Welcome to The Link!

Choosing to complete courses through Distributed Learning is an exciting choice! You have the opportunity to complete work at your own pace, at times of the day that work for you. Courses typically take 100-120 hours to complete, so plan to work at least 30 minutes per school day to complete this course in the one year permitted. That means your first goal should be to have about 10% of the course complete per month. Of course, working more quickly is highly recommended.

Success in Distributed Learning is dependent on a few things:

**Communication:** It is essential you communicate with your teacher(s) when you have questions. If you don’t ask, we don’t know! Send an email as soon as you have a question, and you will receive a response within one school day. You can also book a time to come in and see your teacher if it’s easier to talk things through (it sometimes is). If your teacher emails you, please respond in a polite manner using proper language (i.e., capitalize “I”) within a reasonable timeframe. Make sure you state your name and which course you are working on.

**Read Carefully:** Since you don’t have a teacher in front of you explaining the instructions, it is very important to read instructions carefully to make sure you are meeting the learning outcomes for the course. If you don’t understand any of the instructions, please ask!

**Engage:** Success in Distributed Learning depends on you, the student, being self-motivated and being interested in completing your work. No one can force you to do this: you must make the choice to log into the program on a regular basis and submit work. The Link expects you will be logging in on a regular basis and setting and meeting reasonable goals. Failure to do so may result in withdrawal from the course(s).

You have made the first step by reading page 1! Now, keep reading to begin the first assignment for Geography 12. Read carefully. When you are done, follow the instructions for handing your initial assignment in to the teacher and moving forward in the course.

Please let me know if you have any questions.

Thanks,

Emily Kirzinger, Geography 12 teacher
Part 1: Regions

Regions are areas that have similar characteristics, according to a set of chosen criteria. Regions are the basic units of geographic study.

Regions can be based on criteria as diverse as climate to natural vegetation to life expectancy to language to available health care to international trade. Regions can be broken down by their physical characteristics (things that were or are here before humans) or their human characteristics (things created or caused by humans). Some physical example of region definitions could be (but are not limited to):

- Topography
- Climate
- Rainfall

And some examples of human characteristics could be (but are not limited to):

- Cultural features (literacy, birth rate, number of Starbucks locations, etc.)
- Economics (GDP, trade, etc.)

Frequently, country borders are used as the border for a region. See below for examples of regions:

This map shows the biogeographical regions of Europe. This is the flora and fauna. Notice how regions do not stop at country borders.
This map shows the GDP (Gross Domestic Product) using countries as the regions. See any trends?

1 http://www.normschriever.com/blog/20-maps-that-will-change-your-world
Percentage of Population Literate

- 95% and above
- 75–94%
- 50–74%
- Under 50%
- no data

Eckert Equal-Area Projection

3 billion people live on less than $2 per day

2 http://www.maps.com/ref_map.aspx?pid=12877
3 http://www.normschriever.com/blog/20-maps-that-will-change-your-world
If you don’t remember the Physiographical Regions of Canada, you can visit this website to review:

http://www.thecanadianencyclopedia.com/articles/physiographic-regions

**Instructions**: Go to the Geography 12 First Assignment WORKBOOK to complete the assignment for Part 1: Regions. When that is complete, return to the readings for Part 2.
Part 2: The Five Themes of Geography

There are five themes in the study of Geography:

- Location
- Place
- Movement
- Regions
- Human/Environment Interaction

1. **Location**: A position on the earth’s surface. We are going to look at three ways to determine location: finding absolute location using latitude and longitude, using UTM, and finding relative location.

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**Absolute Location**

Every point on Earth has a specific location that is determined by an imaginary grid of lines denoting latitude and longitude. Geographers use latitude and longitude to pinpoint a place’s *absolute*, or exact, location.

Latitude and longitude are written in degrees (shown as °), minutes (shown as ’) and seconds (shown as “). There are sixty minutes in each degree, and sixty seconds in each minute. So each location is written as number of degrees, minutes and seconds latitude (either North or South of the equator, which is latitude zero), and number of degrees, minutes and seconds longitude (either East of West of the Prime Meridian, which is **Lines of Latitude**

The latitude of a place is its distance north or south of the equator.

The equator itself is zero degrees latitude (0°). The degree of latitude is the same as the degree of the angle formed between the equator and points north and south. Imagine you could draw a line from the North Pole into the center of Earth and from the center straight to the surface. The lines would form a 90° angle. That's why the North Pole has the latitude 90° N, and the South Pole has the latitude 90° S.

Lines of Latitude run parallel to the equator and are often referred to as parallels.

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**Lines of Longitude**

Lines of longitude, which run the length of Earth (think long), go from the North Pole to the South Pole and intersect lines of latitude at right angle.

Imagine Earth as a circle. Like all circles, it can be divided into 360 degrees. Each degree is a line of longitude. There are 180 degrees to the east and 180 degrees to the west. Lines of longitude are closest together near the poles and farthest apart at the equator.

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*to find this key on your keyboard, use Ctrl+@, Space*
longitude zero). Often degrees above the equator are positive, and below the equator are negative. West of the Prime Meridian degrees are negative and positive East of the Prime Meridian. For example, the location of Los Angeles, California is roughly Latitude "plus 33 degrees, 56 minutes" and Longitude "minus 118 degrees, 24 minutes." This can be written as 33°56’N 118°24’ W.

Use this link to explore the absolute location of anywhere on the planet in latitude and longitude.

**UTM Grid Reference System**

(Information adapted from this website)

The Universal Transverse Mercator (UTM) coordinate system is an international locational reference system that depicts the Earth’s three-dimensional surface in a relatively-accurate, two-dimensional manner. It was developed by NATO (so you know it’s cool).

It relies on the meter unit of measure (aren’t you glad Canada is already metric? *cough cough* get with the times, America *cough cough*), and allows users to accurately and unambiguously identify geographical locations anywhere on the Earth’s surface between the northern limits of North America (84 degrees north latitude) and the southern limits of continent of Antarctica (80 degrees south latitude).

The remaining north and south polar regions are not included in the UTM coordinate system due to extreme projection distortions in the UTM grid.

The UTM system depicts the Earth’s three-dimensional surface as a flat, two dimensional place by dividing its surface into 60 equally-spaced vertical planes known as zones, or world zones. Numbered from 1-60, from west to east, the starting point for zones (and the common border between Zone 1 and Zone 60) is the 180-degree meridian of longitude, or International Date Line. British Columbia occupies 5 UTM zones: 7 through 11. See the map above – the grey areas are not part of the UTM, as when you put
the Earth (3D, an orb) on a 2D surface, there is distortion. Imagine trying to peel an orange – you can’t keep it flat or square easily. Turning the Earth into a map is like that.

While numbered zones run North-South, latitude bands run East-West and are labeled by letters of the alphabet.

While numbered zones run North-South, latitude bands run East-West and are labeled by letters of the alphabet.

See numbered zones (1-60) running vertically (easting lines) and alphabet (A-Z) latitude bands running horizontally (called northing lines).

The location being pointed to is zone 17T.

The grids are 1000 meter squares.

Check the Universal UTM zone map out [here](#).

Watch [this](#) quick (less than 3 minute) video if any of that is confusing to you.

This creates a zone that is a 1000 meter square – so not very specific! To find more specific locations, we look within that square.
To arrive at a map reference for the church shown in the figure (below), we would first note the numbering of the lines that form the west and south of the square. For centuries, mathematicians have given the \( X \) coordinate before the \( Y \) coordinate; map users follow suit by quoting eastings (vertical) before northings (horizontal). Therefore the designation of the square containing the church would be \( 9194 \).

To give a reference for the church itself, we must imagine the square divided into 100 smaller squares (ten by ten). Then we estimate by eye that the church is six tenths of the way between lines 91 and 92, and four tenths of the way between lines 94 and 95. Using these figures, we can quote the easting as being \( 916 \) and the northing as \( 944 \). By convention these are combined into a reference of \( 916944 \).

Latitude and Longitude vs. UTM: Which system is better? See here. Spoiler alert: It depends on the map and what you are using the information for.

Return to this link and explore different UTM coordinates. Find your house!

**Relative Location**

The *relative* location of a place refers to its position when compared to another landmark. People often use relative location when giving directions. For example, you might say that SJ Willis is close to Mayfair Mall in Victoria.

Often, topographical features are used to determine relative location. **Topographical features** are features that appear on
the Earth’s surface, such as:

- Roads
- Buildings
- Urban development
- Railways
- Airports
- State and international borders
- Reserves

2. **Place:** These are the physical and human characteristics that make a place unique. To help you determine these characteristics look at a place through the Five Lenses of Geography (PEEPS):

- **Physical**
- **Economic**
- **Environmental**
- **Political**
- **Social/Cultural**

All places have characteristics that give them meaning and character and distinguish them from other places on earth. Geographers describe places by their **physical** and **human** characteristics.

Human factors contributing to the characteristics of a place are:

- **Communication** (would you want to live somewhere with no phone or TV?)
- **Culture** (do you want to live somewhere without a personality?)
- **Development** (roads would be nice! Schools, stores, etc.)
- **Disease** (no one is moving to places overrun with germs)
- **Government Policies** (move somewhere with lower taxes?)
- **Language**

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Ah, Paris. Find the time in your life to go – at least once.

*Humans built much of the beauty of Paris: the Eiffel Tower, Sacre Coeur, baguettes, café au lait... these are all human factors that contribute to Paris’ beauty.*
Physical Factors also contribute to why people settle in a certain area:

- **Accessibility** (if you can’t get there, you can’t live there)
- **Climate** (why people don’t like living in the Arctic)
- **Landscape** (people settle in “prettier” areas)
- **Resources** (fresh water nearby, not just desert)
- **Soils** (because you want to grow food)
- **Vegetation/Water** (so you can stay healthy!)

The desert in the picture was not created by humans – it is a physical feature. Personally, I don’t find 45 degrees and no water particularly appealing, so I will stick to Paris. Clearly humanity agrees with me, as not many civilizations have decided to settle in hot deserts.

Studied together, the physical and human characteristics of places provide clues to help us understand the nature of places on the earth.

3. **Movement:** The varied patterns in the movement of life forms, ideas, and materials.

People interact with other people, places, and things almost every day of their lives. They travel from one place to another; they communicate with each other; and they rely upon products, information, and ideas that come from beyond their immediate environment.

Students should be able to recognize where resources are located, who needs them, and how they are transported over the earth’s surface. The theme of movement helps students understand how they themselves are connected with, and dependent upon, other regions, cultures, and people in the world.

Look at the following pictures and think about how they relate to movement:
SLAVE TRADE
FROM AFRICA TO THE AMERICAS
1650–1860

Between 1650 and 1860, approximately 10 to 15 million enslaved people were transported from western Africa to the Americas. Most were shipped to the West Indies, Central America, and South America.
4. **Regions**: Basic units of study that define an area with certain human and/or physical characteristics.

A basic unit of geographic study is the region, an area on the earth’s surface that is defined by certain unifying characteristics. The unifying characteristics may be physical, human, or cultural. In addition to studying the unifying characteristics of a region, geographers study how a region changes over time. Using the theme of regions, geographers divide the world into manageable units for study.

Examples of different regions: (Yes, you can be in more than one region!)
5. **Human-Environment Interaction:** The way humans depend upon, adapt to, and modify the environment.

The environment means different things to different people, depending on their cultural backgrounds and technological resources. In studying human/environment interaction, geographers look at all the effects—positive and negative—that occur when people interact with their surroundings. Sometimes a human act, such as damming a river to prevent flooding or to provide irrigation, requires consideration of the potential consequences. The construction of Hoover Dam on the Colorado River, for example, changed the natural landscape, but it also created a reservoir that helps provide water and electric power for the arid Southwest. Studying the consequences of human/environment interaction helps people plan and manage the environment responsibly.
How do we apply the 5 Basic Themes to a location?

Let’s look at an example for New York City, New York, USA. You should go there. It’s awesome.

1. **Location:** New York City (NYC) is located in southeastern New York State, USA, at 40° 42’46” N, 74° 00’21” W. In UTM coordinates, it is Zone 18N, 583973.5mE 450348.7mN (I used [this website](#)). It is approximately halfway between Washington, DC, and Boston, Massachusetts.

![New York City Map](image)

2. **Place (remember PEEPS)**

   **Physical Characteristics**

   - New York City is about 1,214 km².
   - NYC is three islands: Manhattan, Staten Island and Long Island.
   - NYC is five boroughs: Manhattan, Brooklyn, Queens, The Bronx and Staten Island (right)
   - The Hudson River flows into New York Bay and separates the city from New Jersey (another US
The Harlem River separates Manhattan from the Bronx.

**Economic Characteristics**

- NYC is a global hub of international business and commerce and is considered one of three “command centers” for the world economy
- Major center for banking, finance, retail, world trade, transportation, tourism, real estate, advertising, theater, fashion and arts.
- 45 major Fortune 500 companies are headquartered in NYC
- Wall Street is the headquarters for the US financial industry
- Lower Manhattan is home to the New York Stock Exchange and the NASDAQ, the world’s two largest stock exchanges
- Home to some of USA’s most expensive real estate
- Approximately 54 million tourists in 2013 gives revenues of about $55 billion annually

**Environmental Characteristics**

- There are forested areas in the community (i.e. within parks)
- NYC has a humid subtropical climate. Winters are cold and damp and summers are warm to hot and humid.
- NYC has over 110 km² of city parks, with Central Park (3.57 km²) being the most visited park in the US (25 million visitors a year).

**Political Characteristics**

- NYC is a metropolitan municipality since 1898
- Central government is responsible for public education, correctional institutions, libraries, public safety, recreational facilities, sanitation, water supply and welfare services.
- Run by a Mayor (Bill de Blasio, Democrat) and 51 council members on 4 year terms.
- Democrats have been in office since 1924.
Social and Cultural Characteristics

- NYC has been described as the cultural capital of the world\(^5\)
- Center of Jazz in the 1940s, birthplace of hip hop in the 1970s
- Fashion capital
- More than 500 art galleries, such as the Metropolitan Museum of Art
- Broadway district holds 40 of the city’s theaters (also called “The Great White Way”)
- The “Museum Mile” on 5th Avenue holds 10 museums
- Wide variety of food available (more than 1000 restaurants and 4000 food carts)
- NYC has NFL, NBA, MLB, NHL and MLS teams
- Four of the ten most expensive stadiums in the world are in the NYC area

3. Human-Environment Interaction

Human Dependency On the Environment

- The rivers surrounding NYC provide transportation, shipping, recreation
- Tough metamorphic rocks under Manhattan provide support for the sky-scrapers
- Climate is affected by proximity to Atlantic Ocean

Human Adaptation to the Environment

- NYC is one of the least automobile-dependent cities in the USA because of its population density.
- High demand for available land (equals high real estate prices)

Human Modification of the Environment

- Battery Park City in Lower Manhattan is actually reclaimed land
- Buildings, subways, bridges

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\(^5\) http://en.wikipedia.org/wiki/New_York_City#Culture_and_contemporary_life
The construction and infrastructure of NYC means considerable modification has also been done below the surface. Check out this graphic of what’s going on below the streets of NYC (left). For more information, read this article and you can explore the graphic (it’s interactive).

4. **Movement**

- NYC is linked by air at three major airports, JFK, Newark and LaGuardia
- New Yorkers move throughout the city by the Subway system (runs 24/7) and bus system (which has the world’s largest fleet of buses)
- Manhattan is connected to New Jersey by the George Washington Bridge, the busiest car bridge in the world
- NYC is served by long distance rail company Amtrak at Pennsylvania Station
- NYC also has the largest commuter rail network in the USA
- The Staten Island Ferry is the world’s busiest ferry route
- Manhattan is also connected by several underground tunnels
- There are more than 12,000 taxis
NYC is a global hub of international business and commerce and is considered one of three “command centers” for the world economy

- Major center for banking, finance, retail, world trade, transportation, tourism, real estate, advertising, theater, fashion and arts = influence ideas and trends globally
- Lower Manhattan is home to the New York Stock Exchange and the NASDAQ, the world’s two largest stock exchanges. This gives them great global influence
- Approximately 54 million tourists in 2013 means people come to NYC from all over
- Known as a great city, people come to NYC to make their dreams come true

5. **Regions**

- NYC is part of Northeastern USA
- NYC is part of New York State
- NYC is on the East Coast of USA

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**Part 2: Five Themes of Geography Assignment**

**Instructions:** Go to the Geography 12 First Assignment WORKBOOK to complete the assignment for Part 2: Five Themes of Geography Assignment. Then return to the readings for Part 3.
Part 3: Thinking Geographically

Geography is not just earthquakes and landslides, but also pretty much everything to do with the world around us. Look through the following images below. You will be referencing them for this activity.
Instructions: Go to the Geography 12 First Assignment WORKBOOK to complete the assignment for Part 3: Thinking Geographically. Then return to the readings for Part 4.
Part 4: The Relevance of Geography

Geography is the study of the physical, natural, and human elements of the global environment. It is particularly concerned with

- interrelationships and interdependencies among those elements
- similarities among things, places, and processes
- differences between things, places, and processes
- the spatial distribution of particular phenomena (where things are; why they are there)
- the temporal distribution of particular phenomena (how things have changed over time).

Geography is an integrating study that helps to bridge the gap between the sciences and humanities. There are no facts or objects of study that are exclusive to geography. Geographic data is gathered from many sources and disciplines.

Look at the following two graphics.
Instructions: Go to the Geography 12 First Assignment WORKBOOK to complete the assignment for Part 4: The Relevance of Geography. Read the next page before submitting your complete first assignment.
Have you....

✓ Answered all the questions in this assignment?
  o Email your complete assignment to mmorris@sd61.bc.ca
  o *Incomplete assignments will be returned*

✓ Completed the necessary registration paperwork?
  o See what forms are required on our website: www.thelink.sd61.bc.ca

✓ Submitted the registration paperwork to The Link reception?
  o Drop off the paperwork at Reception, 2nd Floor, 923 Topaz Avenue or
    email your complete registration to thelink@sd61.bc.ca
  o Reception is unable to process incomplete packages
  o You will be unable to move forward in the course until the office
    verifies paperwork is complete

✓ Paid any fees or deposits required?

Thank you for your interest in learning at The Link!