Environmental Education: Harbours and Watersheds

Watershed Bingo

Background Information

What is a watershed?

A watershed is an area of land that drains rain, snow and ground water to a common point, such as a creek, wetland, lake or ocean. Watersheds can be different sizes and scales. Small watersheds can be part of larger watersheds. The capital region is comprised of over 300 watersheds (drainage areas with a creek or river) which are over 100 hectares in size, plus numerous smaller named and unnamed watersheds.

Watersheds provide many beneficial services to us and the environment. A functioning watershed slows, cleans, filters and stores water by allowing water to absorb into the ground. This process improves water quality, reduces risk of flooding, reduces risk for invasive species to establish and increases resilience within a changing climate. Natural watersheds allow for precipitation to infiltrate the ground and slowly flow into lakes, rivers, creeks and eventually out to the ocean. Urban watersheds are mainly covered in impermeable surfaces (parking lots, buildings, roads, etc.) causing water to flow quickly across surfaces, picking up debris and pollution, and draining into storm drains which lead directly to waterways including our harbours and ocean. Over the years we have changed many of our natural watersheds into urban watersheds.

An urban watershed's functionality can be improved by installing green infrastructure such as permeable pavements, rain gardens, green roofs and by changing human behaviour. We can protect our watersheds by limiting the introduction of pollutants (oils, gas, pesticides, fertilizer, chemicals, etc.), collecting rainwater, maintain native plant gardens plus many more ways.

Instructions

W-A-T-E-R-shed bingo can be played as a classic bingo game or can be used to guide outdoor explorations.

- 1. Print out one copy of the call out sheet and enough "W-A-T-E-R" cards for each player.
- 2. Establish the pattern needed to get "WATER". For example, a single line, an X, or a full card.

Classic Version

Cut out individual squares from the call out sheet and place in a container, bag or hat. If you would like a longer game and to use the "under the B" call out method, also cut out the W-A-T-E-R squares from the top of the columns and place in a separate container, bag or hat.

Choose one square from the call out options and pair with a column letter, read combination aloud. For example, "Under the T, Sun!"

If a player has the matching combination on their card they will mark the square (use coins or game tokens so you can reuse the cards).

When a player completes the established pattern, they shout out "WATER!" to win the game.

Outdoor Exploration Version

Instead of calling out combinations, instruct students to explore a watershed (school yard, park, other outdoor area) and mark off squares on their card as they find listed items. Once they complete the established pattern they shout "WATER!" to win the game.

If going outside, set safety rules and boundaries. Remind students to leave items outside — look, don't take.

If you have any questions about watersheds in the region, or are looking for ideas on how to connect this topic with other learning opportunities, please contact us at education@crd.bc.ca.

Bingo Call Sheet — cut out squares.					
W		T	E E -	R	
Puddle	Flowing Water	Soil	Grass	Flower	
Tree	Flying Bird	Flying Insect	Mushroom	Hill	
Storm Drain	+ +		A Perched Bird	Insect Crawling	
Rain Garden		Sun	Road or Parking Lot	Signs of Animal	
Leaf	 Signs of Humans 	Building	Cloud	Worm	

W	Α	T	Е	R
Puddle	Flowing Water	Soil	Grass	Flower
Tree	A Bird Flying	Flying Insect	Mushroom	Hill
Storm Drain	Moss		A Perched Bird	Crawling Insect
Rain Garden	Mammal	Sun	Road or Parking Lot	Animal Signs
Leaf	Signs of Humans	Building	Cloud	Worm

W	A	T	Ε	R
Mammal	Puddle	Soil	Grass	Signs of Humans
Tree	A Bird Flying	Flower	Mushroom	A Perched Bird
Storm Drain	Moss		Flying Insect	Crawling Insect
Flowing Water	Worm	Sun	Road or Parking Lot	Animal Signs
Leaf	Rain Garden	Building	Cloud	Hill

W	A	Т	Ε	R
Soil	Flowing Water	Moss	Grass	Leaf
Crawling Insect	A Bird Flying	Flying Insect	Mushroom	Hill
Tree	Puddle		A Perched Bird	Flower
Rain Garden	Mammal	Storm Drain	Sun	Animal Signs
Road or Parking Lot	Signs of Humans	Building	Cloud	Worm

W	A	T	E	R
Puddle	Flying Insect	Soil	Cloud	Flower
Flowing Water	A Bird Flying	Hill	Storm Drain	Grass
Sun	Moss		A Perched Bird	Crawling Insect
Rain Garden	Animal Signs	Tree	Road or Parking Lot	Worm
Leaf	Signs of Humans	Building	Mammal	Mushroom

W	A	T	E	R
Puddle	Flowing Water	Cloud	Grass	A Perched Bird
Tree	Road or Parking Lot	Flying Insect	Worm	Flower
Storm Drain	A Bird Flying		Moss	Crawling Insect
Signs of Humans	Sun	Mammal	Mushroom	Animal Signs
Leaf	Soil	Building	Hill	Rain Garden

Use this blank card and write or draw-in your own watershed options.

W	A	T	E	R