

Planet Earth

How much do you know about your home? No, not the house or apartment you live in—our planet, Earth. It's big and round, and it's where we all live. Can you name the continents and the oceans? Do you know where the coldest place on the Earth is found? Do you know the Earth's largest island? This issue will give you lots of information about your home, planet Earth!

Get in groups of six or eight and put a globe in the middle of each group. (You'll probably need to borrow some globes from other classrooms.) Look at the large bodies of water on the planet. Did you know the Pacific Ocean is the largest and deepest of all the oceans? See all those large landmasses? You probably know they are called continents. Some books say there are seven continents, with the Ural Mountains of Russia being the dividing line between Europe and Asia. Others say this is only one continent, Eurasia. Scientists say the continents are about 25 miles thick (40 kilometers). You'd need a very big shovel to dig to the other side. Did you know the landmasses on the Earth are constantly moving?

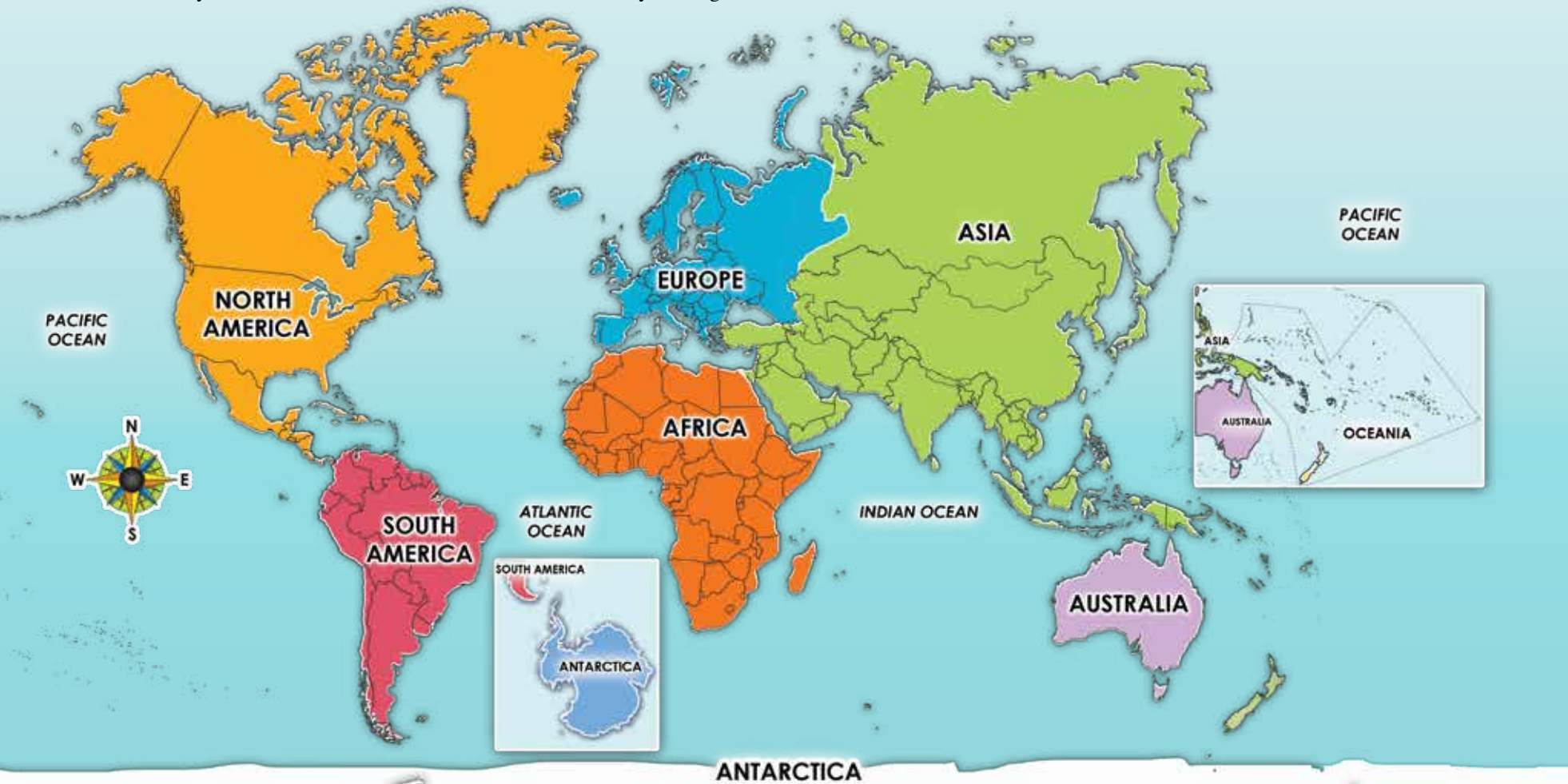
Don't worry, you don't need a seat belt. The continents are only moving about 1 to 3 inches a year.

Next, find India or Italy. These countries are called peninsulas. A peninsula is land that is surrounded on three sides by water. Can you find other examples?

Find the water separating the state of Alaska from Russia. This is called the Bering Strait. A strait is a narrow section of water connecting two larger bodies of water. Can you name these bodies of water? The opposite of a strait is called an isthmus. Can you find a long narrow body of land connecting two larger bodies of land? Central America is probably the most famous isthmus. It connects North and South America.

Find the European country of Switzerland. Like the states of Iowa and Kansas, Switzerland is a landlocked area. Landlocked means it doesn't touch any bodies of water. Can you find other countries of the world that are

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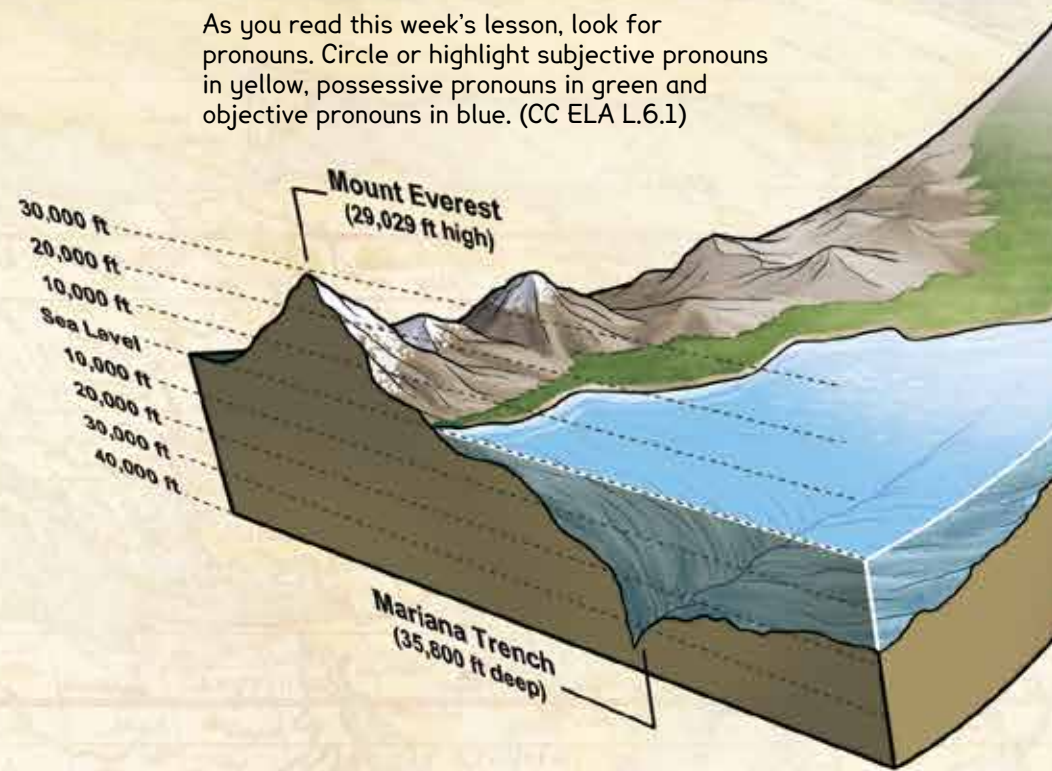
Planet Earth

was no way for those animals to cross the large Atlantic Ocean, and South America and Africa must have been joined at one time. There was lots of other evidence too. A species of earthworm was found in South America and South Africa where the two continents may have been joined. A fossil of a tree-like plant called Glossopteris was found in the areas that made up Gondwanaland. Similar coal was found in areas of North America and Europe. Fossilized tropical plants in Antarctica and glacier evidence in India suggest that these landmasses were at one time in different climate areas, closer to the equator.

Most people didn't think much of Wegener's theory. Why? They didn't believe continents could plow through water and move. There weren't instruments available yet that could detect such movement. Wegener died in 1930 on an expedition to Greenland's ice cap searching for more evidence to prove his theory. He never lived to see his theory given much credit.

But in the 1950s, Wegener's theory began to get another look. New fossil evidence continued to suggest the theory may be correct. New photographs of the ocean floor showed ridges, or

As you read this week's lesson, look for pronouns. Circle or highlight subjective pronouns in yellow, possessive pronouns in green and objective pronouns in blue. (CC ELA L.6.1)



chains of mountains, which was evidence that continents move. Another theory, the plate tectonic theory, later helped explain how the continents could move. Think about a soft-boiled egg. Think of the Earth's crust (the tectonic plates) as the shell. The white inside is the Earth's mantle. The plates move around on the soft mantle. The Earth's liquid core is like the yolk of the egg. New instruments detected movement and confirmed that continents do move. Some move up to a couple inches a year. Africa is moving toward Europe, pushing the Mediterranean Sea as it does. North America is moving toward Asia. Lower California is moving northwest, away from the rest of the continental United States. Hawaii is moving closer to Japan.

Planet Earth Facts

- If you like heights, then Mount Everest is for you. It is the highest mountain in the world at 29,208 feet (8,848 meters) high. In 1953, Edmund Hillary, a New Zealander, and Tenzing Norgay, a Sherpa, were first to reach the summit of Mount Everest. Since then, more than 5,000 people have attempted the climb, and 2,500 have made it. More than 200 people have died trying to get to the top.
- If you could move Mount Everest to the deepest point on Earth, you'd have to dive more than a mile underwater to see it. That's because the deepest place on our planet is the Mariana Trench in the Pacific Ocean. In 2012 filmmaker James Cameron went down into the trench, touching bottom at 35,803 feet (10,912 meters). That's almost seven miles deep.

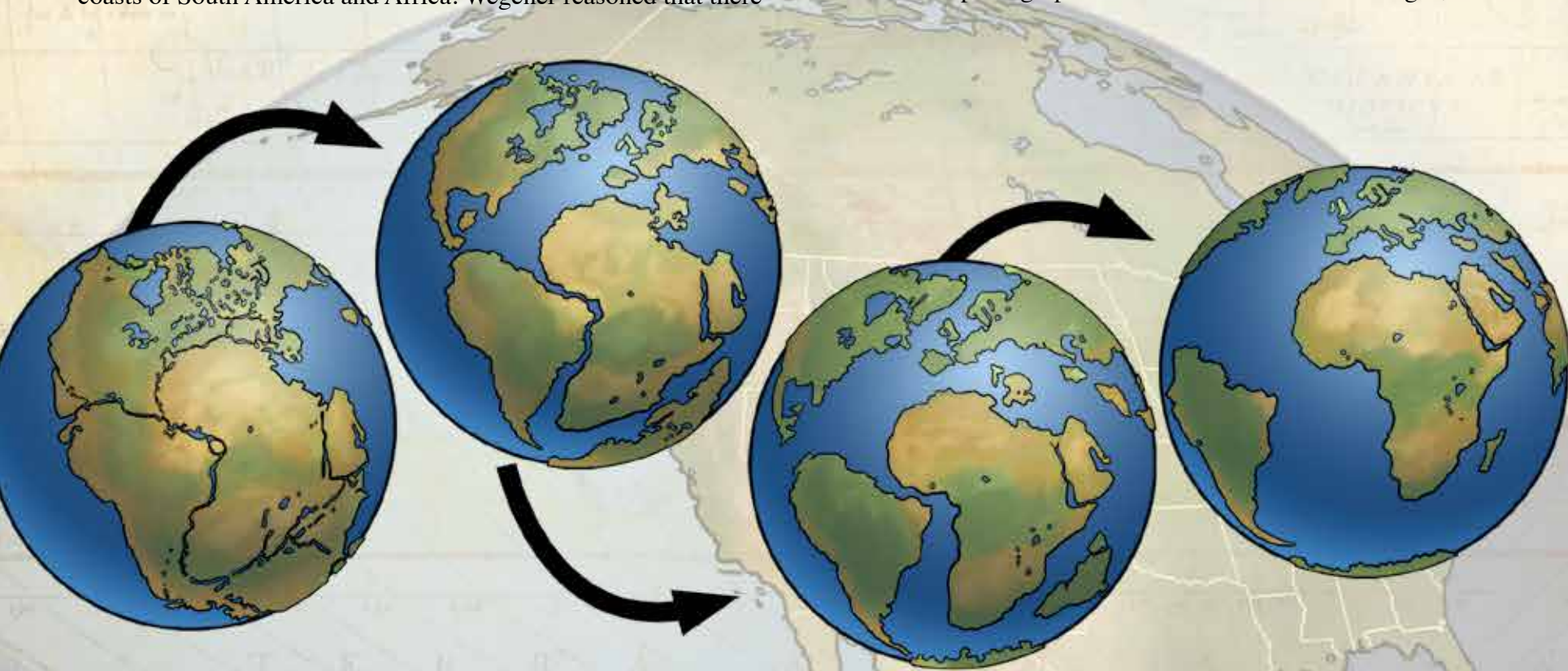
World Geography

The First New Map of the World

Martin Waldseemüller was a cartographer born in Germany in 1470. A cartographer is a person who makes maps. Maps help us find locations. Waldseemüller's world map from 1507 was the first map to use the term America for the continents located on the other side of the Atlantic Ocean. Waldseemüller selected the name America after explorer Amerigo Vespucci. Vespucci, who was also a cartographer, was the first to show that Christopher Columbus had not reached Asia, as Columbus himself had believed. Instead, he had discovered a continent previously unknown to the Europeans.

In later maps, Waldseemüller removed the name America and called the land Terra Incognita ("unknown land") instead. Some say he had second thoughts about naming the land after Vespucci. However, since more than 1,000 maps had already been printed, "America" stuck. Only one copy is known to exist of Waldseemüller's map that uses the name America. It was found in a castle in Germany in 1901. In 2001, the U.S. Library of Congress bought this map for its collection.

This map, called the First New Map of the World, had many firsts. It was the first map not printed in a book but as a separate document. It took 12 wood blocks to print the large map that showed the entire coastline of Africa for the first time. Waldseemüller's map was also the first to show the Pacific Ocean. This is very interesting since the map was made six years before explorer Vasco Nunez de Balboa "discovered" the ocean for Europeans and 15 years before Ferdinand Magellan's journey. Waldseemüller's map also listed the location of Zipangri (Japan). Although Marco Polo wrote about the island nation, no European had seen Japan prior to 1507.



Atlas

The Ancient Greeks have many stories called myths. These stories explained things in nature the Greeks didn't understand. One myth explained who held up the sky and kept it from falling.

Atlas was one of a group of giants called Titans. He and his fellow Titans fought the Greek gods and lost. The chief Greek god, Zeus, punished the Titans. Atlas' punishment was to hold the sky up on his shoulders forever.

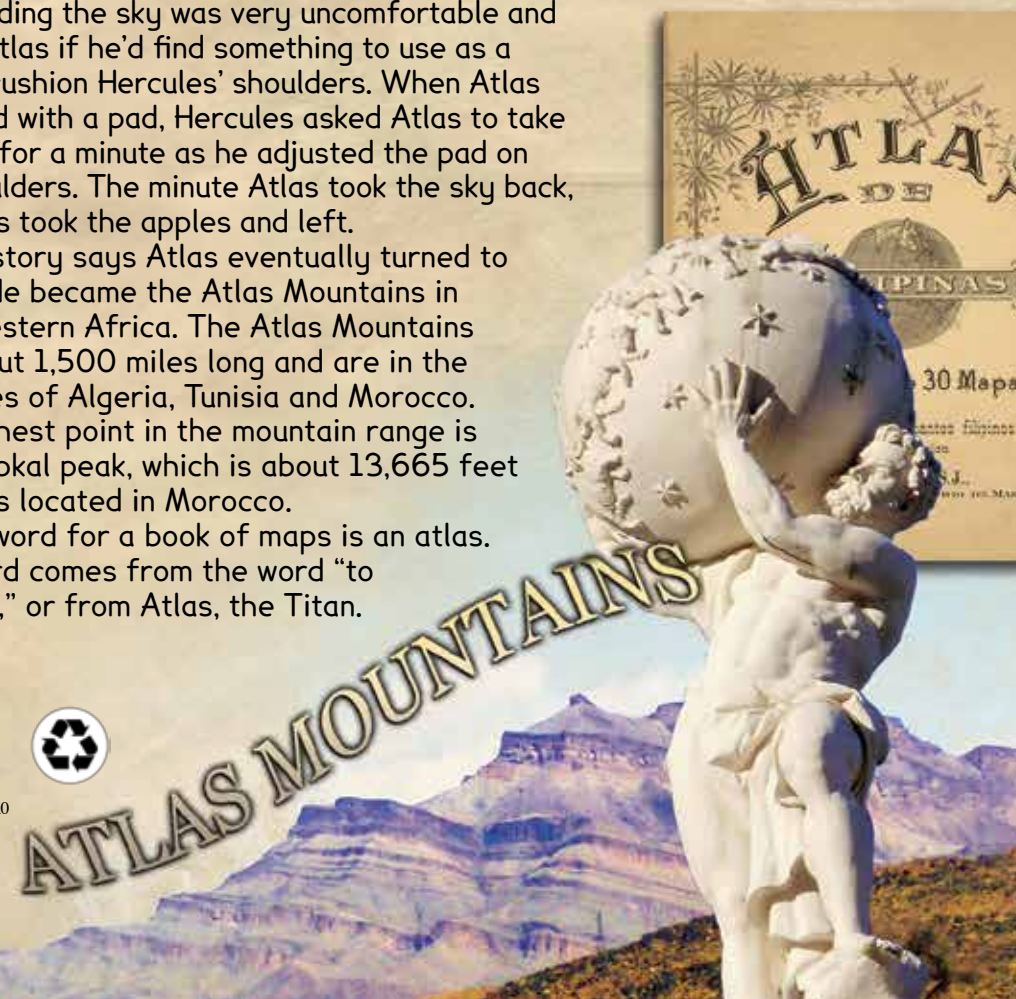
One day, after many years of holding up the sky, Atlas had a visitor. His name was Hercules. Hercules wanted to find some special golden apples, and he asked Atlas if he'd tell him where they could be found. Knowing the secret location, Atlas thought he could trick Hercules into taking his job, freeing him from his punishment. Atlas told Hercules that if Hercules held the sky, he'd get the golden apples and bring them to him. Hercules agreed, but when Atlas returned with the apples, Atlas said he wouldn't take back the sky. Hercules

said holding the sky was very uncomfortable and asked Atlas if he'd find something to use as a pad to cushion Hercules' shoulders. When Atlas returned with a pad, Hercules asked Atlas to take the sky for a minute as he adjusted the pad on his shoulders. The minute Atlas took the sky back, Hercules took the apples and left.

The story says Atlas eventually turned to stone. He became the Atlas Mountains in northwestern Africa. The Atlas Mountains are about 1,500 miles long and are in the countries of Algeria, Tunisia and Morocco. The highest point in the mountain range is the Toubkal peak, which is about 13,665 feet tall. It is located in Morocco.

The word for a book of maps is an atlas. The word comes from the word "to support," or from Atlas, the Titan.

Mythology



This Week's Question

Which is better – a map or a globe?

Which do you think best represents Earth: a map or a globe? That depends on what you want to use it for. A globe more accurately represents the shape and size of the continents. A map can distort the shape and size of continents but is better for navigation. For example, look at a map and find Greenland. Now check the size of Greenland on a globe. It doesn't look nearly as big as it did on the map, does it? Greenland covers 823,000 square miles; it is the world's largest island. In comparison, Australia is about 2.6 million square miles and is a continent.

Fast Facts: The country with the largest area is Russia; it is about twice the size of the United States and is one of two countries spread across two continents, Europe and Asia. (The other transcontinental country is Turkey.) Vatican City, which is less than .2 square miles, is the world's smallest country. The entire country is inside Rome, Italy.

Trades & Technology

Cartography

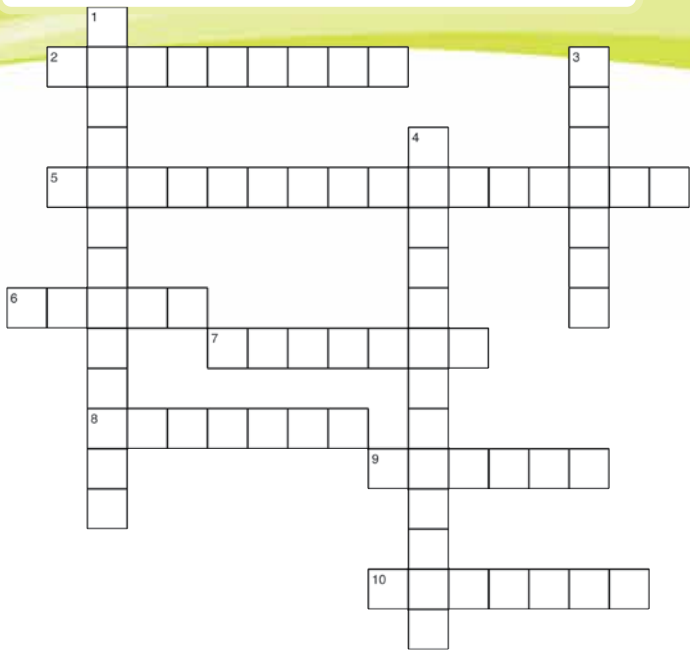
Have you ever looked at a map and wondered who made it? People who make maps are called cartographers, and cartography is the art and science of mapmaking. Because of its style and precision, mapmaking is both an art and a science. Cartography has evolved (changed) over time. In ancient times, people drew maps on walls. Today, we can access maps easily through a computer. Early mapmakers had little technology to help, and oftentimes maps were distorted and inaccurate (wrong). Modern mapmakers have the ability to use high-tech tools like satellites to make very accurate representations of locations on Earth.

There are many cartography companies. Look around your classroom and locate a map or two. Then try to find the name of the mapmaking company printed on the map.

Now that you know more about mapmaking, the next time you or your parents use a map to go somewhere, you can thank those hard working cartographers for helping you get to where you need to go!



Name _____



ACROSS

- 2. someone who studies the Earth
- 5. the theory that suggested the Earth once had a supercontinent
- 6. a book of maps; a Titan
- 7. name for the supercontinent
- 8. a narrow strip of land connecting two larger landmasses
- 9. the country with the largest area
- 10. scientist who came up with the Continental Drift Theory

DOWN

- 1. scientist who studies weather
- 3. Waldseemuller's map was the first to show this ocean.
- 4. a cartographer born in Germany in 1470



As you read this week's lesson, circle or highlight all proper nouns with any color pen or highlighter. This will help you find some of the crossword answers and get ready for this week's test.

Latitude and Longitude

Mapping & Charting

Latitude and longitude were created to help find locations on Earth. Lines of latitude run east and west, while lines of longitude run north and south. Of course, there really aren't lines running across the continents or oceans. They're only on maps and globes to help people find absolute, or exact, locations.

The line at 0° latitude divides the Earth into two halves, or hemispheres, horizontally. This line is the equator. The Northern Hemisphere includes everything north of the equator, and the Southern Hemisphere includes everything to the south. The equator crosses parts of South America, Asia and Africa.

The line at 0° longitude cuts the Earth into two hemispheres vertically. This line is the prime meridian. Everything east of the prime meridian is in the Eastern Hemisphere, and everything west of the prime meridian is in the Western Hemisphere. The prime meridian crosses parts of Great Britain, France, Spain, Africa and Antarctica.



Look at the map of the world. On which continent or body of water would you be if you were at these coordinates?

A. 45° N Latitude, 90° W Longitude

- B. 30° S Latitude, 150° E Longitude
- C. 0° Latitude, 30° E Longitude
- D. 15° S Latitude, 90° E Longitude
- E. 30° N Latitude, 30° W Longitude
- F. 75° N Latitude, 45° W Longitude



If you'd like to make any editorial comments about our paper, please write to us at support@studiesweekly.com.

Want to do something pretty cool? You can go to Greenwich, England, and stand on two hemispheres at the same time. At the Old Royal Observatory at Greenwich, you can see the prime meridian. You can straddle the line and stand on both the Eastern and Western hemispheres at the same time. You can also stand in two different hemispheres (Northern and Southern) in Quito, Ecuador. The equator runs through what is called Mitad del Mundo (middle of the world). Imagine you are in one of these places. Write a postcard to someone explaining where you are and how it feels to be standing on two hemispheres.

Let's Write

Planet Earth

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landlocked?

On a world map Greenland looks pretty big. Why is it the world's largest island and not a continent? Did you know the world's longest river is the Nile River? Can you locate the country where you find that river? Do you know that the world's largest desert is called the Sahara? Can you find the continent where the Sahara Desert is located?

Planet Earth is a beautiful and exciting place—shared by about 7 billion people. It's our home, and it's time to learn more about it.