

SPELLING LIST

SIXTH GRADE

equatorial

climactic

horizontal

vertical

vegetation

temperate

barometer

phenomena

precipitation

monsoon

current

currency

economy

manufacturing

territory

SCIENTISTS

ARCHIMEDES

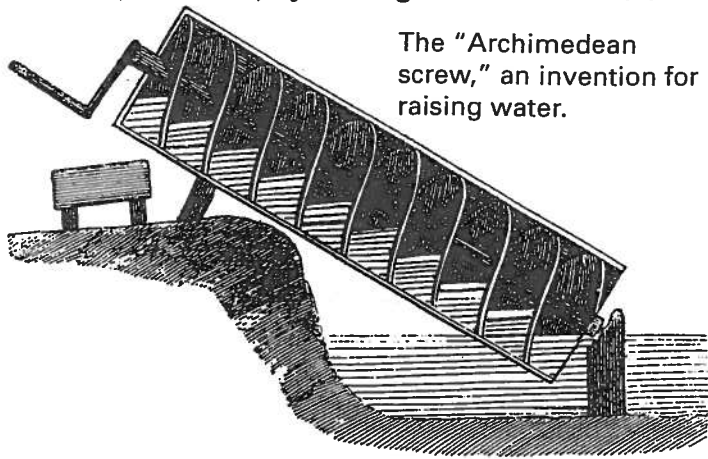
about 287–212 BC

Greek scientist and inventor

Archimedes lived in Syracuse in Sicily. He was famous as a mathematics teacher and inventor. He was particularly interested in what scientists now call mechanics: the study of how things move. He invented the “Archimedean screw,” a way of raising water from one level to another by turning a large screw inside a hollow tube. It was originally used for bailing water from ships, but is more often used in irrigation and drainage machines.

Archimedes’s best-known discovery is called “Archimedes’s principle.” It says that if an object is put into a fluid (a liquid or gas), it appears to lose an amount of weight equal to the weight of fluid displaced. He is said to have worked this out in the bathtub, while wondering how to find out if the gold in the king’s crown was pure or mixed with cheaper, lighter metals. He realized that if the crown was pure gold, it would displace the same amount of water as a lump of gold that weighed the same. If it contained a mixture of lighter metals, it would displace more water. He was so excited about his discovery that he leaped out of the bath, shouting “Eureka” (“I’ve found it”), and ran off to tell the king.

When the Romans invaded Syracuse in 212 BC, Archimedes helped his city by inventing defense machines such as boulder-hurling catapults and even, it is said, by setting fire to the sails of the



The “Archimedean screw,” an invention for raising water.

Roman ships by focusing the sun’s rays through a series of mirrors. In spite of this, the Romans captured the city. A Roman soldier saw Archimedes drawing diagrams in the sand of the marketplace, trying to work out what had gone wrong. Thinking that the circles and triangles he saw were battle plans, the soldier took Archimedes for a spy and killed him.

BANTING, Frederick Grant

1891–1941

Canadian scientist

Banting was part of a team of scientists who discovered insulin, the hormone that controls the amount of sugar in the blood stream. This discovery led to the treatment of diabetes. Without a daily dose of insulin, diabetics (people unable to control their own blood-sugar levels) would die.

Banting received the 1923 Nobel Prize for medicine for this discovery. He was born in Ontario and served in the Canadian Army during both world wars.

Canadian scientist
Frederick Grant Banting
won a Nobel Prize for
his work on insulin.



BOYLE, Robert

1627–91

Irish scientist

Until Boyle’s time, most scientists still agreed with medieval alchemists that everything in existence was made up of four elements: earth, air, fire,

and water. Boyle's book, *The Sceptical Chemist*, changed all that. He showed that matter consists of compounds and mixtures made of many dozens of elements (over 100 are now known). If the balance of the elements in a mixture or compound is changed, a different substance is produced.

Boyle also researched sound waves and air pressure. He is remembered today for "Boyle's Law," which says that at constant temperature the volume of a gas decreases as the amount of pressure increases.

BURBANK, Luther

1849-1926
U.S. scientist

Burbank was a horticulturist, an expert in preparing and using land to grow fruits, vegetables, flowers, and other plants. He was born in Lancaster, Massachusetts, but made his reputation in California. Burbank used scientific methods to breed plants that would produce better crops, be more tolerant of bad weather, and have greater resistance to disease. His greatest successes were with potatoes, tomatoes, and such soft fruits as strawberries, plums, and peaches. He developed the nectarine, a variety of smooth-skinned peach. He also developed the white blackberry and the Shasta daisy. The town of Burbank, north of Los Angeles, is named after him.

CARVER, George Washington

1864-1943
U.S. agricultural chemist and researcher

Carver became known worldwide for his agricultural research and for his efforts to help farmers in the South. Born a slave, he was orphaned soon after his birth. He was raised by Moses and Susan Carver, who had been his owners until slavery was abolished in 1865. They taught him to read and write, and later he attended a school for black children. He earned both a bachelor's and master's degree at college, and in 1896 he became head of the agricultural department at Tuskegee Institute (now Tuskegee University), a black agricultural school in Alabama. His work on soil conservation and other ways to improve crop production was very important. Farmers in the South had been raising mostly cotton, which had worn out the soil. Carver told farmers about other crops they could raise and how these crops could be used. He developed many products from sweet potatoes, soy-

beans, and cotton waste. He also found more than 300 different uses for peanuts. He received many prizes and awards for his work. He lectured about the uses of peanuts all around the United States. He even spoke to Congress about peanuts in 1921.

Improving relations between black and white people was another of Carver's interests. He worked to help the races get along better with each other.

Three years before Carver died, he gave his entire life savings of \$33,000 to Tuskegee Institute to establish a foundation for agricultural research. After his death, the farm where he was born became a national monument.

CAVENDISH, Henry

1731-1810
English scientist

Cavendish was the youngest son of a well-to-do family. He inherited a fortune, which he spent on scientific research of electricity, chemistry, and heat.

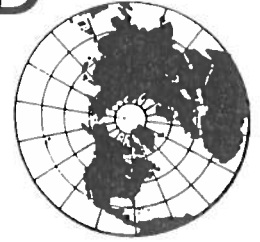
He also did research into gases. By treating metal with acids, he succeeded in identifying the element hydrogen. He also proved that water is made up of hydrogen and oxygen. Cavendish experimented with the effects of electric sparks on gases.

Born in Nice, France, Cavendish lived in London. He gave money for scientific research, especially to Cambridge University, which named the Cavendish Laboratory after him. It later became one of the most famous research laboratories in the world.

Henry Cavendish was able to devote his life to scientific investigations, thanks to a fortune he inherited from his uncle.



EDNITU TSETAS & NAACAD



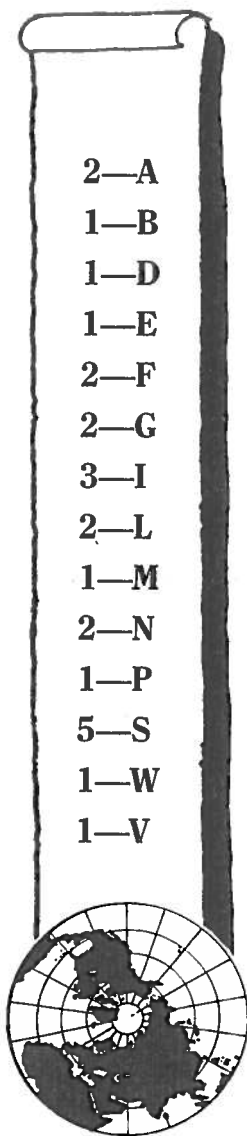
These travelers from Europe are pretty mixed up about where they are on their tour of the United States and Canada. As you can see, even the names of their destinations are scrambled! Use the clue to help unscramble each geographic feature of the U.S. or Canada. Tell where they are if they find themselves . . .

- | | | |
|-----------------------------|-----------|---|
| NHUOSD | 1. _____ | . . . fishing in a large bay in northern Canada |
| NLEWCTERAS | 2. _____ | . . . canoeing on a river which separates New York from Ontario |
| RKYCO | 3. _____ | . . . hiking in a major western mountain range |
| SSIPPISSIMI-ISRISOMU | 4. _____ | . . . rafting down the longest river in North America |
| PEROIRUS | 5. _____ | . . . swimming in the largest of the Great Lakes |
| ACICRT | 6. _____ | . . . sailing on the ocean north of Canada |
| LAKASA | 7. _____ | . . . taking pictures of grizzlies in the state bordering the Bering |
| LGEFOCXOIMFU | 8. _____ | . . . snorkeling in the major body of water separating Florida from Texas |
| HACPPINAALA | 9. _____ | . . . getting poison ivy in the mountain range running from Alabama to the New England states |
| EANUAILT | 10. _____ | . . . kayaking around the islands of Alaska that extend toward Asia |
| LEYLHAVTDAE | 11. _____ | . . . getting sunburned in the lowest spot in the United States |
| RNAAAGI | 12. _____ | . . . on a boat beneath a waterfall shared by U.S. and Canada |
| BOIUAMCL | 13. _____ | . . . looking for Bigfoot near the river border between Washington and Oregon |
| BEQCUE | 14. _____ | . . . calling home from the Canadian province that stretches farthest north |
| CAINGIHM | 15. _____ | . . . skiing in the state divided into two sections by Lake Michigan |
| IORAANZ | 16. _____ | . . . standing on the edge of the Grand Canyon in this state |
| LRAFIOD | 17. _____ | . . . at a dolphin show in the state that extends the farthest south |
| IWAHA | 18. _____ | . . . lying on a beach in the island state |
| RGIEDNARO | 19. _____ | . . . flying over the river separating U.S. from Mexico |
| KECNIZEMA | 20. _____ | . . . snowshoeing along a major river in the Northwest Territory |

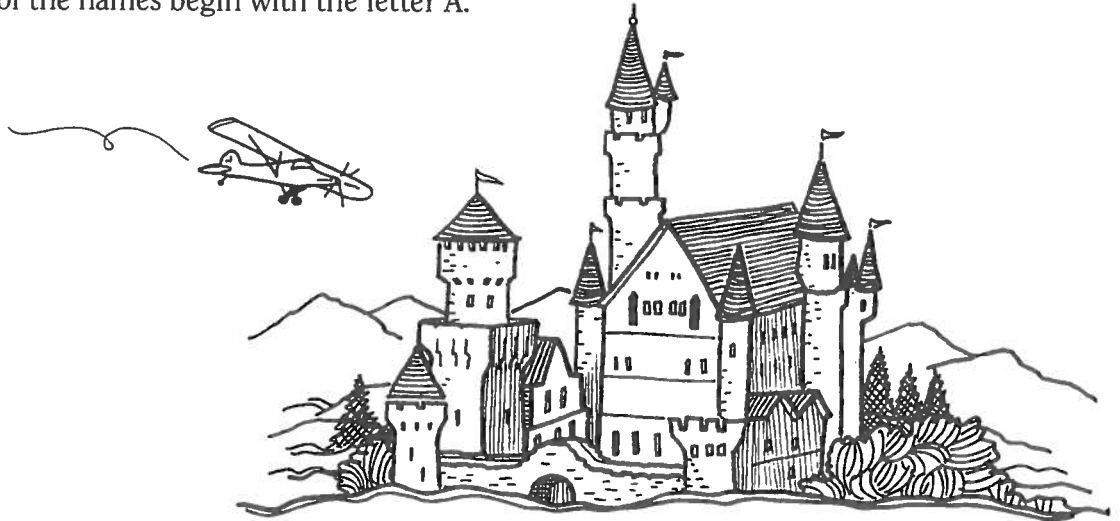
Name _____

WINDING THROUGH WESTERN EUROPE

Finding your way around one of the thousands of castles in Western Europe is like wandering through a maze. Hidden in this maze are the names of 25 western European countries or political entities. These include 3 small principalities, 3 political divisions of the United Kingdom, and 1 independent state which is the tiniest country in the world. Some names are found as you read from left to right. Others are in reverse or located vertically. Your task is to find each and circle the letters that make up the name of the country. The scroll below provides hints by giving you the first letter of each of the 25 names you are searching for. For example, two of the names begin with the letter A.



2—A
1—B
1—D
1—E
2—F
2—G
3—I
2—L
1—M
2—N
1—P
5—S
1—W
1—V



S	W	E	D	E	N	G	L	A	N	D	F	N	G	P
A	D	E	N	M	A	R	K	J	V	G	I	O	N	V
M	O	N	A	C	O	U	M	L	A	E	N	R	E	W
G	D	N	A	L	T	O	C	S	T	R	L	W	J	A
M	U	I	G	L	E	B	F	S	I	M	A	A	H	A
P	O	I	E	F	R	M	N	A	C	A	N	Y	U	N
O	H	N	E	T	H	E	R	L	A	N	D	S	H	D
R	C	Z	F	W	T	X	Z	I	N	Y	T	E	P	O
T	A	I	H	H	A	U	Q	T	C	R	J	E	S	R
U	J	R	C	Q	Y	L	A	T	I	E	Q	C	P	R
G	R	E	E	C	E	U	E	A	T	W	L	N	A	A
A	I	L	W	D	J	G	L	S	Y	L	S	A	I	Z
L	S	A	N	M	A	R	I	N	O	I	E	R	N	L
G	G	N	T	W	E	Z	F	R	P	P	G	F	M	D
T	Z	D	E	O	V	H	U	X	N	D	T	J	E	Q

Name _____

FROM THE BALTIC TO THE PACIFIC

It's the largest country in the world—almost twice the size of China or the United States, covering much of Eastern Europe and most of Northern Asia. Russia covers over 6 million square miles. This giant landmass stretches from Eastern Europe to the Asian Pacific Coast.

Russia and its surrounding neighbors, formerly known as USSR (Soviet Union), were governed by a central committee located in Moscow. After the breakup of the Soviet Union, constant changes occurred in political boundaries within this region. At this time, there are fifteen independent republics as well as Russia. Even after the breakup, Russia is still the the largest country in the world. Even though political boundaries remain in flux, natural features remain the same.

Use the physical map of Russia on the next page (page 21) and a current atlas to complete the following tasks and questions.

1. _____ Mountains separate European Russia from Asian Russia.
2. Trace over all of the rivers on the map in blue, and pay attention to their names.
3. Color the Cherskiy Mountains in purple; the Ural Mountains in dark green; the Caucasus Mountains in red; the Pamir Mountains in brown; the Altai Mountains in yellow; the Verkhoyansk Mountains in orange; the Sayan Mountains in light green; the Baikal Mountains in light blue; the Yablonovoy Mountains in light brown; and the Stanovoy Mountains in dark purple.
4. Locate and color the desert areas, Karakum and Kyzyl Kum, in light yellow.
5. The Kuril Islands are located in the southeast of this region. Locate and label them.
6. Two mountain peaks are labeled: Mount Elbrus in the _____ Mountains and Communism Peak in the _____ Mountains.
7. In addition to the oceans and seas labeled on the map, can you locate and label the following?

Barents Sea	Laptev Sea	Tatar Strait
Gulf of Anadyr	Gulf of Finland	Sea of Japan
East Siberian Sea	Chukchi Sea	Kara Sea



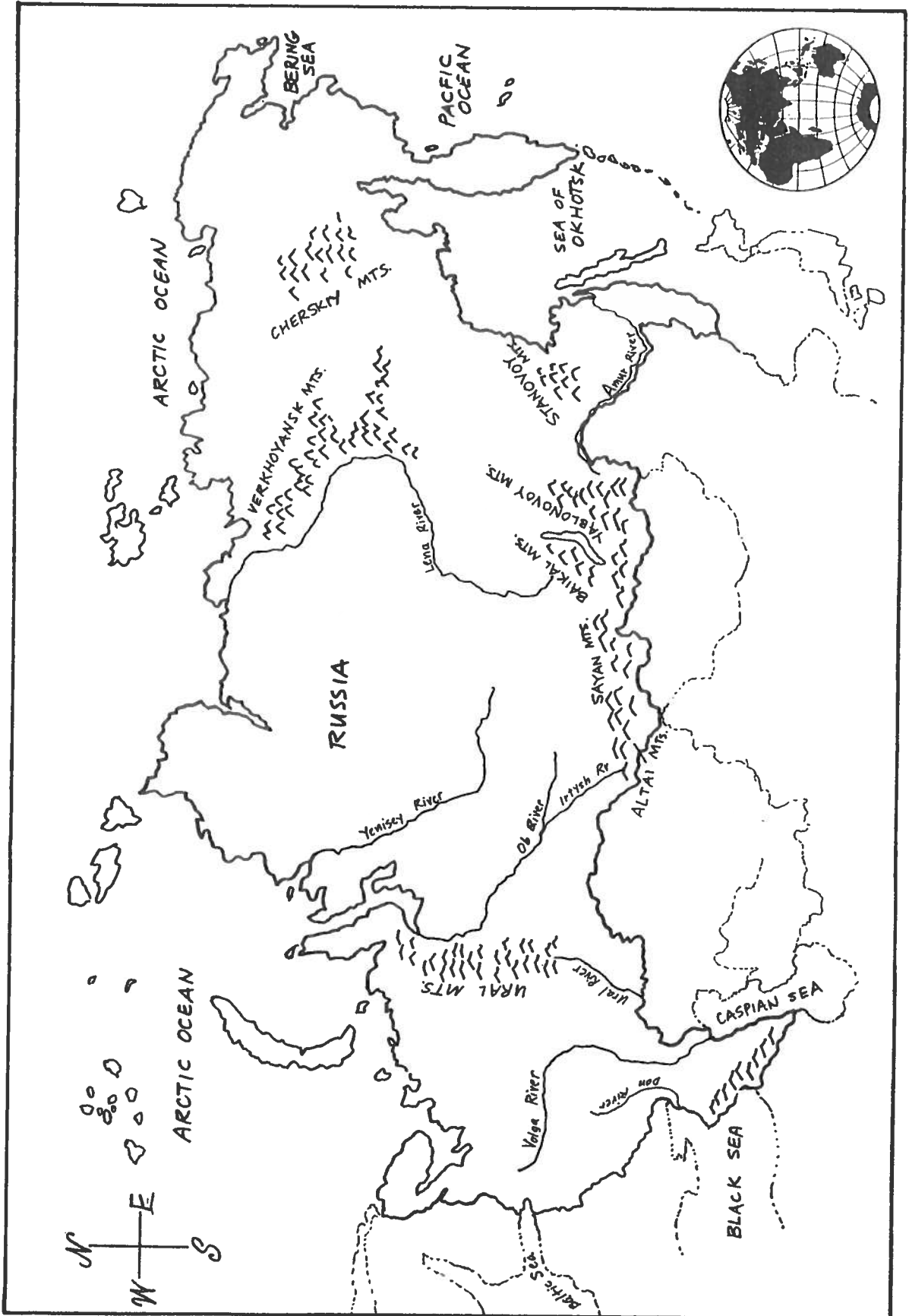
8. Find the Klyuchevskaya Volcano and the Kamchatka Peninsula where it is located. Label them both.
9. Place Moscow on the map in its proper location.
10. Name 3 countries that border Russia on the south. _____
11. Name 4 countries that border Russia on the west. _____
12. Find out how wide Russia is from east to west. _____

Use with page 21.

Name _____

Use with page 20.

FROM THE BALTIC TO THE PACIFIC

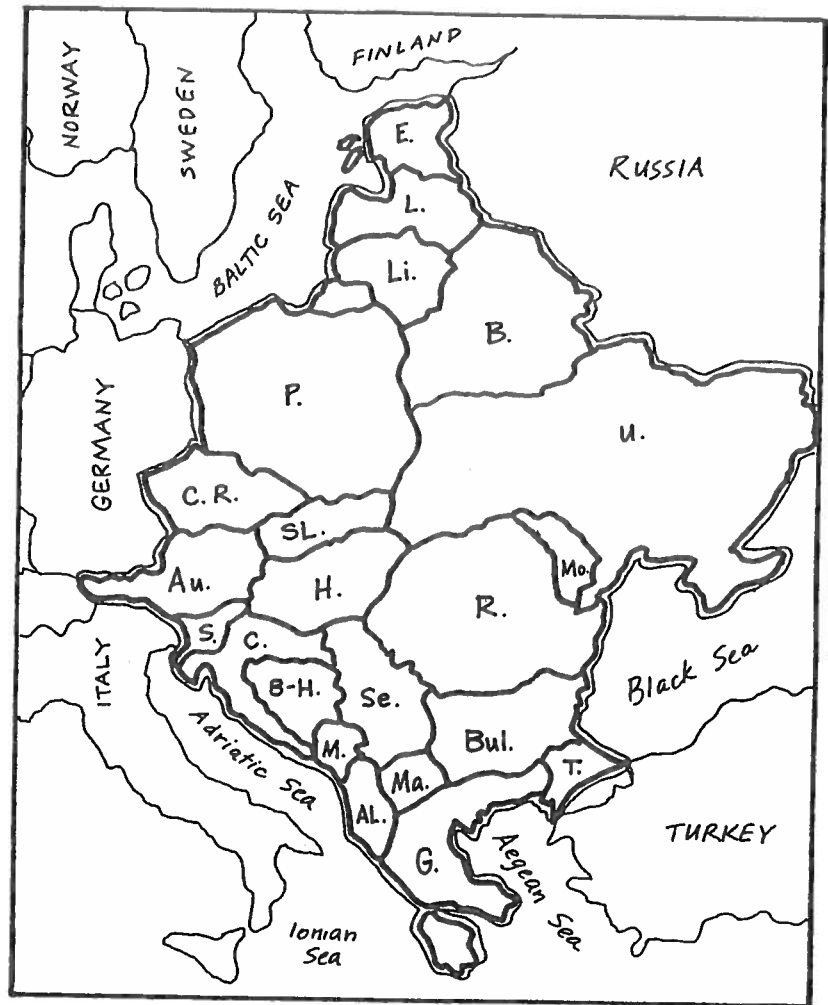


Name _____

LAND OF MANY CHANGES

If you learned the countries of Eastern Europe a few years ago, you'll need to start over! The map of Eastern Europe has developed a whole new look in recent history. With the breakup of the Soviet Union in 1991 and the unification of Germany in 1990, Eastern Europe has seen many changes in its political divisions. Independent republics that were once part of the USSR now show up as separate countries on maps. Changes in communist power in Eastern Europe also led to new divisions in the countries that were once Czechoslovakia and Yugoslavia. So, pay close attention to the map below. Answer these questions to brush up on your knowledge about what's where in Eastern Europe.

1. What Eastern European countries border the Ionian Sea?
2. Name the Eastern European countries bordering the Adriatic Sea.
3. Name the Eastern European countries bordering the Baltic Sea.
4. What sea is bordered by Romania and Bulgaria?
5. What 2 countries make up the former Czechoslovakia?
6. Name a country that touches the northern border of Ukraine.
7. What countries border Greece on the north?
8. Is Austria located between Hungary and Germany or Hungary and Poland?
9. Name a small country south of Ukraine that does not touch the Black Sea.
10. Name the new countries that make up the former Yugoslavia.
11. What sea borders Greece on the west?
12. Does Estonia touch the Baltic Sea?



Al=Albania	E=Estonia	P=Poland
Au=Austria	G=Greece	R=Romania
B=Belarus	H=Hungary	T=Turkey
B-H=Bosnia and Herzegovina	L=Latvia	Se=Serbia
Bul=Bulgaria	Li=Lithuania	SL=Slovakia
C=Croatia	M=Montenegro	S=Slovenia
CR=Czech Republic	Ma=Macedonia	U=Ukraine
	Mo=Moldova	

Name _____

Room 9
Homework
March 6, 2014

Due date – March 13, 2014

Math

6th Grade

Workbook pages 143 – 144
147 – 148