

- **Objective:** to critically think about how geographic features shape the world surrounding it
- **Skills used:** identify main idea and supporting details in simple texts, determine meaning of words

Directions: Read each section below that describes one or more physical landforms. Then, answer the questions that follow.

- Annotate:**
1. Underline for main idea and label it MI
 2. Circle AND DEFINE unfamiliar words
 3. Underline evidence to support your answers and label with question #

See the example in Passage 1 below

Introduction: Landforms are the natural shapes or features on the earth's surface. Water-forms and waterways are the different bodies of water found on the earth's surface. There are many different types of landforms and water-forms found on the earth.

Passage 1: Valley: A valley is a lowland area between higher lands such as mountains; river valleys are created when the water carves out depressions (dents) in the earth.

Underline your main idea; often it is found at the beginning of the reading passage

Down in the valley, the land is depressed—scoured and washed out by the conspiring forces of gravity, water, and ice. The scars left behind are known by their shapes and where they lie. Some hang; others are hollow. They all take the form of a "U" or "V."

Rivers and **streams** make most primary valley cuts, carving steep-walled sides and a narrow floor that from afar looks like the letter "V." The gradient of the river—how quickly it drops—helps define the steepness of the sides and the width of the floor. Mountain valleys, for example, tend to have near vertical walls and a narrow channel.

Standing upright

One example of a valley is the Nile River Valley in northern Egypt. The first settlements in the Nile Valley began around 7,000 years ago. Hunters and gatherers moved to the Nile Valley from less fertile areas in Africa and southwest Asia. As in other parts of the world, these settlements gradually developed into more and more complex societies. Most Egyptians lived near the Nile as it provided water, food, transportation and excellent, fertile soil for growing food. Ancient Egypt could not have existed without the river Nile. Since rainfall is almost non-existent in Egypt, the floods provided the only source of moisture to sustain crops.

Support

Q2. If I reread the information of valleys and use process of elimination, the best answer is B.

Q1. The two main parts of this question are the words significance and Ancient Egypt—they tell me what to look for. **Significance** means importance, so I have to look for WHY the river valley was IMPORTANT to Ancient Egypt

____ **Q1.** According to the text, the best summary of the **significance** of valleys to the people and kingdoms of Ancient Egypt is

- a. the Nile Valley provided water, food, and transportation
- b. the Nile Valley provided water, food, transportation and fertile soil
- c. the Nile Valley provided water, food, transportation and fertile soil, which eventually allowed permanent settlement and complex societies
- d. the Nile Valley was settled by hunters and gatherers from Africa and southwest Asia

____ **Q2.** A valley:

- a. is always surrounded by mountains
- b. is hollow/dented land that is created by gravity, water (such as rivers) or ice (such as glaciers); the land around it is higher
- c. is always found with rivers
- d. are only found in Ancient Egypt

While annotations involve notes in the margins, you do not to write out explanations like we did above, we were giving you examples so you can see how to "talk it out." Continue on with the remainder of the assignment.

Passage 2: Plain: A plain is a flat area on Earth's surface; is a broad area of relatively flat land. Plains are one of the major landforms, or types of land, on Earth. They cover more than one-third of the world's land area. Plains exist on every continent.

Many plains, such as the Great Plains that stretch across much of central North America, are **grasslands**. A **grassland** is a region where grass is the main type of vegetation. In North America, temperate grasslands—those in places with warm summers and cold winters—are often called **prairies**...

The modern rise of population in world history began around 1750, and Chicago became an exemplary part of it roughly a century later. Abundant sources of food, and the means of transporting them, were crucial for that rise, and Chicago became a focal point of both. Although people have seldom praised Chicago's climate, the city was blessed in its early years with freedom from both drought and floods, along with the right amount of sunshine and rainfall to nourish corn, wheat, and livestock. While no one could call the flat prairies stretching westward from Lake Michigan dramatic, they placed no natural obstacles to Chicago's future as a rail and shipping center. In its first 50 to 75 years, Chicago was almost perfectly placed between America's industrializing Northeast and its farm-frontier West; it was also almost perfectly timed to take advantage of railroads-again, there were no obstacle when it came to construction. As a consequence, Chicago soared from empty **prairie** to world city in a short time.



- Q3. According to the text, the **significance** of plains in the context of Chicago history is
- a. good climate
 - b. freedom from drought and floods
 - c. sunshine and rain
 - d. lack of natural obstacles when it came to building railroads and buildings



Passage 3. Lake: A lake is water that is completely surrounded by land. There are millions of **lakes** in the world. They are found on every continent and in every kind of environment—in mountains and deserts, on plains, and near seashores.

Lakes vary greatly in size. Some measure only a few square meters and are small enough to fit in your backyard.

Farmers use lake water to irrigate crops. The effect of very large lakes on climate also helps farmers. Because water does not heat or cool as rapidly as land does, winds blowing from lakes help keep the climate more even. This is the “lake effect.” The city of Chicago, in the U.S. state of Illinois, benefits from the lake effect. Chicago sits on the shore of Lake Michigan. When the western part of Illinois is snowing, Chicago often remains slightly warmer.

- Q4. According to the text, the best statement regarding the **significance** of lakes in the context of Chicago is...
- a. the lake effect helps farmers
 - b. the lake effect helps farmers and helps to keep Chicago warm in the winter
 - c. the lake effect helps farmers and helps to keep Chicago cool in the winter
 - d. the lake effect is used to irrigate crops



Passage 4. Glacier: Ice sheets and glaciers form the largest component of perennial ice on this planet. Over 75% of the world's fresh water is presently locked up in these frozen reservoirs. The Antarctic Ice Sheet is more complicated than the Greenland Ice Sheet. In the past three million years, there have been four glacial periods, each followed by an interglacial period. The most recent glacial period began about 75,000 years ago. The Antarctic Ice Sheets outlet glaciers include the steep and heavily creviced Beordmore Glacier, one of the world's longest outlet.

A **glacier** is a huge mass of ice that flows slowly over land. They form in the cold polar regions and in high mountains. The low temperatures in these places enable large amounts of snow to build up and turn into ice. Most glaciers range in thickness from about 91 to 3,000 meters. Glaciers are formed when more snow falls during the winter than melts and evaporates in summer. The extra snow gradually builds up in layers. Its increasing weight causes the snow crystals under the surface to become compact, grain-like pellets. At depths of 15 meters or more, the pellets are further compressed into thick crystals of ice. These crystals combine to form glacial ice. The ice eventually becomes so thick that it begins to move under the pressure of its own great weight.

Huge moving sheets of ice are wearing down parts of the earth's surface. In Antarctica and Greenland, ice covers all but the tips of the highest mountains. These ice sheets are located in Greenland, Antarctica and other frozen parts of North and South Pole. The ice sheet that covers much of Greenland is growing smaller because of a gradual rise in temperature in the area since the early 1900s.

- Q5: According to the text, glaciers are formed when
- Huge sheets of ice wear down the earth's surface
 - More snow falls during winter than melts/evaporates during the summer
 - When ice grows in thickness from 9,000 to 3,000 meters
 - A huge mass of ice flows slowly over land

Passage 5. Ocean: Throughout history humans have been directly or indirectly influenced by **oceans**. Ocean waters serve as a source of food and and valuable minerals, as a vast highway for commerce, and provide a place for both recreation and waste disposal. Increasingly, people are turning to oceans for their food supply either by direct consumption or indirectly by harvesting fish that is then processed for livestock feed. It has been estimated that as much as 10% of human protein intake comes from the oceans. Other biological products of the oceans are also **commercially** used. For example, pearls taken from oysters are used in jewelry, and shells and coral have been widely used as a source of building material. Ocean water is processed to extract commercially valuable minerals such as salt, bromine, and magnesium. Although nearly 60 valuable chemical elements have been found dissolved in ocean water, most are in such **dilute** concentrations that commercial extraction is not profitable. In a few arid regions of the world, such as Ascension Island, Kuwait, and Israel, ocean water is desalinated to produce freshwater.



- Q6: According to the text, **commercially** most closely means...
- For environmental reasons
 - For items that can be sold and purchased
 - For use on television
 - For use in jewelry and clothing

- Q7: According to the text, **dilute** most closely means...
- Strongly concentrated
 - Well dissolved
 - Weak
 - Salty

Passage 6. Peninsula: A peninsula is a piece of land that is almost entirely surrounded by water but is connected to the mainland on one side. Peninsulas can be very small, sometimes only large enough for a single lighthouse, for instance. Lighthouses often sit on peninsulas near rocky coastlines to warn sailors that they are getting close to land. Peninsulas can also be very large. Most of the U.S. state of Florida is a peninsula that separates the Gulf of Mexico and the Atlantic Ocean.

Europe is sometimes described as a peninsula of peninsulas. A peninsula is a piece of land surrounded by water on three sides. Europe is a peninsula of the Eurasian supercontinent and is bordered by the Arctic Ocean to the north, the Atlantic Ocean to the west, and the Mediterranean, Black, and Caspian Seas to the south. Europe's main peninsulas are the Iberian, Italian, and Balkan, located in southern Europe, and the Scandinavian and Jutland, located in northern Europe. The link between these peninsulas has made Europe a dominant economic, social, and cultural force throughout recorded history.

-----Q8: Which of the following is NOT a peninsula?

- a. Hawaii
- b. Florida
- c. Italy
- d. Baja California

Passage 7. Mountains: Mountains are the wrinkles of age and pimples of youth on Earth's crusty outer skin. They rise up as the crust collides, cracks, crumbles, folds, and spews. By definition, they dominate their surroundings with towering height.



The mighty chunks rise all over the world, including the oceans. They usually have steep, sloping sides and sharp or rounded ridges. The highest point is called the **peak** or **summit**. Most geologists classify a mountain as a landform that rises at least 1,000 feet (300 meters) or more above its surrounding area. A **mountain range** is a series or chain of mountains that are close together.

Mountains often serve as geographic features that define natural borders of countries. Their height can influence weather patterns, stalling storms that roll off the oceans and squeezing water from the clouds. The other side is often much drier. The rugged landscapes even provide refuge—and protection—for fleeing and invading armies.

-----Q9: What is the purpose of the first sentence in this passage?

- a. To confuse the reader
- b. To compare mountains to other geographic features
- c. To create a simile to compare mountains to oceans
- d. To explain why mountains are formed by comparing the earth with human skin

Passage 8. Desert: Far from being barren wastelands, *deserts* are biologically rich habitats with a vast array of animals and plants that have adapted to the harsh conditions there. Some deserts are among the planet's last remaining areas of total wilderness. Yet more than one billion people, one-sixth of the Earth's population, actually live in desert regions.

Deserts cover more than one fifth of the Earth's land, and they are found on every continent. A place that receives less than 10 inches (25 centimeters) of rain per year is considered a desert. Deserts are part of a wider classification of regions called "drylands." These areas exist under a moisture deficit, which means they can frequently lose more moisture through evaporation than they receive from annual precipitation.

And despite the common conceptions of deserts as dry and hot, there are cold deserts as well. The largest hot desert in the world, northern Africa's Sahara, reaches temperatures of up to 122 degrees Fahrenheit (50 degrees Celsius) during the day. But some deserts are always cold, like the Gobi desert in Asia and the desert on the continent of Antarctica. Others are mountainous. Only about 10 percent of deserts are covered by sand dunes. The driest deserts get less than half an inch (one centimeter) of precipitation each year, and that is from condensed fog not rain.



Some of the world's semi-arid regions are turning into desert at an alarming rate. This process, known as "desertification," is not caused by drought, but usually arises from the demands of human populations that settle on the semi-arid lands to grow crops and graze animals. The pounding of the soil by the hooves of livestock may degrade the soil and encourage erosion by wind and water.

Global warming also threatens to change the ecology of desert. Higher temperatures may produce an increasing number of wildfires that alter desert landscapes by eliminating slow-growing trees and shrubs and replacing them with fast-growing grasses.

_____ **Q10:** Which of the following qualities is necessary for an area to be called a "desert"?

- a. Reaches temperatures of up to 122 degrees Fahrenheit
- b. Receives less than 10 inches of rain each year
- c. Contains mostly sand dunes and cacti
- d. Does not grow vegetation

_____ **Q11:** Kaufmanlandia is an area in Asia that contains a small mountain range. It averages around 30 degrees Fahrenheit during the winter and 50 degrees Fahrenheit during the summer. It receives around 8 centimeters of rain per year. Kaufmanlandia...

- a. Is not a desert; it is not hot enough
- b. Is not a desert; it receives too much rain
- c. Is a desert; it receives too little rain
- d. Is a desert; deserts always have mountains

Passage 9. Region: A region is an area of land that has common features. A region can be defined by natural or artificial features. Language, government, or religion can define a region, as can forests, wildlife, or climate. Regions, large or small, are the basic units of geography. The Middle East is considered a political, environmental, and religious region that includes parts of Africa, Asia, and Europe. The region is in a hot, dry climate. The Amazon River region in South America is the area surrounding the Amazon River, which runs through the northern part of the continent, including Brazil, Bolivia, Ecuador, and Peru. This region is characterized by warm temperatures, heavy rainfall, a large diversity of plant and animal species, and little human impact on the environment.

-----**Q12:** Orlandio is an area in Europe where most residents are Catholic, temperatures are around 75 degrees Fahrenheit year round, and the Sabanagic River flows through the center, making the area very fertile. Most residents of Orlandio make a living from farming the rich land around the river. Orlandio is split into three major towns with their own small governments.

Would Orlandio be considered a region?

- a. Yes, because it shares many common features such as geography, climate and religion
- b. Yes, because it has a proper name (Orlandio) and a river; both are necessary to have a region
- c. No, because it does not share the same government for the whole area
- d. No, because the temperature remains the same all year round

Reflection: Considering what you have read, **provide 5 ways** in which landforms and waterforms have been significant to human history.