreme Court is part of this branch
10. ___ Congress	J. Reject a proposal

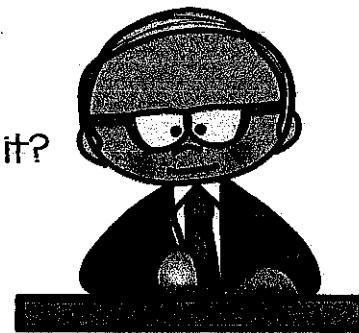
Multiple Choice: Choose the best answer.

11. "The Constitution has "checks and balances" to make sure that one branch does not become too powerful and allow each branch to keep the others in line." What is the best meaning of line in the quote?

- A. Long, narrow mark
 B. Length of cord
 C. Boundary
 D. Wrinkle

12. How can a bill become a law, even if the president vetoes it?

- A. Two-thirds of Congress approves the bill
 B. They vote the executive order unconstitutional
 C. The president makes changes to the bill
 D. Congress makes changes to the bill



13. What is one way the executive branch checks the judicial branch?

- A. The president appoints Supreme Court justices
 B. The vice-president is the president of the Senate and becomes the deciding vote in the case of tie in the Senate.
 C. The president appoints the Supreme Court justices and other officials, but the Congress has to approve them.
 D. The president can veto a bill approved by Congress.

14. How is the federal government's power kept in check by the States?

- A. The States can overturn federal laws.
 B. The States do not have to follow federal laws.
 C. The States can determine a law is unconstitutional.
 D. The federal government is limited to the powers in the Constitution.