MARCH ACTIVITY SHEET

Use this activity sheet to explore the ~~museum~~ *world* in a whole new way!

ACTIVITY #1

Small Actions Spark Big Changes! Throughout March we're talking about the importance of water. What can you do to save water?

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ACTIVITY #2

Find the quote from Dr. Ruth Patrick on the back. What do you think this quote means?

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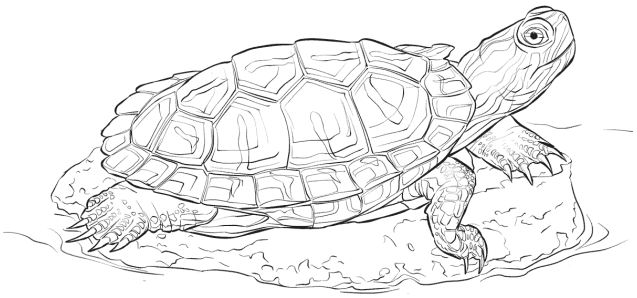
ACTIVITY #3

Our friend, Olaf, told us that turtles breathe through their butts. Guess what — he's right! Until you can visit our turtles in ***Outside In*** again, use the activity below to learn more about these creatures.

IT'S CALLED CLOACAL RESPIRATION...

Yes, it's true, turtles can absorb oxygen through the skin on their backside. The technical term is *cloacal respiration*. Many species of aquatic turtles in the United States rely on this survival mechanism during underwater hibernation. They spend months underwater, unable to breathe with their lungs. Of the two species of turtles below, which one do you think relies on this underwater breathing technique? Hint: the Red Eared Slider hibernates underwater, while the Easter Box Turtle hibernates in an underground burrow. What other differences can you spot that might provide clues? Record your observations below.



Red Eared Slider

Eastern Box Turtle (aka Land Turtle)

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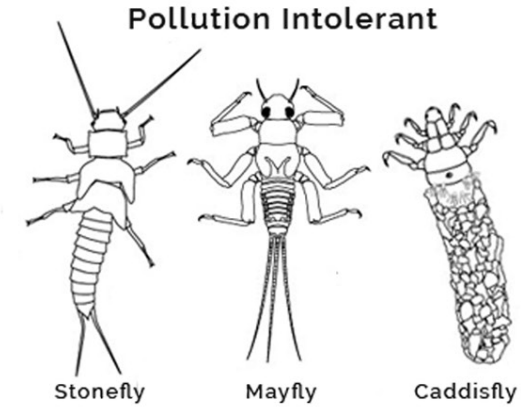
BIODIVERSITY

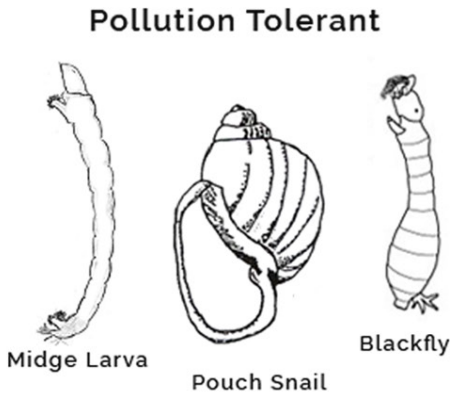
"You have to look at the whole ecosystem if you really want to learn what's going on in the environment. It's by this diversity that one is able to tell the health or natural condition of a situation and how it's been altered by man."

- Dr. Ruth Patrick, Founder of the Patrick Center for Environmental Research

Dr. Patrick was a scientist at the Academy of Natural Sciences for more than 70 years. She developed what we call the Patrick Principle. She found that there are certain plants and animals that survive best in healthy conditions, and other plants and animals that survive best in polluted conditions. Dr. Patrick and her team would visit a waterway and observe the bugs, fish, algae and other living things to find out the condition of the water. A very healthy **ecosystem**[1] will have a lot of **biodiversity**.[2]

Can you make your own observations? Ask your parents or guardians if you can visit a local stream and examine underwater rocks for water insects clinging to them. You can use the key below to see if they are **pollution tolerant**[3] or **intolerant**.[4] Don't forget to return the rocks to the same spot where you found them when you're done.





1. **Ecosystem** – a community of living and nonliving things that interact with each other in a specific area.
2. **Biodiversity** – short for biological diversity. It means the variety of unique species found in a specific area.
3. **Pollution Tolerant** – organisms that can survive in poor water quality. They are common in polluted areas.
4. **Pollution Intolerant** – organisms that require good water quality. They may not be found in polluted areas.

The Academy of Natural Sciences of Drexel University

Regular Hours:
Monday–Friday,
10 a.m.–4:30 p.m.

Weekends and Holidays,
10 a.m.–5 p.m.

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