THIRD GRADE SCIENCE AND ENGINEERING KITS

Designing Water Filters (engineering kit)
Help Salila design a water filter system to keep the turtle she has rescued from the Ganges River. Experiment with the efficacy of different materials (screen, coffee filter, sand and gravel) in cleaning water. Design filters and use tests to determine success: color and particles in the filtered water compared to five sample bottles and time it takes for the water to go through the filter. Combine success scores with cost scores based on materials used. Redesign and test to improve. Discuss the methods for maintaining the sustainability of clean water in our world.
For use in conjunction with FOSS Water. This engineering kit NEEDS materials from the Water kit for the activities. Kit includes teacher's guide, read aloud book, and materials needed to build and test water filters.

Earth Materials (science kit)
Research and identify the characteristics of rocks and minerals as natural resources. Get practice with tools and methods geologists use to determine the minerals inside rocks and learn techniques for identifying several specific rocks and minerals including calcite, quartz, and granite. Specific mineral tests included are scratch test, calcite test, and descriptions of color and luster. Includes FOSS Science Readers to supplement the hands on lessons.

Mining Simulation (engineering lessons included in Earth Materials kit)
Simulate mining using chocolate-chip cookies as land with minerals, toothpicks and paper clips for tools, and a plan that includes paying for labor and environmental reclamation. The materials and instructions for these engineering lessons are included in the Earth Materials kit.

Water (science kit)
Compare the way water interacts with four different surfaces, observe the property of surface tension and investigate how to change this property. Compare rates of different amounts of water flowing downhill. Observe the properties of water as it is heated, cooled, and frozen. Make a water thermometer and learn that water expands as it is heated. Compare the density of water at different temperatures. Introduction to water vapor and evaporation. Explore the effect of surface area on rates of evaporation. Set up condensation chambers and relate to the water cycle. Test water samples for hardness and evaporation rate. Includes FOSS Science Readers to supplement the hands on lessons.

Food Chains and Webs (science kit)
Set up experiments with rye grass to see the effect of different soils, amount of water, and sunlight. Observe cricket behavior and determine their food preferences. Observe chameleon physical characteristics and behavior. Observe earthworms and their behavior. Dissect owl pellets and identify bones. Connect these organisms in a food chain as well as study more complex food webs including the role of decomposers.