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## Headwaters Soil & Water Conservation District

### 2018 Science SOL-Based Environmental Education Programs for Third Grade

Contact Rachel Winter [rwinter@co.augusta.va.us](mailto:rwinter@co.augusta.va.us) or 540-248-0148 ext 5

Or use Google Form to request a lesson: <https://forms.gle/4bA3NF4jeXpM6aCd8>

- **Beware of the Butterfluff (3.4, 3.5, 3.8)** Students participate in an interactive demonstration in order to understand the interaction and competition between native, non-native, and invasive species. After the activity, students will be able to provide examples of native, non-native, and invasive species found in Virginia.
- **Blue Planet (3.7)** Students estimate the percentage of Earth's surface is covered by water and, by tossing an inflatable globe, take a simple probability to check their estimates. Students estimate how long water remains in locations such as rivers, lakes, ground water and the ocean. *An excellent warm-up activity to The Incredible Journey Lesson.*
- **Conservation Poster Contest (K-12 3.8)** Poster contest held every spring and following the rotating natural resources theme set by the National Association of Conservation Districts (NACD). Open to all K-12 students. An introductory presentation and lesson on the theme is available if requested. Contact the SWCD office for more information and entry forms.
- **Dirt By Steve Tomecek Guided Storytime (3.5, 3.6, 3.8)** A read-aloud story time where students get down in the dirt with a friendly star-nosed mole as he shows off the different parts of his garden and some amazing creatures who live in the dirt. During this exciting tour, children discover what soil is, how it is formed, and why this substance is vital to plants, animals, and humans. As resources allow, we provide a copy of the book for the classroom library.
- **Dirt Shake (3.6)** Adjusted based on grade level and/or available time as either a demonstration or experiment. Students will investigate the different soil types to understand the components of sand, silt, clay, and humus. Students will be able to describe the similarities and differences in these soil components based on size and texture.
- **Erosion Model Demonstration (3.6, 3.8)** A demonstration showing the effects different types ground cover has on controlling soil erosion. Students will learn about what soil erosion is, how it occurs, and the various conservation practices available to reduce erosion from agriculture and urban areas. Students will be able to understand the importance of soil conservation for both soil and water quality.
- **The Incredible Journey (3.7, 3.8)** Water cycle and water conservation is discussed. Then students take on the role of a water molecule and visit different stations which simulate the paths that water takes in the water cycle. A specific color bead is collected at each station and the students end up making a bracelet showing their incredible journey. *The Blue Planet is an excellent warm-up activity to this lesson.*

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- **Pick a Path (3.6)** Students participate in activity to understand and demonstrate the different particle sizes of soil types. After the activity, students will be able to draw conclusions on the ability of water to move through sand, silt, and clay soil particles. Students will discover that when all particle sizes of soil are mixed together this is defined as a loam.
- **Soil Tubes (3.6)** By reproducing the soil profile into their own model, students will learn how topsoil is formed. Students will understand the productivity of soil types and the importance of organic matter (humus).
- **Underground Classroom Visit (3.4, 3.5, 3.6, 3.8,)** a on-site field trip experience where students can experience and visually learn about the world beneath their feet. We dive into the underground ecosystem and discover the variety of living and non-living things we find underground. Students discover some of the vegetable crops that grow underground, learn why soil is an important natural resource, and the benefits of soil to plants and animals. The tour can be combined with additional lessons for a longer hands-on field trip experience. *A list of additional lessons specifically related to soils and the Underground Classroom content is available.*
- **Virtual Water (3.8)** Students create a 'water web' to illustrate their dependence on water and the interdependence among water uses, producers, and people worldwide. This demonstration is used to help students understand the importance of water conservation and the complexity of water shortages.