Elementary Science: Unit-at-a-Glance

Grade Level: 2	**Unit:** Earth Science: Soil and Erosion
Unit Problem Scenario: Students will identify erosion and/or soil problems on the school grounds and devise a plan to solve them.	

Lesson #	Essential Learning	Vocabulary
1	There are natural (weather and animals) concerns and human (pollution, overuse) concerns, which affect the condition of the soil on school grounds.	• Human • Natural • Concerns • Soil • Pollution • Litter • Condition • Observe • Investigation
2	Soil samples can be classified by texture, shape, color, size and dampness.	• Texture • Shape • Color • Size • Dampness • Organisms • Describe • Compare • Classify
3	Soil layers according to heaviest particles on bottom to lightest particles on top.	• Layers • Heavy • Light • Particles • Label • Predictions
4	One way soil is formed is by the rubbing and breaking down of rocks that occurs overtime in nature. Harder rocks do not produce as much soil as softer rocks.	• Weathering • Rubbing • Grinding • Crumbling

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		• Breaking • Measure
5	The four main layers of soil are soil underfoot, topsoil, subsoil, and parent rock.	• Layers • Soil underfoot • Topsoil • Subsoil • Parent rock • Humus • Bacteria • Minerals • Natural resource
6	The water retention of different soils varies. Soil with smaller particles retains more water than soil with larger particles.	• Milliliters (ml) • Sample • Topsoil • Mulch • Potting soil • Sand • Most likely • Equal • Explain
7	Erosion is the loss of soil. Natural causes of erosion include: wind, water, and extreme temperatures.	• Erosion • Identify
8	Soil erosion can be reduced by using rocks, mulch, and grass to cover the soil.	• Plan • Design • Construct • Model • Prevent
9	The effectiveness of certain materials can be measured. Clear water run off indicates an effective erosion control method. Brown water indicates erosion has taken place.	• Evidence • Measuring cup

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10	The activities of humans (e.g. building projects) and other organisms can affect soil by causing erosion and creating pollution.	• Landfill • Litter • Rubbish
11	Some organisms are found in landfills that help materials breakdown. All things do not break down at same rate.	• Recycle • Waste • Dispose • Decompose
12	Create a plan to solve a schoolyard soil problem involving litter and/or erosion.	