

KINDERGARTEN SCIENCE AND ENGINEERING KITS

Animals 2 x 2:

Introduces a selection of organisms for comparison. In each activity students observe and describe the structures and behavior of an organism and then compare the organism to a similar one. Land snails and water snails, earthworms and night crawlers, and pill bugs and sow bugs are maintained in the classroom over time and investigated.

Chemistry Beginnings:

Investigate properties of salt, flour, and water AND playdough. Compare "bad" and "good" playdough and develop engineering quality tests (snowman, snake). Explore properties of Oobleck and write a class story based on its special properties. Mix colors with different media: food coloring, crayons, cellophane, play dough, tempera paint, watercolors, and oil pastels. Mix up different recipes of slime and choose one as a toy, name it, tell why it's great.

Fabric: Explore properties of ten different types of fabrics. Stain fabrics and try to clean them, observe how certain fabrics repel or absorb water, and dye cloth to change its color. Take apart and put fabric back together by unraveling, weaving and sewing. Make something out of fabric scraps to solve a problem following an abbreviated version of the Engineering Design Process.

From Seed to Plant: During the study of this unit, the students will classify local seeds by properties, plant seeds, care for plants, observe and record plant growth, and participate in classroom projects. The basic plant parts (root, stem, and leaf) and the functions of each are introduced. Includes ideas for growing and tasting local foods.

Paper: Focus on the properties of ten different kinds of paper: ease of cutting, appropriateness for writing, and ease of folding. Experiment with paper and water interactions. Make recycled paper from pulp and construct envelopes and boxes. Make something out of paper to solve a problem following an abbreviated version of the Engineering Design Process

Wood: Explore properties of six different types of wood (pine, redwood, plywood, particleboard, Douglas fir, and red alder). Make particleboard from sawdust and plywood from veneer sheets. Sink and float wood samples. Sand, nail, stain, and glue wood to create a wood sculpture. Build a structure following an abbreviated version of the Engineering Design Process.