

# GRADE 8 SCIENCE: WATER SYSTEMS

## WETLAND BIO-BLITZ

### OUTCOME

- WS8.3 - Analyze natural factors and human practices that affect productivity and species distribution in marine and fresh water environments.

### BACKGROUND KNOWLEDGE

- Wetlands provide a host of benefits: flood & drought prevention, water filtration, valuable habitat and recreation purposes.
- In settled areas of Canada, up to 70% of our wetlands have already been destroyed or degraded.
- Agriculture, urbanization and industrial development are the main causes of wetland loss.
- Mowing, chemical run off, animal & human waste, sediment build up & algae growth are some of the causes for wetland degradation.
- Biodiversity boosts ecosystem productivity where each species has an important role to play.

## ACTIVITY: WETLAND CRITTERS

1. Visit a local wetland to research the diversity of species present.
2. Use field guides, apps and ID sheets to identify the wetland plants, birds, and aquatic invertebrates.
3. To ID critters in water, wade in barefoot or reach from shore using an aquarium net.
4. Scoop critters into recycled cottage cheese containers filled with water so that animals don't dry out while trying to identify.
5. Set up as 3 stations (birds, plants, inverts) and rotate student groups through.

### TOP TIPS

1. A large bucket or ice cream pail left on the shore line makes it easier for students to share what they found in the water.

### HOME CONNECTION

- Use Merlin Bird ID & iNaturalist free apps to Bio-blitz your yard or local green space. Submit your data online and contribute to Citizen Science!

### INQUIRY QUESTIONS

1. What do biodiversity studies tell us about the health of water systems?

### MATERIALS

- 8 aquarium nets (Dollarama)
- 8 recycled cottage cheese containers
- 8 binoculars (Can be borrowed from Sask Outdoors)
- Field guides- bird, insect, & plants (School library)
- Tablets/phones with Merlin Bird ID & iNaturalist apps added.
- Journals or clipboards (students to document)
- Writing implements

### HEALTH/SAFETY

- Ensure adequate supervision around bodies of water.
- Students should not go past their knees in the water.

### EXTENSIONS

1. **ELA (CC8.5)**- Have students film newscasts at a wetland, explaining the significance of the habitat and threats it faces.
2. **ART (CP8.10)**– Have students create a large wetland mural.

### DID YOU KNOW?

Meewasin often researches the diversity of life in different natural spaces with Citizen Science projects called Eco-Scavenger Hunts.

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## TAKING IT FURTHER

1. **EXPERTS** - Book a Meewasin field guide to join you on your Bio Blitz to help identify.
  - Book the Meewasin Wonderous Wetlands in Class Program.
2. **FIELD TRIPS** - Local wetlands include: Chappell Marsh & North East Swale.
  - Otherwise man-made lakes also work (Lakeview, Lakewood, Arbor Creek, etc)

## RESOURCES

1. Invertebrate ID sheet.
2. Powerpoint- Ducks Unlimited Wetland.
3. Website- Hinterland Who's Who- Wetlands.
4. App- Merlin Bird ID.
5. App- iNaturalist.