

Intro to

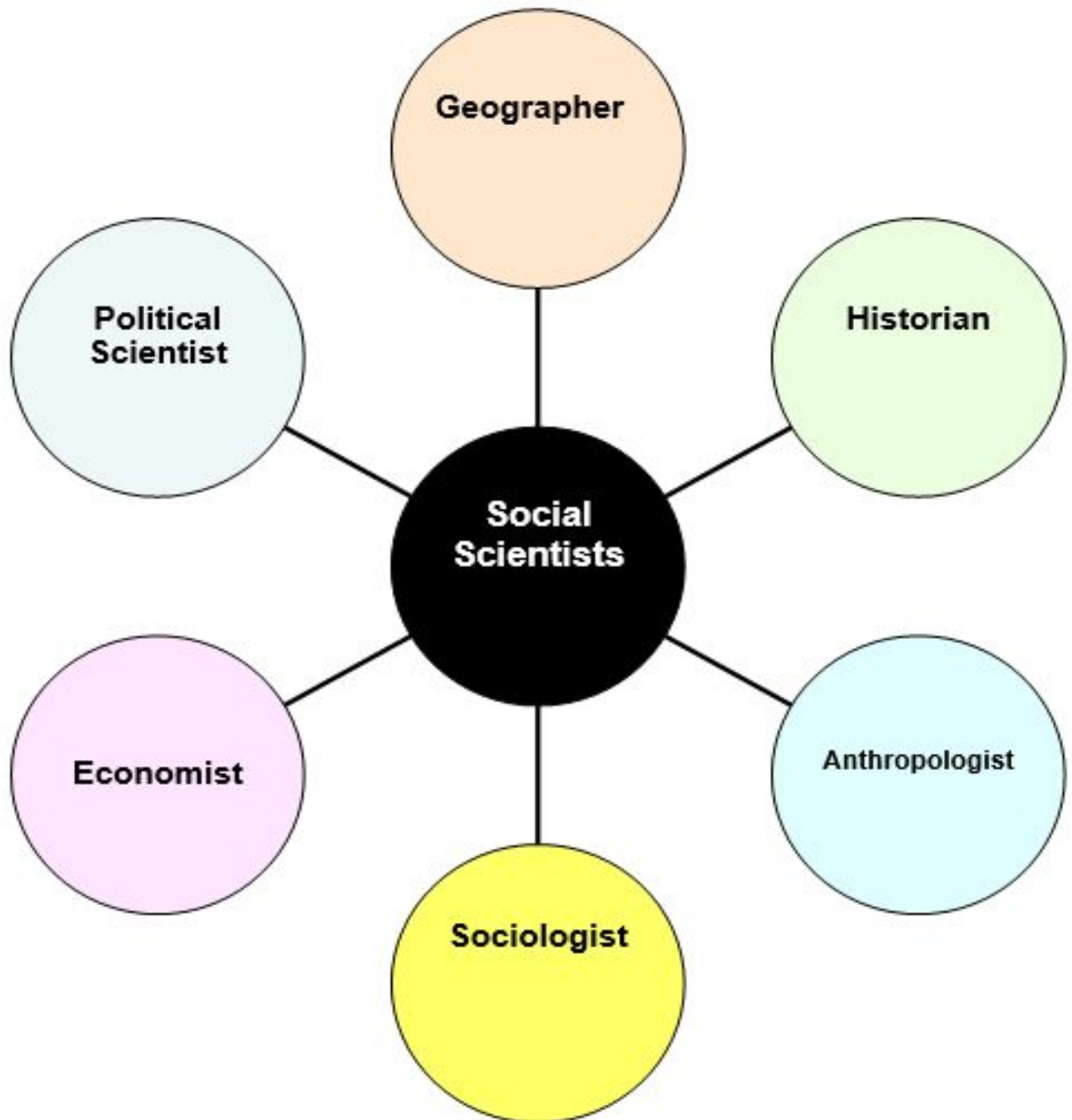


World Geography

Lessons, readings, and activities from Michigan Citizenship Collaborative Curriculum
Adapted by St. Johns Middle School

Name _____

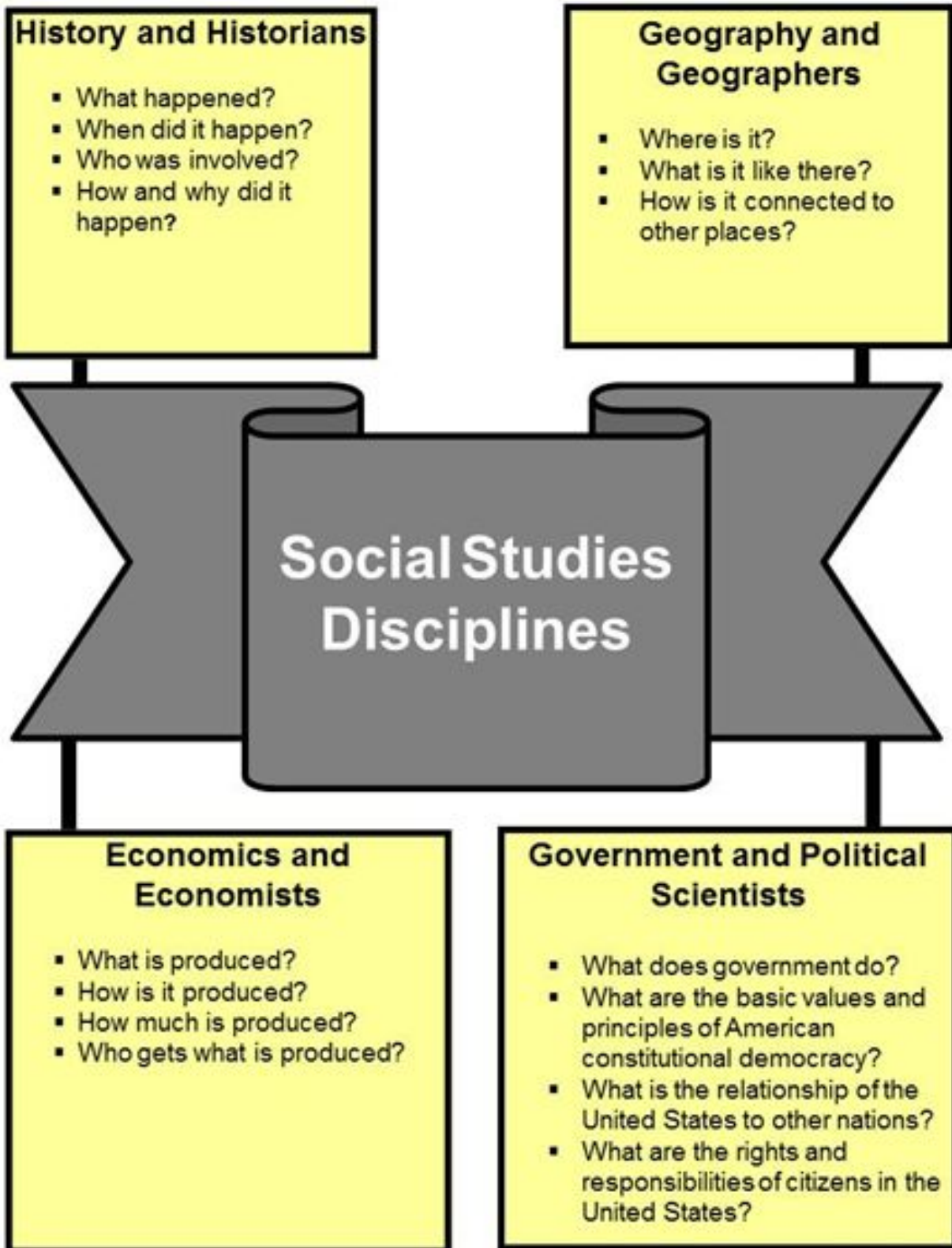
Social Scientist Graphic Organizer



Social Scientist Notes

	What do they study?	This includes...
Historian		<ul style="list-style-type: none"> ● Time and chronology ● Historical _____ ● People, events, and ideas of the past ● Continuity and _____ ● Causes and effects
Political Scientist		<ul style="list-style-type: none"> ● Purposes of government ● Different kinds of governments ● _____ of governments ● Values and principles upon which governments are based ● The role of _____ in government
Economist		<ul style="list-style-type: none"> ● Different kinds of economic systems ● Productive resources <ul style="list-style-type: none"> ○ natural ○ human ○ capital ● _____ and choice ● Specialization, trade, and interdependence
Anthropologist		<ul style="list-style-type: none"> ● Elements of culture ● Social customs and _____ ● Cultural _____ ● Cross-cultural issues ● Cultural history
Sociologist		<ul style="list-style-type: none"> ● Social groups ● Social _____ ● Social behavior ● Social change ● Social _____

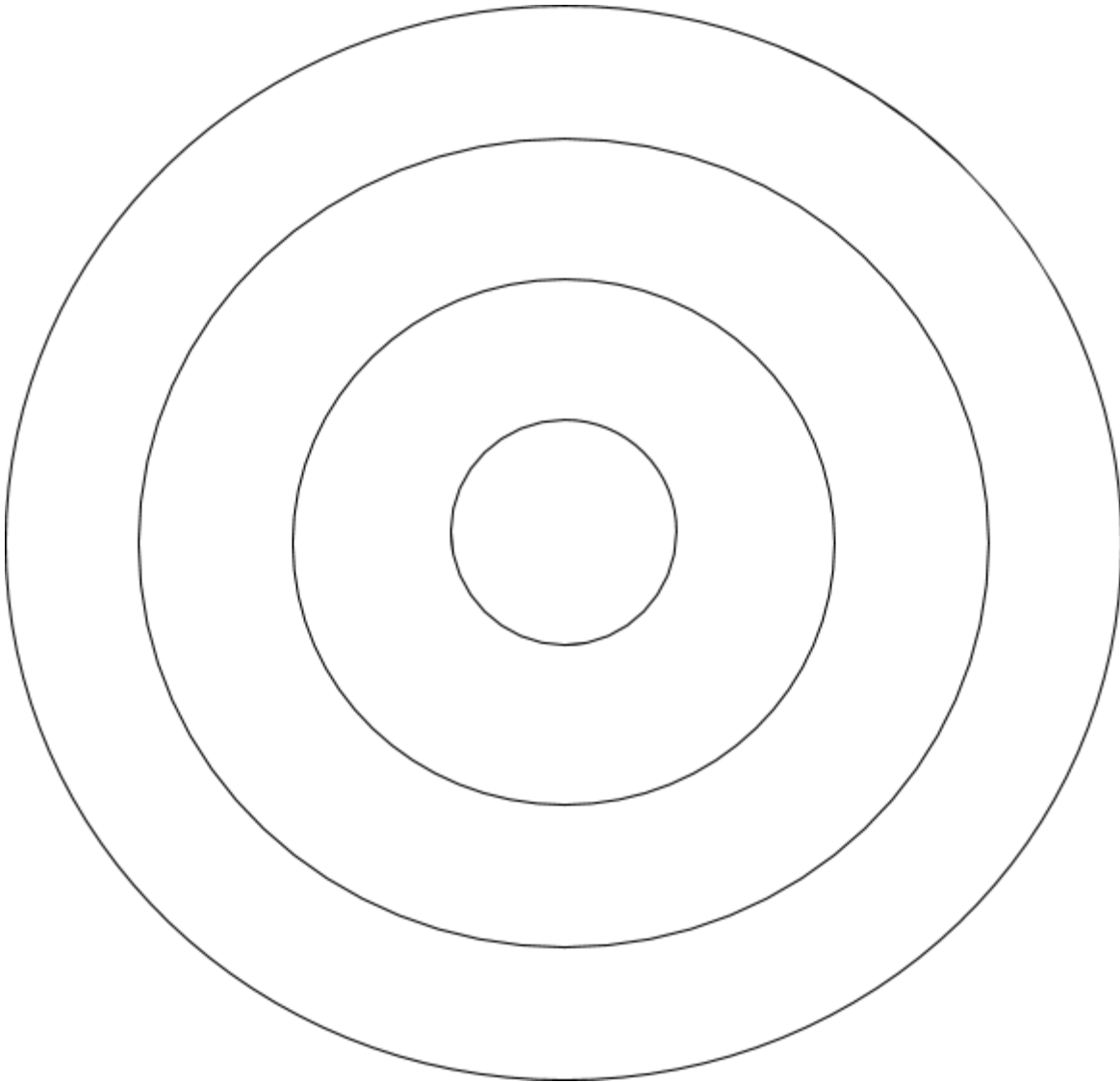
Review of Social Scientists



Different Perspectives on Earthquakes

	What are some questions relating to earthquakes that these social scientists might investigate?
Historian	
Political Scientist	
Economist	
Anthropologist	
Sociologist	

Expanding Environments (Spatial Scale)



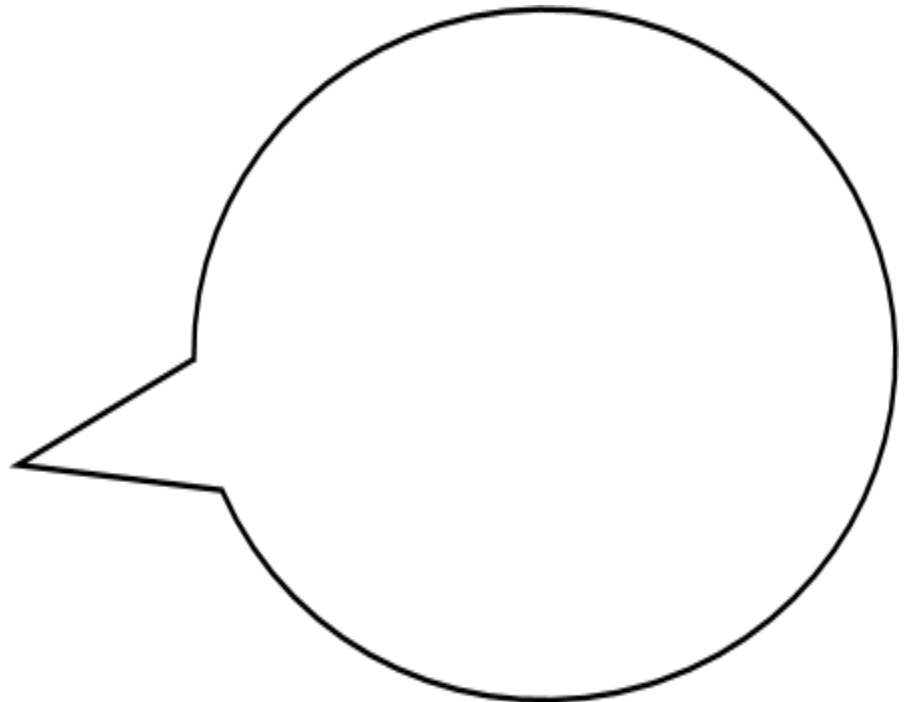
Geography is...

Geography is, in the broadest sense, an education for life and for living. Learning through geography - whether gained through formal learning or experientially through travel, fieldwork, and expeditions - helps us all to be more socially and environmentally sensitive, and informed and responsible citizens and employees.

Geography informs us about:

- The places and communities in which we live and work;
- Our natural environments and the pressures they face;
- The interconnectedness of the world and our communities within it;
- How and why the world is changing, globally and locally;
- How our individual and societal actions contribute to those changes;
- The choices that exist in managing our world for the future; and
- The importance of location in business and decision-making.

Fill in the bubble with one question related to geography that interests you.



Reading and Reflecting

Directions: Based on your reading of the previous page, answer the questions below.

BOLT



What was at least **one** thing you learned from the reading?

BULB



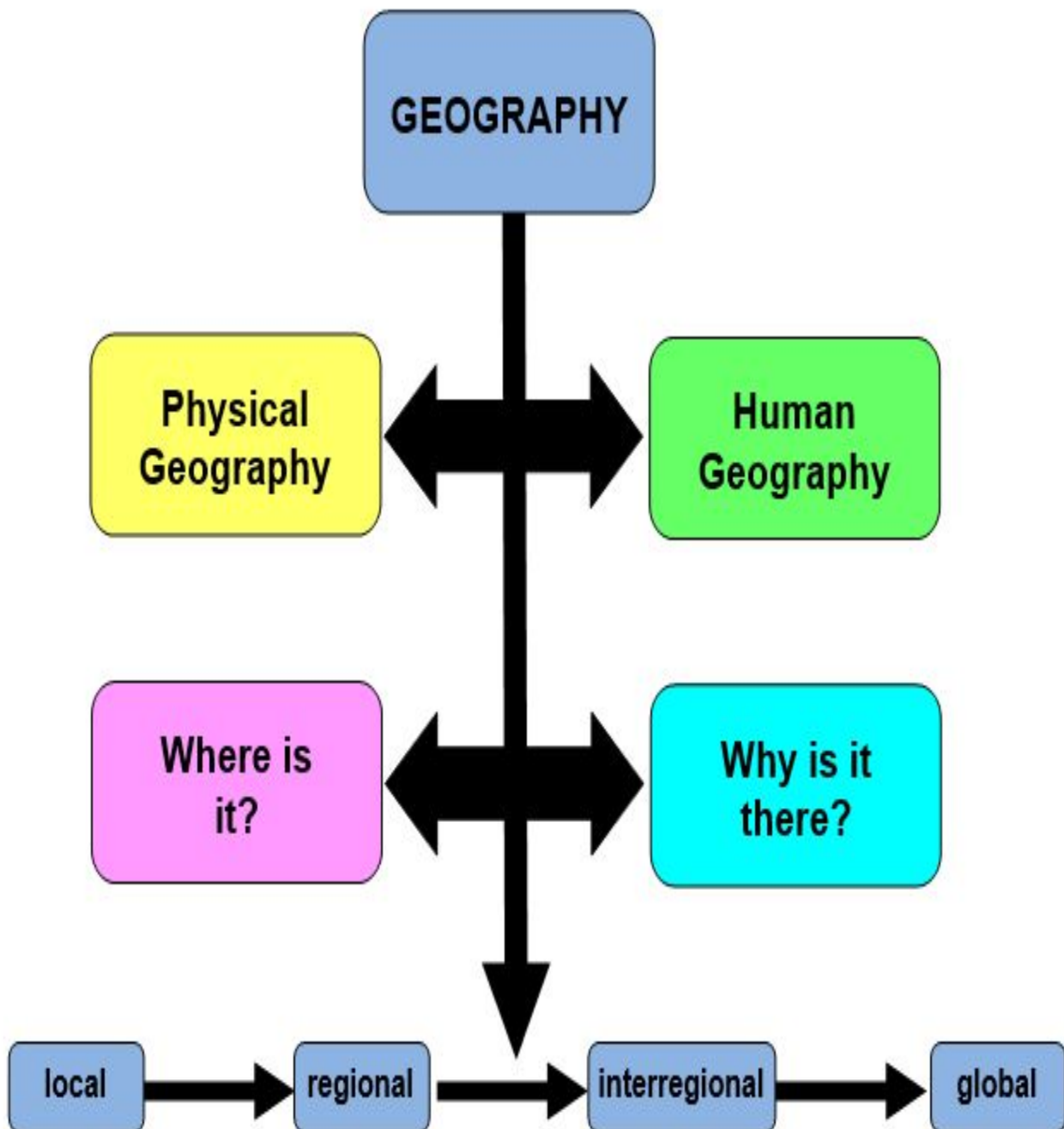
What is at least **one** new idea you have after reading?

Bump



What was at least **one** thing that was difficult to understand?

Geography Graphic Organizer



What is Geography? -- A Visualization Exercise

Geography is the study of the earth's landscapes, peoples, places, and environments. It is, quite simply, about the world in which we live.

Draw a picture of each of the following to create a picture of geography.

Landscape	People	Places	Environments

Geography is unique in bridging the social sciences (human geography) with the natural sciences (physical geography). Human geography concerns the understanding of how people live (lifeways), whereas physical geography concerns the understanding of physical landscapes and the environment.

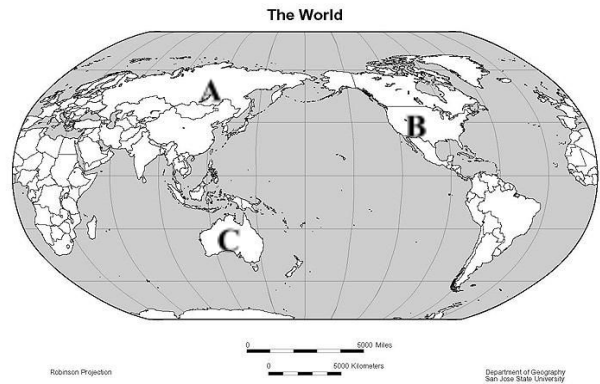
List some things that come to mind about you to distinguish human and physical geography.

Human Geography (My Lifeways)	Physical Geography (The World Around Me)

Geography puts the understanding of humans and their physical world within the context of places and regions. Geography focuses on the great differences in cultures, political systems, economies, landscapes, and environments across the world, and the links between them. Understanding the causes of differences and inequalities between places and groups of people underlie much of the newer developments in geography.

Look at A, B, C on the map.

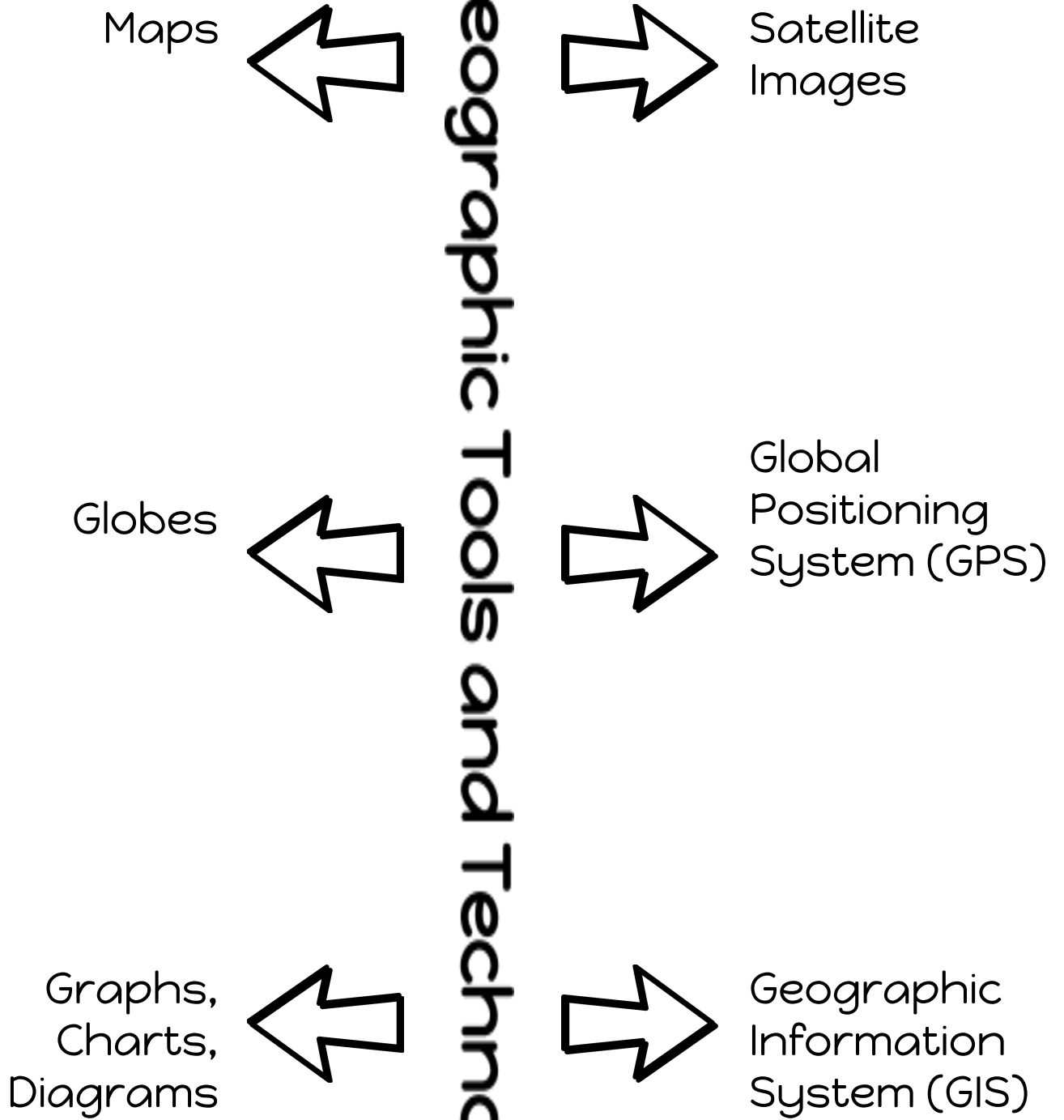
1. How might these places differ?
2. How might the people in these places differ?
3. In what ways may these people and places be alike?



What is Where and Why is it There?

Geographic Area	Human Characteristic	Where is it?	Why is it there?
Our local community			
Michigan			
Michigan			
United States			
United States			
The Early United States			

Geographic Tools and Technologies



Interpreting Satellite Images

#	Description (be specific!)	Guess #1 (on your own)	Guess #2 (only after the teacher clue)
1			
2			
3			
4			
5			
6			

What is GIS?

A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

GIS allows us to view, understand, question, interpret, and visualize data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts.

A GIS helps you answer questions and solve problems by looking at your data in a way that is quickly understood and easily shared.

GIS technology can be integrated into any enterprise information system framework.

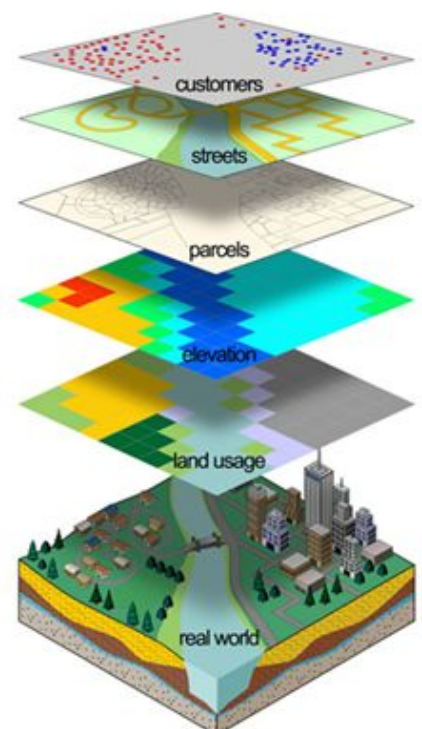
GIS benefits organizations of all sizes and in almost every industry. There is a growing awareness of the economic and strategic value of GIS. The benefits of GIS generally fall into five basic categories:

- [Cost Savings and Increased Efficiency](#)
- [Better Decision Making](#)
- [Improved Communication](#)
- [Better Recordkeeping](#)
- [Managing Geographically](#)

What Can You Do with GIS?

GIS gives us a new way to look at the world around us. With GIS you can:






- [Map Where Things Are](#)
- [Map Quantities](#)
- [Map Densities](#)
- [Find What's Inside](#)
- [Find What's Nearby](#)
- [Map Change](#)



Source: *What is GIS?* 8 July 2012. <http://www.esri.com/what-is-gis/index.html>

Geographic Inquiry

This is the process that geographers use in their work.

	<p>Ask geographic questions</p>
	<p>Acquire geographic information</p>
	<p>Organize geographic information</p>
	<p>Analyze geographic information</p>
	<p>Answer geographic questions / Act on geographic information</p>

GEOGRAPHIC INQUIRY NOTES

<p>_____</p> <p>geographic questions</p>	<ul style="list-style-type: none"> · Ask where, what, _____, and so what?
<p>_____</p> <p>geographic information</p>	<ul style="list-style-type: none"> · Use a variety of _____ and _____ such as maps, interviews, photographs, satellite images, textbooks, and websites.
<p>_____</p> <p>geographic information</p>	<ul style="list-style-type: none"> · _____ maps, graphs, charts, diagrams, and tables. · Develop _____ or _____ summaries.
<p>_____</p> <p>geographic data</p>	<ul style="list-style-type: none"> · Identify, understand, _____, and analyze information. · Look for _____, relationships, and connections. · Make _____ and inferences. <p>*This is NOT new data - it is the data that you previously acquired!*</p>
<p>_____</p> <p>geographic questions/ _____ on geographic information</p>	<ul style="list-style-type: none"> · Develop _____ based on the data collected, organized, and analyzed. · Present the conclusions in oral and written _____. · Put a _____ into action.

Pollution in the Rapid River

The Problem: People in Brucerton have noticed that the Rapid River is polluted at certain section and are worried that the pollution will spread. They have asked the local government to do something about the pollution. Therefore, the Brucerton City Council has formed a committee led by a geographer to investigate the problem.

GEOGRAPHIC INQUIRY	
Ask geographic questions	What is the main question the committee needs to answer?
Acquire geographic information	What are some pieces of information the committee should acquire in order to answer the question?
Organize geographic information	How should the committee organize this information?
Analyze geographic data	What are some things the committee should look for as they analyze the information?
Answer geographic questions	What would be the best way for the committee to share the results of their investigation? What is a possible plan to fix the problem?

Act on geographic information	
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Geographic Inquiry: A New Park for Bayville

The Problem: The community of Bayville has been given a grant to develop a new park. The city council wants to make sure they place the park in the best possible location. They have created a committee led by a geographer to choose the place.

GEOGRAPHIC INQUIRY	
Ask geographic questions	What is the main question the committee needs to answer?
Acquire geographic information	What are some pieces of information the committee should acquire in order to answer the question?
Organize geographic information	How should the committee organize this information?
Analyze geographic data	What are some things the committee should look for as they analyze the information?
Answer geographic questions	<p>What would be the best way for the committee to share the results of their investigation?</p> <p>What is a possible plan to fix the problem?</p>





Act on
geographic
information




Five Themes Questions



These are questions that geographers ask themselves.

Theme	Questions
<p>Movement</p> 	<p>How is the place connected to other places?</p> <p>How and why have people, goods, and ideas moved in and out of the place?</p>
<p>Region</p> 	<p>How might common geographic characteristics help us understand this place?</p> <p>How can the place be divided into regions? To what regions does the place belong?</p>
<p>Human/Environment Interaction</p> 	<p>How do people interact with the environment?</p> <p>How have people used the environment? How have people adapted to the environment? How have people modified or changed the environment?</p>
<p>Location</p> 	<p>Where is it?</p> <p>What is its absolute location? What is its relative location?</p>

<p>Place</p> 	<p>What is it like there?</p> <p>What are its natural characteristics? What are its human characteristics?</p>
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Five Themes Note Sheet



Theme	Notes
<p>Movement</p> 	
<p>Region</p> 	
<p>Human/Environment Interaction</p> 	
<p>Location</p> 	

Place



Describe the Earth Using the Five Themes

Location

Where is Earth?

Place

One significant Natural Characteristic:

One significant Human Characteristic:

**Human/
Environment
Interaction**

One way people have used Earth:

One way people have adapted to Earth:

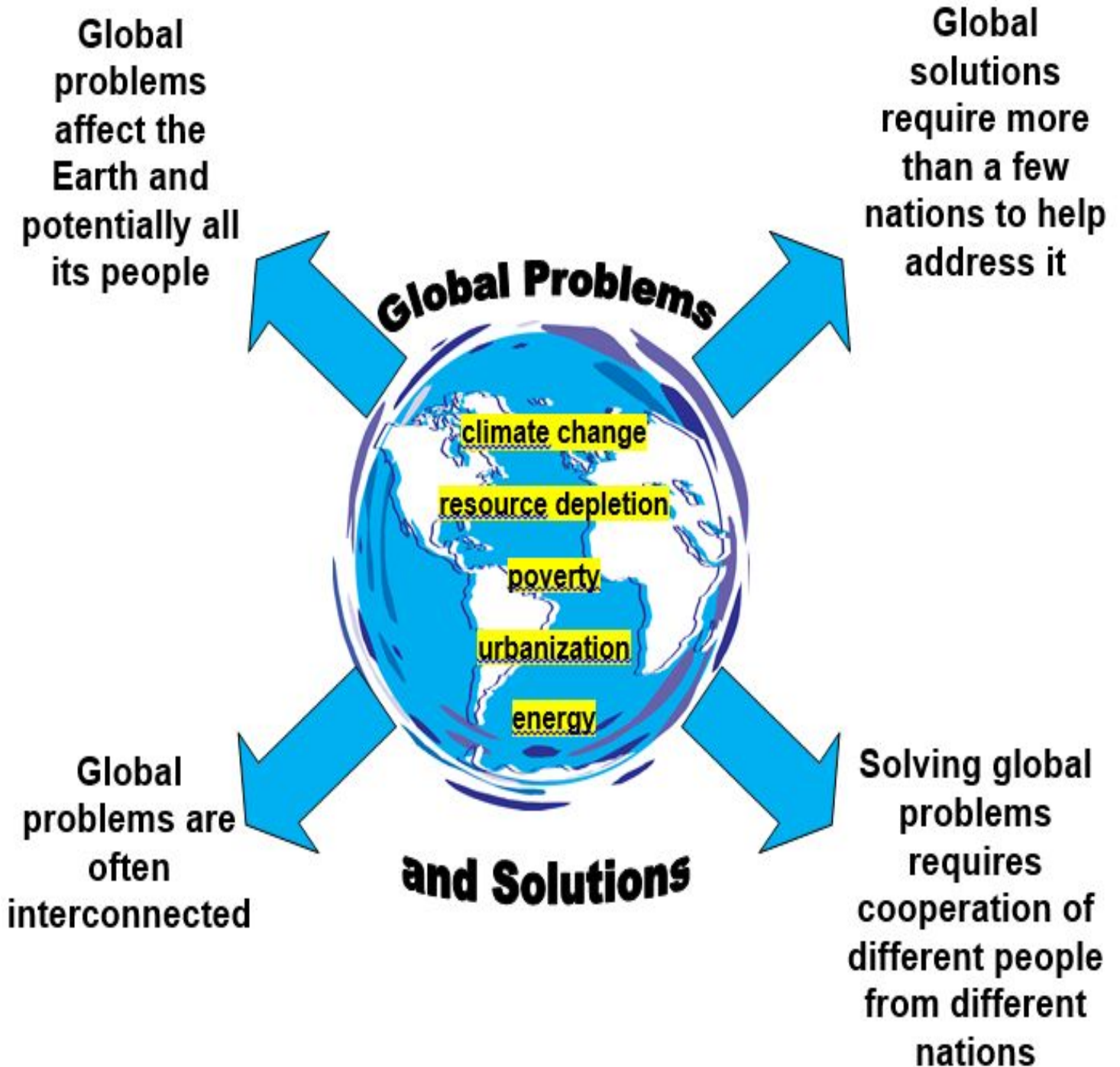
One way people have modified Earth:

Movement

One way Earth is connected to another place:

Regions

One way to divide Earth into regions:



News Stories - Group Recording Sheet

News Story	What problem is described?	Is it a GLOBAL problem?	Explain your reasons for your 'yes' or 'no' answer - you must give EVIDENCE!

#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			

What are Global Problems?

Global problems are not just important problems, or problems that affect many people. Rather they are those problems that affect the whole of the planet, and potentially all of

the people who live on it. Climate change is one clear example that springs to mind quickly. This is because the consequences of humanly-generated changes in the atmosphere will, in different ways according to region, affect everyone on the planet. In other words, the consequences are universal. Moreover, unless we profoundly change our collective behavior, climate change may well result in irreversible changes in the climatic conditions of life – a measure of the deep vulnerability of human society in the face of this issue. It is easy to see that there will be no easy solution to the problem: the causes of the present situation are clearly related to our economic system, our attitudes to nature, our political organization, our technological capacities and preferences, and our uses of resources. Solutions will involve not just all communities and every country, but solutions will necessarily involve cooperation between all, rather than individual approaches. In other words, the example of climate change suggests that global problems are complex, intractable, and make human society as a whole very vulnerable.

Adapted from: *What is a Global Problem*. Nautilus Institute website. 12 July 2012

<<http://nautilus.org/gps/intro/>>.

Survey

Person surveyed	What is the most serious global problem in the world today? Why?

Seven Billion and Counting

The growing human population places huge amounts of pressure on the Earth. The sheer number of people, and their behaviors, contributes to many of the environmental, social, and economic issues facing the planet. Although it may not seem as if the world is getting more crowded, growing population threatens the health of our ecosystems and the quality of life for Earth's inhabitants.

In the six seconds it takes to read this sentence, 15 more people will be living on the Earth. In fact, the world's population grows at a near-record pace, with a population equal to New York City added every month, and equal to Germany added every year. In the year 2000, there were six billion of us, and the number of people is growing every second. This growth in human numbers has been called a "population explosion."

What Ignited the Explosion?

The population explosion has been very recent in the scope of human history. People lived on Earth for about three million years before the world population reached 500 million, around the year 1600. Until then, birth rates and death rates were about the same, keeping the population stable. People had many children, but a vast number of them died before age five. Without modern medicine, vaccines, and clean, healthy living conditions, many children did not survive common diseases.

The late 1700s and the 1800s was a time of great advancement in science and technology in Europe and North America. The Industrial Revolution produced many inventions that promoted longer life, such as improvements in farming, nutrition, medicine, and sanitation. By 1930, the world population had reached two billion.

As people moved to cities to live and work, families became smaller. It was no longer necessary to have many children to work on family farms in Europe and North America, and birth rates dropped in industrialized countries. By the mid-twentieth century, death rates throughout the rest of the world also began to drop as medical technologies spread across the globe. But, birth rates remained high in developing countries, since their economies still relied largely on farming.

Families in these places still needed many children to work the land. Although population growth slowed in developed countries, the "population explosion" continued in the less developed world.

In 1960, the global population reached three billion. Just 15 years later, in 1975, the population soared to four billion and it topped five billion in 1987. In 1999, the Earth became home to six billion people, and the population had doubled in less than 40 years. Although

population growth is now slowing, the population reached seven billion in late 2011, and demographers predict that the world will grow by two to three billion more people by the year 2050. (1)

Crowding the Earth

No one knows for sure how many people the Earth can support. Every environment has a carrying capacity – the point at which there are not enough natural resources (food and fuel) to support any more members of a given species. This concept applies to people too. The carrying capacity of humans is hard to estimate because it greatly depends on how people use the Earth's resources.

The population issue relies on the concept of carrying capacity rather than numbers alone. The entire world population could fit into Texas and each person could have an area equal to the space of a typical American family home. But, this ignores the amount of land required to provide the resources (food, water, shelter, clothing, and energy) that we need to maintain our lifestyles. Though there is enough space for the people, the ecological footprint – the land and water area that would be required to support the region's population and lifestyle – would need a space much larger than Texas. There is a limited amount of gas to power our cars and trees to provide lumber for heating and cooking. The more resources that each person uses, the fewer people the earth can support.

Only a small amount, 10 percent, of all land is arable (able to be farmed). The rest is built up into cities and towns or is too cold, wet, rocky, or dry to grow crops. As the number of people continues to grow, the small portion of land which must provide food for these people remains the same, or becomes smaller as cities expand. Already, one billion people suffer from malnutrition because they do not have enough to eat. (2)

Upsetting the Ecological Balance

Many countries try to grow more food in order to feed their growing numbers of people. Each year, about 18 million acres of forests (an area equal to the size of Vermont and New Hampshire combined) are cut down to create more farmland and grazing land and to obtain wood for fuel and other uses. (3) The loss of these forests affects the entire Earth. Consider that rainforests are home to half of the world's animal and plant species, some of which may provide key ingredients for medical innovations. The loss of these species could devastate the delicate ecological balance.

Water supplies also suffer as the population continues to grow, especially in less developed regions that lack the ability to transport water across long distances. As more food is needed to support greater numbers of people, a larger amount of water is dedicated to agriculture. This greatly depletes water supplies and leaves less available for drinking and sanitation. Currently, almost one million people around the world lack safe drinking water and 2.6 billion people suffer from inadequate sanitation. (4)

Loss of biodiversity is another problem associated with overpopulation. As cities expand with population growth, previously uninhabited lands, such as forests and prairies, are developed for human use. Many of the most biologically diverse regions on Earth have lost more than 70 percent of their vegetation due to human activity. As the ranges of the native species in these regions diminish, they are much more likely to become extinct. (5)

Even the ground we live on is affected by overpopulation. Soil is destroyed as larger livestock herds become necessary to produce more food. Billions of animals are now over-grazing the world's grasslands, turning them to dust. Croplands are destroyed when the rich topsoil blows away after being overworked and misused. This devastation of land has left millions of environmental refugees worldwide, as people are forced to migrate from their homes in search of more fertile land, cleaner water, and a better quality of life.

Population Growth: North American style

You might associate overpopulation with the teeming masses of people in countries like India and China. Surely, a huge, wealthy country like the United States doesn't have a problem, does it? Every year, our country's population grows by almost three million people, which is about the population of Houston. The U.S. has one of the highest birth rates among industrialized countries.

Some argue that population growth in the U.S. may have more serious environmental impacts than growth in any other part of the world because of the "typical American lifestyle." Each American uses more energy, more water, and produces more garbage than a person living anywhere else in the world. While Americas are less than five percent of the world population, we consume 19 percent of the world's energy and produce 18 percent of the world's carbon dioxide emissions. (6,7) In one year, the average American uses almost two times as much energy as the average Japanese person, almost four times the average person in China, and 15 times as much as the average Kenyan. (8) This immense energy use also adds to the world's air and water pollution as fossil fuels such as oil and coal are burned. All of the carbon dioxide released from burning these fuels makes the U.S. one of the leading contributors to global warming.

What Can Be Done?

There are better alternatives than competing with one another for the last best space or the only remaining clean water. Certainly, we can encourage our government to help us and other nations deal with population and environmental problems. Individuals can also make lifestyle decisions that will significantly reduce the stress on our resources and environment. We can protect our environment by making thoughtful choices about where we live, how we use energy in our homes, what we eat, how we travel, and how much garbage we produce. By considering the environment in these important decisions, we can have a collective, healing impact on the biological systems that sustain us.

Choices in family size can also impact how people stress natural resources and the environment. Many American parents already limit their families to one or two children (a

number that would lead to population stabilization). These choices really do make a difference. After four generations, a two-children-per-generation family will consume 160 percent fewer resources (including fish, meat, wood, and vegetable products) than a family with a three-child tradition.

Overpopulation can negatively impact the environment and the health and quality of life of people everywhere. Every decision we make affects not only those around us but also the entire planet. Even the small choices we make every day can make a difference. By thinking carefully about the impact we want to leave on the Earth, we can ensure that future generations are able to enjoy this planet and access its bountiful natural resources in the same ways that we do today.

Glossary

arable: land in which crops can be grown

biodiversity: the variety of species in nature and the genetic diversity within each species

birth rate: the number of births each year per 1,000 people

carrying capacity: the number of people who can be supported at a sustainable level in an area with given resources and technology

death rate: the number of deaths each year per 1,000 people

demographer: a scientist who studies the characteristics of human populations, such as size and growth rate

extinct: no longer existing; when a plant or animal species dies off, we say it is extinct

sanitation: the prevention of disease and promotion of good hygiene by maintaining clean conditions and safe drinking water

1 Population Reference Bureau, 2013 World Population Data Sheet, July 2010.

2 The State of Food Insecurity in the World 2009. Food and Agriculture Organization of the United Nations, <http://www.fao.org/docrep/012/i0876e/i0876e00.htm>.

3 State of the World's Forests 2007. Food and Agriculture Organization of the United Nations, <http://www.fao.org/docrep/009/a0773e/a0773e00.HTM>.

4 Progress on Sanitation and Drinking Water 2010 Update. World Health Organization/United Nations, Children's Fund, http://whqlibdoc.who.int/publications/2010/9789241563956_eng.pdf.

5 "The Biodiversity Hotspots" Conservation International, 2007. <http://www.biodiversityhotspots.org>

6 The U.S. Energy Information Administration, Frequently Asked Questions: How much of the world's energy does the U.S. use?" <http://www.eia.gov/tools/faqs/faq.cfm?id=87&t=1>.

7 International Energy Agency, CO2 Emissions from Fuel Combustion Highlights, 2012 edition. <http://www.iea.org/co2highlights/co2highlights.pdf>

8 "Energy Use (kg of oil equivalent per capita). World Bank. 2011. <http://data.worldbank.org/indicator/EG.USE.PCAP.KG.OE>

From: <https://www.worldof7billion.org/> 24 February, 2016