

# Explore and Notice the Natural World

Ralph C. Wilson, Jr. Centennial Park

K - 2nd

## Explore and Notice the Natural World

Grade Levels: Kindergarten – 2nd

### Standards Alignment

#### Michigan Science Standards (NGSS Aligned)

- K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- 1-LS1-1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
- 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.
- 2-LS2-1: Plan and conduct an investigation to determine if plants need sunlight and water to grow.
- K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

#### Michigan English Language Arts Standards

- RI.K-2: ask and answer questions about key details in informational texts.
- W.K-2: Use drawing, dictation, and writing to compose informative/explanatory texts.
- SL.K-2: Participate in collaborative conversations about grade-level topics.
- L.K-2: Use sensory words to describe observations.

#### Materials

- Clipboards

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- Pencils
- Wilson Park Nature Detectives Worksheet
- A bucket (optional)
- Small plastic clear cups or Tupperware containers
- Magnifying glass(es) (optional)

## Lesson Vocabulary

- **Habitat** – the natural place where a plant or animal lives and finds what it needs to survive.
- **Living vs. Nonliving**
  - **Living things** grow, need food and water, breathe, and reproduce. Examples: plants, animals, insects.
  - **Nonliving things** do not grow or need food or water. Examples: rocks, water, sand, sunlight.
- **Survive** - to stay alive by getting the things needed to live.
- **Grow** - to become bigger, taller, older, or stronger over time.
- **Needs** - the basic things all living things need to stay alive:
  - **Food** - gives energy
  - **Water** - helps living things stay healthy
  - **Shelter** - a safe place to live or hide
  - **Air** - needed for breathing and living
- **Leaf** - the flat, usually green part of a plant that helps the plant make food from sunlight.
- **Insect** - a small animal with six legs and three body parts. Many insects also have wings and antennae.
- **Roots** - the part of a plant that grows underground and takes in water and nutrients from the soil.
- **Senses** – the ways people and animals learn about the world around them:
  - **Sight** – seeing with eyes
  - **Touch** – feeling with skin or hands

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- **Taste** – using the tongue to taste food
  - **Smell** – using the nose to smell
  - **Hearing** – listening with ears
  - **Detroit River** – an international strait that connects Lake St. Clair to Lake Erie.
  - **Great Lakes** – five very large freshwater lakes in North America: Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario.
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## Pre-Visit Activities

Prepare your group for the field trip with these in-classroom pre-visit activities.

- **What Is Nature?** – List and Discussion
  - Have a conversation about what students might see in a park – plants, bugs, animals, water, dirt, man-made structures, etc.
- **Practice Using Observation Tools** – This is an optional activity if you plan to bring items like magnifying glasses or binoculars with you.
  - If you can, go on a walk outside on the school grounds.
  - Practice having students using the tools to...
    - Look closely at something
    - Use the tool safely and respectfully
    - Think about what details a scientist notices with the help of these tools
- **Read-Aloud of a Nature Themed Book** – The following book list includes books offered through the Detroit Public Library System. There is a list of books for lesson extension activities at the end of the document that you can use when you return from your field trip.
  - *Bees, Snails, and Peacock Tails* by Betsy Franco

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- This picture book invites kids to look at the shapes and patterns that can be found in nature.
- *Look and Listen: Who's in the Garden, Meadow, Brook?* by Dianne White
  - This is an interactive and vibrant picture book that celebrates curiosity and the and the delight that comes from a journey outside in nature.
- *Outside Your Window: A First Book of Nature* by Nicola Davies
  - This is a beautiful book of poetry that captures all the sights and sounds of a child's experience in nature.
- *Nature Watch* by Mick Manning
  - This informative picture book suggests ways for kids to study nature through animal tracks, droppings, rock pools, and more.
- *A New Green Day* by Antoinette Portis
  - This is a book of poetic riddles that encourages young readers to explore the natural world around them.
- *Where Wonder Grows* by Xelena Gonzalez
  - This award-winning illustrated book is an intergenerational story exploring our connections to nature, family, and traditions.
- **Habitat Comparison** – Introduce the word habitat (the natural home environment where a plant, animal, or other living being) as a vocabulary word. Go on habitat walk around the school ground and have students take notice of a living thing (ex. squirrel) present within that habitat. Ask sensory questions to have students notice the habitat of the animal. Recommended Questions:
  - What does the ground the animals walks on look like and feel like?
  - What is the animal hearing?
  - What non-natural things are in this habitat?
  - How do you think the habitat for a squirrel will be similar to this at Ralph Wilson Park?
  - How do you think the habitat for a squirrel will be different from the school habitat at Ralph Wilson Park?

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- **Detroit Riverfront Exploration** - Use your classroom set of chrome books, iPads, or the teacher's computer and projector to explore some of these online resources:
    - Go to <https://www.detroitriverfront.org/> and explore the resources there. Check out the map to see how long the Riverwalk is and how it connects to Ralph C. Wilson, Jr. Centennial Park. Read the story about the building of Ralph C. Wilson, Jr. Centennial Park [here](#). Look through the before and after pictures. **Recommended Questions:**
      - What do humans need in their habitats to be happy, safe, and healthy?
      - What do animals and plants need in their habitats to be happy, safe, and healthy?
      - Why would an insect or animal want to live in Ralph Wilson Park?
      - Why would a human want to spend time at Ralph Wilson Park?
    - Checkout the resources and activities on this website curated by Families in Nature, Detroit Outdoors, and the Detroit Public Library:  
<https://ecologistschool.org/park/detroit-libraries/>
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## Lesson Sequence and Instructions

### Arrival and Introduction (10 minutes)

- Walk to dock, gather in a circle.
- encourage students to find a spot along the railing to look outward towards the **Huron-Clinton Metroparks Water Garden**.
- Begin with this guided mindfulness activity:
  - Tell students you will count from 10 to 0. When you get to 0, quiet your voices and find something in or around the **Water Garden** to focus on.
  - As you find something to focus on with your eyes, take note of your body.

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- How does the “outside feel”? Can you feel the sun touching your skin? Is there wind or rain? How does it feel on you?
- Now focus on your hearing? What sounds stick out to you? Can you hear any birds or animal sounds? What about the sounds of a city? Can you hear cars or humans? Is the water making a sound?
- Now, finally focus back on the spot you picked? What color is it? Is it living or not living? Do you think it will look the same in all seasons?
- Have students turn back to the center of the circle to face the instructor
- Reflect and Share: Direct students to turn towards a partner next to them share something in nature they felt, heard, and saw.
  - Call on a few partners to share their observations aloud
- Key point to emphasize: Even in the middle of Detroit, nature is all around us. We simply have to become nature detectives to notice it, learn from it, and benefit from it. Now, let’s get to work nature detectives!

## Nature Detectives Scavenger Hunt (10-15 minutes)

- **Logistics**
  - Group your students off in small groups with chaperones to support more exploration and discovery around the park
  - Pass out a nature scavenger hunt and journal with a clipboard and a crayon or pencil to each student
- Say, “Nature Detectives, it is time! We are going to walk around the **Water Garden** and look, listen, and feel the nature around us. Use your scavenger hunt sheet and journal to track what you find.”
  - Be sure to encourage respectful care for nature. Give an example, of what respectful touching of a plant would look like versus disrespectful touching.
  - Students are allowed to engage with the water but may not swim or submerge. It is up to your comfort with management how close you would like them to be to the water!

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- Give chaperones a meeting point, like the **gravel beach** or the **outdoor classroom** and have the groups begin!
- Let the kids take direction and lead where they go!
- The scavenger hunt and journal sheet should guide students, but here are some prompts:
  - Why do you think this (tree or plant) likes to grow here at Ralph Wilson Park?
  - What might this animal (goose/muskrat/bule heron/bug/bird) need to survive here?
  - How is the habitat at Ralph Wilson Park different than the habitat where you live or where your school is or a park you have been to previously?

## Nature Detective Stations (20 minutes)

- Logistics:
  - While students explore and complete the scavenger hunt, have one adult grab materials for the Nature Detective Stations
  - Gather the following materials into buckets or set areas on the ground
    - Bucket/Area one: fallen leaves, sticks, or plant parts
    - Bucket/Area two: water from the water garden, rocks, and/or a small bit of soil
    - Bucket/Area three: if you can find an insect, gather it on a leaf or stick.
  - As students finish up their scavenger hunts, have them return to their meeting spot, share out their nature observations/scavenger hunt, and go over guidelines for the Nature Detective Stations
- Station Rotations:
  - Station One: Leaf and Plant Spotter
    - Compare leaves by color, shape, and size
    - Students sort leaves/sticks/plant parts and sketch one in their journals in detail
  - Station Two: Rock, Soil, and Landforms

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- Compare water flow, observe water sediment, looks at small rocks and soil
- Discuss how water shaped the earth/Detroit
- Station Three: Creatures in the Park
  - Observe insects/bugs (if found) or birds and other wildlife
  - Students describe movements, patterns, etc.
  - Ask: why would \_\_\_\_ want to live in the Ralph Wilson Park habitat?

## Quiet Observation and Closing Circle (10 minutes)

- Quiet Observation (5 minutes)
    - Have each student spread out and find a quiet sit spot
    - Use their nature journals to write or draw a natural element that made them think deeply, connect to, or feel excited about nature.
  - Closing Circle (5 minutes)
    - Students share any observation, connection, or awe they made in their nature journals
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## Post Visit Extension Activities

### ELA

- Create a class book: *Nature Detectives at Wilson Park*
  - Read *Where's Rodney* by Carmen Bogan to set the tone.
  - Depending on level, co-write the story as a class and have students contribute illustrations for each page.
- Descriptive Language Photo Stories
  - Print out some photos from your class trip experience. Have students pick a picture that they connect and practice using sensory language to describe the plant/animal/experience in the photo.

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## Art

- Ralph Wilson Park Mural
  - Create a class mural or mosaic.
  - Each student gets one construction paper and uses various materials to create an image of their day at the park.
  - Tape/glue individual pieces of construction paper to a larger piece of butcher block and display their mural for the school community to see.
- Leaf Art
  - Read *Look What I Did With a Leaf* by Morteza E. Sohi (available through the Detroit Public Library)
  - Go outside around the school building and have students practice being Nature Detectives, just like they were at Wilson Park.
  - Have them collect some leaves, stems, and sticks
  - Choose a leaf craft to do from the book as a whole class, or have students individually pick one to do

## STEM

- Read *Nature Did It First* by Susan E. Goodman (available through Detroit Public Library) OR *Nature Did It First: Engineering Through Biomimicry* by Karen Ansberry (not available through Detroit Public Library)
- Have students brainstorm problems that exist in everyday life
  - Example: the door stop never holds the classroom door open.
- Pick a problem together or a class, in small groups, or individually and ask *how can nature help solve this problem?*
- Next, build the solution. Students can use materials collected outside around the school building or simple classroom materials to engineer a solution to the problem

## Science/Social Studies

- Compare Habitats

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- Have students look at their nature journals from the field trip and create a class chart describing the habitat at Ralph Wilson Park
  - Consider differentiating between the build (man-made) elements and the natural elements of the ecosystem
- Then, have students bring their nature journals with them on a walk around the school grounds, taking note of the habitat -both built and natural elements- around them.
- Return to class and compare the two habitats
- Comparison Options:
  - Make a Venn Diagram comparing the two habitats
  - Make sorting cards (Found at School/Found at Wilson Park) and have students draw the different elements of the habitats and sort them correctly
  - Discussion about why certain plants/animals would want to live in the school habitat versus park habitat

## Books

- The following books are available through the Detroit Public Library.
  - *Nature Spy Guide* by Shelley Rotner
    - This picture book uses real images to encourage kids to use their senses to safely explore the nature around them.
  - *River of Mariposas* by Mirelle Ortega
    - This vibrant picture book tells the story of a child's imagination and determination to bring back the butterflies to her town, even if she has to make them herself.
  - *You Are Part of the Wonder* by Ruth
    - This is a beautiful picture book that encourages us to explore, connect, and find wonder in nature.

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## Nature Detective Scavenger Hunt

**Directions:** As you walk around Ralph Wilson Park, look, listen, and feel the nature all around us. Use this sheet to track what you find.



insects



flying birds



floating birds



fish



trees



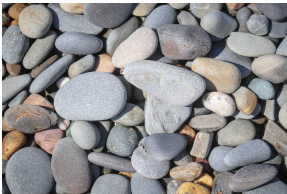
leaves



tall grasses



flowers



rocks



island



other animals



wind

What living things did you see? \_\_\_\_\_

What nonliving things did you see? \_\_\_\_\_

Pick an animal or plant you saw on your scavenger hunt. What might it need to survive at Ralph Wilson Park? \_\_\_\_\_

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## Nature Detective Stations

Directions: As you explore each station, record and draw your observations below.

### Station One: Leaf and Plant Spotter

### Station Two: Rock, Soil, and Landforms

### Station Three: Creatures in the Park