**URBANA PARK DISTRICT**
**Anita Purves Nature Center**

SCHOOL TOUR: **WEE WIGGLERS**
**TEACHER'S GUIDE**
Grade: **Kindergarten**
Program Length: **1.5 hours**

**Focus Concept:** ***Tiny animals live everywhere and are an important part of the ecosystem.***

**OBJECTIVES**: Students will
1. Name at least 5 common small animals that can be found in their neighborhood.
2. Develop their observation skills.
3. Investigate two habitats and compare the animals living in them.

**INTRODUCTION**
Many children are familiar with the larger animals common to the area, but often overlook the variety of smaller animals. The Wee Wigglers program is designed to help students discover the multitude of small animal life in two different habitats - soil and pond. Through songs, role play and observation, students will begin to focus on those animals and adaptations unique to each.

**Common Core Standards Correlated**

| Area | Strand | Standard | Standard Numbers |
|---|---|---|---|
| English Language Arts | Speaking/Listening | Comprehension & Collaboration | K.SL.1, 3,6 |
| English Language Arts | Language | Conventions of Standard English | K.L.1 |
| Mathematics | | | K.CC A<br>K.G A |

**Next Generation Science Standards Correlated**

| Physical Science | Life Science | Earth & Space Science |
|---|---|---|
| | K-LS1-1 | K-ESS3-1 |

**Illinois Learning Standards Correlated**

| Learning Area | Goal | Standard | Benchmark |
|---|---|---|---|
| Science | 11 | A | 1b |
| | 12 | A | 1a, 1b |
| | | B | 1a |
| | 13 | A | 1a |
| Social Science | 17 | B | 1b |

**SUPPLEMENTAL ACTIVITIES**
The following activities are intended to provide ideas to be used before or after the field trip. Feel free to adapt the activities to your students' ability level.

**Books:** Read "In the Small, Small Pond" and "In the Tall, Tall Grass" (see reference list) to the students. Let them think about and discuss any small creatures that they may have seen or found outside in the grass or weeds, under rocks & logs, after a rain, in ponds, etc.

**Micro-Hike:** Using hand lenses, take a micro-hike. Practice looking at things up close. What is the smallest animal you can find?

**Clay Wigglers:** Make some "play dough": Mix 1 cup cornstarch, 1 cup baking soda, and 1¼ cups cold water in a saucepan over medium heat. Stir the mixture constantly until it is thickened, about 5 minutes. Remove from heat. When the clay is cool, create a variety of wigglers - worms, centipedes, tadpoles, frogs, etc. Let the clay dry for about two days. Use paint or markers to decorate the creations after they have dried.

**Toad Trills**: Toads are quiet for most of the year, but the males sing long and loud during mating season. Their song is a long high trill that seems to go on and on and may last for 30 seconds. Have the students take a deep breath and try to sing a note and hold it as long as they can without taking a breath. Time the students. Can they hold the note for 30 seconds like a male toad?

**Metamorphosis**: Discuss life cycles with the students. Read "The Caterpillar and the Polliwog" or "The Very Hungry Catterpillar" (see reference list) to the class.

- Create flip books of the life cycles of frogs, caterpillars, grasshoppers etc. On the first page of the book, illustrate where the youngest stage can be found. On the next page draw that same habitat only now there is a baby animal (egg). On the next page draw the larval stage, and after that, the pupal stage. On the last page should be the adult stage of that animal.

**Watercolor Butterflies**: Color paper coffee filters with watercolors or markers. To add a shimmery effect, add glitter and glue designs. Once the filter is dry, pinch it in the middle like a bow tie. Slide or clip a clothespin onto it and fan out each side of the filter to resemble a butterfly's wings. Cut two strips of construction paper or pipe cleaner, approximately the size of matchsticks, and glue them onto the clothespin for a pair of antennae.

**Worm Search:** After a rain, look for worms and long, squiggly "worm tracks" in dried mud puddles. Explore the area around your school for other places where small animals might live.

**Squirmy Science Loan Box:** Borrow the Squirmy Science Box from the Nature Center or make your own earthworm farm for the class. Worms are easy to obtain from a bait shop. Fill an old aquarium, plastic box, or large glass jar with soil to within 4-5 inches from the top. Let the students put earthworms into the farm and watch them burrow down into the soil. Completely protect them from the light with cloth or black construction paper, or place them in a dark place. This should accelerate burrowing. Keep covered when you are not watching the worms and give them fresh food every day or so (lettuce, cereal, corn meal). Add moisture to the soil frequently but do not over water or the worms will drown. "Worms Eat Our Garbage" (see reference list) is an excellent book with suggestions for studying worms.

**Classroom Aquarium:** Make an aquarium for the classroom. Find a nearby stream or pond where you can get permission to collect some water and small animals to observe. Keep a diary on a day-to-day

basis to record changes. Please note that the collection of water and animals from Park District natural areas such as Busey Woods is not allowed.

**Sea Monkeys:** Purchase a couple packages of "Sea Monkeys" (brine shrimp) to grow in the classroom. They are very similar to the fairy shrimp found in Busey Woods ponds. Students can observe their growth, feed them, and learn something about deceptive advertising at the same time! Be sure to save the package wrapping to compare the picture of the "sea monkey" to the real thing.

**RESOURCES**


Applehof, Mary. *Worms Eat Our Garbage: Classroom Activities for a Better Environment*. Flower Press, Kalamazoo, MI, 1993.

Fleming, Denise. *In the Small, Small Pond.* Scholastic, Inc., New York, NY, 1993.

Fleming, Denise. *In the Tall, Tall Grass*. Scholastic, Inc., New York, NY, 1991.

Fredericks, Anthony D. *Under One Rock; Bugs, Slugs, and Other Ughs.* Dawn Publications. 2001.

Glaser, Linda. *Wonderful Worms*. The Millbrook Press. 1992

Hickman, Pamela M. *Bug Wise*. Addison-Wesley Publishing Company, Inc., Reading, Massachusetts, 1991.

Jennings, T. *The Young Scientist Investigates Pond Life*. Children's Press, Chicago, 1985.

Kent, Jack. *The Caterpillar and the Polliwog*. The Trumpet Club, New York, NY, 1982.

National Wildlife Federation. *Ranger Rick's NatureScope: Incredible Insects*. National Wildlife Federation, Washington DC, 1989.

Pfeffer, Wendy. *Wiggling Worms at Work*. HarperCollins Publishers. 2004.

Roth, Charles E., et al. *Schoolground Science Activities*. Massachusetts Audubon Society, 1988.


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