

A CHILD'S
GEOGRAPHY

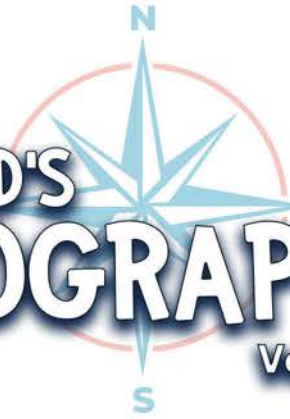
Volume I

EXPLORE HIS EARTH

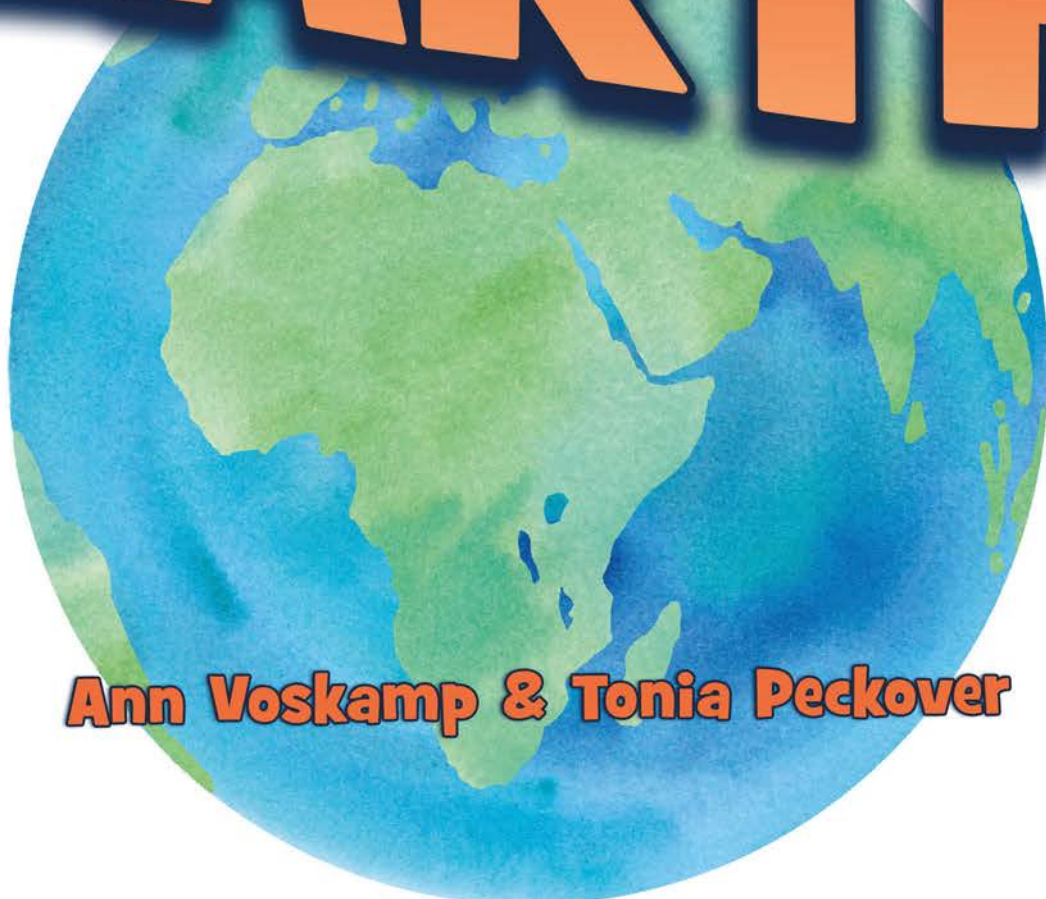


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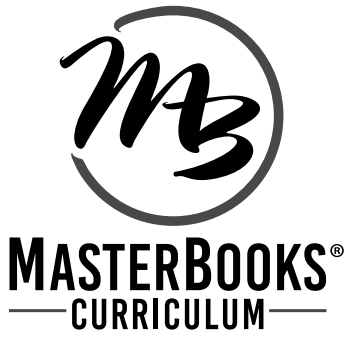
A CHILD'S
GEOGRAPHY
Volume I



EXPLORE HIS EARTH



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About the Author



Ann Voskamp Ann Voskamp's the wife of a farmer, mama to 7, and the author of the four New York Times bestsellers, *The Broken Way*, *The Greatest Gift*, *Unwrapping the Greatest Gift*, and the sixty-week New York Times bestseller *One Thousand Gifts: A Dare to Live Fully Right Where You Are*, which has sold more than one million copies and has been translated into more than twenty languages.

Named by Christianity Today as one of fifty women most shaping culture and the church today, Ann's the co-founder of WeWelcomeRefugees.com, and is a passionate and vocal advocate for the marginalized and oppressed around the globe, partnering with The Justice Conference, Mercy House Global and Compassion International.

She's sharing the grace journey at: www.annvoskamp.com or [instagram/annvoskamp](https://www.instagram.com/annvoskamp).



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Teacher, Set the Course!

Course Description

This course is designed for about the 4th grade level and scheduled for 3-day weeks over a year-long interactive journey. Using a mix of geography and history, students will not only learn about the earth and its components, but also about God's hand in creation and humanity's exploration of the earth.

Course Objectives

Students completing this course will:

- 🌍 Explore the earth's atmosphere, geology, hemispheres, core, and more
- 🌍 Learn what causes seasons
- 🌍 Discover how to navigate using latitude and longitude
- 🌍 See how the study of earth always points back to God

Activities

This course contains activities to help students see some of the concepts in action.

Materials List

There is a helpful supply list for the course on page 7.

Schedule

There is a helpful schedule, included in this book. It starts on page 9 and has divided up the course into 3 days per week. As always, you can adjust the pace and content of the course per the needs of your student.

Grading

It is always the prerogative of an educator to assess student grades however he or she might deem best. The following is only a suggested guideline based on the material presented through this course. To calculate the percentage of the worksheets and tests, the educator may use the following guide. Divide total number of questions correct (example: 43) by the total number of questions possible (example: 46) to calculate the percentage out of 100 possible. $43/46 = 93$ percent correct.

The suggested grade values are noted as follows:

90 to 100 percent = A	60 to 69 percent = D
80 to 89 percent = B	0 to 59 percent = F
70 to 79 percent = C	



Chapter Reviews and Additional Materials

In the back of this book, you will find chapter reviews you can use as quizzes and two semester exams. You will also find a Scripture Copywork Collection that students can use for copywork, a glossary of terms, and answer keys.

Reaching Out Project

Throughout this course, at the end of each chapter, your student will learn about some of the missions and Christian service organizations that help others. We encourage having the student create a Reaching Out Project of his or her own and then report about what he or she has accomplished at the end of the school year. The goal is for the student to be aware of God's love in action and how we can all help others in many ways. It doesn't have to be a project that involves fundraising, but it should be a project that will take some of their time, creativity, and effort.

Materials List

Chapter 1

And This Is the Home That God Built!

- Large piece of paper
- Pencil
- Crayons or colored pencils
- Globe or atlases

Make Your Own Globe!

- Round balloon
- Lots of newspapers
- Flour
- Water
- Empty plastic container
- Spoon
- Blue and green paint
- Paint brushes
- Marker

Chapter 2

What's in the Air?

- 4 small, clear plastic disposable plates or clear plastic squares
- Small container of clear Vaseline®
- Paper towels
- Magnifying glass

Ouch! Sun Protection - What Works?

- 4 to 8 pieces of color construction paper (2 pieces for each sample you test)
- Sunscreen (more than one kind if possible)
- Paper towels

Have a Spectacular Shower!

- Ingredients for hot chocolate (optional)
- Blanket (optional)
- Camera (optional)

Chapter 3

Aurora Art

- Dark blue and black construction paper
- Colored chalk
- Scissors
- Glue

- White paint (optional)
- Stiff bristle paintbrush or old toothbrush (optional)
- Tissue or paper towel (optional)

Turn the Radio On!

- An AM radio
- A map of your region, state, or province

Make a Model of the Atmosphere!

- The narrowest glass jar or cup you can find (must be able to hold 1,000 ml or 1 qt)
- White flour
- White sugar
- Brown sugar
- Yellow cornmeal
- Measuring cup
- Small white labels or sections of masking tape

Chapter 4

A Good N-E-W-S Treasure Hunt!

- Suitable snack treat
- A yard, park, or large room

Chapter 5

- Pencil

Map Practice: Anybody Seen My Shoes?

Tugging Tides

- Shoebox lid or small box
- Tape
- String (about 2 inches)
- Push pin
- Button or quarter
- Crayons
- Earth shape (in back of book)

Make a Day of It!

- Water
- Baby oil or mineral oil
- Blue food coloring
- Large, clear plastic bottle
- Funnel
- Small sea creature toys, shells, beads, or glitter (optional)

Chapter 6

There's an App for That

- Weather forecast on TV, radio, phone app, etc.

Feeling the Pressure!

- Glass bottle
- Bowl
- Carboard or cardstock
- Ruler

The Water Dance!

- Tape
- Pens
- Scissors
- Red pen, marker, or colored pencil
- Measuring cups and spoons
- Salt - 4 Tbsp.
- Water - 2 cups
- Pot
- Stove
- Aluminum foil

Chapter 7

- Hard-boiled egg

Chapter 8

- Hard-boiled egg

Playing Plate Playdough

- Playdough (ingredients for home-made playdough below) or 2 pieces of foam rubber
- Flour - 1 cup
- Salt - 1/4 cup
- Cream of tartar - 1 tsp
- Water
- Oil
- Food coloring
- Stove
- Imitation vanilla extract - 1 tbsp
- Crayons or colored pencils
- plastic zipper bag

Chapter 9

Explosive Volcano

- Brown craft paint (optional)
- Measuring cup and spoons
- Water - 1 cup
- Flour - 2 cups
- Salt
- Styrofoam® cup
- Small medicine cup
- Plaster of Paris - 1 tbsp
- Dish soap (a few drops)
- Red food coloring
- Baking soda

Easier Volcano

- Needle or pin
- Tube of red icing/frosting or tube of toothpaste (optional)

Water Quakes

- Bathtub
- 2 bricks
- Toy boat (or something that floats)
- Wax paper (about 2 ft [60 cm] long)
- String (2 pieces, each about 1 ft [30 cm] long)
- Water

Chapter 10

- Apple
- Orange

Living on My Line

- Pencil
- Sheet of paper
- Globe or map marked with the lines of latitude

Where in the World Are You?

- Dark sky

Chapter 11

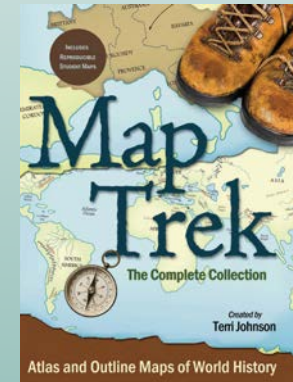
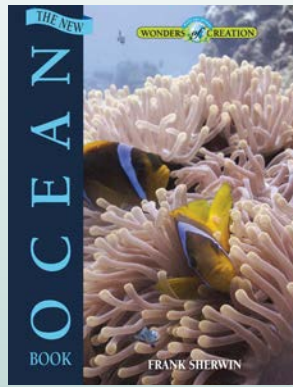
- Orange

Find Me!

- Pencil
- Atlas or globe

Zoned In!

- Scissors
- 2 paper plates
- Ruler
- Pen
- A brad
- Colored pencils



Recommended Resources

For more ocean facts and fun, check out the *The New Ocean Book* from Master Books!

For a wonderful collection of maps and outlined maps, we recommend *Map Trek*, also available through Master Books.

Schedule

Date	Day	Assignment	Due Date	✓
Week I	1	Read Before Embarking on pages 13-14.		
	2	Read Chapter 1: “Auntie Em, There Is No Place Like Home” on pages 15-18.		
	3	Complete Adventure Challenge 1 on pages 19-20.		
Week 2	1	Continue to read Chapter 1 pages 21-22.		
	2	Complete Adventure Challenge 2 on pages 23-24.		
	3	Read Reaching Out to His World on pages 25-26.		
Week 3	1	Complete Chapter 1 Review on pages 275-276.		
	2	Read Chapter 2: “Peeling an Onion” on pages 27-30.		
	3	Complete Adventure Challenge 3 on pages 31-32.		
Week 4	1	Continue to read Chapter 2 on pages 33-34.		
	2	Complete Adventure Challenge 4 on pages 35-36.		
	3	Continue to read Chapter 2 on pages 37-38.		
Week 5	1	Complete Adventure Challenge 5 on pages 39-40.		
	2	Read Reaching Out to His World on pages 41-42.		
	3	Complete Chapter 2 Review on pages 277-278.		
Week 6	1	Read Chapter 3: “Falling Through The Sky” on pages 43-46.		
	2	Complete Adventure Challenge 6 on pages 47-48.		
	3	Continue to read Chapter 3 on pages 49-52.		
Week 7	1	Complete Adventure Challenge 7 on pages 53- 54.		
	2	Continue reading Chapter 3 on pages 55-56.		
	3	Complete Adventure Challenge 8 on pages 57-58.		
Week 8	1	Read Reaching Out to His World and Sing It Out! on pages 59-60.		
	2	Complete Chapter 3 Review on pages 279-280.		
	3	Read Chapter 4: “Puzzle Directions” on pages 61-64.		
Week 9	1	Complete Adventure Challenge 9 on pages 65-66.		
	2	Continue to read Chapter 4 on pages 67-68.		
	3	Complete Adventure Challenge 10 on pages 69-70.		
Week 10	1	Continue reading Chapter 4 on pages 71-72.		
	2	Continue reading Chapter 4 on pages 73-74.		
	3	Complete Adventure Challenge 11 on pages 75-78.		
Week 11	1	Continue to read Chapter 4 on pages 79-80.		
	2	Complete Adventure Challenge 12 on pages 81-82.		
	3	Continue to read Chapter 4 on pages 83-84.		

Date	Day	Assignment	Due Date	✓
Week 12	1	Complete Adventure Challenge 13 on pages 85-86.		
	2	Continue to read Chapter 4 on pages 87-88.		
	3	Complete Chapter 4 Review on pages 281-282.		
Week 13	1	Read Chapter 5: “The Swirling Soup in My Father’s Hands” on pages 89-92.		
	2	Complete Adventure Challenge 14 on pages 93-94.		
	3	Continue reading Chapter 5 on pages 95-98.		
Week 14	1	Continue reading Chapter 5 on pages 99-100.		
	2	Complete Adventure Challenge 15 on pages 101-104.		
	3	Complete Adventure Challenge 16 on pages 105-106. (Cutout on page 311.)		
Week 15	1	Continue to read Chapter 5 on pages 107-108.		
	2	Complete Adventure Challenge 17 on pages 109-110.		
	3	Read Reaching Out to His World and Sing It Out! on pages 111-112.		
Week 16	1	Complete Chapter 5 Review on pages 283-284.		
	2	Read Chapter 6: “The Woodstove Outside the Window” on pages 113-118.		
	3	Complete Adventure Challenge 18 on pages 119-120.		
Week 17	1	Read Chapter 6 on pages 121-122.		
	2	Complete Adventure Challenge 19 on pages 123-124.		
	3	Continue to read Chapter 6 on pages 125-126.		
Week 18	1	Complete Adventure Challenge 20 on pages 127-130.		
	2	Continue to read Chapter 6 on pages 131-132.		
	3	Complete Adventure Challenge 21 on pages 133-136.		
Week 19	1	Read Reaching Out to His World and Sing It Out! on pages 137-138.		
	2	Complete Chapter 6 Review on pages 285-286.		
	3	Study Chapter 1-6 Reviews; Reaching Out Project Update (optional)		
Week 20	1	Complete Semester Exam 1 on pages 297-299.		
	2	Read Chapter 7: “Getting to the Core of the Matter” on pages 139-142.		
	3	Complete Adventure Challenge 22 on pages 143-146.		
Week 21	1	Continue to read Chapter 7 on pages 147-148.		
	2	Complete Adventure Challenge 23 on pages 149-150.		
	3	Continue to read Chapter 7 on pages 151-152.		
Week 22	1	Read Reaching Out to His World and Sing It Out! on pages 153-154.		
	2	Complete Chapter 7 Review on pages 287-288.		
	3	Read Chapter 8: “Singing, Dancing, and Praising God” on pages 155-158.		

Date	Day	Assignment	Due Date	✓
Week 23	1	Complete Adventure Challenge 24 on pages 159-162.		
	2	Continue reading Chapter 8 on pages 163-164.		
	3	Complete Adventure Challenge 25 on pages 165-166.		
Week 24	1	Continue reading Chapter 8 on pages 167-168.		
	2	Complete Adventure Challenge 26 on pages 169-170.		
	3	Continue reading Chapter 8 on pages 171-174.		
Week 25	1	Continue reading Chapter 8 on pages 175-177.		
	2	Complete Chapter 8 Review on pages 289-290.		
	3	Read Chapter 9: "Stresses, Faults, and Explosions" on pages 179-182.		
Week 26	1	Complete Adventure Challenge 27 on pages 183-184.		
	2	Continue reading Chapter 9 on pages 185-188.		
	3	Complete Adventure Challenge 28 on pages 189-190.		
Week 27	1	Continue reading Chapter 9 on pages 191-194.		
	2	Complete Adventure Challenge 29 on pages 195-198.		
	3	Continue reading Chapter 9 on pages 199-200.		
Week 28	1	Read Reaching Out to His World on pages 201-202.		
	2	Complete Chapter 9 Review on pages 291-292.		
	3	Read Chapter 10: "God's Great Signs and Imaginary Lines (part 1)" on pages 203-206.		
Week 29	1	Complete Adventure Challenge 30 on pages 207- 208.		
	2	Continue reading Chapter 10 on pages 209-212.		
	3	Complete Adventure Challenge 31 on pages 213-216.		
Week 30	1	Continue reading Chapter 10 on pages 217-220.		
	2	Complete Adventure Challenge 32 on pages 221-224.		
	3	Read Reaching Out to His World and Sing It Out! on pages 225-226.		
Week 31	1	Complete Chapter 10 Review on pages 293-294.		
	2	Read Chapter 11: "God's Great Signs and Imaginary Lines (part 2)" on pages 227-230.		
	3	Complete Adventure Challenge 33 on pages 231-232.		
Week 32	1	Continue reading Chapter 11 on pages 233-234.		
	2	Complete Adventure Challenge 34 on pages 235-236.		
	3	Complete Adventure Challenge 35 on pages 237-238.		
Week 33	1	Continue reading Chapter 11 on pages 239-240.		
	2	Continue reading Chapter 11 on pages 241-242.		
	3	Complete Adventure Challenge 36 on pages 243-246.		
Week 34	1	Continue reading Chapter 11 on pages 247-248.		
	2	Complete Adventure Challenge 37 on pages 249-250.		
	3	Read Reaching Out to His World on pages 251-252.		

Date	Day	Assignment	Due Date	✓
Week 35	1	Complete Chapter 11 Review on pages 295-296.		
	2	Read Bags are Packed Again and Reaching Out to His World on pages 253-254		
	3	Study Chapter 7-11 Reviews; Oral Report on results of service project (optional)		
Week 36	1	Complete Semester Exam 2 on pages 301-303.		
	2	Complete Reaching Out to His World Project pages 305-306.		
	3	Present Reaching Out to His World Paper to friends or family.		

Other books in this series:

Explore the Holy Land

Explore the Classical World

Explore the Medieval Kingdoms

Explore Viking Realms

Before Embarking

by Ann Voskamp



I love books.

When I was a kid I wanted to be a librarian because I thought librarians spent their days reading all those books on their shelves. When I found out they didn't, I wanted to be a teacher so I could read all those books. Thus, when the Lord blessed us with our own little circle of children, what better way to spend my days than with the kids and good books?

Old books are like good friends. Seton and Burgess and Holling...and Hillyer. Lots of Hillyer. We would trek out with Hillyer through his book, *A Child's Geography of the World*, exploring God's world from the couch. We appreciated how Hillyer spoke directly to us, how we developed a relationship with the author himself, how he romped through the world, teaching us along the way. But we always had questions. Was it still that way in that country today? How had those cities, those people changed? We wanted to know what the world was like now. And we wanted to see His Hand in it all — for the earth and everything in it is His.

Thus this project, *A Child's Geography, Volume I: Explore His Earth*, is about getting to know what is under our feet, over our heads, and in the world around us — the atmosphere, the hydrosphere, the lithosphere — and then how to get around this world — maps, latitude and longitude. All the while, seeing God everywhere.

These pages are, in some ways, really like exploring and scouting out various routes before a grand trip! While surveying the grand scheme of things, the sciences of His earth, our appetite is whetted for the real march out, the countries of this earth. The anticipation builds as we learn about the workings and the ways of His earth. Then, when we have our bearings, we keenly set out to explore earth's countries. (We look forward to beginning our trip around His globe at the beginning, with Him — in the Holy Land — and then trek through the countries of our world today, following the same path of our chronological study of history and times past.)

I've gathered our children around, and we are thinking it looks like a perfect day to go scouting. Care to join us on a glorious geographical adventure?

Memory Joggers

At the end of the readings, you will tell your teacher what you learned in that section. The questions will help guide you through the topics. They will also be part of each chapter review. Answers can be found in the Answer Key.

🎵 sing it out!

The *Sing It Out!* sections are fun hymns that you can sing with your teacher. I encourage you to look up the hymn with your teacher and learn it if you are not familiar with it.

Pause for Prayer

These sections give you a moment to pray about and thank God for specific things related to the chapter.

Reaching Out to His World

This short section at the end of each chapter shows you different situations in which God's people are suffering or hurting and what you can do to help. I encourage you to pray for these people and reach out to help in any way you can. Suggestions are given for outreach opportunities and can be done with the help of a teacher or with your family. This course is a wonderful opportunity to create a simple Reaching Out Project. As you see how people are helping to spread God's love to others, I hope you will be inspired to create a project to help someone you know or people in your church or community. Or perhaps support an effort your church or family is already involved in. Talk to your teacher about a project you would like to do. Be sure to keep notes on your experiences so you can give a report at the end of the school year.

Geography

Islands and peninsulas,
continents and capes,
Dromedaries, cassowaries,
elephants and apes,
Rivers, lakes and waterfalls,
whirlpools and the sea,
Valley-beds and mountain-tops
— are all Geography!

—Eleanor Farjeon



Auntie Em, There Is No Place Like Home

Have you ever pulled an old blanket over a table, dragged in some pillows and stuffed friends, and stood back to admire your new home? Or hammered together some planks of wood high up in a tree, then climbed up amongst the leafy branches and called it “**Home**”?

Home is where we all belong, a place we come back to, a place just for us.

Perhaps you call home a secluded cabin tucked away in quiet woods? An apartment overlooking the twinkling lights of the city? A hut squatting on stilts in a tangle of jungle clearing? A floating boat, docked at the end of a pier?

Every person, everywhere, has a home, no matter where it is or what it looks like.

Once when my little brother was at the zoo, he got lost and couldn’t find his way home. A kind man stopped to ask the teary-eyed little fellow where his home was. What did it look like? How big was it? Did he know the name of the people who lived in his home?

Do you think he responded something like this?

“My home is held up in the middle of space. Home is like a big, round ball, slowly turning so every twelve hours it soaks in warm sunshine and then sleeps the next 12 hours in darkness. My home is so big that nearly 8 billion people, speaking several thousand languages, live there — along with lions and parrots and beluga whales and polar bears and pythons. And there are 333 million cubic miles of water to sail about right inside my home!”

If my brother had explained his home like that, wouldn’t the man have been most surprised? He would have wanted to know WHO could make a home like THAT!



The Apollo 17 crew took this picture of the earth as they were traveling to the moon on December 7, 1972. This was the first photograph of the South polar ice cap. What else do you see in this picture? (NASA)

My brother would have said, “God made a home like that! He made it not with wood and nails, or bricks and mortar, but simply by speaking the earth into being. He spoke the words, ‘Let there be light. Let there be a firmament in the midst of the waters, and let it divide the waters from the waters’ (Genesis 1) and there was my home — EARTH!”

Earth is home to all people everywhere. And God made our home like no other home that has ever been made! Would you like a brief tour of our home?

If you do, that makes you a **geographer**! What is a geographer? Someone like you — someone who wants to explore our home, earth, to ask questions about what is under our feet and over our heads, to ask why some areas of our home look so very different from other areas,

and to meet all the different kinds of people who live in your home with you!

Geographers study **geography**. The word “geography” comes from the Greek language and simply means “to write about the earth.” So, together, let’s be geographers and write about God’s home for us, earth!

While your home has a front door, and maybe a back door, perhaps an upstairs or a downstairs, the home God made for us has no front or back, top or bottom. That is because our earth is like a big ball. Geographers (like you and me) refer to earth as a “sphere” because in Latin “**sphere**” means “ball.”

While I could see your home from the street, you can’t see the home God made for us by standing back a little. The home God made for us is much bigger than what you see outside your window, bigger than what is down your street, bigger even than what is across your country. The home God made for us is STUPENDOUSLY HUGE!! So huge, we can’t really see it all! That sounds strange, doesn’t it?

Have you ever laid your forehead against someone else’s forehead and looked into their eyes? What did they look like? They looked like ALL eyes, didn’t they? You were so close to their eyes that you didn’t even see their toes, did you? But what if you ran to the very far end of the street and looked back at the same person? Wouldn’t that same person who was once ALL eyes, now seem very small? You wouldn’t be able to see their eyes, or even their toes now. But now you could see the whole shape of the person.





When you look out your window and see our earth, that is much like looking eye to eye with another person. You are so close to earth, you can't see all the parts of our home. If you wanted to see more of our earth you would have to go further than the end of your street, further away from earth even than an airplane. You would have to go way, way, WAY back into outer space to see our home, earth, it is so big.

Just how big is earth? Are you ready for some VERY astounding numbers?

Let's say there was one flat path all around the world. Then say you stuck a flag in the dirt and began walking down that long path around our home of earth. If you walked ten long hours every day, you might cover slightly more than 22 miles (35 km) every day. If you did that every single day, rain or shine, until you walked back to your flag, you would have walked the 24,860 miles (39,990 km) all the way around earth! Not only is that one very long walk, but you would be almost 3 years older — and have worn out a LOT of shoes!!!

The surface area — how much area our earth takes up — is 196,951,000 square miles (316,894,000 km)! That means you would have to have 733 states of Texas to fill up this home God made for us!

Do you know how heavy our home is? The mass of earth is a whopping 6.6 billion trillion tons (6 trillion trillion kilograms)! That is how much 1,100 million, million, million elephants would weigh! Imagine the bathroom scale reading that ENORMOUS number!

God has made us a very impressive home, don't you think? To think that it was made simply by God's command! The Bible says that our world was not created through natural processes but

directly by God Himself: “...the worlds were prepared by the word of God, so that what is seen was not made out of things which are visible” (Hebrews 11:3; NASB). That means that everything you see around you came into being from things that can’t be seen! Everything you see came into being by God’s words! And that was how our home called earth was made!



Memory Joggers

What a home we live in! Let's talk about our home of earth! ❶ What is the shape of our home? ❷ How many people live in this home? ❸ What do we call people who write about earth? ❹ Why is earth referred to as a "sphere"? ❺ Tell me about how big and massive our earth is. ❻ How did our home of earth come into being? **There truly is no place like our home!**

Adventure Challenge I

name _____

And This Is the Home that God Built!

Our earthly home is a pretty big place! It would be very easy to get lost. Do you know where in our home you are? Let's see if we can draw it out together so that we know more about the home God built for you!

Materials needed:

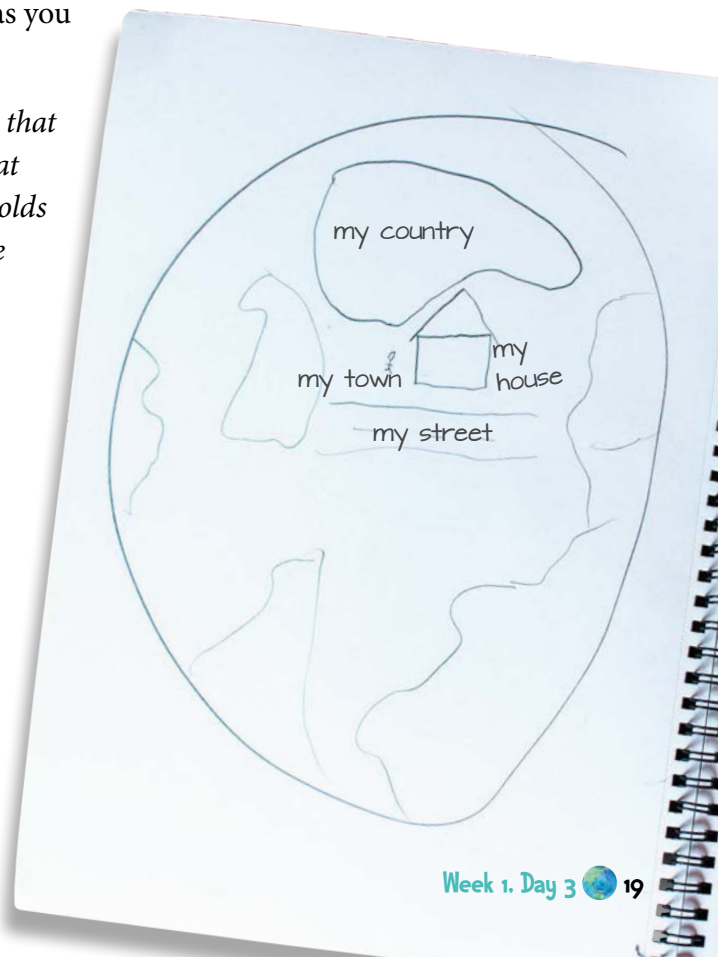
- Large piece of paper
- Pencil and crayons or colored pencils
- Globe or atlases

Ready to go? Let's head out!

1. Draw a **very small** picture of you in the middle of your piece of paper.
2. Now draw your house around you. Then draw your street. See if you can now draw a circle where your town is around your home.
3. Next, sketch out the shape of your state or province around your city. Are you beginning to see how big our home of earth really is?
4. Draw your country around your state or province. Then draw your continent around your country.
5. Now, draw the last part of your home around everything else . . . earth!

Can you point to the various features of your drawing as you sing along?

This is the earth that holds the continent, that holds the country, that holds the state, that holds the city, that holds the town, that holds the street, that holds the house, that is the home God built for me.



Take some time to write the names of your street, town, state, country, and continent down.

my street	
my town	
my state	
my country	
my continent	

Now, label your drawing. **Didn't God build an awe-inspiring home for us?**

Short Answer

1. What is geography? What do you call someone who wants to learn about geography?

2. What word do we use to describe the shape of our earth? What does this word mean?

3. Can you imagine the size of earth? What do you think of this home God built for us?



Expedition 60 Flight Engineer Christina Koch of NASA looks through the station's "window to the world," the seven-windowed cupola. Koch was photographing landmarks as the orbiting lab flew 259 miles above the Pacific Ocean off the coast of South America. (NASA)

➔ I have never gone so far back, all the way to outer space in a rocket, and looked back at our home! Neither have you! (But maybe someday you will have such an incredible experience to gaze upon the beauty of earth from up in a space ship! For now, we must be satisfied with pictures.)

But there are men and women, called astronauts, who have flown some 370 miles (595 km) way up into the universe on a space craft. Pressing their faces against the windows of the space shuttle, they have peered down at our home, earth. How do you picture what our home looks like? Can you describe it?

An American Astronaut named Edgar Mitchell (below) described earth from space as "a sparkling blue and white jewel, a light, delicate sky-blue sphere laced with slowly

swirling veils of white, rising gradually like a small pearl in a thick sea of black mystery. It takes more than a moment to fully realize this is earth Home."

Isn't it strange that Astronaut Mitchell had lived his whole life in his home but when he saw it from space, he didn't quite recognize it at first? He had probably never thought of his home looking like a shimmering jewel in an ocean of blackness! Did you think our home looked like that?

A Saudi Arabian prince and astronaut, Sultan Bin Salmon Al-Saud, said this when looking down at our world from space, "The first day or so, we (astronauts) all pointed to our (different) countries. The third or fourth day, we were pointing to our continents. By the fifth day, we were aware of only one earth." Think of it — only one earth, one home for all of us.

Another American Astronaut described earth like "a Christmas tree ornament hanging in the blackness of space. As we got farther





The Black Marble:
Our Planet in
Brilliant Darkness
(NASA)

and farther away it diminished in size. Finally it shrank to the size of a marble, the most beautiful marble you can imagine. That beautiful, warm, living object looked so fragile. Seeing earth from space makes a man appreciate the creation of God and the love of God.”

Aren't you thankful someone made the house you live in? A place for you to play and read and come in for dinner, a place with clean clothes and a warm bed — a place for you. How much more thankful we are that God made our earth home! A place for us to breathe and run, discover and delight in — a place for all of us.

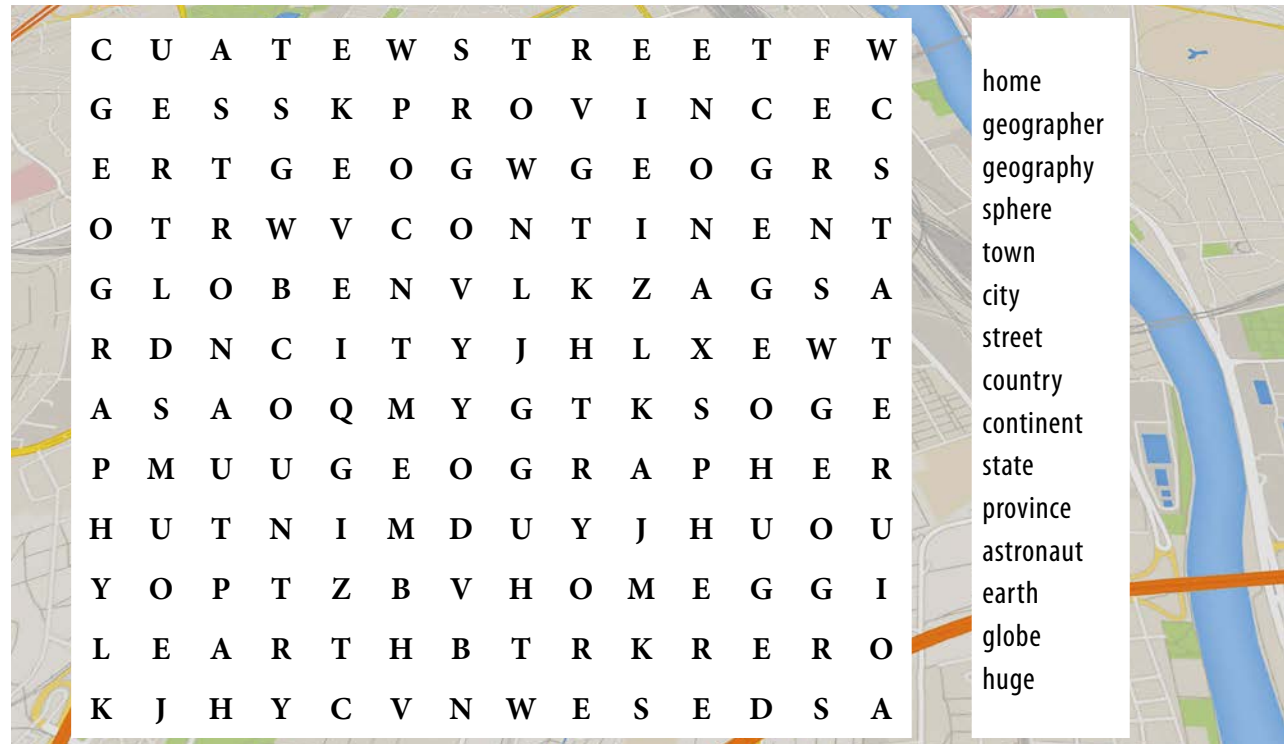
Memory Joggers

Wow! Our earth is very beautiful. Tell me all about it! ① What is an astronaut? ② What does earth look like from space? ③ How have some astronauts described earth? **Would you like to see earth from space someday?**

Adventure Challenge 2

name _____

Word Search



C	U	A	T	E	W	S	T	R	E	E	T	F	W	
G	E	S	S	K	P	R	O	V	I	N	C	E	C	home
E	R	T	G	E	O	G	W	G	E	O	G	R	S	geographer
O	T	R	W	V	C	O	N	T	I	N	E	N	T	geography
G	L	O	B	E	N	V	L	K	Z	A	G	S	A	sphere
R	D	N	C	I	T	Y	J	H	L	X	E	W	T	town
A	S	A	O	Q	M	Y	G	T	K	S	O	G	E	city
P	M	U	U	G	E	O	G	R	A	P	H	E	R	street
H	U	T	N	I	M	D	U	Y	J	H	U	O	U	country
Y	O	P	T	Z	B	V	H	O	M	E	G	G	I	continent
L	E	A	R	T	H	B	T	R	K	R	E	R	O	state
K	J	H	Y	C	V	N	W	E	S	E	D	S	A	province

home
geographer
geography
sphere
town
city
street
country
continent
state
province
astronaut
earth
globe
huge

Make Your Own Globe!

We could never make a world as magnificent or amazing as the world God has made for us! You could, however, make your own small copy of our globe. God made our grand and glorious world in six days — and it may take you nearly that long just to make a replica globe that you can hold in your hands. As you make your globe, think about how God made this entire planet of earth just by speaking it into existence! Doesn't that make you want to praise Him?

Materials needed:

- | | |
|--|---|
| <input type="checkbox"/> Round balloon | <input type="checkbox"/> Spoon |
| <input type="checkbox"/> Lots of newspapers | <input type="checkbox"/> Pencil |
| <input type="checkbox"/> Flour | <input type="checkbox"/> Blue and green paint |
| <input type="checkbox"/> Water | <input type="checkbox"/> Paint brushes |
| <input type="checkbox"/> Empty plastic container | <input type="checkbox"/> Marker |

Ready to go? Let's head out!

Remember, God did not need to gather materials when He made earth — He just spoke the word and things came into being. And that is truly awe-inspiring!

1. First, get out a saucepan and mix 1 cup of flour into 1 cup of water until the mixture is thin. Stir the mixture into 4 cups of boiling water. Simmer for just a few minutes, then cool.

2. Tear a newspaper into lots and lots of strips. The strips should be about as wide as the length of your thumb (or about 1 inch). The strips can be any length.
3. Now take a deep breath and blow up your balloon. Tie it tight!
4. Roll up your sleeves and get ready for the gooey part! Dip each strip of paper into your water and flour glue, wipe off the excess with your fingers, and wrap the strip around the balloon. Cover the whole balloon with wet strips of paper. Once you've coated the whole balloon, let your "globe" dry least 8 hours (or overnight). Repeat this process two more times for a total of three layers.
5. Once you have completed your three layers, let the globe dry completely. When your globe is completely dry, the balloon will usually pop by itself.
6. Now sharpen your pencil and pull out your atlases or place an already finished globe in front of you. Using a pencil, mark a dot at the top and bottom of the "globe" you just made. One dot will represent the North Pole; the other dot will represent the South Pole.
7. Can you draw on your globe the area of land you live in? That shape of land is called a continent. What shape is that area of land, your continent? How big is it in relation to the globe? How far away is it from your dots of the North and South Pole? Looking at your atlas or finished globe, draw your continent on your globe.
8. Good for you! Now, asking yourself the same questions, draw the other continents on your globe. Don't forget any!

Drawing continents is challenging, isn't it? To think that God made the land itself by just commanding it to be so!



9. Now your globe needs some color! Lay out a bed of newspapers and paint each of your continents a dark green color to represent land. When you are finished, set your globe aside to dry.
10. God created water on the 2nd day of creation — so you need to now paint the rest of your small globe a brilliant sea blue! Again, lie out a bed of newspapers and paint around all of the green continents a watery blue to represent oceans and seas.
11. When the paint has dried, stand back and smile at your handmade globe! Can you take a marker and draw an x on the place where you live on earth?
12. Finally, write on your globe, "O Lord, it is You who made the heavens and the earth and the sea, and all that is in them" (Acts 4:24).

Yes, God made this marvelous earth for us. And that should make us really smile!

Reaching Out to His World



Where do you sleep every night? Perhaps you have your own room, or share a room with a sibling. Maybe you even snuggle into the very same bed with a brother or sister. But perhaps you have a pillow somewhere that is just yours!

God made a home for each of us: earth! There are folks, however, who live in our grand home of earth but who don't have a place with a pillow just for them. We call these people homeless. Yes, homeless people do have a home: earth. Homeless folks, however, do not have a roof over their heads, a safe place to eat dinner every night, or a place of their own to lay down with a pillow each night. Some of those who have no place in the world to call home are children younger than you! It is estimated that more than 100 million children on our earth are homeless. Can you imagine a football stadium full of 55,000 children? Well, try to picture in your mind 1,818 stadiums, each full of a sea of only children, without adults. That gives you a picture in your mind of the vast number of children who have no place to come home to.



So where do homeless children spend their days and nights if they have no home with a roof or windows? Homeless children live on the streets of cities. They beg for their food or search through the garbage, looking for something edible. While some wrap themselves up in newspapers and sleep in back alleys, others are too often scared to sleep on the streets at night. Would you want to sleep out on the sidewalk in the dark? That is why many street children throughout the world fall asleep in big underground pipes underneath cities.

One boy, named Joby, who has slept for the last 9 years in the windowless, smelly pipes with many other children, said, "Everyone here would like to have their own family and home."

Yes, everyone would like their very own home, with a door and a window and someone to love them. God said, "Let each of you look out not only for his own interests, but also for the interests of others" (Philippians 2:4). So God created us to take care of each other in our home we call earth.

🌍 Pray right now for the homeless and the street children — that they would feel the love of God in a very real way today. And pray for the organizations that work to help the homeless all around the world.

🌐 Does your church or another group in the community help the homeless? See if your family can find out what is needed and how you can help.



🌐 We all want a home to come home to. There are groups of individuals who build homes for the homeless. Habitat for Humanity is one such worldwide ministry. Over the last 30 years, volunteers have given freely of their time and money to help Habitat for Humanity build more than 175,000 homes for more than 750,000 people all over our earth. Perhaps you can look for a Habitat for Humanity or similar group near you and help support them to build a home someone can come home to!



He's Got the Whole World in His Hands

(a traditional African American spiritual originally written by Obie Philpo)

*He's got the whole world in His hands,
He's got the whole world in His hands,
He's got the whole world in His hands,
He's got the whole world in His hands.*

*He's got my brothers and my sisters in His hands,
He's got my brothers and my sisters in His hands,
He's got my brothers and my sisters in His hands,
He's got the whole world in His hands.*

*He's got the sun and the rain in His hands,
He's got the moon and the stars in His hands,
He's got the wind and the clouds in His hands,
He's got the whole world in His hands.*

*He's got the rivers and the mountains in His hands,
He's got the oceans and the seas in His hands,
He's got you and He's got me in His hands,
He's got the whole world in His hands.*

*He's got everybody here in His hands,
He's got everybody there in His hands,
He's got everybody everywhere in His hands,
He's got the whole world in His hands.*



4 Puzzle Directions

I once ate a puzzle. A very delicious puzzle it was. Rather than chewing on some dry cardboard shapes, I sunk my teeth into... a cookie puzzle of gingerbread! When all the gingerbread puzzle pieces were locked together, a heart shape appeared with the name “Jesus!” written across the golden brown cookie! It was the best-tasting puzzle I have ever assembled! But even that lip-smacking puzzle may not compare to the wondrous pieces we geographers are going to puzzle with today!

Do you remember imagining what earth looked like from a space rocket? Since we’ve already explored the curtain of air that is draped around earth, our grand atmosphere adventures, why don’t you crowd in to get a good peek into the rooms of our home?

What do you see through the spacecraft window? (If you could place a globe of the world in front of you, that would be like looking at the earth from space.) Do you see a brilliantly blue ball with some strangely shaped puzzle pieces glued about it? What are those odd shapes? Yes, those pieces are stretches of dry land.

Much like rooms in your own home, those pieces of dry land each have their own names. I once knew of a home with rooms named the “Sugar Mountain Room” (that was the name of the mountain that loomed outside the room’s window) and the “Fairie Belle Room” (that was the name of the little girl who lived in that home). But the rooms of dry land on our home of earth — the rooms where we all live — have very different names.

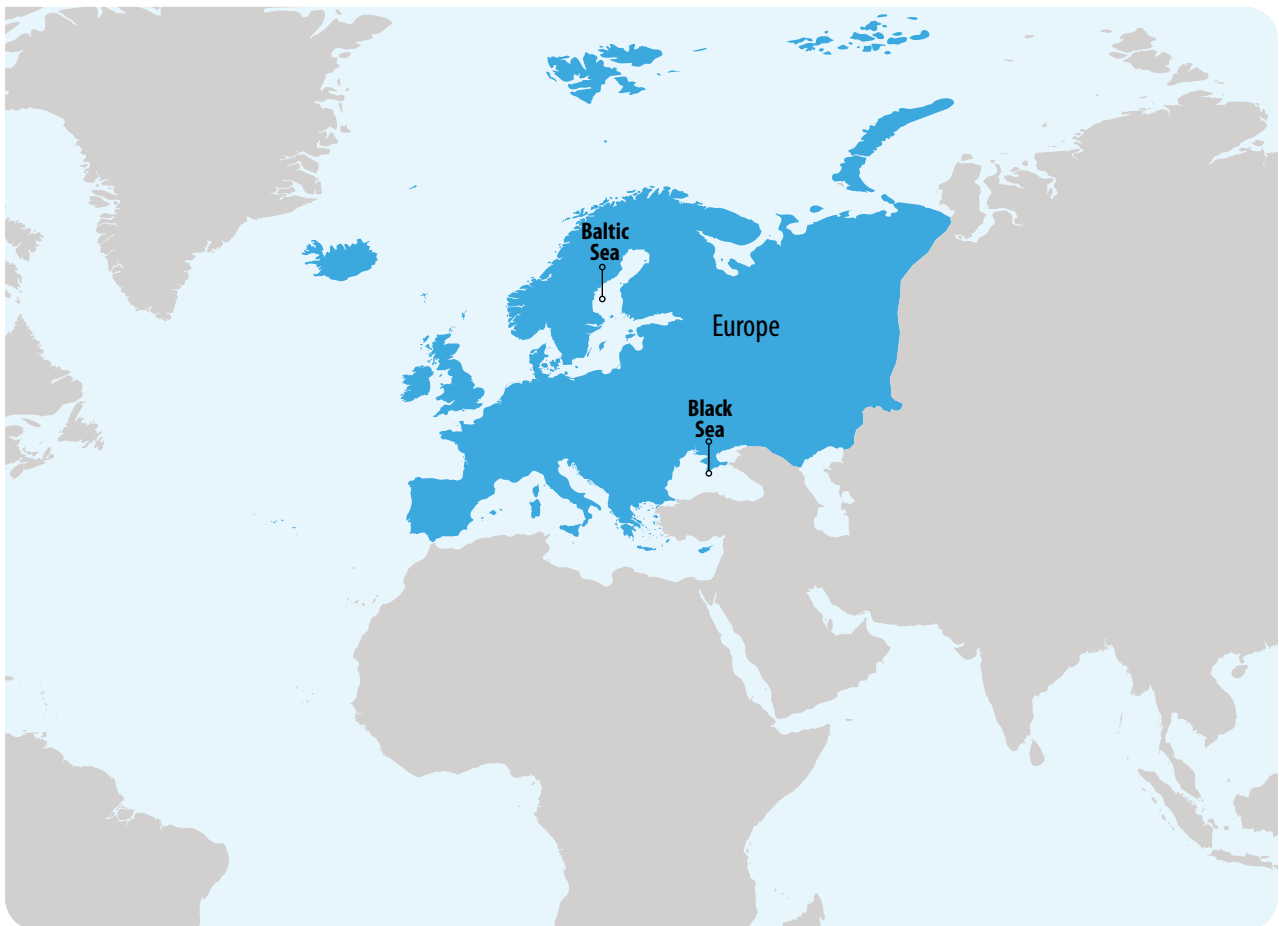
Geographers obviously do not call the shapes of land on earth “puzzles pieces” or “rooms” but refer to them as “continents.” The word “continent” comes from the Latin word *continens*, which means “continuous mass of land.” Peering down from our space-shuttle window, those “rooms” on our earth home are large, continuous masses of land, aren’t they?



From your space-side seat, can you identify these puzzle shapes on earth's surface? (NASA)

Now that we know the rooms in our home are called “continents,” come in closer for a better look at those puzzle pieces!

From your perch in space, can you gaze down at a continent shaped like a face? Well, the name of the continent Europe comes from the Greek words *eurys* (broad) and *ops* (face). Do you think this puzzle piece looks like someone with a broad face or big eyes? (Think of the Black Sea and the Baltic Sea as Europe's two large eyes. After you find her eyes, where do you think broad-faced, wide-eyed Europe's nose and chin are?)





Asia makes up more than 1/3 of earth's land surface, and over half of earth's family lives on the continent of Asia.

In Greek mythology, Europa was a beautiful Phoenician princess. Greek mythology is very old stories of false gods and invented legends of impossible things that some people believed after turning away from the truth of God. People used these myths to explain the world around them at a time when very little was known about the world or how nature really worked. So to describe part of what is now Europe, ancient Greeks would tell a story about how Europa was gathering flowers by the sea, a white bull lay down in front of her. Europa carefully slid onto its back. Then, like a flash of lightning, the bull charged off, plunging into the sea. Greek myth claims that the bull carried wide-eyed Europa off to the continent we now call Europe. (Your eyes may have grown wide too if a wild bull bolted off with you clinging behind!)

Europe really is the continent splashing about in the water! Europe's land juts and zigzags back and forth by the sea. The continent of Europe may be small, but its coastline, the land that meets the water, is longer than other continents that are THREE times bigger than Europe!

Like two puzzle pieces locked together, wide-eyed, water-splashing Europe is linked to another continent called "Asia." If you listen to other absurd Greek myths, they say "Asia" was a water fairy that rained water down on earth. But since we know the truth that God alone pours water out on the face of the earth (Amos 9:6), we'll leave the Greeks to their false fairytales. The word "Asia" is actually thought to have derived from the ancient Assyrian word *asu*, meaning that Asia is the "land of the sunrise." Asia may have the shortest name of all the continents, but it is the largest of all the continents. Like the sun is the largest body in our solar system, Asia has more land, more people

and more kinds of animals and plants than any other continent! With more than 17 million square miles of land, and over 4.6 billion people (like the ones here in Shanghai, China), Asia, the land of the rising sun, is an immense continent! Think of Asia as a massive sun. Can you imagine watching the sunrise of enormous Asia?

Memory Joggers

Let's do a quick review! What can you tell us about the continents of earth? ● What does the word "continent" mean? ● What does the name "Europe" mean? ● Can you share anything else you discovered about Europe? ● What does "Asia" mean? **What an amazing world God Created!**



Snow on the eastern Tien Shan and Taklimakan Desert in Central Asia. The Tien Shan (or Tian Shan) is one of the longest continuous mountain ranges in the world, stretching across 1,500 miles (2,500 kilometers) in northwest China, Kazakhstan, and Kyrgyzstan. (NASA)

Adventure Challenge 9

name _____

Finding Europe

Can you draw a face from the shape of Europe?

1. Draw a circle around the Black Sea.
2. Draw a circle around the Baltic Sea.
3. Draw a line that follows the eastern edge of Russia, going across Kazakhstan and along the northern edge of the Caspian Sea.
4. Continue your line along the northern edge of the Black Sea and the southern edge of Greece.
5. Keep drawing the line along the left side of Italy, along the southern coast of France, and around Spain to swing and over Ireland and just above the north edge of Scotland.
6. Continue the line along the northern edges of Norway, Sweden, and Finland.



Special Rooms

1. Do you have any special names for the rooms in your house? What are they?

2. If not, come up with some of your own special room names and write them here!





➔ Looking down from our space-side seats, you may be able to see wide-eyed Europe almost touching another continent of land. Europe here almost touches the large room to its south. This room south of Europe is the continent “Africa.” It is possible that “Africa” comes from the Latin word *aprica*, meaning “basking in the sun.” Can you see that Africa is shaped like a zebra’s head, nose pointing downwards (South Africa), ear jutting out (Somalia), eye blinking (Lake Victoria)? So, think of Africa as the zebra basking in the sun!

Actually, a zebra wouldn’t be the only animal basking in the sun in Africa! There are more different kinds of hooved animals in Africa than on any other continent! Two billion birds also fly every winter from colder continents to the continent of Africa to bask in its warm sunshine. When you think of Africa, can you envision the lovely wide-eyed lady, Europe, riding the zebra of Africa, both basking in the sunrise of Asia?



Europe and Africa nearly touch — at the Strait of Gibraltar, the two continents are only eight miles (13 km) apart!.





Australia is hot and flat, just like a frying pan — with Uluru Rock rising out of its outback.



Australia grassland

If you press your forehead against the glass of the space-shuttle window, do you catch a glimpse of another continent dangling under rising Asia? It is the smallest puzzle-piece continent on our earth home: “Australia.” The word “Australia” comes from the Latin word *auster*, which means “southern wind.” Do you think Australia looks like a cloud blowing in on a southern wind?

If you lived in Australia, you would be looking for a cloud blowing in on a southern wind!

Australia is a dry continent, as you can see in this picture of the Uluru Rock taken in Australia’s “outback.” Over one-third of the continent is a desert land of little rain and another one-third of the continent is a semi-desert grassland. Folks in Australia don’t wait for a cloud blowing in on a southern wind to bring some water; they just live along the coastline next to the ocean instead!

Can you see in your mind’s eye the picture our puzzle is making? Envision a cloud blowing in on a southern wind (that’s Australia) as a brilliant sun rises (Asia) over lovely, wide-eyed Europe, resting on the basking zebra of Africa.

Memory Joggers

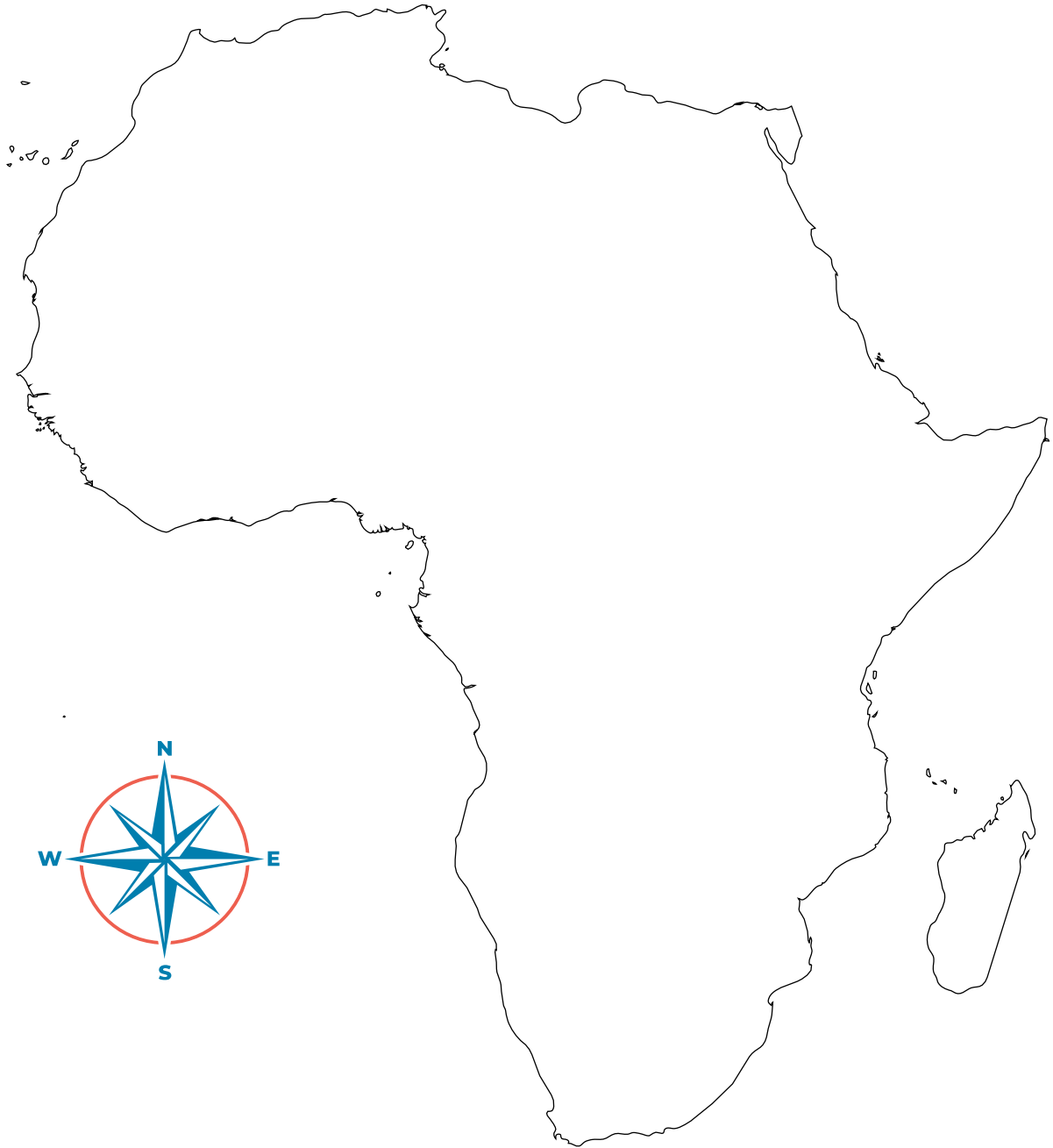
Tell me what you discovered about Africa and Australia! ① *What does the name “Africa” mean?*
② *What does the name “Australia” mean?* ③ *What picture do you have in your mind when you think of Europe, Asia, Africa and Australia?*

Adventure Challenge 10

name _____

Africa!

Can you color in Africa to look like a zebra? Try it out! Or maybe you see something else in Africa's shape? Draw what you see! Make sure to label the continent.



Australia!

Australia comes from the Latin word *auster*, which means “southern wind.” You can draw and color in Australia to look like a little cloud being blown in on a southern wind. (Hmm . . . which way would the wind be blowing if it’s coming in from the south? Check the compass at the top right.) Perhaps you see a different shape in the continent of Australia. You can choose to draw the shape you see instead! Label the continent.



→ Are these four continents the only ones on our earth home? Well, if you fluffed your pillow and snuggled in for a long, long nap up there beside your space-shuttle window, you'd wake up to find those four continents gone! Two new puzzle shapes glued to the blue ball of earth would be looking back at you! What happened?

Have you ever watched a very talented person whirl a basketball around on his finger and the ball spins and spins and spins?

Ever since God spoke forth the creation of earth and all the universe and life, the earth has been spinning... and it has been spinning ever since! Every 24 hours the earth spins completely around. This is how God makes day and night for us on earth! For 12 hours, one half of the sphere of earth is facing the sun. Then that half rotates away from the sun into darkness and night while the other half of sphere of earth stretches and warms in the sun!

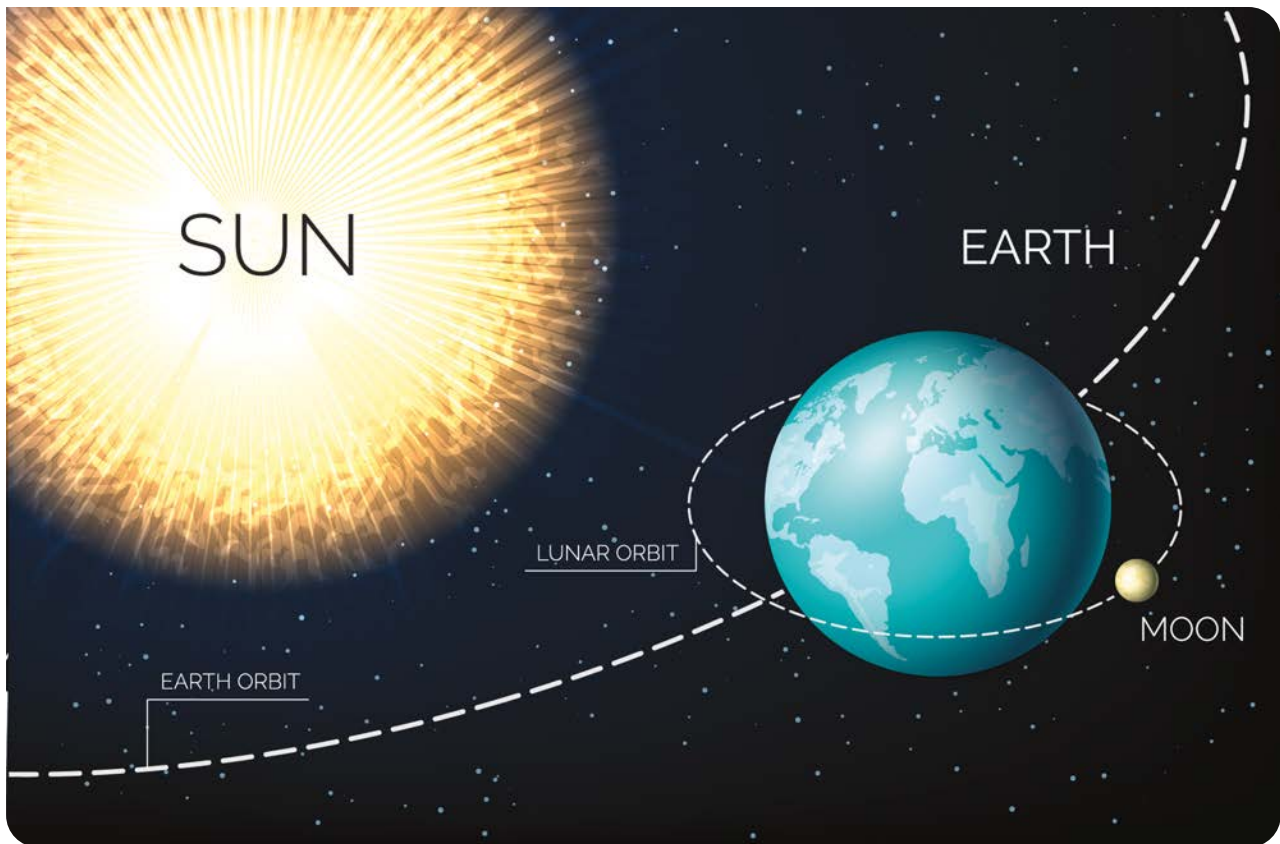
I am not sure how fast someone can twirl a basketball on a finger, but would you like to guess how fast the earth is spinning? The earth is spinning around at 1,000 miles (1,600 km) per hour! Surprisingly, no one on earth is even dizzy, are we?

Now this might make you dizzy: Not only is earth like a spinning basketball, the earth is also spinning around the sun! Hard to imagine, isn't it? Picture in your mind the basketball pro spinning his basketball on his finger (that is earth) as he walks in a big, wide circle around and around and around



In the beginning, God created the heavens and the earth... simply by the breathtaking words of His mouth.





you (pretending that you are the sun). While we sit here on this spinning earth, which is spinning around the sun, we are traveling many, many miles through space! While you have read this page, earth just traveled more than 1,000 miles (1,600 km) in its nearly circular trip around the sun! If the Lord grants you 70 years of life, you will have traveled 41 billion miles (66 billion km) in space as the spinning earth spins around the sun! You may not know it, but you are a first-class traveler of the universe just sitting in your back yard!

God, the Master Builder, made no errors when creating our home called earth by the word of His mouth. If God had made the earth to spin slower, those folks on the side of the earth facing the sun would become blistering hot, while those on the side of earth facing away from the sun would be chattering their teeth in the biting cold. What if God spun our earth faster than 1,000 miles (1,600 km) an hour? Then you'd really have to hold on to your hat! Because then all of us would experience fierce, violent winds that would make life very, very difficult.

Memory Joggers

Tell me about our spinning earth! ❶ What makes night and day for us on earth? ❷ How fast is the earth spinning? ❸ What would happen if God had not spun our world so perfectly?

→ While you were dozing up there by the rocket window, God perfectly rotated the earth. The planet has spun so that Australia, Asia, Europe and Africa are now tucked into their beds, sleeping in the cool dark. And guess who is awake, playing in the sunshine? All the people on the two other puzzle shapes!

Do you see those two continents down there? These two puzzle shapes are not named after some imaginary women of Greek myth. These two continents are named “North and South America” — and they are named after an Italian explorer.

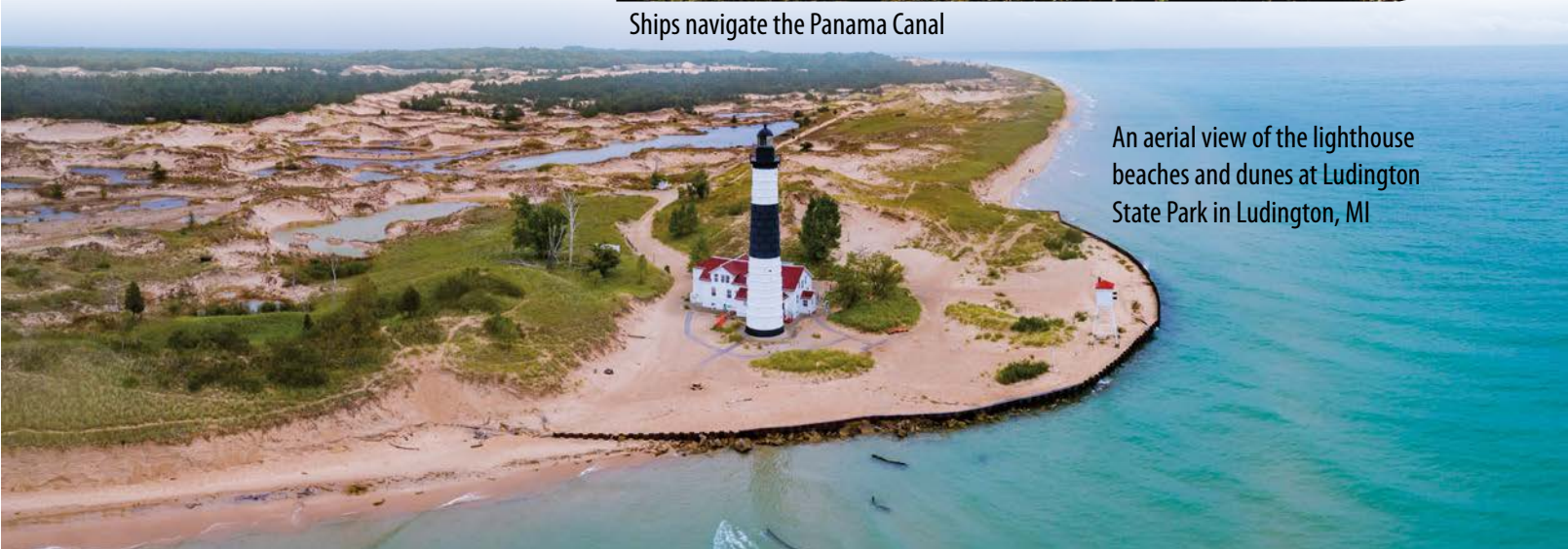
“Amerigo” was the name an Italian mama picked for her baby boy! Little Amerigo Vespucci grew up and sailed away from that continent of wide-eyed Europe and right around our ball of earth — until he bumped into these two new puzzle pieces. Now, some sailors had pulled their boats up on these landmasses and thought



Great Lakes (NASA)



Ships navigate the Panama Canal



An aerial view of the lighthouse beaches and dunes at Ludington State Park in Ludington, MI

they were on the far sides of the continent of Asia. But Amerigo thought differently. He thought these were different puzzle pieces entirely, completely different landmasses. Amerigo did not think the boats had run into Asia at all — but new continents! Amerigo Vespucci was the first person to call these landmasses the “New World.” So the continents North and South America are named after that boy, Amerigo!

It might be said that North and South America themselves are like two boys — brothers, in fact. All brothers share, and not just their toys, but they also share the same parents, the same house, and sometimes even the same clothes. Well, North and South America share many things in common too! Both North and South America have remarkable waters. North America has the world’s largest concentration of fresh waters, the Great Lakes. South America has the world’s mightiest river, the Amazon. Both North and South America have native peoples who were named Indians by a man who thought he had met people from India! Both North and South America had people from Europe come form settlements on their continents. Why, North and South America are even attached to each other — by a skinny piece of land called Central America!

Memory Joggers

• How did North and South America come to be named? • What do North and South America share in common?

Amazon River, Anavilhanas National Park, Brazil



Adventure Challenge II

name _____

Do you remember some of things that North and South America share? What is the skinny piece of land that connects these two brothers? Let's see what you remember about North and South America! Use your reference maps in the back of this book on page 334 to help locate and label specific places on the map.



1. The area attaching North and South America is called:

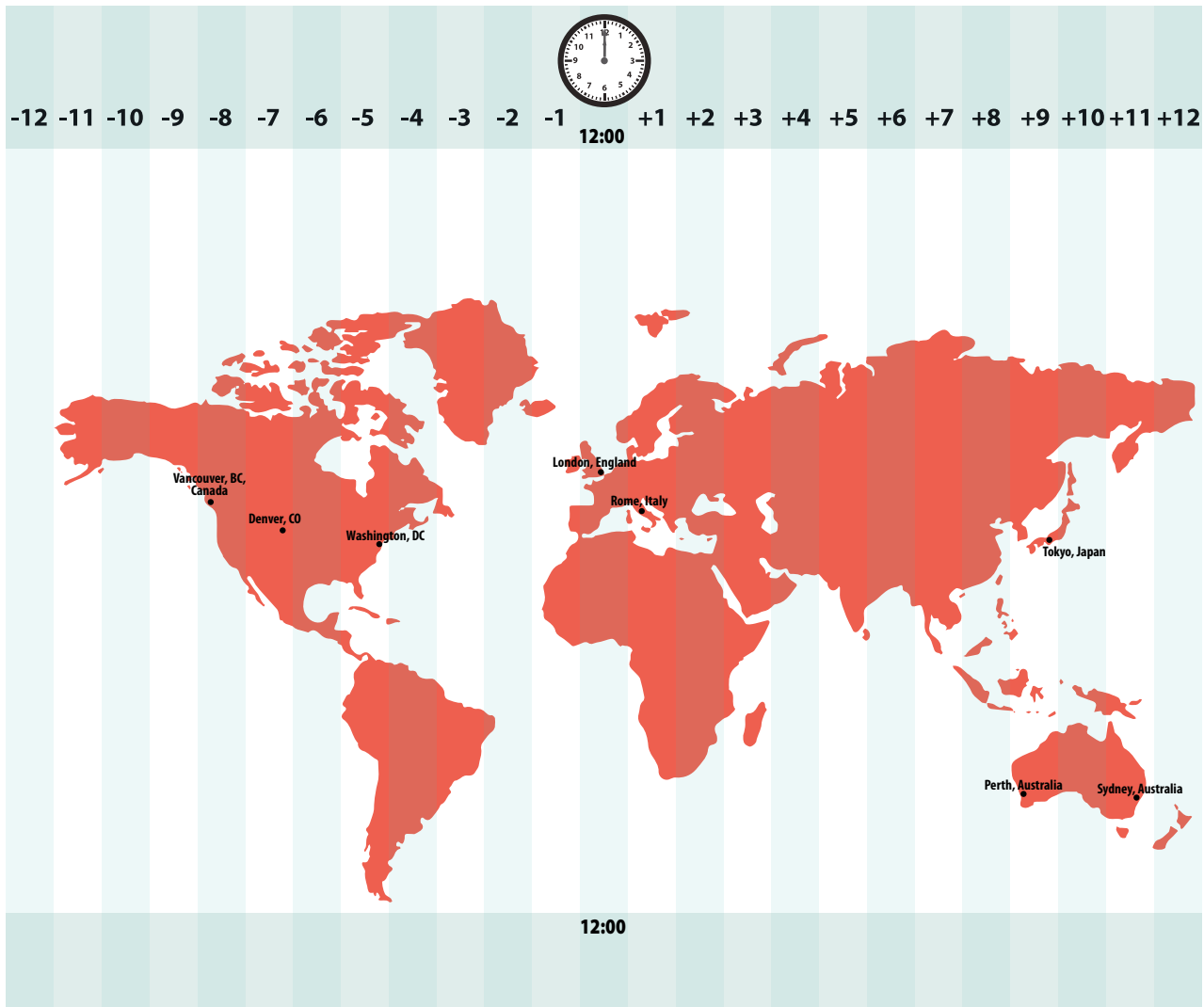
2. Three things North and South America have in common:

3. Label this map with the following information:

- | | | |
|--|---------------------------------|------------------------------------|
| <input type="checkbox"/> Canada | <input type="checkbox"/> Cuba | <input type="checkbox"/> Brazil |
| <input type="checkbox"/> United States | <input type="checkbox"/> Mexico | <input type="checkbox"/> Argentina |
| <input type="checkbox"/> Greenland | <input type="checkbox"/> Panama | |

Time Zones of the World

Do you ever wonder what someone on the other side of the world is doing right now? Well, we can at least know what time it is on the other side of the globe! The map below shows the time zones across the earth. As the earth spins around like a basketball and spins around the sun, the different parts of the world see daytime and nighttime at different times. See if you can answer the questions on the next page using this map.



Hint: The + and – numbers on the top of the columns will be helpful in finding answers!

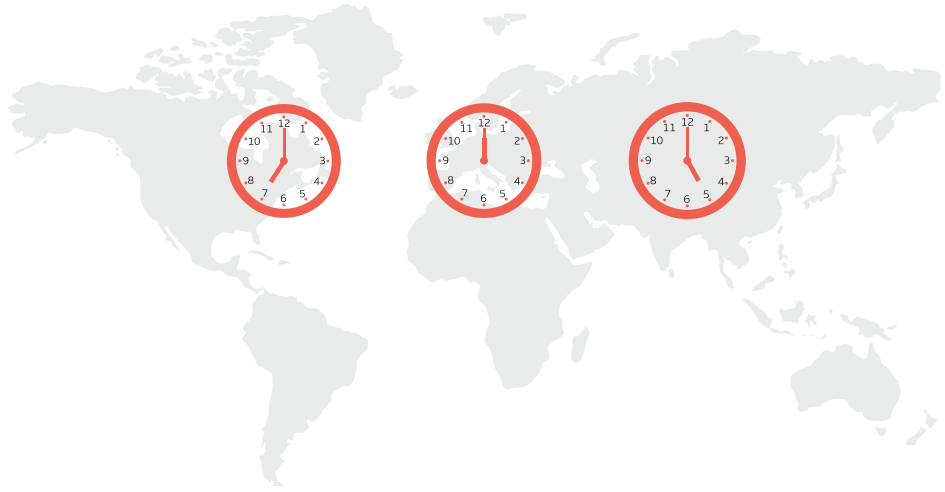
Do you see in the very middle where it's marked 12 noon on Sunday? The numbers on the top of the columns will help you know how many hours to add to or subtract from 12 noon as you go left or right from the center!

Do the Math!

It's time to learn how time changes based on where you are in the world.

For example:

It is 12:00 p.m. in London, England. (This is your starting point.) Find Washington, DC on the map on the previous page. The number on the top of the column is -5. This means we take $12:00 - 5$ hours and we get 7:00 a.m. in Washington, DC.

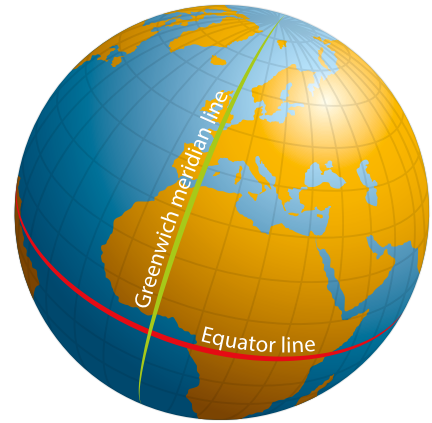


Now, let's do some more! Remember, these are solved by simple arithmetic as we aren't taking into account Daylight Savings Time or other factors. Be careful to keep track of a.m. and p.m. times.

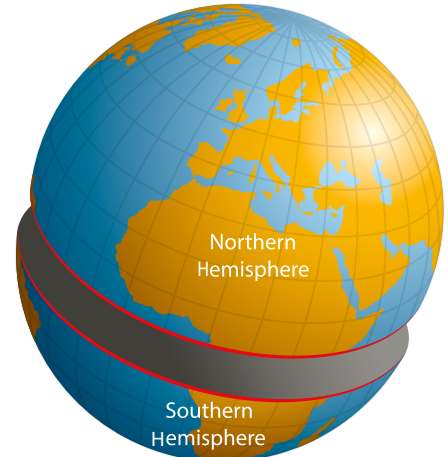
-
1. If the time in London, England is 12:00 p.m., what time is it in Rome, Italy? _____
 2. If the time in London, England is 12:00 p.m., what time is it in Denver, CO? _____
 3. If the time in London, England is 12:00 p.m., what time it is in Tokyo, Japan? _____
 4. If the time in London, England is 12:00 p.m., what time is it in Vancouver, Canada? _____
 5. If the time in Perth, Australia is 8 p.m., what time is it in Sydney, Australia? _____



→ Now, your home may have a front side, facing the street, and a backside, facing out to your backyard. Although earth doesn't really have a front or backside at all, geographers have termed a name for each half of the ball of earth. "Hemisphere" is the Latin word for "half ball." The side of our planet with the south wind blowing (Australia) as the sun rises (Asia) over lovely wide-eyed Europe on the sun-basking zebra of Africa — this side of our earth ball is called the "Eastern Hemisphere." The side of the ball of earth with the two "boy-named" continents, North and South America, are in the "Western Hemisphere."



The earth is also divided in half, right around its waist, by an invisible line called the equator. If you trace the invisible line of the equator around your globe, maybe you felt your finger getting hot? If you did, that is because the belt of the equator is the hottest part of our earth, dividing our planet exactly in half. Above the equator is the "top half ball," the Northern Hemisphere. (The Northern Hemisphere has the North Pole poking out the very peak of its half.) And below the equator is the "bottom half ball," the "Southern Hemisphere." (And what is poking out at its peak? Yes, that's right... the South Pole!)

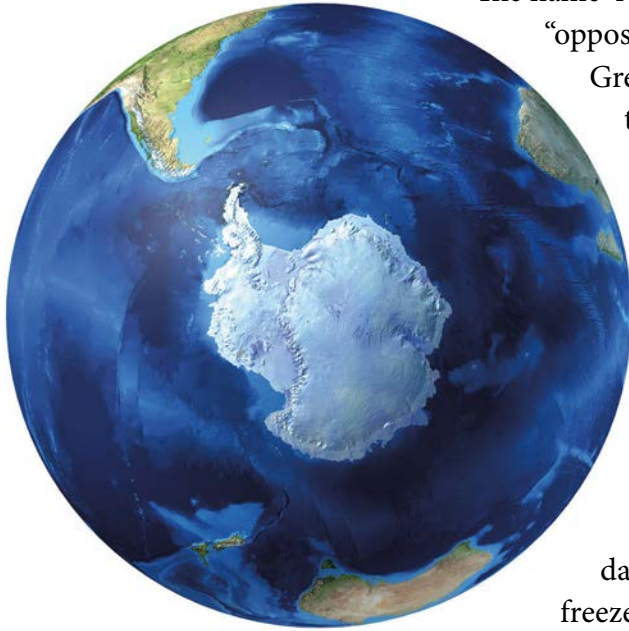


You may have missed one puzzle piece because it isn't in just the Eastern Hemisphere or the Western Hemisphere. This continent is in both the Eastern and Western Hemispheres — and most of it is hiding under a mile thick sheet of ice! Have you ever been to the end of the world? If you pick up your globe and look under South America or Australia, to the South Pole, you will find what some people call the end of the world — the seventh continent, "Antarctica."



Adult Weddell seal in front of ship RSV Aurora Australis, Mawson Station, Antarctica





The name “Antarctica” comes from the Greek, meaning “opposite the bear.” Looking at the sky in the north, the Greeks thought they saw a group of stars that made the shape of *arktos*, meaning “bear.” “Antarctica” lies in the opposite direction of this northern shape of stars, so it is “opposite the bear.” So, remember the continent at the southern end of the world is Antarctica, opposite the bear!

Antarctica certainly is opposite or different than any other continent on earth. Unlike any other continent, there are no cities, no rivers, and very few animals or plants. That is because Antarctica is so very frigid! The very warmest day of the year in the Antarctica is colder than your freezer! (-5 to -31 F or -15 to -35C) But the penguins, seals, and whales like it!

Memory Joggers

Put in your own words what you’ve just discovered! ❶ How is earth divided? ❷ What continents are in the Eastern Hemisphere? ❸ What continents are in the Western Hemisphere? ❹ What divides the Northern Hemisphere from the Southern Hemisphere? ❺ Tell me what you remember about Antarctica!

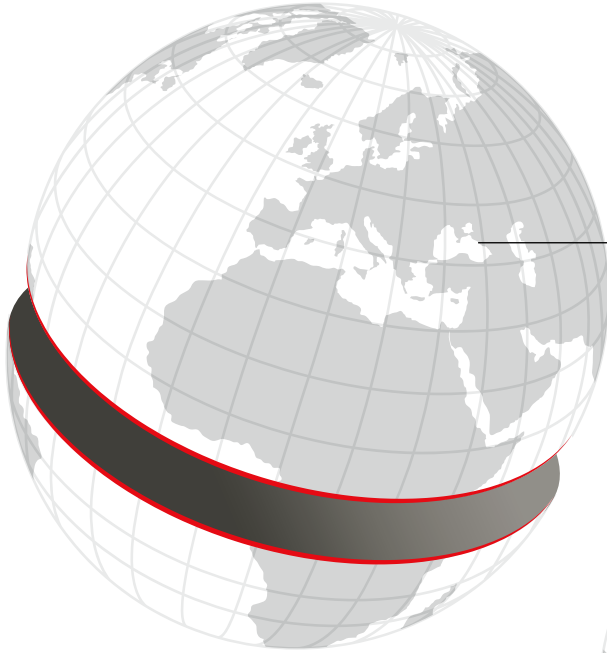


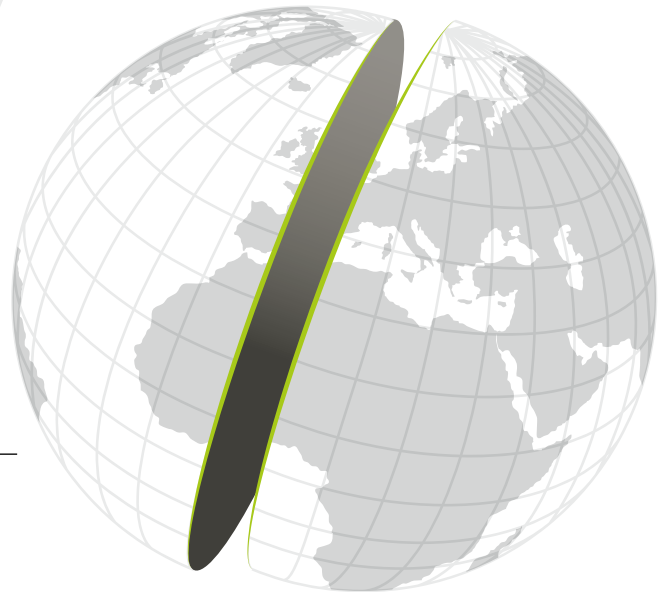
Adventure Challenge 12

name _____

Halves of the earth

Label the names of each hemisphere. Bonus: Using a bold marker, draw a line where the equator is in the last globe.







Antarctica!

We've given all the continents fun shapes and character — except Antarctica! What unique, interesting shape or character do you see in this icy cold continent? Use your imagination to draw and color Antarctica.



→ Has anyone ever tied a kerchief around your eyes then spun you around several times? You likely then stumbled off in one direction while everyone giggled. When they untied the bandanna, wasn't it a surprise to discover that you had not headed in the direction you had intended but had bumbled off in another direction entirely? People say that when you are lost, "You've gotten yourself all turned around" — which is exactly what happened to you when they blindfolded you and spun you around! So, how do you NOT get all turned around? How do you know which direction is which on our earth home?

Can you find the window where the sun first beams its rays into your house while you are eating breakfast? Now point towards that window with your right hand (maybe that is the hand you write with?). You will be pointing East, for the sun rises in the EAST. (Here's a riddle that I am certain that you clever geographers can now puzzle together: Why is the half of the earth where Asia lies called the Eastern Hemisphere? Ah, you are right! Remember that Asia comes from the word *asu* that means "land of the sunrise"? The sun rises first over Asia on our earthly home. So where Asia lies is called the Eastern Hemisphere!)

Keep your finger pointing in the direction of East, where the sun rises. If you hold out your other hand, you will be pointing WEST. West is the direction where the sun sets. (And North and South America lie in the Western Hemisphere because they are the land of the setting sun.) Don't grow too tired holding your arms out to the East and West! If your right hand is pointing towards the sunrise, East — then your nose is aiming NORTH! And the direction SOUTH lies hidden right behind you. There you go! You have just solved the mystery of which direction is which. If you remember the word "NEWS" — nose pointing North, then right hand East, left hand West, and South sneaking behind — you'll remember each direction. And you will have learned the skill of directions that every geographer needs to know to get around our earth home!



Have you ever carefully worked with intense concentration and diligence on a complicated puzzle, when your little brother or sister reached out a small hand to swiftly scramble up all the puzzle pieces? Well, come close to examine the earth's puzzle pieces very closely. Do you think that at one time "the boys" of North and South America were not separated from wide-eyed Europa and basking Africa? Is it possible that some continental puzzle pieces were once fitted together but have now shifted and moved?

As you ponder on how God may have incredibly shuffled around the puzzle pieces of our continents (that's a coming adventure), why don't you give your globe one final spin for today? Marvel at the fact that only God can spin our earth like a big ball — or make any dry land — or command the sun to rise in the East and set in the West! God knows exactly where you are — even in the middle of the night. For God alone has the whole world — all seven continents and every one of us — in His hands. So each of us, everywhere in this home of earth, are in VERY good hands indeed!

Memory Joggers

- 1 Tell me how one can always remember directions.
- 2 How do sunrise and sunset help you determine direction?



Adventure Challenge 13

name _____

Who Am I?

Use the clues below to discover the things you learned.

1. My name comes from the Assyrian word *asu*, and I'm the biggest continent on earth. Who am I? _____
2. I share many things with my brother, but he doesn't house the Great Lakes like I do! Who am I? _____
3. My half of the world houses North and South America. Who am I? _____
4. I lie here basking in the sun, for that is what my namesake, the Latin word *aprica*, means! Who am I? _____
5. We are like puzzle pieces of dry land that make up the "rooms" of earth. What are we? _____
6. I am the smallest continent on earth. My name means "southern wind." Who am I? _____
7. I am the half of the world containing Australia, Asia, Europe, and Africa. Who am I? _____
8. My brother may have some remarkable waters, but I have the world's mightiest river, the Amazon! Who am I? _____
9. My name is a Latin word that means "half ball." What am I? _____
10. I discovered two continents that are now named after me, though I called them the "New World." Who am I? _____
11. I am the half of the world below the equator; at my peak lies the South Pole. Who am I? _____
12. I am named after a Phoenician Princess in a mythical Greek story. Who am I? _____
13. I divide the planet exactly in half. It's also really hot here! Who am I? _____
14. I am the half of the world above the equator, with the North Pole at my peak. Who am I? _____
15. My name comes from the Greek word *arktos* because I lie opposite the bear in the stars. Who am I? _____

word bank

- Africa
- Amerigo Vespucci
- Antarctica
- Asia
- Australia
- continents
- Eastern Hemisphere
- equator
- Europe
- hemisphere
- North America
- Northern Hemisphere
- South America
- Southern Hemisphere
- Western Hemisphere

A Good N-E-W-S Treasure Hunt!

Who can resist a good treasure hunt? Isn't it always a thrill to find that which is lost?

If you follow the directions in this game carefully, not only will you find the treasure, but you'll never get lost again!

Materials needed:

- Suitable snack treat (a box of raisins, fruit, a bag of nuts, wrapped goodie — whatever your preference)
- A yard, park, or large room
- An enthusiastic geographer or two!

Ready to go? Let's head out!

Ask your teacher to read this section and follow the directions.

1. Hide the snack treat in a location unbeknownst to your geographical treasure hunters.
2. Gather the geographers in a location some distance away from the hidden treat.
3. Call out directions for the geographers to walk: "Head north! Turn west! Now south! Oh, don't bump into that — turn east! Now back south!" Continue to call out the cardinal directions until your geographers discover their treat!
4. Ask your geographers if they can now hide a treat for another person. Can they call out the directions and successfully help their fellow treasure hunters find the treat?



Reaching Out to His World



It's a big world! Think of all the roads that meander through Europe, trek up the mountains of Asia, trail through the outback of Australia, wind across the savannahs of Africa, and crisscross back and forth across North and South America! Then try to think of the 7 BILLION people who live on those roads! What did they eat for breakfast? What are they wearing? What language do they speak? What are all those people on all those roads doing right this very minute as you sit here reading these words?

You may not travel to all the continents in the world — and you never are going to meet all of the people who share our earthly home with you. What can you do to reach out to all of those people? You can pray for them! For the Bible says in 1 Timothy 2:1–3 that we are to pray in every way we know how, for everyone we know! God asks us to!

- 🌐 Ask your Sunday School teacher or pastor if there are missionaries or ministries they help to support overseas. Pray for these people and ministries.
- 🌐 Operation World is the name of an organization which can help you “know” everyone on our earth home! Operation World will tell you more about the people living in every continent, every country of our world, and what they need prayer for! You will learn what language they speak, what it is like to live where they live, and how you can best pray for them! Ask your parent about looking up the organization online.
- 🌐 Consider finding a world map to hang on your wall. That way, you can see and point out all the places and peoples you're praying for.





We've A Story To Tell To The Nations

H. Ernest Nichol (1896)

*We've a story to tell to the nations,
That shall turn their hearts to the right,
A story of truth and mercy,
A story of peace and light,
A story of peace and light.*

[Chorus]

*For the darkness shall turn to dawning,
And the dawning to noonday bright;
And Christ's great kingdom shall come on earth,
The kingdom of love and light.*

*We've a song to be sung to the nations,
That shall lift their hearts to the Lord,
A song that shall conquer evil
And shatter the spear and sword,
And shatter the spear and sword.*

[Chorus]

*For the darkness shall turn to dawning,
And the dawning to noonday bright;
And Christ's great kingdom shall come on earth,
The kingdom of love and light.*

*We've a message to give to the nations,
That the Lord who reigns up above
Has sent us His Son to save us
And show us that God is love,
And show us that God is love.*

[Chorus]

*For the darkness shall turn to dawning,
And the dawning to noonday bright;
And Christ's great kingdom shall come on earth,
The kingdom of love and light.*

*We've a Savior to show to the nations,
Who the path of sorrow has trod,
That all of the world's great peoples
Might come to the truth of God,
Might come to the truth of God.*

[Chorus]

*For the darkness shall turn to dawning,
And the dawning to noonday bright;
And Christ's great kingdom shall come on earth,
The kingdom of love and light.*

8

Singing, Dancing & Praising God

(Psst: Before you get curled up on the couch together, you'll need a hard-boiled egg again!)

As a young person, I once nervously lined up on a wooden dance floor for an old-fashioned, country square dance. A man decked out in a brown cowboy hat called out how we were to move our feet. All of the square dancers' feet (except mine) dutifully stomped and clamped out the caller's rhythmic directions (my feet sort of stumbled through the directions!):

Heads Pass the Ocean, Recycle,
Pass Thru, Right & Left Thru,
Do-Si-Do, Make a Wave, Explode the Wave,
Swing Corner & Promenade...

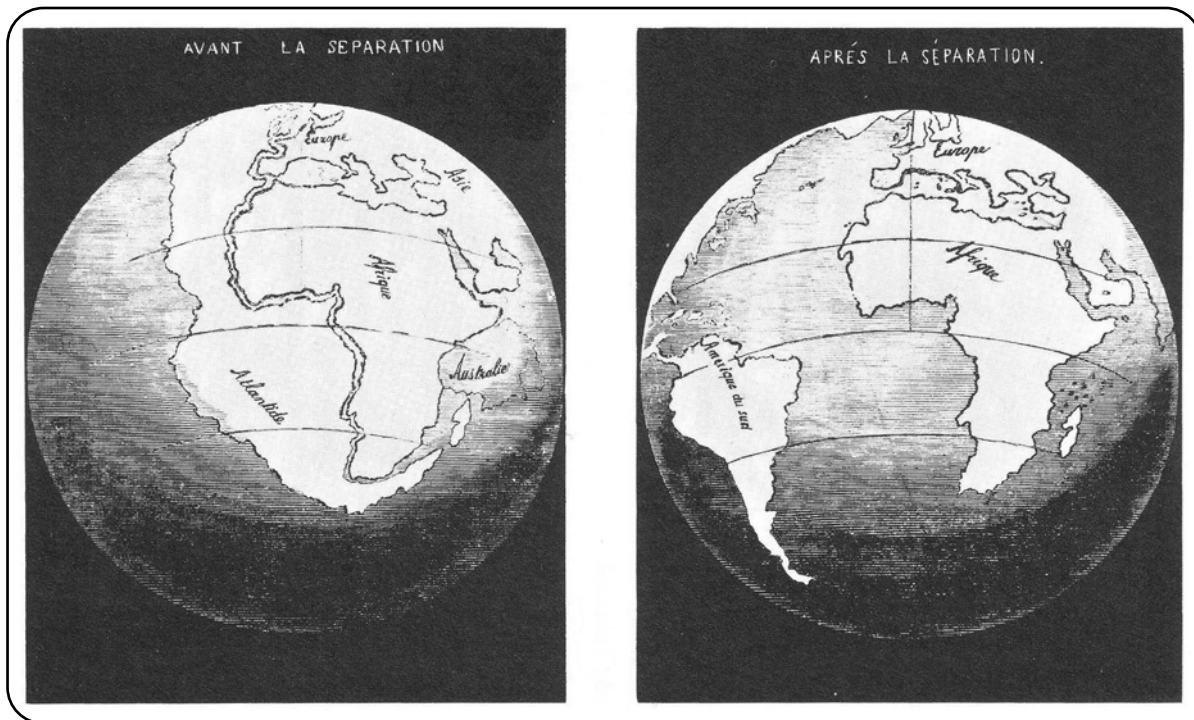
The names of the directions for how to move our feet sound sort of funny, don't they? The square dancers, however, knew what each phrase like "do-si-do" and "recycle" meant. They skillfully moved their feet and hands in the way that is called "pass the ocean" and "make a wave."

Did you know that the ocean and the waves, the whole of earth, is dancing and moving about? And God is calling out the directions? Like the square dance caller, "[God] sends forth His command to the earth" (Ps. 147:15). Just like the square dancers follow the caller's instructions, so "the winds and sea obey Him" (Mt. 8:27). The whole of earth is doing just as God commands!

Wouldn't it be fun to see a bit of earth's dance? Would you like to learn the steps and directions that God commands of earth in its dance? Well, we'll need a hard-boiled egg again! (As we study God's earth, you are probably becoming an expert boiler of eggs!)

We are not, however, going to cut open our hard-boiled egg exactly as when we studied the earth's core. Instead this time we are going to CRACK it! Can you gently crack your hard-boiled egg on all sides? You are probably wondering why would we crack up our precious earthly home? Who ever thought of such a wild idea? You may be surprised who did!

A long time ago, in 1858, there was a geographer named Antonio Snider-Pellegrini who believed the truth that God created the world. Antonio Snider-Pellegrini read these words in the first chapter of the Bible, "And God said, let the waters under the heaven be gathered together into one place, and let the dry land appear: and it was so. And God called the dry land earth; and the gathering together of the waters called the Seas: and God saw that it was good" (Gen. 1:9-10). When Antonio read these words, he pictured in his mind all the dry land as one mass with the entire ocean surrounding this one landmass. He drew a picture of the world like this:



Do you see how Mr. Snider-Pellegrini puzzled together South America into Africa in his drawing of earth? And North America snuggles up into Europe? (Remember how we, too, wondered if the continents might fit together like the pieces of a giant puzzle?) Mr. Snider-Pellegrini wondered if that was how God first created the land in Genesis 1.

Then he drew a picture of the world as it is today: Now South America floats far away from Africa, separated by the fat s-shaped Atlantic Ocean. And North America lies five thousand kilometers (3,105 miles) away from Europe!

(By the way, this notion of a shifting, changing world is often attributed to another man, Mr. Alfred Wegner. But Mr. Wegner didn't write about the puzzle-piece continents until 1911. So really, the godly Mr. Snider-Pellegrini, wrote of it first as 1858 obviously comes before 1911!)

What happened to change our world so dramatically?

Like the cracked segments of your egg, geographers have come to believe that the earth's crust is made up of cracked up sections called "plates." (So it was God's idea to crack up our earth!) These plates, part of the earth's crust, are like giant rafts of solid rock riding on the earth's mantle.

When you look at the cracked shell of your egg, pretend you are looking at all of earth's crust. Some of earth's crust we can see: that is the continents rising up out of the waters. There is a part of the earth's crust that lies hidden: it is the deep, dark floor of the ocean. Both the earth's continents and its oceans, which together make up the earth's crust, ride on these moving, dancing plates.

Some plates are composed of only oceanic crust. Some plates are composed only of continental crust. Some plates, however, are composed of both oceanic crust and continental crust. So when you picture earth's dancing plates, imagine them as a solid rock shell which includes both dry land and the "land" underneath the oceans.

Looking at your egg, is the egg cracked all the way through to its center? Or is only the crust cracked? Earth's plates are like the shell of your egg. Like your cracked shell, the plates of the earth's cracked crust are only riding on the earth's mantle; the sections of crustal plates do not extend all the way down through earth's outer or inner core.



Why don't you trace along your earth's crust cracks with a marker? Where you have drawn lines on the cracks, that is called a boundary. A boundary is where something ends. Often times people put fences on boundaries to show where their land ends. Well, you've drawn on your egg the boundary lines between earth's crustal plates.



The fence marking the boundary line between you and your neighbor is probably very clear; it may be a hedge of trees or maybe a straight, wooden fence. The marker lines showing the boundaries between the cracked sections of your egg may be easily seen. Plate boundaries, however, are sometimes not so obvious. Plates may end in the middle of the ocean, not near land at all. In some parts of our earth, like near the many islands of Indonesia, it is impossible to even tell where exactly the plate boundaries are because there are too many small pieces involved!

Memory Joggers

Earth's plates do look like a puzzle! 1 Who was the first to write of the puzzle-piece continents and what brought him to this realization? 2 What are the different sections of the earth's cracked crust called and how might you describe them? 3 What are these plates composed of? 4 What do they ride on? 5 What can you tell me about plate boundaries?

Adventure Challenge 24

name _____

Short Answer

1. Psalm 147:15 tell us that God does what?

2. Matthew 8:27 says these do what?

3. Genesis 1:9–10 describes what?

4. Who was the man who discovered the answer to the puzzle of the earth's continents?

5. Which verses inspired his discovery?

6. Who is credited with discovering the puzzle-piece earth?

7. What are the cracked up sections of the earth's crust called? _____

8. Which part of the earth's crust is hidden? _____

9. Are all the plates made up of oceanic crust? _____

10. Are all the plates made up of continental crust? _____

Copywork

“[God] sends His command to the earth” (Ps. 147:15; NASB).

“The winds and sea obey Him” (Matt. 8:27).

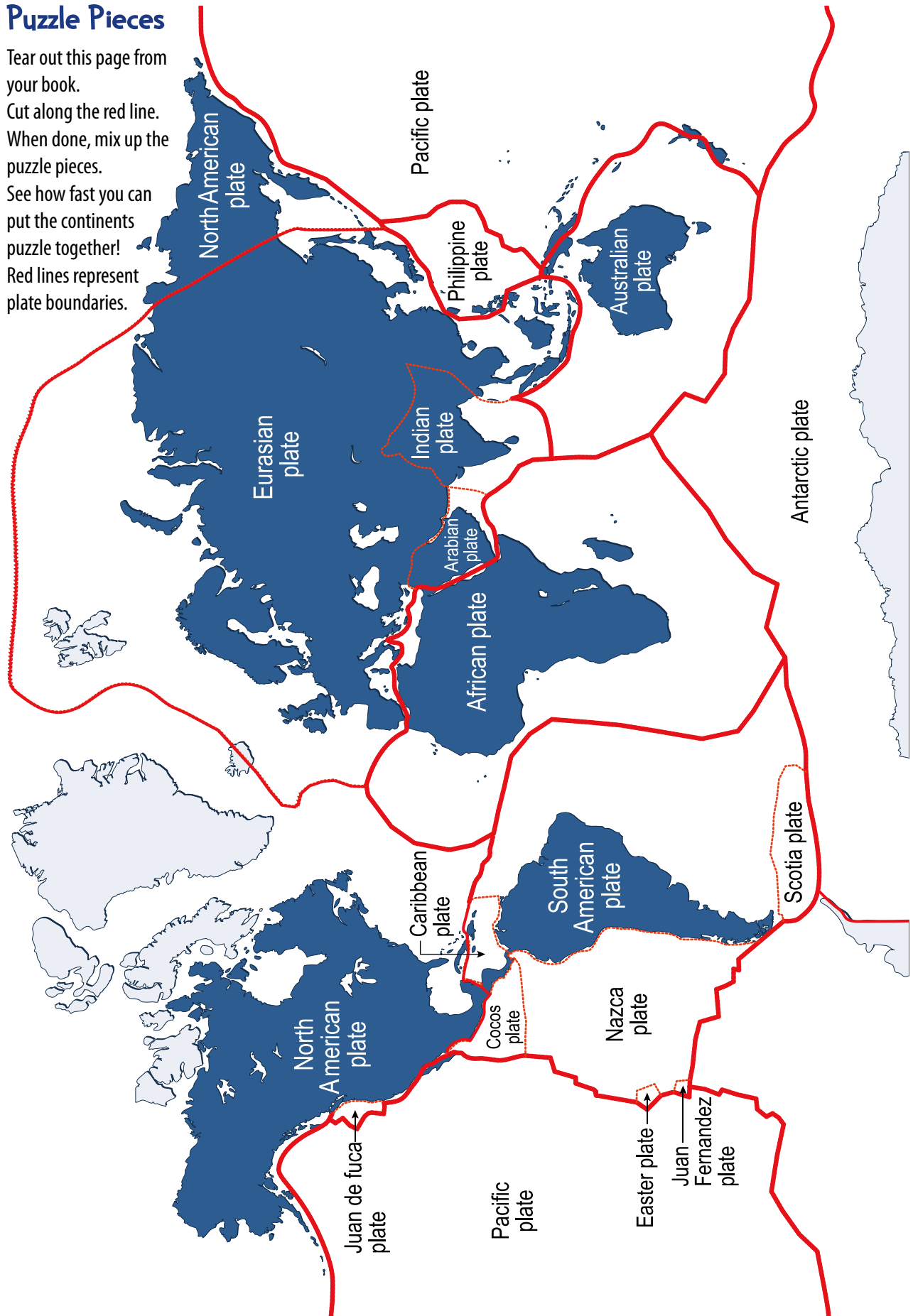


Continental Puzzle Muddle

The continents aren't one large mass anymore. Can you solve the puzzle on the next page?

Puzzle Pieces

Tear out this page from your book.
Cut along the red line.
When done, mix up the puzzle pieces.
See how fast you can put the continents puzzle together!
Red lines represent plate boundaries.



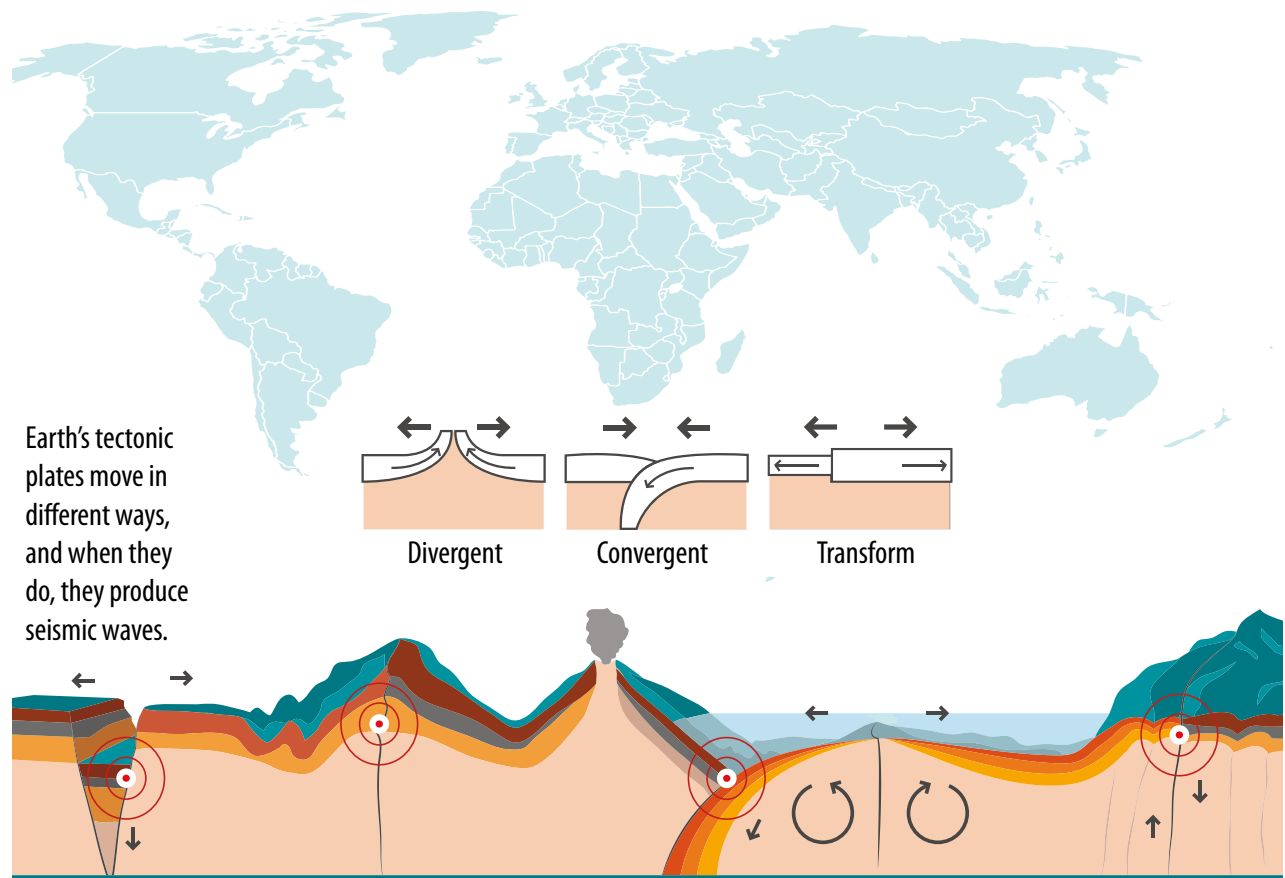
Blank to cut out puzzle.

→ Now gently squeeze your egg until some of your shell pieces slightly jiggle and dance about. Can you find any places on your egg where the eggshell has separated? The earth performs this dance where two of the plates on the earth's crust separate or move apart. Geographers refer to this as "divergent boundaries." Let's call this dance step "The Sea Floor Spread." (Divergent means to go in different directions, which is what the earth's crust is doing when it does "The Sea Floor Spread.")

Most of the separation of earth's plates is hidden deep under the floor of the ocean. As two plates separate and diverge, a rock called magma wells up between the two plates. Do you remember how the mantle section of the inside of our earth was like your toothpaste, a liquid solid? Magma is the name of that liquid rock in the earth's mantle. Magma is rock so hot that it runs like a liquid. This magma that oozes up between the two diverging plates then cools in the cold ocean water. As the magma cools, it solidifies into rock. This creates new earth crust on the ocean floor. When two plates perform "The Sea Floor Spread," diverging and separating, new crust is actually created on the earth!

Look at your egg. If new shell was created on your egg, that would mean you'd have more shell—but the size of your egg must still remain the same. What would happen to the old shell? Your egg can't grow bigger! It is a puzzler, isn't it?

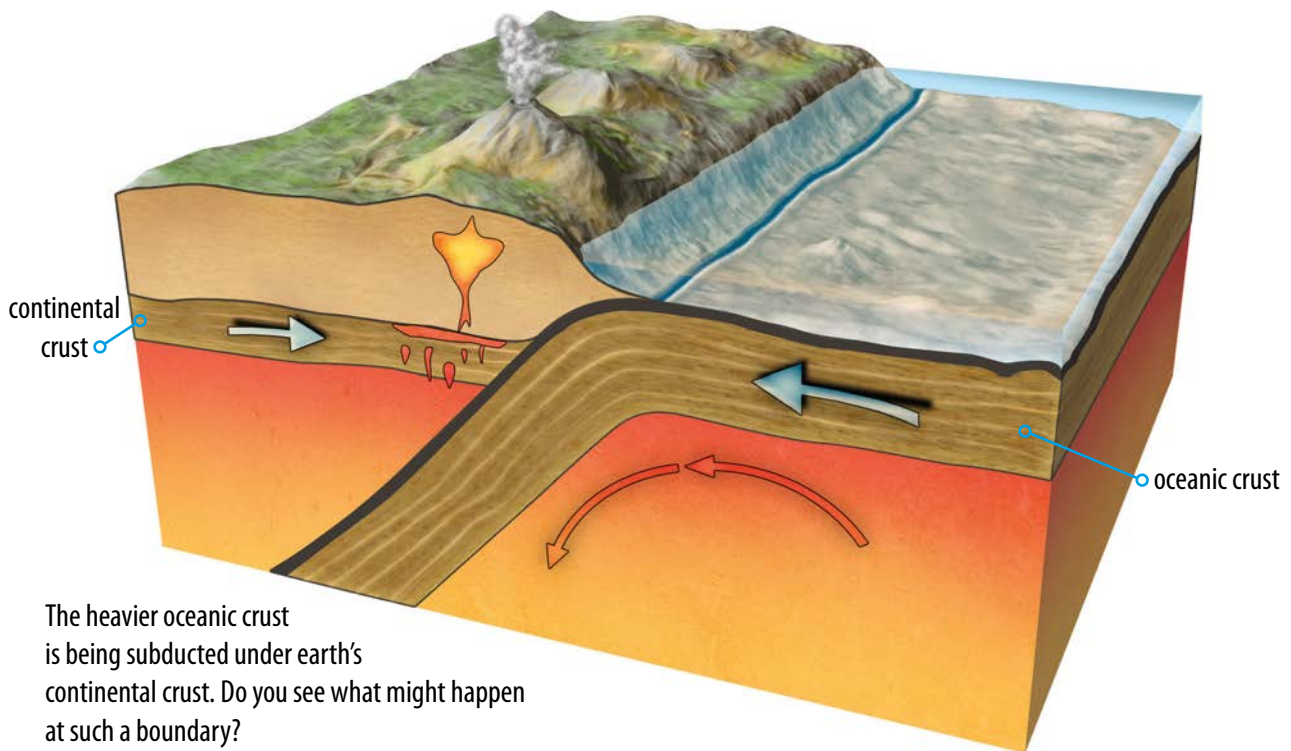
Similarly, new crust is being created on our earth when two plates dance "The Sea Floor Spread." But the size of our earth is not getting any bigger. What happens to keep our earth the same size? What happens to the old crust? Can you find places on your eggshell where two sections are colliding head on? Or one section is sliding under another? We could call this dance step of earth "The Continental Bend."



Where the plates of the earth's crust do "The Continental Bend," smashing into each other or sliding under each other, geographers call this a "convergent boundary." Convergent means to bend together. So along convergent boundaries, earth's old crust converges and bends, either upwards or downwards. As the earth's old crust performs "The Continental Bend," this makes room on the earth's surface for the creation of new crust. (Remember that new crust is being formed on the earth's surface where plates are diverging and separating as they do "The Sea Floor Spread.")

Memory Joggers

You've explored about earth's dance! 1 What can you describe about diverging plates? 2 What can you describe about converging plates? 3 How does "The Sea Floor Spread" and "The Continental Bend" dance together on the earth's crust?



Adventure Challenge 25

name _____

Missing Words

1. _____ means to go in different directions.
2. A rock that comes up between two moving plates is called _____.
3. New “crust” material is created by a process known as “The _____ Spread.”
4. The _____ is where two plates either crash into each other or slide under each other.

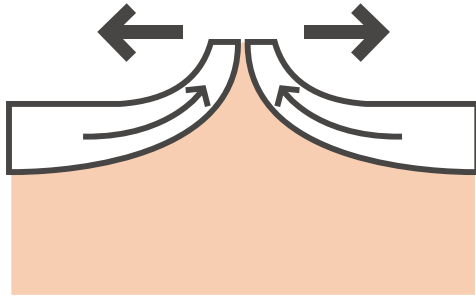
Short Answer

1. What happens when two plates of equal density collide?

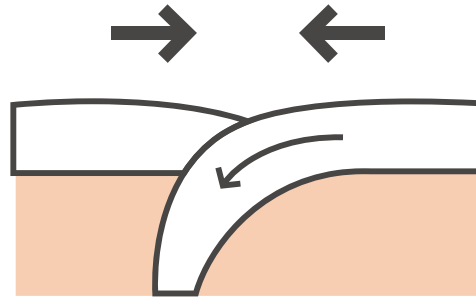
2. What is the process called when a heavier oceanic plate collides with a lighter continental plate?

3. What are two examples of the earth’s action with subduction?

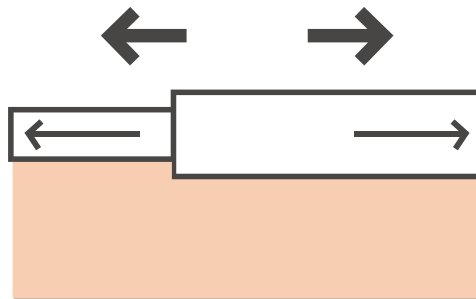
Label each type of geological boundary.



1. _____



2. _____



3. _____



→ I love to squish playdough between my fingers. Or mush two rolls of playdough together. Do you know what happens when I mush two rolls of playdough together? Something like mountains bend up, or converge, in the center!

Well, if two plates of the earth's crust collide, and the plates are very similar in heaviness or density, the earth's crust folds and crumples up into a mountain range! It is just like those playdough rolls converge into mountains when we mush them together!

Do you remember how we learned that earth's crust under the oceans is composed of denser rock than earth's crust under the continents? What happens if a heavier oceanic crust collides with the lighter continental plate? Then the oceanic crust will jerkily slip under the continental crust. This process is called "subduction"; one crustal plate is bending under another plate at a convergent boundary. Subduction is much like the conveyor belt at the grocery store that moves your groceries along. Imagine the ocean floor moving like that conveyor belt underneath the continental plate. Where there is subduction between the plates, there is a lot of action: earthquakes and volcanoes! "The Continental Bend" is certainly a dramatic earth dance step!



Did you find any areas on your eggshell where one cracked piece did not slide under another section but past a cracked piece? When one of the earth's plates slides and grinds past another plate, geographers call this a "transform boundary." How about we say that a transform boundary is earth's "Slippin' and Slidin'" dance step?

Have you ever tried to lay those two playdough rolls beside each other and make one slink and slide past the other? They don't move very smoothly past each other, do they? Rather, the two sections jerk and scrape along. The earth's plates may also act like that at transform boundaries. As two plates perform the "Slippin' and Slidin'" step past each other, what rocks our world is called an earthquake! (We'll set off on some earthquake and volcano adventures the next time we geographers meet!)

Memory Joggers

Why don't you take a moment and share with other geographers what you've learned!

❶ What happens at the boundaries of plates? ❷ What is a transform boundary? ❸ A convergent boundary? ❹ A divergent boundary? ❺ What is subduction? **Good for you!**



Adventure Challenge 26

name _____

Fill-in-the-Blank

1. The movement of the earth's plates is called _____.
2. The rapid movement of the ocean floor going beneath the continental plates is called _____.
3. Dr. John Baumgardner created a model like this for _____.
4. The steam which was believed to have occurred as part of this model created _____ when it rose to the cooler atmosphere.
5. The sinking ocean floor in Dr. Baumgardner's model could have created ocean _____ for the waters to retreat in as the Flood ended.

Create It!

Create a drawing, playdough model, or comic strip that shows an earthquake or volcano in process! Be sure to show the impact these events can have on buildings, people, or on the surrounding landscape.

Playing Plate Playdough

Materials needed:	Make your own “Best Playdough Ever”
<input type="checkbox"/> Playdough (or two pieces of foam rubber — whichever is most conveniently available for you)	<ol style="list-style-type: none">1. Combine in saucepan: 1 cup flour, 1/4 cup salt, 1 tsp. cream of tartar2. Add and whisk until smooth: 1 cup water, 1 Tbsp. oil, food coloring3. Cook over medium heat until playdough is nearly set.4. Add: 1 Tbsp. imitation vanilla extract5. Stir until vanilla is blended then remove and knead when cool. Store in plastic zipper bag or airtight container.

Ready to go? Let's head out!

1. Take two chunks of playdough and roll both into fat log shapes. Now imagine that each piece is one of earth's plates, forming the crust.
2. Press the two pieces together. What happens when the “plates” converge? (Do you remember what we called this “step”?) Imagine what it was like during the Flood when God created some extraordinarily magnificent mountains when two plates converged!
3. Now place two pieces of playdough together and slowly move them apart. How does earth's surface change when plates “diverge”? (What did we call this “step”?)
4. Roll your playdough out into another two pieces. Place the two sections together so that their sides touch. Then move the playdough pieces slowly apart in opposite directions. What happens at plate transform boundaries? (Do you recall what we named this “step”?)
5. Now, why don't you take all your playdough and create your own model of earth after the Flood? Create some high mountains, some low sea valleys — and while you mold your model, sing praises to God for this glorious globe He created as our home!



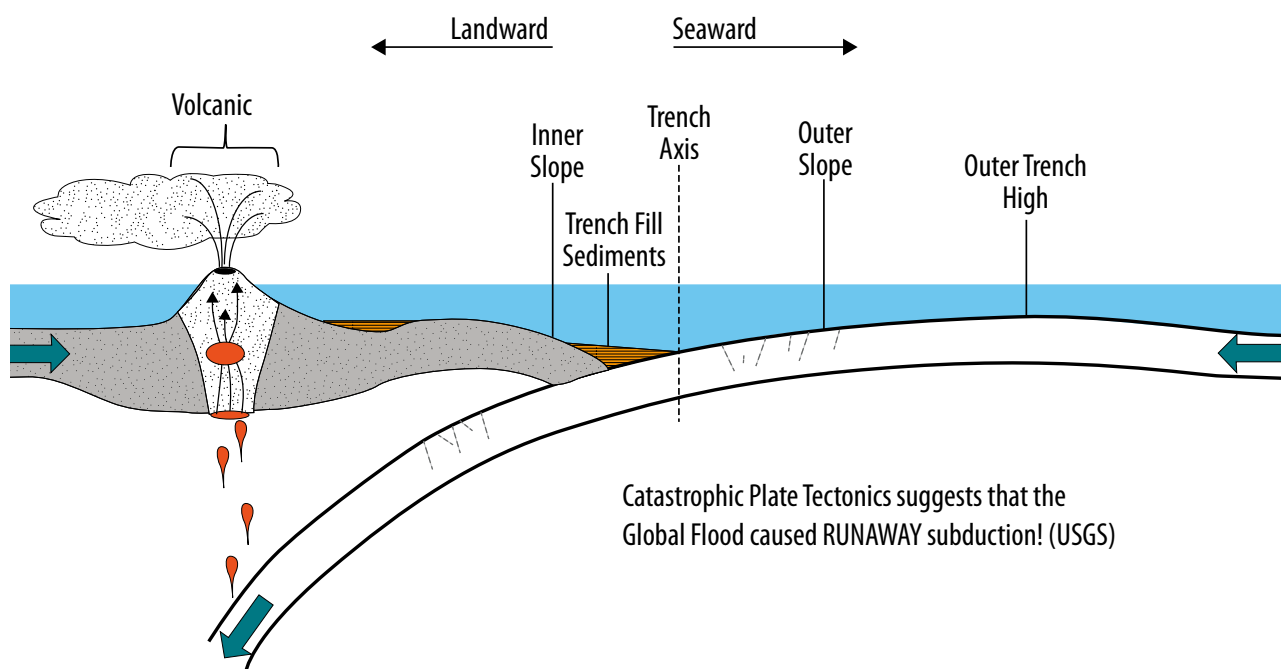
→ Now did you notice where all the great action of earth's dance happens? Yes, the action occurs on the edges of the plates, doesn't it? Nothing happens in the center of the plates, but on the boundaries of the plates, where one plate meets another plate! This movement is called plate tectonics. "Plate" refers to slabs or rafts of the earth's crust, and "tectonics" comes from the Greek word "to build." The idea then of plate tectonics is to explain how the earth was built. But we know how the earth was built. By the very Word of God's mouth (Genesis 1). So what did all the colliding and scraping of earth's plate build?

All these collisions, explosions, and scraping remind me of two demolished cars I once saw. The vehicles were mangled messes of crushed metal. I had wondered how they ended up looking like that! Do you think the cars crept ahead bit by bit, inching very, very slowly into each other? Then, after a couple of weeks of slowly crawling into each other, the hoods of the cars finally rippled like a mountain range and the engines spewed smoke like volcanoes?! Don't you think it was more likely that the cars were careening at fast speeds, slamming head on into each other? How long then would it take to ripple the car hoods into mountains? About as fast as you can blink your eyes!

Some geographers believe that the earth's plates have been moving as slowly as those two cars crawling into each other at hardly-moving speeds, just a few inches every year, for millions and millions of years. Thus they believe it took millions of years to create mountain ranges or to spread the continents apart.

But other geographers, like Mr. Snider-Pellegrini, think that something catastrophic and fast happened, more like the high-speed car crash! Something like a world-wide, stupendous flood!

One of the most respected geophysicists in the world, Dr. John Baumgardner, has presented a model that shows how God could have moved the earth's continents through the Global Flood of Noah's time. Dr. Baumgardner believes that the heavy ocean floor began to sink into the softer earth below. (Do you remember the section of the interior of earth called the mantle?) Then the ocean





Silfra Hall between two tectonic plates in national park Thingvellir Iceland; the site features clear water and colorful stones, volcanic lava formations, and serves as a popular snorkeling and diving site.

floor began to slide very quickly underneath the continents. Do you recall how the conveyor belt at the grocery store slides along? Imagine the ocean floor moving along like a grocery store conveyor belt on HIGH SPEED! It is thought that the ocean floor slid very quickly — about 3 ft. per second — underneath the continental plate. This is called runaway subduction! Think of it as earth's dance step of "The Continental Bend" in very, VERY fast motion!

The high-speed conveyor-belt action of the ocean floor slipping under the continents would have caused tremendous movement in the depths of earth. These movements are thought to have ripped apart the ocean floor and the one supercontinent of Genesis 1.

Along the splits in the ocean floor Dr. Baumgardner believes that hot material, magma, from the inside of the earth's mantle came bubbling up into the ocean water. (Do you remember what this step is called? Yes! "The Sea-Floor Spread"!) Can you imagine the great clouds of steam that would have erupted? Perhaps these are the "great fountains of the deep" of Gen. 7:11? This steam then rose into the cooler atmosphere, causing enormous clouds to rain water down upon earth, enough rain for 40 days and 40 nights!

As the ocean floor sank deeper into the earth's mantle, it would become hotter. As the ocean floor became hotter, it would become less heavy. This new ocean floor would then begin to rise up. If the ocean rose higher, what would happen? Yes, you can see it, can't you? The oceans would flood all the continents of the whole world! That certainly would cause the world-wide Flood of Noah's time, wouldn't it?

The crust of the earth would have now been torn up into those huge puzzle-shape plates. The high-speed crashes of the crustal plates would have rammed up mountains. (That would be the step of "The Continental Bend.") As the new ocean floor began to cool at the end of the Flood, it would get heavier and sink again. Dr. Baumgardner suggests that this sinking ocean floor would create deep ocean hollows to receive the waters retreating from the Flood.



Doesn't this all sound like Psalm 104:8 (NASB) where the Bible says, "The mountains rose; the valleys sank down"?

Have you ever read these words on a cereal box, "Some settling will occur"? This means that as the cereal box has traveled to your grocery store, the cereal has shifted around and settled down in the bag. Well, you could stamp the same label on our earth: "Some settling will occur." Most of the catastrophic movement of the earth's plates occurred at the time of the Global Flood. Any movement between plates now (1-5 inches [2.5-12.5 cm] per year) is just really the plates still settling after the catastrophic Flood!

How was our earth home "built" to look like it does today? The earth may not at all have been "built" with slow-moving plate tectonics. But,



perhaps, God used the catastrophic plate tectonics of the Flood to build up the majestic mountains and lush valleys of our earth.

Think of the Flood as the twirling, swirling, sliding, bending, spreading, shaking, MAGNIFICENT square dance...and any movement of the earth's plates now is simply the plates sighing and heaving after the great dance!

Are you sighing and heaving after all of our shaking and sliding? Together, we've just learned the dance of earth's plates—"The Sea-floor Spread," "The Continental Bend" and "Slippin' and Slidin'." Doesn't God call earth to perform in breath-taking ways?

So, "come, let us sing for joy to the Lord...

In whose hands are the depths of the earth, and the peaks of the mountains are His also. The sea is His, for it was He who made it,

And his Hands formed the dry land...

Sing to the Lord all the earth!"

(Ps. 95-96)

Memory Joggers

❶ *What are plate tectonics?* ❷ *What are the two different ideas for the movement of plates creating mountains?* ❸ *What is runaway subduction?* ❹ *Can you explain how the worldwide Flood would have happened after the ocean floor was heated when it sank deeper into the earth's mantle?*

Doing Earth's Dance!

Earth is doing its dance, and God is calling forth the steps! Are you ready for some singing and praise stepping of your own?

Materials needed: Music — choose your favorite song to dance to — and a duo of geographers

Ready to go? Let's head out!

1. Find a fellow geographer to be your partner. Face each other and hold hands. Now take several steps backwards at the same time. Whoooa! What happened? Did you just let go of each other's hands? Well, you've just danced "The Sea-Floor Spread" that happens at divergent plates, when two plates rip apart!
2. Look at the space between you and your partner. Imagine it being filled with magma. Ta-da! That's new crust just being formed on earth's surface (and where a volcano or earthquake could surprise . . . so you can rumble if you'd like!).



Ready for our next dancing plate step?

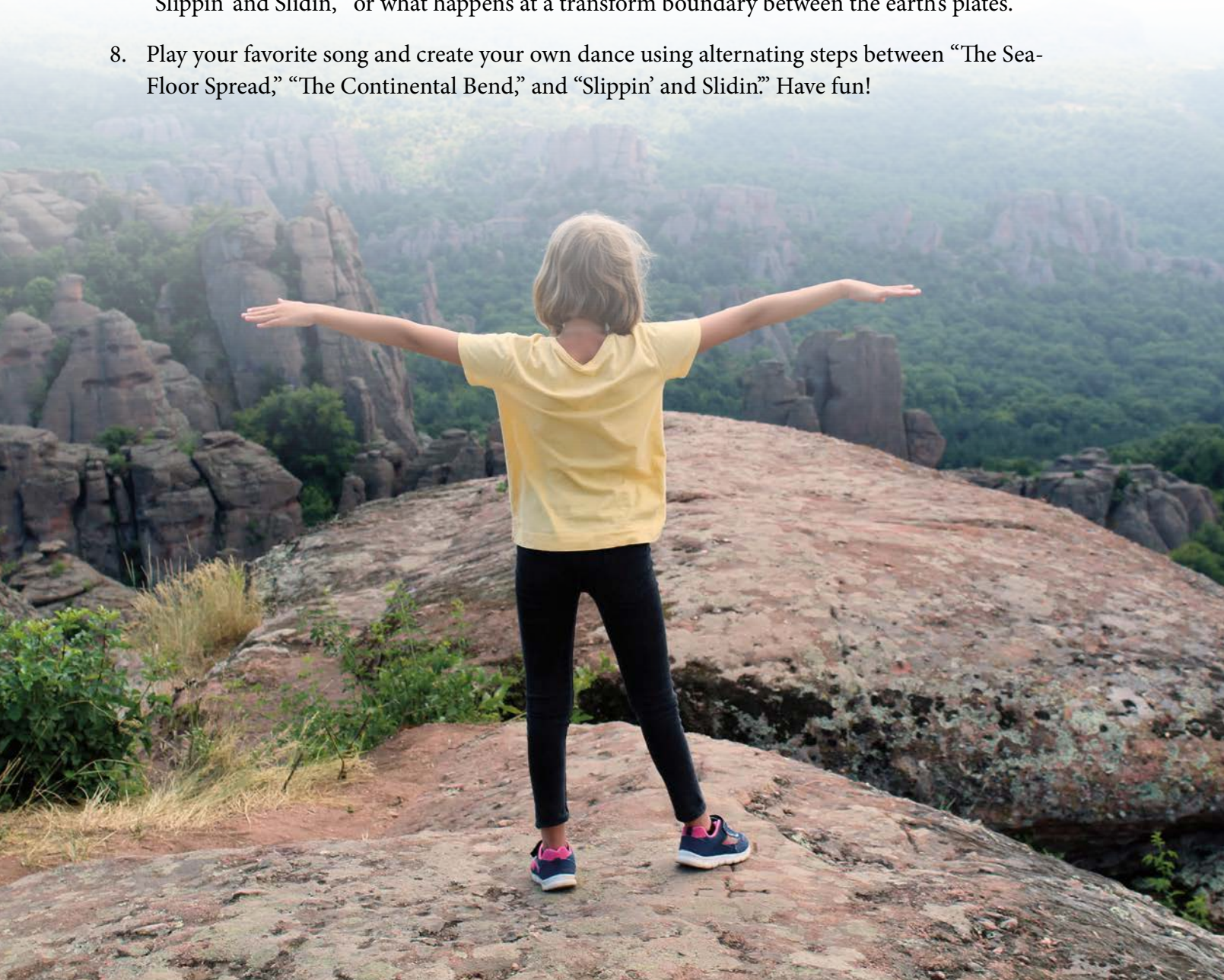
3. Face your geographer partner. Stand a few feet apart with arms stretched straight out. Reach out and touch each other's fingertips. Now, walk toward each other. Whoooa again! What happened? Did your hands and arms bend? You just performed "The Continental Bend," which is involved in the bending and crumpling up of mountains between convergent boundaries. (Earthquakes can happen here, so shake and rattle!)
4. But maybe you or your partner had to let his or her arms slide beneath the arms of the other? You've still performed "The Continental Bend," but you've done the subduction move where one plate slides over and one plate slides under the other! It is still a convergent boundary, but the bending happens under instead of up!
5. If you've just done the subduction version of "The Continental Bend," maybe you now want to roar and explode like a volcano. Volcanoes can occur both at a converging or diverging



plate boundary, so remember to rumble when doing either “The Sea-Floor Spread” or “The Continental Bend.” An earthquake can happen during any of the plate’s movements, so shake whenever!

Ready for our last plate dance step?

6. Face your fellow geographer. Both of you now place your hands palm to palm at waist level. Now slide one hand forward in a smooth, gentle motion. When plates are side by side each other, but there is no pressure, the movement is just like your hand movement — slow and steady.
7. Now press your hands firmly together and try to slide one hand up beyond the other hand. Whooooa, again! What happened? Did your hand move forward in jerky motions? If pressure builds between the plates, the movement of earth’s plates results in earthquakes. The longer the pressure builds, the bigger the earthquake. So really shake and rattle! You’ve just performed “Slippin’ and Slidin,” or what happens at a transform boundary between the earth’s plates.
8. Play your favorite song and create your own dance using alternating steps between “The Sea-Floor Spread,” “The Continental Bend,” and “Slippin’ and Slidin.” Have fun!



Reaching Out to His World



Do you remember the fellow that first wrote of the shifting plates of earth, Mr. Antonio Snider-Pellegrini? From where did Mr. Pellegrini understand the idea of plate tectonics to come? Yes, from the very first chapter of the Bible, Genesis 1.

The Bible is our very word and truth from the Creator of our world Himself, God. He alone knows how the world was built. For He was there and He did it. And we believe Him! But many people do not believe what God says.

What can you do to reach out to people who live around you who don't know how everything in our world points to the truth of our Creator God?

🌍 Your family could throw a Creation Party! Every year on the March Equinox (Do you remember where earth is in its rotation around the sun on the March Equinox?), people the world over celebrate “Earth Day”— and you could join in with your own Creation Party! Invite some neighborhood kids over, have a slice of an earth cake (or mud pie) and a drink. Show a creation video that gives glory to God as the builder of earth, as the Creator who has pushed up the mountains and hollowed out the oceans. Let your community know in an exciting way that God shifted the plates of our earth around in a very dramatic way during the global Flood, not inches per year over millions of years.



🌍 Why don't you pray for godly geographers and scientists right now—that they might courageously proclaim the truth of our creation and its Creator, that they might be bold like Mr. Snider-Pellegrini and uphold every page of the Bible as truth so that people everywhere might praise our Creator the glory due His name.



🌐 Talk to your parent about supporting creation ministries like Answers in Genesis, that believes everything the Bible says, “right from the very first verse.” Subscribe to their *Answers Magazine* or read it online. They have articles written specifically for young creationists — check out their “Answers for Kids” section—and then you’ll have creation answers for the children in your own community! Other organizations include the Institute for Creation Research and the Creation Research Society.



Inside Answers in Genesis’ popular Ark Encounter



The tree of life as shown in the Creation Museum