2013

Why is it there: Placing companies in the United States and Canada [9th grade]

Luaren Heath
Trinity University

UNDERSTANDING BY DESIGN

Unit Cover Page

Unit Title: Why is it there: Placing companies in the United States and Canada

Grade Level: 9th Grade

Subject/Topic Area(s): World Geography/United States and Canada

Designed By: Lauren Heath

Time Frame: 10 days (45 minute class periods)

School District: Katy ISD

School: Mayde Creek High School

School Address and Phone: 19202 Groeschke Rd Houston, TX 77084   (281)237-3000

Brief Summary of Unit (Including curricular context and unit goals):

This unit is designed to discuss the regions of the United States and Canada from a more economic, rather than historical, point of view. The students must understand that the physical and human geography of a region affects the people and the economic activities. In order to achieve this, students will first look at the physical and human characteristics of the United States and Canada. This will include an investigation of the climate, landforms, other demographic information, migration patterns, and where people live. Then, using this information along with available maps the students will determine the best location for a company's headquarters and justify their locations. The goal is to allow students to look at and understand the United States and Canada through a different and more unfamiliar lens.

UbD Template 2.0

Stage 1 – Desired Results

WG 9A Identify physical and /or human factors that constitute North America. **WG 5B** Interpret political, economic, social, and demographic indicators to determine the level of development and standard of living. **WG 1A** Analyze the effects of physical and human geographic patterns and processes on the past and describe their impact on the present. **WG 5A** Analyze how the character of the United States and Canada is related to its political, economic, social, and cultural elements. **WG 2A** Describe the human and physical characteristics of the same regions at different periods of time to evaluate relationships between past events and current conditions. **WH 8A**Compare ways that humans depend on, adapt to, and modify the physical environment. **WG11A**Understand the connections	**Transfer** *Students will independently use their learning to* Students will select an appropriate location for company headquarters using company profiles and their knowledge of the formal and perceptual regions of the United States and Canada. They will also take into account factors such as resources, infrastructure, and labor skill level. They will need to create a map that displays those locations and write a summative paragraph for each location describing their reasoning behind the placement of each company. As an individual portion of the project they will answer the three essential questions.

Meaning

Understandings *Students will understand that…* 1. Regions have both physical and human characteristics. 2. The economic activities of a region are influenced by the characteristics of that region. 3. Migration patterns and urban growth are related to the location of economic activities.	Essential Questions 1. How do you define a region? 2. How does where people live influence how they live? 3. How do the physical and human characteristics of a region affect the economy?

Acquisition

Knowledge *Students will know…* 1. Major vocabulary such as urban sprawl, spatial diffusion, and infrastructure. 2. The location of the 50 states of the U.S. and the provinces of Canada. 3. The location of major physical features of the United States and Canada. 4. The differences between functional, formal, and perceptual regions. 5. The characteristics of the perceptual regions of the United States. 6. The characteristics of the formal regions of Canada. 7. Migration patterns of the	Skills *Students will be able to…* 1. Compare maps 2. Make inferences based on maps and graphs 3. Describe the reasoning behind the location of economic activities (individual companies and industries) based on a regions' characteristics 4. Locate areas on a map or satellite image of geopolitical importance 5. Create a map to communicate

between levels of development and economic activities **WH 16A** Describe distinctive cultural patterns and landscapes associated with different places and how these patterns influenced the processes of innovation and diffusion.	United States and Canada. 8. Major historical events that determined the location of populations and economic activities.	information 6. Determine whether a region is considered formal, functional, or perceptual and why

Stage 2 – Evidence		

CODE (M or T)	**Evaluative Criteria** (for rubric)	
T M M M M M M	1. Appropriate location for each company 2. Creation of map 3. Summative paragraph of each company with 3 pieces of evidence 4. Correct grammar and spelling 5. Essential Question Paragraphs 6. Self/Partner evaluation	Performance Task(s) *Students will demonstrate meaning-making and transfer by…* Students will select an appropriate location for company headquarters using company profiles and their knowledge of the formal and perceptual regions of the United States and Canada. They will also take into account factors such as resources, infrastructure, and labor skill level. They will need to create a map that displays those locations and write a summative paragraph for each location describing their reasoning behind the placement of each company, i.e. the benefits of a place. As an individual portion of the project they will answer the three essential questions. Note: as an artistic addition to the performance task students may create logos for each of the new companies. --- Other Evidence (e.g., formative) 1. Physical/Political Maps of United States and Canada – labeled 2. Map Notes – characteristics of perceptual regions and formal regions of Canada 3. Map and Region Characteristics Quiz 4. Immigration/Dust bowl Summary Paragraphs 5. "Big Idea" Statements 6. Company Profile Location Practice – providing reasoning for locations

Stage 3 – Learning Plan	

CODE (A, M, T)	Pre-Assessment *How will you check students' prior knowledge, skill levels, and potential misconceptions?*
	In pairs, students will label a political map of the United States and Canada with as many states and provinces that they know (this can be done with or without a word bank). The students will also create boundaries for what they understand to be the four major perceptual regions of the United States (West, Midwest, South, and Northeast) and characteristics of each. Correct answers of state and province locations will be provided with a class discussion based on the regions and characteristics following. A discussion of regional stereotypes could be included within this discussion.

	Learning Activities	Progress Monitoring (e.g., formative data)
A	Day 1: Students will complete the **pre-assessment** in pairs and participate in the class discussion. Within this class discussion will be a review from the previous unit about the three different region types: formal, functional, and perceptual. As a ticket out the students will have to provide a definition for region that incorporates all three region types in order to answer the question what defines a region. The students' **physical and political map labeling assignment** will also be assigned and explained after the class discussion (due the day of the map quiz). Any remaining class time will be used to allow the students to begin to work on their individual maps.	Pre-Assessment Assign Physical/Political labeling maps
A	Day 2: The students will jigsaw the four different regions of the United States. In pairs, using the World Geography textbook and atlas, the students will read about their assigned region in order to **create a poster**. Each poster will need to describe the region's culture, available resources, major economic activities/land usage, climate, population density, the amount/quality of infrastructure, and any other demographic information provided. All posters will then be placed on the wall for a gallery walk the next day.	United States Region Poster

A	**Day 3:** Using a large blank political map of the United States, the students will complete **map notes** during a gallery walk in which they get information from the four regions of the United States. This information will be used for both formative assessments and a resource for their final performance task.	Map Notes – United States
A	**Day 4:** As an introduction to class a population density map of Canada will be displayed. **The students will have to explain why the map looks the way it does**. After the students answer, you can introduce the essential question: how does where people live influence how they live? In the computer lab, the students will individually complete a **graphic organizer** to get information about each formal region, or province, of Canada. The resource the students will be using is an online database of country information called Culture Grams. However, the students can also use the textbook or any other website the teacher deems appropriate and valid.	Map Notes - Canada
A/M	The students will also be assigned a video to watch for homework about the Dust Bowl and its effects on American Society (a paper article will be available to those without access to technology). The students will **write a paragraph summarizing the effect of the Dust Bowl**, i.e. how did it affect the American economy, society, and politics.	Dust Bowl Summary Paragraph
M	**Day 5:** At the beginning of class the students will complete a **map quiz**. As part of the map quiz the students will complete summary statements in which they must define the regions of the United States and Canada in one sentence. The number of regions required and the ability to use, or not use, their map notes may be up to the individual teacher. Labeled physical/political maps should be turned in at the	Turn in labeled physical/political maps Map Quiz Turn in map notes

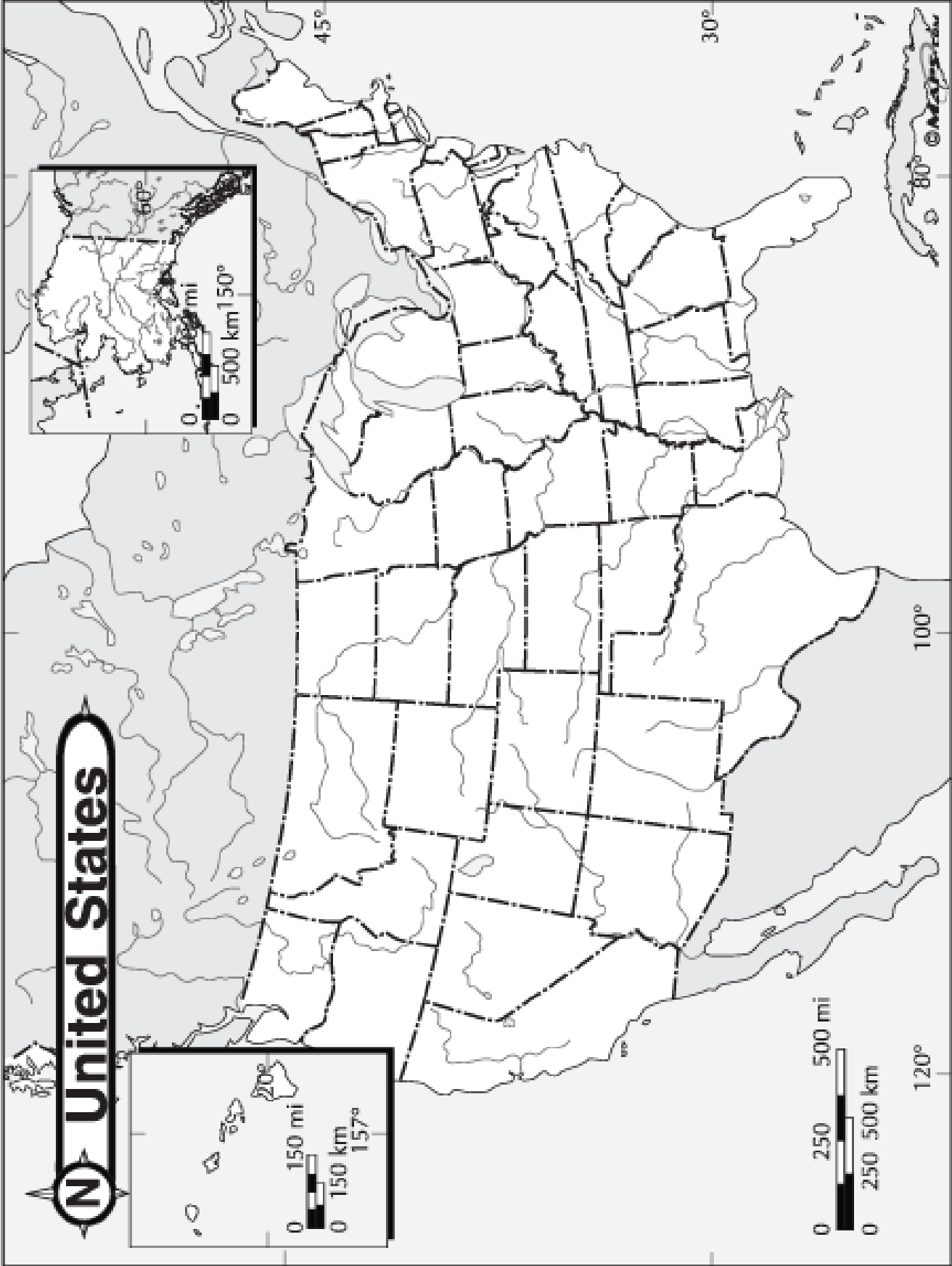|		
M	beginning of class.	
A/M	As an introduction to the lesson the students will answer the question "why do you live in Houston". The students will then read their paragraphs summarizing the effects of the Dust Bowl. This can be done by asking for volunteers, randomly choosing students, or a combination thereof. Students will be asked why people moved during the Dust Bowl. This will facilitate a **class discussion** of push and pull factors; the reasons why people migrate. The students should see a connection between migration/movement of the past and of today.	Immigration Paragraph
M	The students will then be asked about current examples of major population shifts or migrations. Examples the students could provide include immigration issues, loss of population along the Rust Belt, urban sprawl/urban growth, etc. The students will then read two articles about current immigration issues. Individually or in pairs, students will **answer questions about the articles, compare their viewpoints, and describe the ESPN** (economic, social, political, and environmental**) effects** of new immigration laws being passed in the United States.	
M	Day 6: As an introduction to class, students will **write a paragraph** in which they describe how the Dust Bowl and any of the more current examples of migration movements are similar. They must include the economic effects of such movements on the different regions.	"Big Idea" Statements
	The students will then look at more detail about urban growth and the development of the megalopolis. They will need to provide a **"big idea" or summative statement** for maps, charts, graphs, and political cartoons to determine the ESPN effects. This is practice for being able to look at information, determine where people live, and why. They have the option of working individually or in pairs.	
M	Day 7: In today's lesson the students will be practicing for the	

	performance task the following day. As an introduction the lesson, the students will answer the question: how do the physical and human characteristics of a region affect the economy. They students will then participate in a **think-pair-share** about the question.	
T	In order the complete the **location practice** students will be provided information about companies in the United States. Using their map notes, textbooks, atlas, and any additional resources available the students will determine why they are located in a particular area. The students will need to provide evidence in summary paragraphs. The paragraphs should be turned in at the end of class.	Company Profiles - Location Practice
	Day 8 – 9:	
	The students in their pairs will work on their **final performance task** in which they are provided profiles of newly developed companies. They will determine, based on the profile and the company's individual needs, where in the United States or Canada the company should be located. The students should use their map notes, atlases, textbooks, "big idea" statements and any additional resources to make their decision. They should take into account factors such as population density, skill of laborers in the region, language, culture, climate, economic activities, available resources, and infrastructure. They should also answer the essential questions individually.	Performance Task
	The performance task will be due at the end of class, but the time can be changed depending upon student need and effort.	
M	Day 10:	
	As an introduction to class the students will complete a **peer/self-evaluation** in which they describe the efforts and contribution of themselves and their partner. Each pair will then provide the location in which they placed each company. The locations of every group will be placed on a map. The class will then be asked for their **observations** of the map. This could include surprises, fulfilled expectations, patterns they noticed, etc. The rest of class	

will be used to **discuss** the answers to their essential questions.	

Pre-Assessment

1. Label as many states of the U.S. and provinces of Canada that you can.
2. Draw in the borders of the four regions of the United States (West, Midwest, South, Northeast)
3. Write down facts, characteristics, or ideas that you have about each region.

Canada

United States

N

45°

30°

80°

500 km 150°
mi

150 mi

150 km

157°

30°

100°

120°

500 mi

250

250 500 km

0

0

©MAP...

Perceptual Regions of the United States
Poster Instructions

Region Assignment: _____

With your partner, create a poster for your assigned perceptual region of the United States. Using the textbook, atlas, and additional maps make sure you have the following information:

- Culture of the region (anything that makes that region unique)
- Population density or number of large cities
- Infrastructure
- Available resources
- Economic activity/land usage
- Climate and vegetation
- Historical events
- Any other unique or identifying information

Additionally, make sure you remember to:

- Write neatly, other people will be reading your information
- Make it brief, you may use bullet points as these will be used for notes

Big Idea Maps and Graphs

Selected Megalopolises

Alpine Biomes around the World
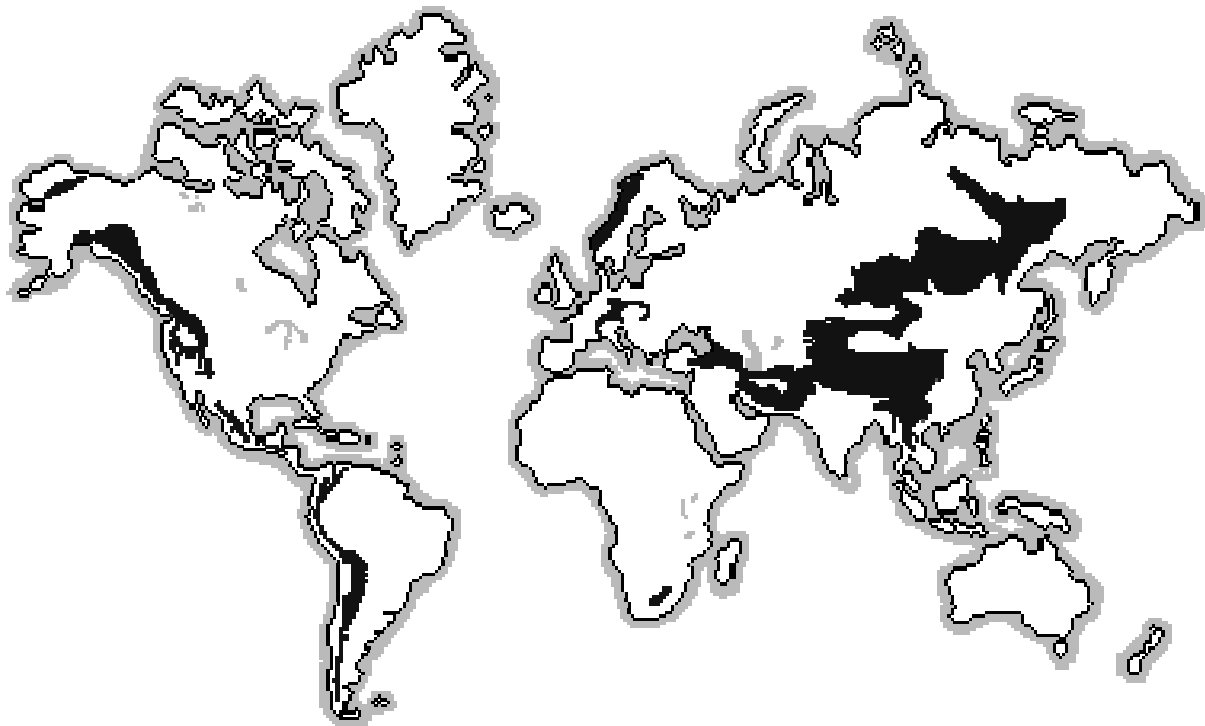
Population of Florida
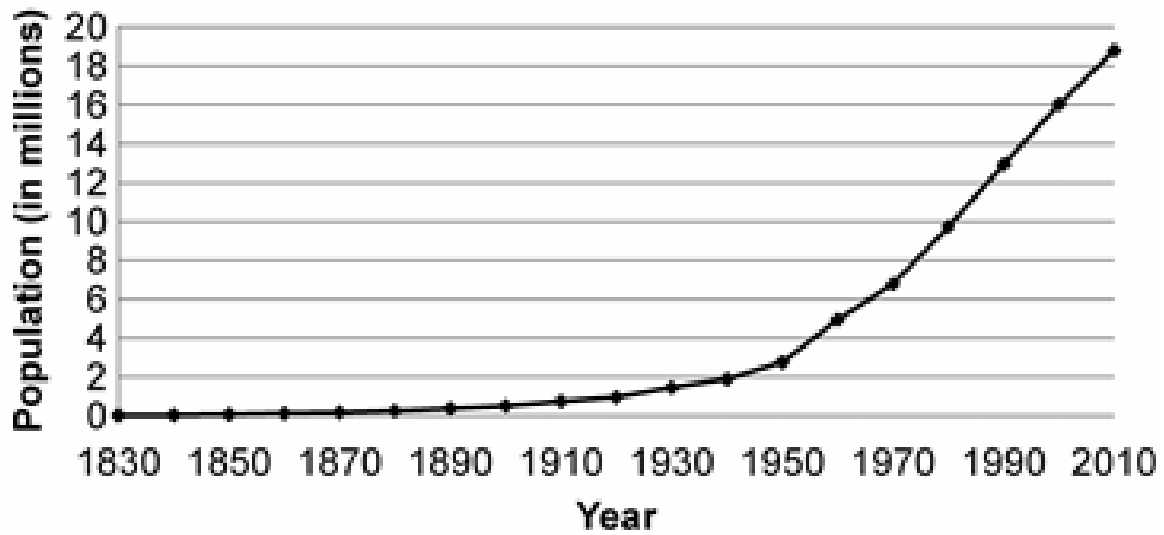
Population Density of Canada, 1996

Key: Population Density (persons/square kilometer)

0 to 9.9   10 to 599.9   600 to 3,785.8
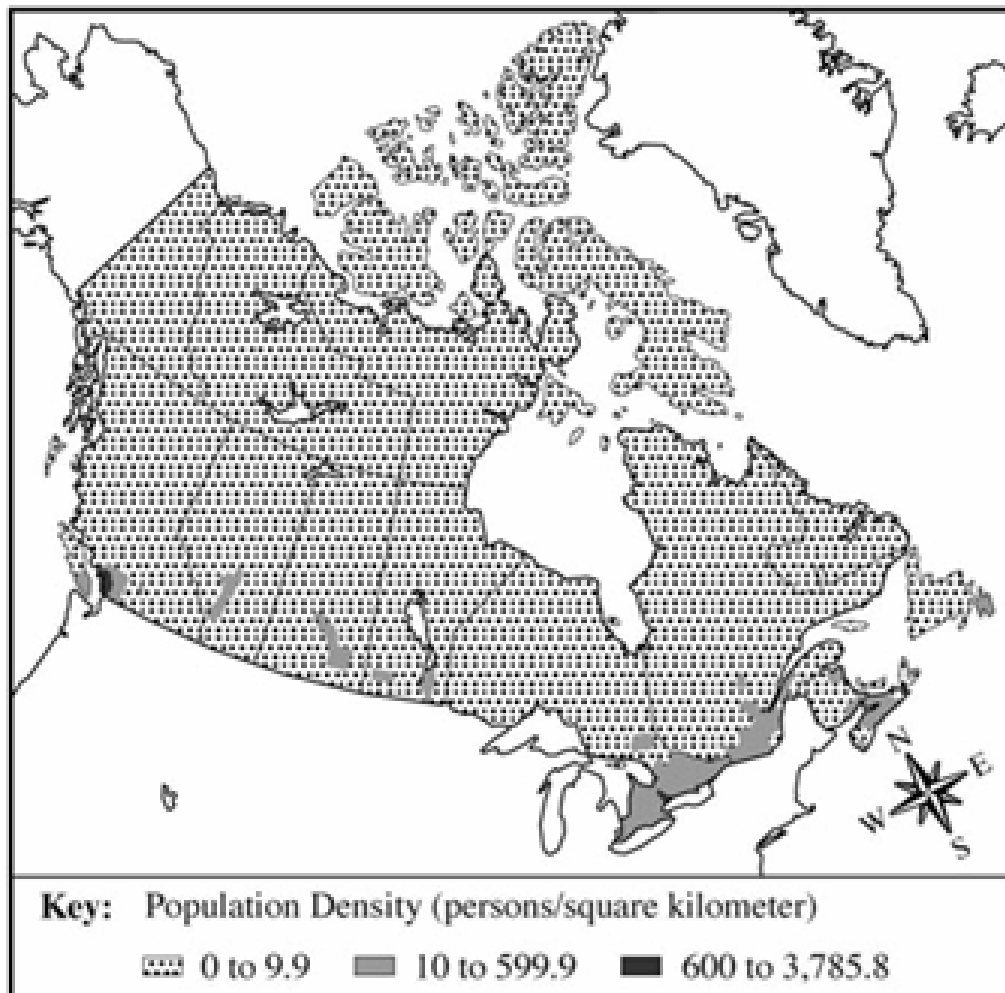
Metropolitan Area Population 2000-2009
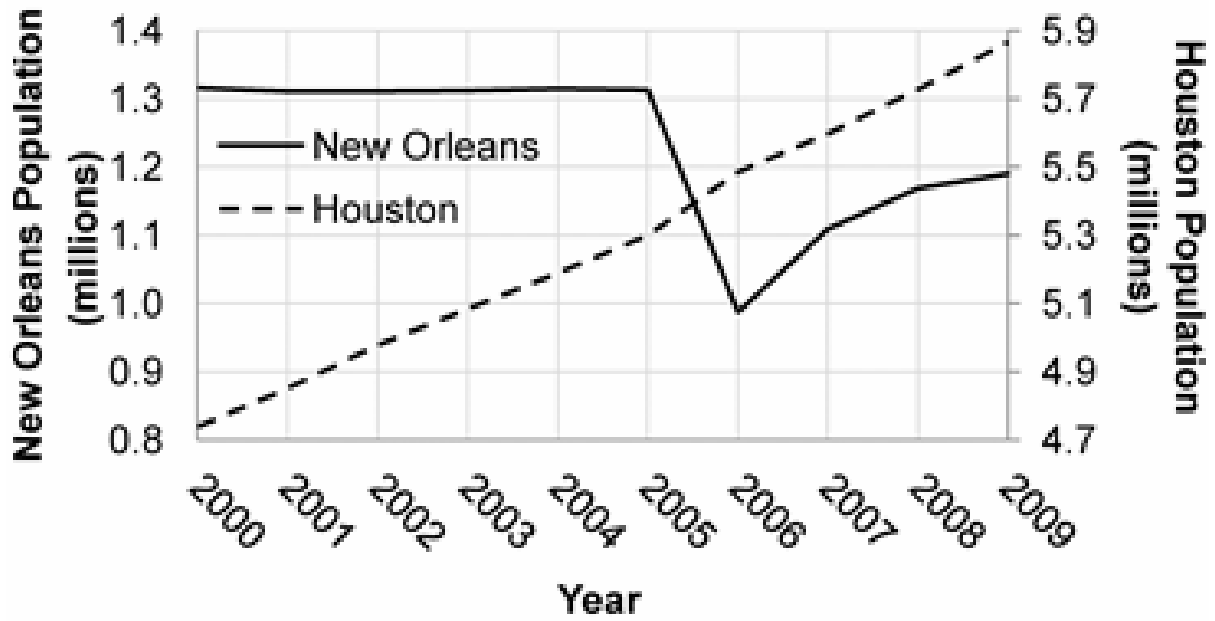
Snow Belt of the United States
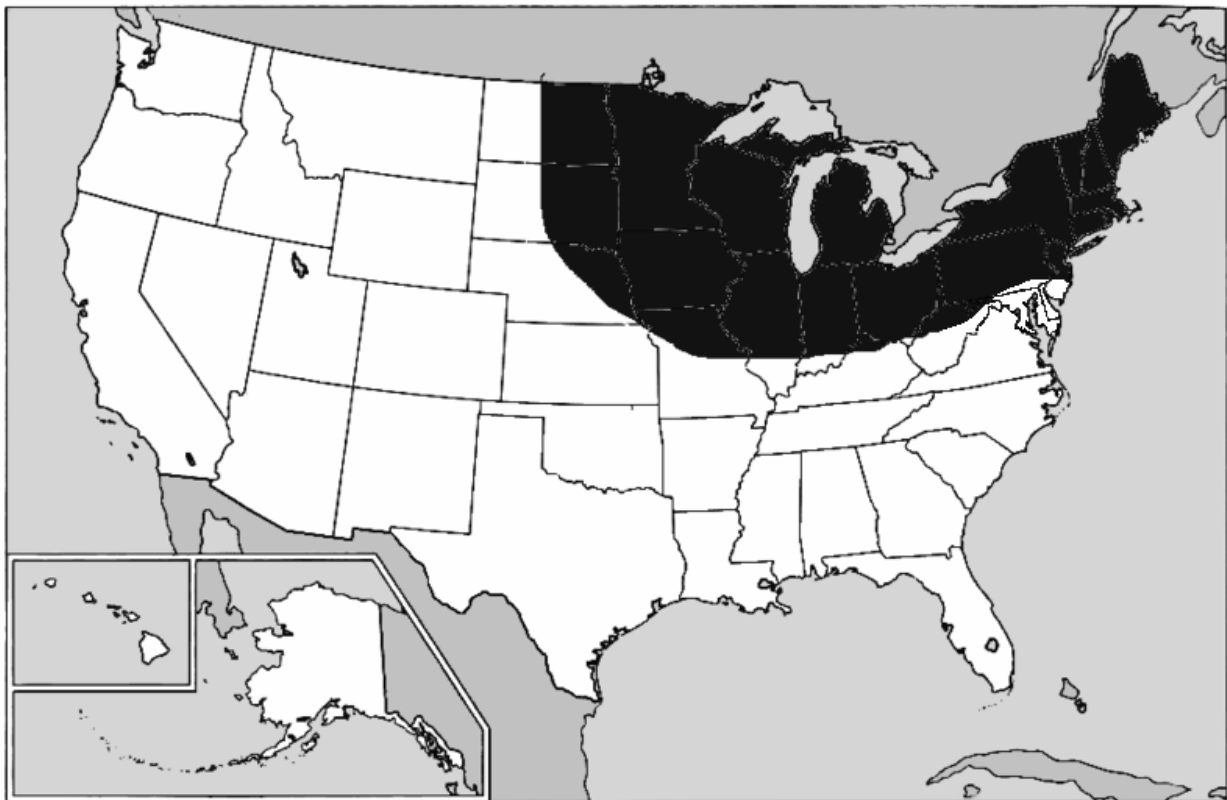
IMMIGRATION TO THE USA, BY DECADE
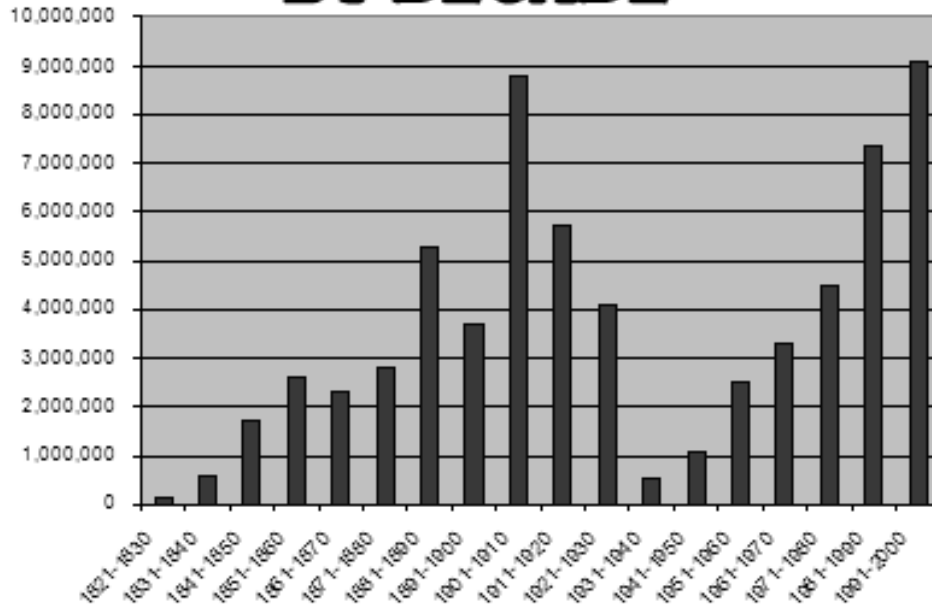
Decade	Immigration
1821-1830	143,439
1831-1840	599,125
1841-1850	1,713,251
1851-1860	2,598,214
1861-1870	2,314,824
1871-1880	2,812,191
1881-1890	5,246,613
1891-1900	3,687,564
1901-1910	8,795,386
1911-1920	5,735,811
1921-1930	4,107,209
1931-1940	528,431
1941-1950	1,035,039
1951-1960	2,515,479
1961-1970	3,321,677
1971-1980	4,493,314
1981-1990	7,338,062
1991-2000	9,095,417

WILLisms.com

Electricity Consumption* per Capita

Kilowatt-Hours per Person, 2001

AK 8,549

WA 13,304
OR 13,212
ID 15,970
MT 12,345
ND 15,462
MN 12,125
WI 12,067
NH 8,193
VT 9,162
ME 9,199
MA 8,255
NY 7,438
RI 7,410
CT 8,914
NJ 8,526
SD 11,402
WY 26,192
IA 13,415
MI 10,205
PA 11,223
DE 13,395
MD 11,125
NV 13,374
UT 10,229
CO 10,013
NE 14,431
IL 10,870
IN 15,983
OH 13,581
WV 15,355
VA 13,373
CA 6,824
KS 13,303
MO 13,005
KY 19,671
NC 14,368
District of Columbia 16,456
AZ 11,735
NM 10,238
OK 14,354
AR 15,502
TN 16,606
SC 18,418
HI 7,984
TX 14,821
MS 15,496
AL 17,748
GA 14,050
LA 16,724
FL 12,179

6,824 to 9,999
10,000 to 12,999
13,000 to 14,999
15,000 to 26,192

United States: 11,832

Go to School!
Percent of Population 15 Years and Over with No Degree, Certificate or Diploma, 2001

Percent
28.4 - 30.6
30.7 - 33.4
33.5 - 40.7
40.8 - 44.2
44.3 - 59.3

Source: Statistics Canada, Census of Population

Education is important because it provides opportunities for your future. Many Canadian citizens have not completed a basic high school level education with Nunavut having the highest rate with 59.3%. Yukon Territory had the lowest rate with 28.4%. Can you explain the number in your area? Start your school year off right by paying attention in class and working hard.

Prepared by Scott Davis, Sept. 2007

United States
Educational Attainment

Source: US Census Bureau 2010

Legend:
- High School graduate or more
- Bachelor's degree or more

Atlantic Ocean
Pacific Ocean
Gulf of Mexico
Gulf of Alaska
Bering Sea

MAPS.com

Company Profile – Location Practice

Directions: Listed below is a set of companies that includes their location and a brief profile. In the attached pages please explain in complete sentences why the company headquarters or corporate office would be located there.

Company 1: Billabong

US Corporate Location: Irvine, California
Industry: Retail
Revenue: 1.79 billion Australian dollars (2011)
Products: surf gear, swim wear, clothes, wetsuits
Area served: worldwide
History: Billabong began in Australia in the 1970s. It developed as a company after two friends developed a new type of surfboard, introduced the leg-rope, and produced handmade board shorts. In the 1980s it was able to go international which included countries like the United States and Japan.

Company 2: Disney

US Theme Park Locations: Orlando, Florida and Anaheim, California
Industry: Tourism, mass media
Products: theme parks, resorts, souvenir items, etc.
Area served: worldwide
History: Disney Land was opened in 1955 and consists of approximately 160 acres. Walt Disney World Resort, or simply Disney World, was opened later in 1971. It covers approximately 30,000 acres and has grown to include 4 theme parks, two water parks, many resorts, and several other attractions. Disney World can employ up to 66,000 people and offers an internship program that allows students from around the world to work at the park. They also offer living close to the park in resort owned apartment complexes.

Company 3: Dole Food Company

Headquarters Location: Westlake Village, California
Industry: Agribusiness
Revenue: 7.2 billion (2011)
Products: fruits, vegetables, etc.
Area served: worldwide
History: Dole Food Company began in Hawaii in 1899 after James Dole started growing pineapples. He would them ship them back to the mainland of the United States. Dole

bananas followed as the next fresh fruit sold across the US. Today, Dole uses company owned farms and 7000 independent growers from all over the world to provide fresh fruit and vegetables.

Company 4: TransAlta Corporation

<u>Hydroelectric power plant location:</u> Galetta, Ontario (Canada)
<u>Industry</u>: Electricity generation
<u>Company revenue</u>: 2.8 billion CAD (2010)
<u>Products</u>: natural gas, coal, wind, hydro, geothermal
<u>Area served</u>: Ontario, Canada
<u>History</u>: TransAlta began as a small power company in Alberta around 1909. It started with the development of a Hydro Plant in Horseshoe Falls. The Galetta plant was built in 1907 by another company and then bought by TransAlta. It currently generates 6,500 megawatt hours each year.

Company 5: Citigroup

<u>Headquarters location:</u> New York City, New York
<u>Industry</u>: banking, financial services
<u>Company revenue</u>: 70.17 billion (2012)
<u>Products</u>: credit cards, consumer banking, corporate banking, etc.
<u>Area Served:</u> worldwide
<u>History</u>: Citigroup was formed from a merger (joining) of Citicorp and Travelers Group in 1998. Citicorp began in New York in 1812 that served merchants from the region. Travelers group began in the late 1900s. Currently Citigroup is the third largest bank holding companies in the United States and includes shareholders from all over the world.

Company 6: Toyota Motor Manufacturing Texas, Inc.

<u>Assembly plant location:</u> San Antonio, TX (far south side)
<u>Industry</u>: Automotive
<u>Employment</u>: 2,391
<u>Products</u>: Tundra and Tacoma pickup trucks
<u>Area Served:</u> worldwide
<u>History</u>: The vehicle assembly plant was built in 2003. In 2008, Toyota announced that all Tundra production would take place at the San Antonio plant. This preserved the jobs of many in San Antonio. Currently Toyota has invested approximate $2.2 billion in the plant.

Name _____ Date _____
Period ____

Company Profile – Location Practice

Company 1:

_____
_____
_____
_____
_____
_____
_____
_____

Company 2:

_____
_____
_____
_____
_____
_____
_____

Company 3:

_____
_____
_____
_____
_____
_____

_____

_____

Company 4:

_____

_____

_____

_____

_____

_____

_____

Company 5:

_____

_____

_____

_____

_____

_____

_____

_____

Company 6:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Why is it there?
Performance Task Instructions

On the following pages are profiles of newly created companies. Your job is to determine the best place in the United States or Canada for these new headquarters or factories based on the factors listed later in the instructions. There are also pages for you to plan and brainstorm for your justification paragraphs stapled at the end. In your final project you must include the following:

1. Map showing the appropriate location of each company (one per pair)
2. Paragraphs justifying the location of each company with at least three pieces of evidence (one set per pair)
3. Logo for each company (one set per pair)
4. Paragraphs answering the three essential questions (one per individual)
   a. How do you define a region?
   b. How does where people live influence how they live?
   c. How do the physical and human characteristics of a region affect the economy?
5. At least one company located in Canada
6. Correct grammar and spelling

In determining your location, here are several factors and resources that will be helpful:

- Regional characteristics (culture, education levels, skill level of laborers, ethnicity, etc.) from textbook and online resources
- Climate
- Vegetation
- Landforms/topography
- Population density
- Infrastructure (roads, bridges, electricity, ship channels, etc.)
- Available resources
- Economic activities/land usage
- Any other demographic information (can be from "big idea" statements)

Company #1: Mr. Burn's Nuclear Power Plant

Industry: Electricity generation
Cost/Investment: $5 billion
Employment: 1275 employees
Products: energy

Needs/Requirements: The nuclear power plant needs approximate 12,000 acres on which to build. The nuclear power plant will also need a natural or man-made way to cool the reactors. This may take a large water supply. Also, nuclear power plants are potentially hazardous so they must be placed away from large populated areas and protected from natural disasters.

Company #2: Lusitania Shipbuilding, Inc.

Industry: Shipbuilding
Cost/Investment: $2 billion
Employment: 120
Products: Arctic icebreakers, ferries, fishing boats, tug boats, etc.

Needs/Requirements: The company needs to have at least two floating dry docks in order to construct the ships. Dry docks are narrow channels that can be flooded in order to float a ship in, but then drained in order to work on the ships. They will also need a way to make sure the ship can be easily transported to its destination. There should be a variety of labor skill levels.

Company #3: Fowl Foods

Industry: Food processing
Employment: 400
Products: chicken, beef, and pork

Needs/Requirements: This food processing company needs enough space to both hold and process up to 787,000 chickens, 13,150 cattle, or 57,900 pigs. They will also need space for animal feed and a way to easily transport both the animals and processed food for sale in stores. Also, keep in mind many major cities have laws or codes against livestock. The skill level of employees does not have to be high.

Company #4: Lithosphere Mining Corporation

Industry: Mining

Employment: 250

Products: coal

Needs/Requirements: The mine would need to have appropriate infrastructure in order to transport the coal quickly and easily away from the mine. The soil will also need to be easy to dig through, but not so soft that mines have an issue collapsing and creating safety hazards. The skill level of employees does not have to be high.

Company #5: Summit Reach

Industry: Retail

Employment: 1400

Products: high-end outdoor clothing for rock/alpine climbing and skiing

Needs/requirements: The products are high-end which means they are more expensive, this will require the company to target specific income groups. The clothing type will also determine the location. In terms of space, they will need enough space to hold both the corporate headquarters and major store. There should be a variety of labor skill levels.

Company #6: Applesoft Computers

Industry: Computer hardware

Employment: 6,500

Products: servers, video games, security programs, and a variety of computer programs

Needs/requirements: This company needs a highly educated/skilled population to work on the computer programs. They need enough space to hold both the corporate headquarters and research facility to design new software programs. There should also be a larger population in order to provide enough fulfill the number of jobs provided by the company.

Preparation Pages

Use the following space to prepare your justification paragraphs. Remember you need three pieces of evidence, or reasons why that location should be considered the best

Company 1 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Company 2 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Company 3 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Company 4 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Company 5 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Company 6 Location: _____

Evidence:	Logo:
Evidence:	
Evidence:	

Project Rubric

Criterion	Points possible	Points awarded
Creation of map with all company locations (0 is unacceptable, 8 is exceeding expectations)	8	
Appropriate location for company locations (2 points per company)	12	
Justification paragraph for company locations with three pieces of evidence (6 points per company)	36	
Logo for each company (2 points per company)	12	
Essential question paragraphs (4 points per paragraph)	12	
At least one country located in Canada	4	
Correct grammar and spelling (0 is unacceptable, 8 is exceeding expectations)	8	
Neat – more points for typed paragraphs and colored logos/maps (0 is unacceptable, 8 is exceeding expectations)	8	

Total Points*   100

_____

*Grades may be affected by completed evaluations