

GREAT Lakes!



This activity center is part of the **Water Science** theme.

What's the purpose of this activity?

To demonstrate the sizes of the Great Lakes with respect to the earth and elevation differences between each of these lakes: Lake Superior, Huron, Michigan, Erie and Ontario. Students will be introduced to lake volumes and how this compares to their surface areas. Overall, the whole Great Lakes system is important to people and ecosystems in North America.

Key messages:

- To become familiar with the size, depth, volume, elevation and flow of the Great Lakes
- To understand that the Great lakes are all connected in a large watershed system that flows into the Atlantic Ocean
- We can affect the Great Lakes watershed system!

Materials:

- Inflatable Globe
- The Great Lakes laminated map
 - Weigh or tape flat down on table
- 5 Lake Containers
- 5 laminated Lake Cutouts
- Duplo Lego Blocks
- 5 laminated "What Lake Am I?" cards
- Laminated answer key and details for "What Lake Am I?" cards
- 1 Great Lakes Facts laminated poster

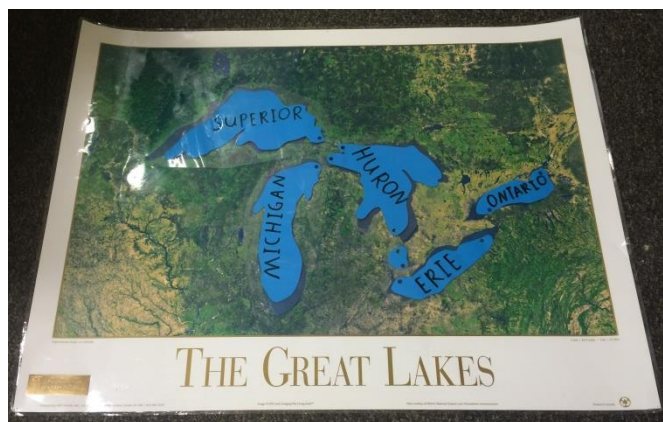
Activity Set Up:

1. Lay Great Lakes laminated map flat on table and weigh or tape down
2. Have Duplo Lego Blocks ready to be distributed
3. Have cards and posters ready.

What will I be doing?

During this activity you will be demonstrating the size of the Great lakes on our Earth. Familiarizing students with the name of each lake and matching each lake to a container which is comparable to its volume, therefore discovering relative volumes. Through this activity, elevation and elevation differences will also be discussed. You will conclude the activity by facilitating a conversation on why the Great lakes are important to us ... you and me!

1. When students arrive, toss the inflatable globe to one of the children. Have them point out North America.
 - Now, introduce where the Great Lakes are in relation to the planet using the inflatable globe. (this area should be outlined in yellow or gold)
2. Now draw the group's attention to the map of the Great lakes.
 - Have the group name each Great lake by matching the lake cutouts with the map
 - Help them if needed
 - Lay the map flat on the table and tap



3. Place all of the containers beside the labeled map
 - Each container should have one piece of Lego on the bottom already
 - Explain that you will now play a game to match each lake with one of the containers
 - Split students into groups of 1-4 so that you have a total of 5 groups
 - If there are not enough children,

- involve parents, and teachers
- If still not enough, you can play too!



4. Give each group/person a “What Lake am I?” card and point out that there are clues on the card which will help them determine which lake they are.
 - Have each group/person read the card aloud.
 - Ask everyone which lake the clues are referring to.
 - Now have the entire group decide which container represents that lake.
 - The clues should help!
 - Place the lake cutout on the container and place it on the map.



5. Ask the students to look at the lake elevation on their card.
 - This number represents the number of Lego blocks to add to each container.

- Instruct each of the groups to attach the required number of Lego blocks to the lake containers to demonstrate the elevation of each lake.

Example: Lake Elevations



6 Blocks for lake Superior (in addition to the Lego base)

- After the Lego blocks are attached to the container, instruct each group to return their lake back to the appropriate place on the map.
- Lake Elevations:
 - **Lake Superior – 183m**
 - 6 blocks (7 blocks including base)
 - **Lake Michigan – 176m**
 - 4 blocks (5 blocks including base)
 - **Lake Huron – 176m**
 - 4 blocks (5 blocks including base)
 - **Lake Erie – 173m**
 - 4 blocks (5 blocks including base)
 - **Lake Ontario – 74m**
 - 0 blocks (1 base block only)



6. Explain to students, using the Elevation poster, that lake elevation is based on the height of the lake surface in relation to the height of the ocean.

- The model they just created represents the approximate height of each of the Great lakes!



7. Ask the students which way they think the water flows through the Great Lake system:
 - How would water make its way from Lake Superior to the Atlantic Ocean?



8. To wrap up, ask students why they think the Great Lakes are important?
 - Water
 - Wildlife/Habitat
 - Transportation
 - Weather (Lake effect)
 - Irrigation
 - Recreation

Can use this time to also share interesting facts about each of the Great Lakes using Great Lakes Facts poster.

Additional Background Information:

- **Lake effect** :a meteorological phenomenon in which warm moist air rising from a body of water mixes with cold dry air overhead

resulting in precipitation

Clean Up Procedures:

- Carefully place all blocks in associated lake container (except for Erie as they don't fit)
- Put lake cutouts into large envelope
- Carefully place Great Lakes Facts poster on bottom of bin
- Carefully roll up laminated Great Lakes map and place into labelled poster tube
- Deflate inflatable globe
- Replace all items into Great Lakes bin
- Place 5 "What Lake am I?" cards and laminated answer key into volunteer folder.
- Return bin and poster tube to Activity Centre Volunteer Sign in area along
- Return Activity Centre folder.