## Purale 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, wideeyed 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? (2) 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 $\qquad$

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

$\rightarrow$ 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 hoofed 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 wideeyed 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 Uluhru 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 Uluhru 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! © What does the name "Africa" mean? 2 What does the name "Australia" mean? © What picture do you have in your mind when you think of Europe, Asia, Africa and Australia?

## Adventure Challenge IO

name $\qquad$

## 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.

$\rightarrow$ 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 ( $1,600 \mathrm{~km}$ ) 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 $(1,600 \mathrm{~km})$ 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! © What makes night and day for us on earth? © How fast is the earth spinning? ©hat would happen if God had not spun our world so perfectly?
$\rightarrow$ 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

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

(1) How did North and South America come to be named? (2) What do North and South America share in common?

## Adventure Challenge II

name $\qquad$
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.


## 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? $\qquad$
2. If the time in London, England is 12:00 p.m., what time is it in Denver, CO? $\qquad$
3. If the time in London, England is 12:00 p.m., what time it is in Tokyo, Japan? $\qquad$
4. If the time in London, England is 12:00 p.m., what time is it in Vancouver, Canada? $\qquad$
5. If the time in Perth, Australia is 8 p.m., what time is it in Sydney, Australia? $\qquad$


## Optional Research Project

Amerigo Vespucci sounded like a very interesting person, didn't he? Dig up some information (with a parent's permission) about Amerigo at your local library or online and write 1-2 paragraphs using some of the most interesting information you found. (Note to teacher: You may want to pre-screen materials or websites for the student to use.)
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$\qquad$
$\rightarrow$ 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."


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 -35 C ) But the penguins, seals, and whales like it!

## Memory ${ }^{\circ}$ Joggers

Put in your own words what you've just discovered! © How is earth divided? © What continents are in the Eastern Hemisphere? © What continents are in the Western Hemisphere? © What divides the Northern Hemisphere from the Southern Hemisphere? © Tell me what you remember about Antarctica!
name $\qquad$

## 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.

$\rightarrow$ 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!

## 

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


## Adventure Challenge I3

name $\qquad$

## 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? $\qquad$

word bank
Africa
Amerigo Vespucci
Antarctica
Asia
Australia
Eastern Hemisphere
equator
Europe
hemisphere
North America
$\square$ Northern Hemisphere
South America
Southern Hemisphere
Western Hemisphere
2. We are like puzzle pieces of dry land that make up the "rooms" of earth. What are we? $\qquad$
3. I am the smallest continent on earth. My name means "southern wind." Who am I?
4. I am the half of the world containing Australia, Asia, Europe, and Africa. Who am I?
5. My brother may have some remarkable waters, but I have the world's mightiest river, the Amazon! Who am I? $\qquad$
6. My name is a Latin word that means "half ball." What am I? $\qquad$
7. I discovered two continents that are now named after me, though I called them the "New World." Who am I? $\qquad$
8. I am the half of the world below the equator; at my peak lies the South Pole. Who am I?
9. I am named after a Phoenician Princess in a mythical Greek story. Who am I? $\qquad$
10. I divide the planet exactly in half. It's also really hot here! Who am I? $\qquad$
11. I am the half of the world above the equator, with the North Pole at my peak. Who am I?
12. My name comes from the Greek word arktos because I lie opposite the bear in the stars. Who am I? $\qquad$

## 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 got lost again!

Materials needed:
Suitable snack treat (a box of raisins, fruit, a bag of nuts, wrapped goodie - whatever your preference)
$\square$ A yard, park, or large room
$\square$ 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?



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.
(3) 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.
(3) 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 Słory 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.

