WETLANDS METAPHOR SCAVENGER HUNT: TEACHER’S INSTRUCTIONS

PURPOSE: to illustrate and emphasize, why wetlands and coastal wetlands in particular, are an important part of the ecosystem, using physical objects as metaphors for wetland functions.

WHAT DOES A WETLAND DO? Talking points to review before starting the scavenger hunt: (Items in parentheses are possible answers to the clue cards students will be given)

* **Filters** out pollutants of all sizes and **cleans** water (COFFEE FILTER/SOAP/CHARCOAL)
* Allows sediment to collect by **filtering** out silt and debris (SEIVE/STRAINER)
* Slows run-off and **retains water** to prevent flooding (SPONGE/HURRICANE BARRIER)
* Provides a **resting place** for migratory birds (PILLOW/BED/SLEEPING BAG/BLANKET)
* Provides a protected **nursery/breeding** ground for fish, birds and other wild life (NURSERY/BABY ITEMS)
* **Mixes** air and nutrients in the water (EGG WHISK/EGG/BEATER MIXER)
* **Neutralizes** toxic substances, and removes excess nutrients from water (ANTACIDS/BICARBONATE OF SODA/CHARCOAL)
* Creates **nutrient rich soil** through sedimentation and **decomposition** (PEAT/ MUSHROOMS AS DECOMPOSERS/GARDEN SOIL)
* Provides **nutrient-rich foods** for wildlife & humans (CRANBERRIES, RICE)
* Provides a diverse habitat for **many different species** (ZOO)
* **Seasonal home** for migratory species (HOTEL)
* Provides abundant, **easily accessible food sources** for multiple species (SUPERMARKET, RESTAURANT, FAST FOOD RESTAURANT)

**PROCEDURE:**

Prior to the week’s club meeting, the club leaders will “hide in plain sight” the following items in their classroom-if you have problems finding these items, you can use pictures or come up with alternatives; and if you can think of other metaphors please include them! You will need to come up with a “Clue” card for any new items, but the more objects=more fun!

* SPONGE / MOSS (slows run-off and retains water to prevent flooding)
* SOAP (filters out pollutants of all sizes and cleans water)
* SMALL PILLOW, SLEEPING BAG, BLANKET OR PICTURE OF A BED (provides a resting place for migratory birds)
* EGG WHISK (mixes air and nutrients in the water)
* NURSERY ITEMS: CRADLE, COT, PACIFIER (CAN BE PICTURES) (provides a protected nursery/breeding ground for fish, birds, and other wildlife)
* SIEVE/STRAINER (allows sediment to collect by filtering out silt and debris)
* COFFEE FILTER (filters out pollutants of all sizes and cleans water)
* CRANBERRIES (provides nutrient rich foods for wildlife and humans)
* ANTACID TABLETS OR BAKING SODA (neutralizes toxic substances, and removes excess nutrients from water)
* SMALL PLASTIC BAG CONTAINING RICE/BOX OF RICE PILAF (provides nutrient-rich foods for wildlife and humans)
* PICTURE OF A RHODE ISLAND HOTEL (OR MONOPOLY HOTEL PIECE) (seasonal home for migratory species)
* PICTURE/ FLYER/PAMPHLET OF ROGER WILLIAMS ZOO (provides a diverse habitat for many different species)
* ITEM FROM A FAST FOOD RESTAURANT OR TAKEOUT MENU (provides abundant, easily accessible food sources for multiple species)
* PICTURE OF PROVIDENCE HURRICANE BARRIER (slows run-off and retains water to prevent flooding)
* FLYER FOR A LOCAL SUPERMARKET (provides abundant, easily accessible food sources for multiple species)
* LUMP OF CHARCOAL (neutralizes toxic substances, and removes excess nutrients from water)
* BAG OF PEAT, PEAT PLANT POTS, PLANT POT WITH SOIL (creates nutrient rich soil through sedimentation and decomposition)
* ANY OTHER ITEMS YOU CAN THINK OF!

Ask students to break into groups, and evenly distribute the clue cards (quantity will depend on number of groups). Students will work together to answer clues and then look for their items. If an object is collected by the group, **THEY MUST BE ABLE TO EXPLAIN HOW THE OBJECT RELATES TO THEIR CLUE AND IS A METAPHOR FOR THE WETLANDS ENVIRONMENT.** If a group cannot answer their clue they can “phone a friend” and ask for assistance. If there are extra cards or undiscovered objects at the end of the hunt, ask the club as a whole to guess/find the object.

Once all the objects are found, go around the room and ask each group to explain what wetland function their objects represent, and if they can think of any other metaphors.

Finally, to wrap up the activity, discuss:

WHAT HAPPENS WHEN WETLANDS ARE DESTROYED BY BUILDING OR ALTERING THE FLOW OF WATER INTO THESE ECOSYSTEMS?

* Loss of habitat- 80% of all breeding bird populations in the US and half of all protected migratory bird species rely on wetlands at some point in their life cycle, as do 95% of all commercial fish and shellfish species.
* Loss of bio-diversity- protected nursery conditions for young wildlife is lost, affecting the entire food chain.
* Flooding—if storm water run-off is no longer slowed and allowed to be absorbed or retained by soils & wetlands vegetation over time, the result can be flash flooding in areas that can no longer handle the speed and volume of the storm water. This can cause erosion and extensive property damage.
* Water speed/flow is increased and sediment/nutrients/ toxins are not filtered out before the water course empties into a pond/stream/river or the ocean.
* Nutrient rich wetland soils which were formed over millions of years by sedimentation and decaying vegetation, are often drained and used for agricultural purposes instead. These former wetlands areas will produce good crops for several years, but eventually the soils lose their fertility, and can be lost to wind erosion, or are vulnerable to flooding. The most extreme consequence of the destruction of wetlands is that the system for creating new fertile soils is destroyed forever .

Wetlands Metaphors Activity adapted from WOW!: The Wonders of Wetlands-Environmental Concern Inc

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| SOAKS UP SPILLS | STOPS PROVIDENCE FLOODING |
| WASH YOUR HANDS | SCRAMBLES EGGS |
| WAAAAAAAA!  BABY’S ROOM | ZZZZZZZ!  SNORE… |
| DUNKIN’ DONUTS  USES THEM DAILY | UPSET STOMACH? |
| THROWN AT  WEDDINGS | THE BILTMORE,  CROWN PLAZA ETC. |
| WHERE YOU FIND  LIONS AND TIGERS  AND BEARS, OH MY | QUICK EATS =  F--- F---  R--------- |
| YOU MUST HAVE THIS AT THANKSGIVING! | SHOP HERE FOR FOOD |
| SANTA BRINGS THIS IF YOU’RE BAD | GIVES PLANTS NUTRIENTS |