

Name: _____

Exploring Hydroelectric Dams with Google Earth Field Guide

Hydropower is energy that comes from the force of moving water. Most hydroelectric power plants are developed at dams. In this activity, you will use Google Earth to explore hydroelectric dams. You will

1. Explore five existing hydroelectric dams around the world.
2. Use the **Ruler** tool to measure the length of dams and distances to populated areas.
3. Infer why dams are placed near population centers.

Read **all** instructions on your handout and answer **each** question.

Hydroelectric Dams Data Chart

Name of Dam	River	Location	Height (ft)	Capacity (MW)	Width of Dam (Miles)	Name and Distance of Nearby Population Center to Dam	Surrounding Area Description (rocks, buildings, grass, trees)
Hoover							
Three Gorges							
Robert Moses							
Bonneville							
Aswan							

1. What do the dams look like?

Helpful hint: Zoom in closely to explore each dam.

2. Why do you think dams are built on rivers?

3. Which dams were built **near** population centers?

4. What are the **advantages** of building a dam near population centers?

5. Which dams were built **furthest away** from population centers?

Why do you think these dams were built in these locations?

6. Draw the **shape** and **size** of the reservoir (upstream) and the shape and size of the river on the downstream side of the Hoover and Aswan dams in the table below. **Label** the reservoir (upstream), dam, and downstream side.

<p style="text-align: center;">Hoover Dam</p> <p>Zoom out until the length between the top of your screen to the bottom of your screen is 5 miles using the ruler.</p>	<p style="text-align: center;">Aswan Dam</p> <p>Zoom out until the length between the top of your screen to the bottom of your screen is 25 miles using the ruler. NOTE: The Nile River flows from south to north.</p>

How are the **shape** and **size** of the reservoir (upstream) different from the shape and size of the river on the downstream side of the dams? (What does the river look like on each side of the dam? Is the water area larger and wider on one side of the dam?)

7. What are some **advantages** of having one side of the dam contain a **much larger volume of water** than the other side?