

**Geography 101  
Earth Science  
Study Guide for Quiz #1**

Quiz #1 will cover material from Lectures, Lab Exercises, Discussion Boards and Reading Assignments.

The Quiz will include:

- multiple choice questions
- matching
- True-False
- short answer / definitions
- essay questions

The following terms and concepts will be covered on Quiz #1:

**Introduction**

world population – know the amount to within 0.1 billion  
here is a link to that value:

<https://www.census.gov/popclock/world>

- latitude
- longitude
- Prime Meridian
- hemispheres (N,S,W,E)

- earth-sun relationship
- solstice
- equinox
- circle of illumination
- great circle

- axis tilt (23.5 degrees)
- Tropic of Cancer
- Tropic of Capricorn
- Arctic Circle
- Antarctic Circle

- declination of the sun / sub-solar point
- azimuth & elevation of the sun
- position of sunrise/sunset
- variable length of day

- physical geography (with examples)
- human geography (with examples)

Know the latitude and longitude of Port Huron (to the nearest whole degree).

**Fluvial Geomorphology (Rivers)**

- hydrologic cycle
  - runoff
  - evaporation
  - condensation
  - precipitation
  - infiltration
  - transpiration

- floodplain
- meanders
- drainage basin (watershed)
- drainage divide

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alluvium  
headwaters  
mouth (of the river)  
discharge

cutoff  
oxbow and oxbow lake  
distributary  
tributary

Also know:

percentage of water in oceans = 97.7%  
percentage of water in glaciers = 2.2%  
percentage of water in everything else = 0.1%

longest river in the world  
largest river in the world

### **Groundwater**

water table  
aquifers  
Ogallala Aquifer (from reading)  
aquitards

### **Oceans**

mean sea level  
salinity  
desalination

mapping the ocean floor  
continental shelf  
continental slope  
abyssal plains

wavelength  
wave height  
wave refraction  
fetch

ocean surf  
beach drift  
sand spit

lunar tides  
- spring tide  
- neap tide

Be able to locate the following parts of the Ocean on a world map:

Pacific Ocean  
Atlantic Ocean  
Indian Ocean  
Arctic Ocean  
Caribbean Sea

Mediterranean Sea  
Red Sea  
Persian Gulf  
Sea of Japan  
East China Sea

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## **Possible Essay Questions**

1. Describe the earth-sun relationship as discussed in class. A diagram is required. Include the following in your discussion:

Tropic of Cancer  
Tropic of Capricorn  
Arctic Circle  
Antarctic Circle

solstice  
equinox  
declination of the sun  
variable length of day

2. Discuss the difference between human geography and physical geography and give 3 examples of each. What three questions do geographers always try to answer?
3. Describe the water cycle.
4. How does the position of the sunrise/sunset change over the course of a year?
5. Describe how a river cutoff forms and how that can change into an oxbow. Include diagrams.
6. How does a typical river begin? Examples.
7. Describe the lunar tides and explain the difference between a spring tide and neap tide.
8. Describe why a wave will break on a beach and explain how that is connected to beach drift and wave refraction.