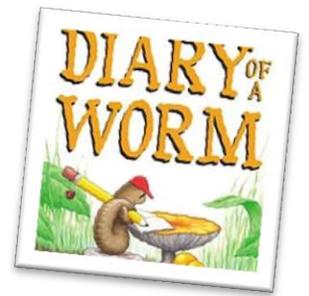




Let's Get Dirty with Pixie



Content/Grade Level 3rd Grade: Science, Language Arts, and Technology
Soil Layers, Decomposers

Teacher Notes:

This is a fun way to evaluate third grader's knowledge of the layers of the soil. The students enjoy the creative way to demonstrate what they have learned and the addition of the worm from the *Diary of a Worm* story adds a bit whimsy and fun to the lesson.

Instructional Resources/Materials needed

Promethean/Smartboard for viewing video

Discovery Education video "Getting to Know: Soil"

Access to computers

Pixie 4

Diary of a Worm, By Doreen Cronin

Background/Prerequisite:

Students need background knowledge on the use of Pixie. Students will also need to have had an initial lesson on soil layers.

Objective

Students will learn the three layers of soil (topsoil, subsoil, & bedrock) and the components of each of those layers.

Instruction

Students will be using the Tech4Learning Pixie 4 program. They will use the information that they have learned during previous lessons on soil layers to help them complete the task.

Procedure

Students will create the layers of soil using Pixie 4. Each layer will be labeled correctly.

1. Students will watch a video on Discovery Education "Getting to Know: Soil" to review the layers of soil
2. Students will contribute to a brief discussion about soil layers
3. Students will use the computer and complete the soil layers using Pixie 4.

Requirements for Illustration

You will be graded on the following requirements:

Using Pixie, draw a picture representing the following soil layers in the correct order:

- Organic Layer
- Top Soil
- Sub Soil
- Parent Material
- Bedrock
- Illustration should replicate what each layer consists of
- Each layer should be labeled
- The worm from the story needs to be represented in the picture along with an entry to his diary either as a speech bubble or text box located at the top of the page

Language Arts Component:

After reading *Diary of a Worm*, (this can be accessed online through TumbleBooks)

Students will create either an original diary entry about worms and soil or they may recreate a scene from the story. Each picture must have a diary entry explaining the scene.

It's really fun to create a movie using all of the students' slides for a class Worm Movie!

Evaluation – Point value for each of the following

- Organic Layer (2)
- Top Soil (2)
- Sub Soil (2)
- Parent Material (2)
- Bedrock (2)
- Illustration should replicate what each layer consists of (5 Points)
- Each layer should be labeled (5 Points)
- The worm from the story needs to be represented in the picture along with an entry to his diary either as a speech bubble or text box located at the top of the page (5 Points)

Total Points: 25

Content Standards

SOL # 3.7 Soil, Earth/Space Systems and Cycles

Students will be able to interpret a basic diagram showing major soil layers including bedrock, subsoil, and topsoil). They will also be able to comprehend the key terminology related to soil.

NET*s

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- d. transfer current knowledge to learning of new technologies.

- Apply existing knowledge to generate new ideas, products, or processes.
- Create original works as a means of personal or group expression.
- Use models and simulations to explore complex systems and issues.