**FYS207 Earth Corps Week 5 Video Review Exercise Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Watch the class videos listed below, and answer the following review questions. Save your work, and upload answer sheet to FYS207 Canvas Course Shell in an Acrobat PDF or MS Word document format.

**Global Water Budget (~4 min)**

<https://www.youtube.com/watch?v=f6Tp13duE5A>

1. What percentage of the Earth’s surface is covered in water?
2. How much water is your body made of?
3. What percentage of the Earth’s surface water is salty ocean water?
4. What is the percentage of fresh water?
5. What is the largest source of fresh water at the Earth’s surface?
6. List three reservoirs that comprise supplies of surface fresh water.
7. Define the term “aquifer”, why is it important.
8. Over the past 100 years, what is the trend of human water consumption on planet Earth?
9. What percentage of human water use is by agriculture? How much percentagy for residential use?
10. List three possible causes for water shortages in terms of human use.

**Hydrologic Cycle (~5 min)** <https://www.youtube.com/watch?v=al-do-HGuIk>

1. Provide some examples of freshwater cycling at the Earth’s surface.
2. Draw sketch or provide an image illustrating the key elements of the hydrologic cycle.
3. What is the largest reservoir of all water on planet Earth?
4. Where is the Ogallala high plains aquifer located?
5. Define the following terms / processes:
   1. Precipitation
   2. Rain vs. Snow
   3. Interception
   4. Runoff vs. Infiltration
6. What are the fundamental driving forces / energy sources for the hydrologic cycle?
7. What is the primary driver of evaporation at the Earth’s surface.
8. Describe the process of evapotranspiration.

**Watersheds and Permaculture (~3 min)** <https://www.youtube.com/watch?v=b98kdNGYZt0&list=PLNdMkGYdEqOCvZ7qcgS3efKm26exq5E3K&index=24>

1. Draw a sketch, provide an image, and describe the concept of a watershed.
2. How does the flow volume of water compared between upland mountain areas and lowland valleys? Which is greater and why?
3. True or False: there is only one watershed at the Earth’s surface above sea level.
4. True or False: water flows from low elevation, to high elevation, uphill.

**Beavers on the Landscape (~3 min)**

<https://www.youtube.com/watch?v=FYIiyYlc-OM&list=PLNdMkGYdEqOCvZ7qcgS3efKm26exq5E3K&index=27>

1. What animal is nature’s water engineer.
2. How do these animals influence water flow in a watershed.
3. Historically, what happened to U.S. Beaver populations following European settlement 300 years ago.
4. What are the hydrologic benefits of having Beavers occupy watersheds.
5. True or False: Beavers are bad, bad animals.

**Trees in the Watershed (~3 min)**

<https://www.youtube.com/watch?v=VXEQfV8bryQ&list=PLNdMkGYdEqOCvZ7qcgS3efKm26exq5E3K&index=26>

1. What percentage of trees is made up of water.
2. How do forests influence the hydrology of mountain areas.
3. True or False: tree cutting results in prolonging, or extending the amount of time for water to transmit through the watershed network.
4. True or False: Trees and Beavers increase the net volume of water stored in a watershed.