

Earth Balloon

A Student Guide for K-8



**Travel around the world and view
our Planet as it looks from space!**

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BOCES
Board of Cooperative Educational Services

**Outdoor and Environmental
Education Program
(516) 396-2264
www.nassauboces.org/outdoors**

Get Ready to... Travel the World!

Imagine walking into your gym and seeing this!

The Earth Balloon will visit your School soon. You and your classmates will also meet one of our Naturalists who will teach you lots of interesting facts about the Earth. A naturalist is an educator who has studied many topics about nature.

This Guide will help you learn about geography and our planet's oceans and continents and... so much more!



The Earth Balloon: What is it?



You may have seen a globe like the one at left on your teacher's desk or in the library. A globe is a model of the Earth, just like the Earth Balloon. But a globe is something you can hold in your hands and spin on its axis to see all of the land and water features.

Not so for the Earth Balloon! First of all, is it huge... giant... some would say even humongous! It is so big that it may touch the ceiling of your Gym or All Purpose Room! And instead of spinning it on its axis – you will need to walk around it to see the entire Earth. You may not be able to see the North Pole unless your Naturalist deflates it a little or you are able to climb the bleachers in your Gym. And, if you want to see Antarctica, you will need to go inside!

Some quick facts about the Earth Balloon:

- 19 foot in diameter
- A fan is used to keep it inflated
- The images of the water and land features come from satellite photos
- Made of 24 panels to represent time zones.
- Scale: 1 inch = 34 miles.
- Entrance zipper is positioned on the International Date Line.

What is Geography?

By studying the Earth Balloon, you are really studying geography. Some people think that geography is just learning about the location of countries and states and their capitals. But it is much more! While your naturalist points out the physical or land features, he or she will also be discussing:

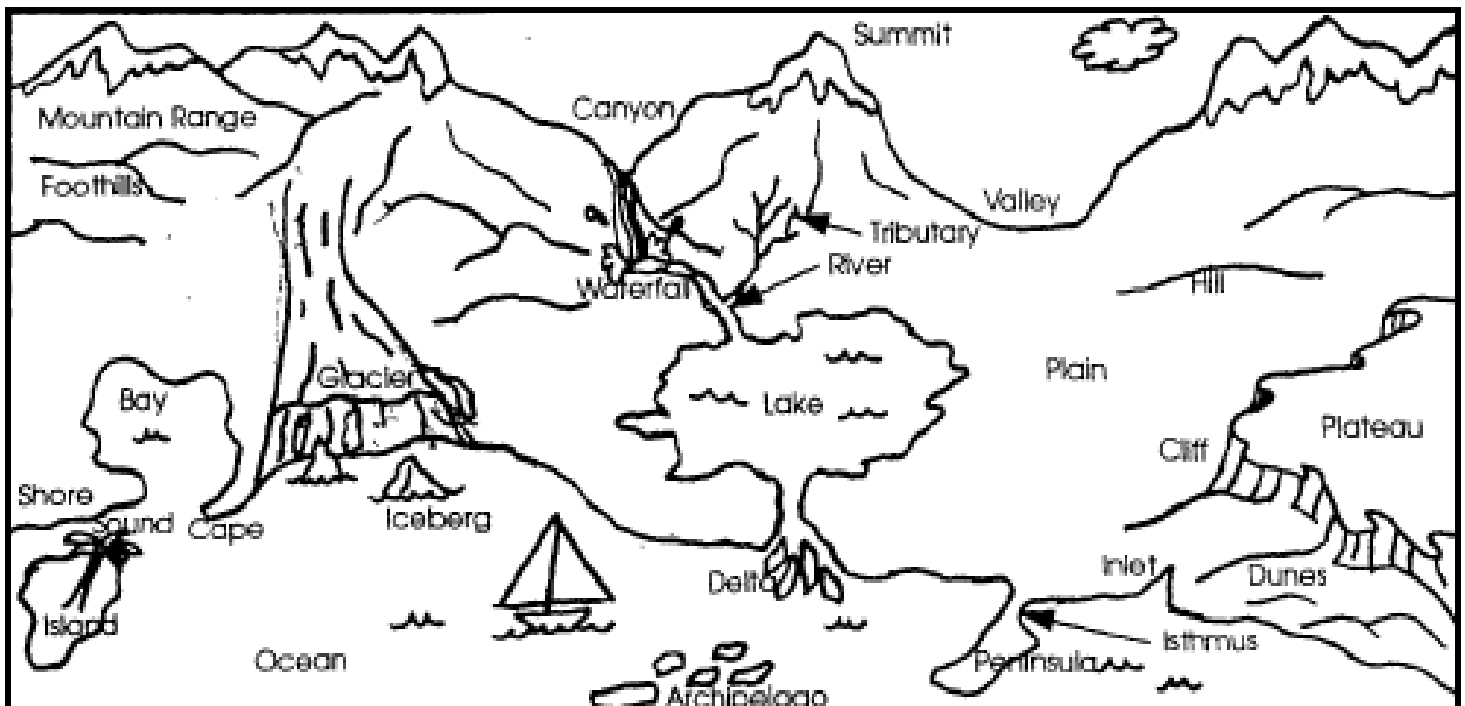
- How do they affect where people live?
- What changes are going on in our World?
- The habitats where different species live and the adaptations that allow them to live there.

What Land Features Will You See During Your Visit to the Earth Balloon?

Your naturalist will point out many different land features on the Earth Balloon. You will be able to see mountain ranges, lakes, rivers, deserts and even deep ocean ridges! Here are some geography terms to learn:



Graphic from National Geographic Education: ["What is Geography?"](#)



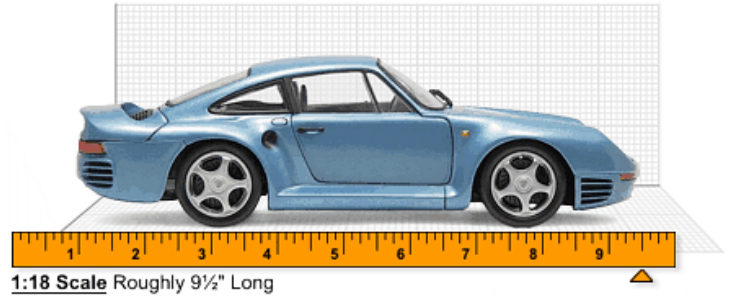
You can tell how big a continent, or lake, or mountain range is by knowing the scale of the map or model you are using.

What is Scale?

The scale on a map or model compares its size to the size of the "real" thing. Scale makes it possible to use a map or model to represent a vehicle, a building, town, country, or in the case of the Earth Balloon, the Earth. Toys are created to a scale, too! Here are some examples:



Fashion dolls, like Barbie are made to a 1:6 Scale which means 1 foot equals 6 feet in the "real world."



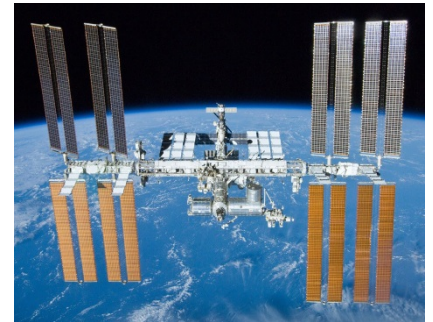
This model car is made to a 1:18 Scale which means a real car would be 18 X bigger.

The Earth Balloon is made to a scale where 1 inch equals 34 miles. If we used this same scale then:



← If you stand next to the Earth Balloon barely touching it with your nose (1/8 inch away) then you will see what a commercial pilot sees when he is flying 35,000 feet (6 miles) above the Earth!

→ If you step back so that you are 5 inches away from the surface of the Earth Balloon, you will see what an Astronaut sees from the International Space Station 220 miles above the Earth!



← If you walk 57 feet away from the Earth Balloon, that is what you would see a from a TV or weather satellite, which is really 23,400 miles away!

→ Imagine you are on the Moon by standing 570 feet away from the Earth Balloon. Actually, the Moon is 238,900 miles away!



We get to go inside, too? YES!

Your naturalist will lead you inside the Earth Balloon through a zipper that is positioned along the **International Dateline!** This is an imaginary line on the surface of the Earth that runs from the north to the south poles and separates one calendar day from the next.

You may also notice that the Earth Balloon is made up of 24 panels. These sections represent the different time zones. And, once inside...you will be standing on the 7th continent: Antarctica!

Did you ever notice that the continents look like they would fit together like a giant jig saw puzzle?

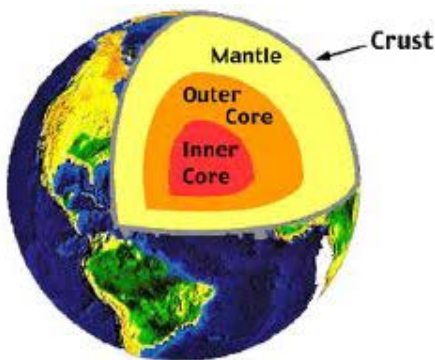


When you are inside, you may also discuss **continental drift and plate tectonics**. Most scientists believe that the world was once made up of a single super-continent that they have named **Pangea**.

Over millions of years this single continent began breaking up and drifted apart, forming the seven continents we have today.

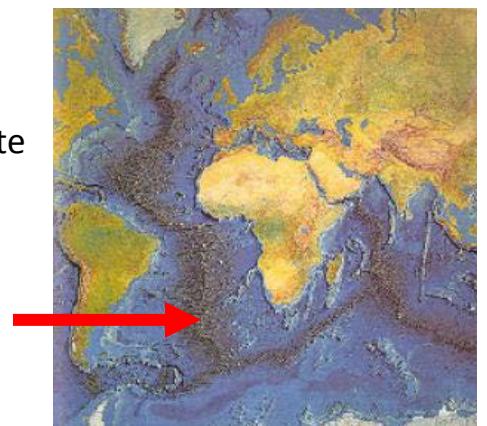


The crust of our Earth is made up of geologic plates that float over the inner mantle. That means that the continents continue to drift.



Scientists can actually measure this movement. They have discovered that the Atlantic Ocean is slowly growing a little bit each year because of the deep Mid-Atlantic Ridge is getting wider. They estimate that it is widening at the rate of 5 centimeters per year!

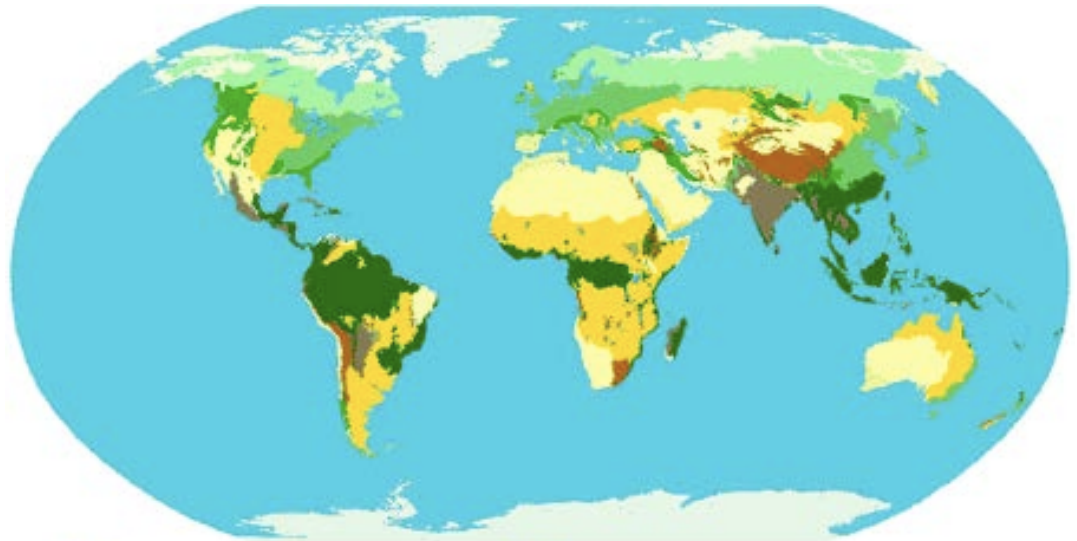
Look for it on the Earth Balloon. It will look like a giant undersea mountain range.



The Ecosystems of Planet Earth

Why do animals and plants live where they do? It is all about what they need to survive. Both animals and plants have adaptations that allow them to live in their special place or habitat.

Your naturalist will show you places on the Earth Balloon that have many harsh or unique conditions.



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| <ul style="list-style-type: none">Boreal forestsDesertsWetlandsMangrovesChaparralGrasslandsTemperate deciduous and mixed forestsTemperate coniferous forests | <ul style="list-style-type: none">Temperate grasslands and savannasTropical and subtropical coniferous forestsTropical and subtropical dry seasonal forestsTropical and subtropical grasslands and savannasTropical RainforestsTundraWaterIce |
|---|--|



Graphic from: www.exploringnature.com

Why do people live where they do? You will also explore places on the Earth Balloon where you can find the highest mountains, the longest rivers and the deepest oceans. You will also discover places that are known to be the hottest...the coldest...the driest...and the wettest!

We live in a temperate climate. We have four seasons – winter, spring, summer and fall. Compared to other areas of our Earth, we enjoy moderate temperatures though we may get some cold winters or hot summers.

Think About it!

What do you think it would be like to live in the extreme places of our Earth? What would YOU need to be able to live in the harsh areas of our Planet?



In Siberia, the winter temperature can drop to -60C, making it one of the coldest places to live in the world. Getting dressed for the extreme cold can take up to 15 minutes!

We hope you enjoy your “World Tour!”



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