Post Trip Activity

TOPIC: Where is all the water?

THEME: Healthy Freshwater ecosystems, as at Ford Lake, are rare and require careful stewardship.

MATERIALS: 4 litre jug of water, 4 sets of cups labeled: atmosphere, glaciers, ocean, lakes & rivers, unavailable water (polluted etc.), masking tape, markers, 4 100ml graduated cylinders, eye dropper

POST-TRIP: In Class

Arrange students in their four field groups. Ask for a quick review of highlights of the field day.

We were studying a freshwater wetland ecosystem on our field day. Do you think that this is a rare ecosystem? How much available fresh water do you think there is on Earth?

If this 100ml represents all the water on Earth, what proportion does your group think will be fresh? Where else do you find water? (Atmosphere, glaciers, ocean, groundwater, lakes & rivers).

Each group receives 100ml of water in a graduated cylinder, a turkey baster, eyedropper, 5 plastic cups, and markers. In their groups, students experiment dividing the water among the five different places. Once they are satisfied as a group with their division of water (this process can be lengthy and often without consensus being reached) they determine what percentage each form/place of water represents to the total (by returning it to the graduated cylinder. Results of writing on the board and compared through discussion.

Create a chart on the wall where students enter their results.

	Treefrogs	Swallow	Dragonflies	Cattails
Oceans				
Glaciers/icebergs				
Atmosphere				
Groundwater				
Freshwater lakes & rivers				

Coordinator then demonstrates the actual amounts (97.25% salt, 2.05% frozen, .68% groundwater, 0.01% lakes & rivers, ~.01% atmosphere) using a graduated cylinder and an eyedropper.

The visual of the smallest drop of water as freshwater is impressive and self explanatory. If time allows, students can be led in a dialogue based on their familiarity with issues around water conservation.