

Belmont Soil & Water

CONSERVATION DISTRICT 130 WEST MAIN STREET, ST. CLAIRSVILLE OHIO 43950 740-526-0027 BELMONTSWCD.ORG

Belmont SWCD Educational Programs

Belmont Soil and Water aims to educate and assist all people of Belmont County in the wise use of our natural resources.

If there is a natural resource related program that you would like us to offer to your students but you do not see it listed here, please contact us and we can tailor a program to fit your needs.

Augmented Reality Sandbox (K-12 Grade)

- A hands-on sandbox exhibit combined with 3D visualization applications.
- Simply mold the sand by hand and the landscape comes to life! The sand is augmented in real-time with an elevation color map, topographic contour lines, and simulated water.
- Sandbox Lessons:
 - 1. What is a watershed?
 - 2. How does water flow on different landforms?
 - 3. Topography and contour lines
 - 4. Pollution sources and Best Management Practices
 - 5. Nutrient sources
 - 6. Erosion visuals
 - 7. Human alterations to landscapes



Camp WILD (8-13 years old)

- Camp Wander Investigate Learn Discover
- An outdoor youth camp that teaches kids about the world around them and the recreational opportunities that nature provides.
- This is a 1 week camp taking place Monday through Friday in the summer with Thursday night being an overnight camping trip.
- There is a cost associated with this program.
- Topics are rotated every year and may include anything natural resource related.
- Sample Camp WILD topics:
 - 1. Fishing
 - 2. Canoeing
 - 3. Hiking
 - 4. Birdwatching
 - 5. Edible plants
 - 6. Survival skills
 - 7. Paleontology
 - 8. Archery
 - 9. Stream exploration
 - 10. Wildlife



SNOW Days (2nd Grade)

- Search New Outdoor Worlds Days
- This field trip takes place at Barkcamp State Park in May.
- Educational stations are set up for the students to rotate through.
- Students arrive in the morning and begin rotating through the stations, we break for lunch and then continue until departure.
- Stations include (these are subject to change each year):
 - 1. Falconry
 - 2. Beekeeping
 - 3. Stream Bugs
 - 4. Forestry
 - 5. Wildlife
 - 6. Habitats
 - 7. Fishing
 - 8. Craft



Adopt – A – Worm (3rd Grade)

- This approximately 45 minute presentation is all about earthworms.
- We talk about how important worms are, their anatomy, what they eat, why they are slimy and much more.
- After the presentation, the students are all given their own "pet worm" to take home and care for.
- Plastic cups are filled with pebbles and soil and 1 worm is placed in each cup for the students to name and care for.

Cookies Come From Soil (Elementary)

- This presentation shows students how all food, including cookies, come from the soil.
- This lesson includes:
 - 1. Explanation of the "ingredients" in soil.

- 2. Discussion of the ingredients of a cookie and how they are produced.
- 3. What does soil provide us?
- 4. How is soil made? Parent material, living organisms, climate, topography and time.

Guided Hikes (K-5 Grade)

- These hikes can be done at a location of your choice. (Has been done at Barkcamp State Park)
- They can be tailored to fit a current lesson plan or we can stop and talk about plants and animals we see along the way.

Wildlife Trunk (K-6 Grade)

- The wildlife trunk is filled with amazing furs, skulls and track imprints of some of the wildlife found in Belmont County.
- The lesson includes:
 - 1. Display each fur and skull and talk about what we know about each animal.
 - 2. Allow students to touch the furs and discuss why this animal has this particular fur.
 - 3. What can we tell about this animal from looking at its teeth? Did it eat plants or other animals?
 - 4. How to identify an animal from its tracks.
 - 5. Cold vs warm blooded animals
 - 6. Why do snakes shed their skin?
 - 7. How to age a deer by its teeth.





Fishing Events (K-8 Grade)

- Can be done at any public fishing area.
- Poles, bait and all other necessary supplies are provided.
- The Passport to Fishing lesson will be followed and includes an educational session on:
 - 1. Casting
 - 2. Fishing knots and rigging
 - 3. Fish habitat and handling
 - 4. Fishing safety
- After the lesson students will be allotted ample time to fish.



In Stream Exploration (K-5 Grade)

- We all know that fish live in the water but this program lets us explore the water even closer to expose the many kinds of macroinvertebrates that live there.
- Students must wear appropriate clothing. Example: Boots and clothes that can become stained.
- Students will be allowed to enter the stream and flip rocks to search for macroinvertebrates and other stream dwelling creatures.
- Nets and containers will be provided to catch specimens.
- After the allotted time, we will then look at each specimen that was captured and talk about it.
- All specimens will be released at the end of the program.
- This program can take place at a stream of your choice or at a location decided by our office.
- Possible specimens include:
 - 1. Frogs
 - 2. Salamanders
 - 3. Dragonfly larvae
 - 4. Stonefly larvae
 - 5. Cranefly larvae
 - 6. Mayfly larvae
 - 7. Water striders
 - 8. Crayfish
 - 9. Water pennies



- 10. Caddisfly larvae
- 11. Hellgrammites
- 12. Fish
- 13. Scud
- 14. Riffle beetle

Bat Trunk (Elementary)

- This educational tote includes materials to educate students all about bats.
- These are available for classes to loan on a daily or weekly basis, whatever the lesson requires.
- A binder with possible lesson plans is included.
- Also included:
- 1. Books
- 2. Bat house
- 3. Puppet
- 4. Scat model
- 5. Bat skeleton
- 6. The Secret World of Bats DVD



Smokey Bear and his Fire Patrol (K-5 Grade)

- This program brings Smokey Bear to you!
- Smokey Bear will teach students about fire safety with the help of a uniformed official.
- Goodie bags will be given out if supplies permit.
- This event needs to be planned in advance to obtain the Smokey Bear suit from the Division of Forestry so as much notice as possible must be given.
- This lesson includes:
 - 1. How Smokey Bear became who he is.
 - 2. The 5 rules of fire safety.
 - 3. What are wildfires?
 - 4. Campfire safety.



Monarch Butterflies (K-6 Grade)

- The life cycle of the Monarch butterfly is amazing and their journey south is quite a feat for such a delicate insect.
- This program brings the Monarch butterfly in all stages of its life into your classroom. (If available)
 - 1. Egg
 - 2. Caterpillar
 - 3. Chrysalis
 - 4. Butterfly
- This lesson includes:
 - 1. Migration
 - 2. Life cycle
 - 3. How to raise a butterfly.
 - 4. What do they eat?
- If available, Monarch caterpillars may be left with the classroom to raise and release as adults.

Boo at the Bike Trail (Elementary)

- This event takes place on the St. Clairsville Bike Trail on the last Tuesday of October.
- The purpose of this event is to raise awareness of nocturnal animals that live in Belmont County.
- This is open to the public and free.



- Participants are able to walk to several interactive stations along the trail and learn about nocturnal animals and their amazing abilities.
- Being so close to Halloween, everyone is invited to wear their costumes and pick up candy along the trail.
- Educational stations include (subject to change each year):
 - 1. Nighttime Noises
 - 2. Bat House Door Prize
 - 3. Spider Web Obstacle Course
 - 4. Bat Education Board
 - 5. What's Your Wingspan
 - 6. Photo Board
 - 7. Bat Craft
 - 8. Haunted Tunnel
 - 9. Story Walk
 - $10. \ {\rm Live \ Animals}$



Nature Days at Barkcamp State Park (Kindergarten)

• Nature Days is an evening program that brings kids closer to nature and recreation.

- Each evening will spotlight a new topic followed by a craft.
- This event is free and open to the public.
- Dates are subject to change but currently it is set for Thursdays in July.
- Sample topics include:
 - 1. Backyard and stream bugs
 - 2. Smokey Bear's Fire Patrol
 - 3. Fishing
 - 4. Wildlife identification

Stream Bug Identification (Middle School)

- This program brings macroinvertebrates right in to your classroom.
- Students are able to pass around and even hold some live specimens.
- Each specimen will be identified and discussed.
- Students will also learn how to sample and identify these creatures.
- These macroinvertebrates are often used in studies to indicate water quality levels. The pollution tolerance of each specimen will be discussed along with their preferred habitat.



My Backyard Stream (High School)

- Students experience and participate in citizen science in their own environment. Investigating streams at their school, in their neighborhood, and own backyard.
- They will make visual observations, record water quality measurements, document their sampling location with a photo and coordinates, and upload information to the online "My Backyard Stream" program through Ohio University found on this website watersheddata.com.
- This lesson plan adds a water chemistry component with a higher level critical thinking questions, and upper-level content.

Invasive Plants (Middle - High School)

- Invasive plants are a big issue in Belmont County.
- Many of these plants that are taking over our landscapes and crowding out native species were brought here for an intended purpose and now are out of control.
- Students will get to know the most common invasive plants in our area and why they were brought here.
- Native replacements will also be discussed.
- This presentation is typically a PowerPoint presentation but live plants can be brought in if available.

NASP National Archery in the Schools Program (Grade 4-12)

- The National Archery in the Schools Program is an in-school program aimed at improving educational performance among students in grades 4th – 12th. And through it, students are learning focus, self-control, discipline, patience, and the life lessons required to be successful in the classroom and in life.
- Archery Equipment used in NASP[®] is highly standardized to be safe, durable, economical, and most importantly, universal fit for almost every student. In NASP[®] learning the "process" of shooting is stressed far more than arrow scores.
- Units of Study were written by Education, Conservation, and Target archery experts to meet state and national educational standards.
- All necessary equipment can be provided by our organization but the school is also able to purchase its own equipment through the NASP website.



DIY Bird Feeders (Middle School)

• Bird feeders can be upcycled from almost any container.

- In this program we come into the classroom to talk about birds and why we feed them.
- Examples of how to upcycle a container into a bird feeder will be shown and each student will be able to make one of their own.
- The school must provide all other necessary materials.



Recycling Relay (Elementary School)

- This game teaches students how to properly recycle.
- Recycling basics and why we need to recycle will be covered.
- 2 teams will race against each other to place several recyclable and a few non-recyclable items in their correct place.
- After each team has finished we will review each team's choices and see who got the most items in the correct place.



If you would like to know more or if you are interested in having our staff teach at your

school please contact us either by

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