

# Guide to Activities & Programs



**2011-2012**

**Van Wert Soil & Water  
Conservation District**



**Van Wert Soil & Water Conservation District**

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School Year 2011-2012

Dear Educator

The **Van Wert Soil and Water Conservation District** has a variety of educational kits and activities available to be presented or borrowed. These are generally science related; however, can be directed toward math, social studies and language arts as well.

To schedule the use of these kits and activities phone, email or stop by the Van Wert SWCD at the above address. A list of activities and presentations with brief descriptions can be found on the following pages.

The SWCD appreciates your efforts to present and reinforce the conservation message. Little by little we are making a change in our environment.

Justin Wagner  
Van Wert SWCD

*The mission of the Van Wert SWCD is to protect and to conserve the natural resources for all residents by providing technical, educational and financial assistance.*

## Programs That Can Be Presented Or Loaned

### Water

#### **The Water Cycle**

Precipitation, surface water, evaporation and condensation make up the water cycle; each is easily visualized with this **Water Cycle Model**. This model can be added to the following **Groundwater Model** for a complete presentation of how we get our water. (\*, \*\*, \*\*\*)



#### **Where does your water come from?**

This recently updated model of the **Groundwater Model** shows how water tables, aquifers, and wells function. It also shows how they may become polluted. The **Water Cycle Model** can be connected to this model. (\*\*, \*\*\*)

#### **The Incredible Journey**

In this activity students create a bracelet of beads collected as the “roll of the dice” directs them to the next step in the journey of water. This is a fun way for students to discover the path of water in our environment. Writing would be a good follow-up to this activity. (\*, \*\*, \*\*\*)

#### **The *Enviroscape* -**

*Nonpoint source pollution* in our environment is easily visualized with this model. After identifying various ways we use the land, “materials” having the potential of polluting waterways are added to the model. Precipitation” makes everyone a believer in *nonpoint source pollution*. This presentation can be used by itself or with other activities. (\*, \*\*, \*\*\*)



#### **Creek Critters**

Critters collected from a make believe stream help students learn how organisms can indicate water quality. Recording and analyzing data are important parts of this activity. This activity is an excellent introduction to “Stream Monitoring.” (\*\*, \*\*\*)

### **A Grave Mistake**

In this classroom scenario students arrive at a sinister conclusion to a groundwater pollution problem. They also discover that “jumping to conclusions” can lead to an incorrect solution to a serious problem. The **Groundwater Model** (pg. 6) fits well with this presentation. (\*\*, \*\*\*)

### **Streams: Sick or Healthy?**

A local stream is used as we determine the water quality based on data collected. Populations of “macro-invertebrates” (i.e. insect larvae, mollusks, etc.) and the chemistry of the water are analyzed along with physical factors. This is known as **Stream Monitoring**. This activity is not available late-fall, winter, or early-spring. (\*\*, \*\*\*)



### **Wetland Metaphor**

What does a wetland have in common with a cradle, an eggbeater, a dinner plate and other common household items? These are the questions students will ask and answer as we investigate this important ecosystem. A visit to a wetland, either real or virtual, will allow students to experience the variety of life and relationships that exist here. (\*\*, \*\*\*)



## **Soil and Geology**

### **Soil is more than Dirt**

We begin this presentation by making a “batch of soil.” Different soil types are available for the students to examine and relate to soil maps. When possible a soil probe is used to bring up a plug of soil from the schoolyard, showing the layers. Students complete this activity by making a “soil profile” on an index card. (\*, \*\*, \*\*\*)

### **Mineral I.D.**

Color, luster, streak plates, and a hardness scale are presented as properties used to identify minerals. Using these properties students, in small groups, identify several unknown minerals. (\*\*, \*\*\*)

### **Stream Table**

With this “sand box” model students can see the effects of water on the landscape. Students place trees, buildings, bridges, etc. on the landscape. As water moves through the stream students discover their choices for land use were not always wise. (\*\*, \*\*\*)

## **Miscellaneous Activities**

**What does it Mean to be Wild?** - A *Power Point* presentation and classroom discussion helps students differentiate between domestic and wild animals. All animals need food, water, shelter and protection; the importance of habitat for wild animals is emphasized. (\*, \*\*)



### **Ohio's Wild Animals**

The ODNR Wildlife Officer joins us with pelts and skulls of Ohio's wildlife. Identification, characteristics and habitat are emphasized in this presentation. (\*, \*\*)

### **Fox & Rabbits**

This game is a great way for students to learn about predator/prey relationships. As participants seek food, water, shelter and protection the populations of fox and rabbits moves back and forth. A playground or large room is needed for the activity. (\*, \*\*)



### **Tremendous Trees**

Trees are all around us yet many give them little thought. Students will discover they have much in common with the trees. “Tree Cookies” are examined and students receive a small tree cookie to take home. An interactive game demonstrates the difficulty a young tree experiences. (\*, \*\*)

## Programs Available To Be Loaned

### Water

#### **Drinking Water/Wastewater Treatment Model**

With this model students experience the processes involved in treating surface water for human use. They also experience the treatment of wastewater before it is returned to the waterways. A comparison between urban and rural water use. The use of bio-solids can also be demonstrated with this model. (\*\*, \*\*\*)



#### **Francis the Fish**

Travel with Francis, our friendly little fish, as he swims in a stream through rural and urban areas. Students add litter, soil, paint, etc. to the water as they observe the effects of *nonpoint source pollution*. Poor Francis! (\*)

#### **Water for Urban Areas**

How does the *City of Van Wert, Ohio*, get water to supply the needs of its residents, businesses and industries? A *Power Point* presentation shows what takes place as water enters and leaves the city. Guided tours of the city water treatment and wastewater treatment plant with stops along Town Creek complete this activity. The **DWWT Model** above fits in well with this presentation. (\*\*, \*\*\*)



#### **Pollution Dilution**

In this activity students will discover how a pollutant in water can be diluted but never completely eliminated. Fractions and percentages are needed to complete the data sheet; these make this activity an *appropriate presentation for math classes*. (\*\*, \*\*\*)

**NPS: Solution or Problem?** - The EPA has determined most water pollution comes from *nonpoint sources*. This *Power Point* presentation covers the major sources of these and creates a case for taking care of our watersheds. Appropriate activities to follow this presentation could be:



**Enviroscape, Streams: Sick or Healthy, Creek Crittters, or Pollution Dilution** (pgs. 3, 4 and 6). (\*\*, \*\*\*)

## Soils and Geology

### **What's It Like Down There?**

A 10' by 10' tent painted to give a "worms eye view" of the Earth's crust is available for either self-guided tours, "scavenger hunts", or soil judging activities. Due to the amount of time and effort for set-up this adapts well to fairs and similar "long term" events.

(\* , \*\* , \*\*\*)



### **What the Glaciers Did to Us**

A *Power Point* presentation gives an overview of moving continents, glaciers, lakes and swamps that have played a part in forming the soil we have today. A model glacier in the **Stream Table** (p.5) helps students visualize how the glaciers shaped our land.

(\*\* , \*\*\*)

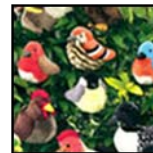
### **Erosion Drop By Drop**

Water is dropped on soil in this activity as data is recorded and graphs are used to reach a conclusion. Water collected after running across soil that is bare, and covered is observed. The amount of sediment in the run-off is astonishing! This presentation has *math applications*. (\* , \*\* , \*\*\*)

## Miscellaneous Activities

### **Wonderful World of Birds**

What does it mean to be a bird? Feathers, eggs, nests and flight are emphasized along with other characteristics. A set of colorful plush songbirds will "sing" on command. This is a favorite presentation for all ages. (\* , \*\* , \*\*\*)



### ***The Very Hungry Caterpillar***

We use this popular children's book by Eric Carle to introduce insect characteristics. Students create a take-home activity using brightly colored pasta shapes to help them remember insect metamorphosis. (\* , \*\*)



### **Procedures for requesting activities and presentations**

- The following scale indicates suggested age levels; however, activities can be adjusted to fit other age groups.
  - \* pre-K and lower elementary
  - \*\* upper elementary and middle school
  - \*\*\* middle school and high school
- Length of presentations can vary. Some activities may require 2 or 3 class periods.

This catalog may be found online. Our website address is:

**[www.vanwertswcd.org](http://www.vanwertswcd.org)**



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