

Summaries of Take Home Literature/Science Bags

Earthlets

Grades 3-6

Objective: Understand the difference between Observations and Inferences

Books Included: *Earthlets as Explained by Professor Xargle* by Jeanne Willis, Puffin Books 1994
Dr. Xargle, a green, five-eyed alien, teaches a lesson about that most mysterious of creatures: the human baby.
Seven Blind Mice by Ed Young, Puffin Books 2002
Retells the fable of the blind man discovering the different parts of an elephant and arguing about its appearance

Sheep in a Jeep

Grades 3-4

Objectives: Investigate Forces and Motion using ramps, toy car, and small toy animals. Design and evaluate a device to slow the force of a falling object.

Books Included: *Sheep in a Jeep* by Nancy Shaw, Records the misadventures of a group of sheep who go riding in a jeep.
Forces and Movement by Smart Apple Media 1999
Experiments parents may choose to do: pushing and pulling, squashing and stretching, gravity, magnets, friction, wind force, resistance, levers

Designing Bridges

Grades 2-5

Objectives: Investigate balance, forces, and civil engineering. Build 3 types of bridges: beam, deep beam, and arch. Solve engineering problem by building suspension bridge: Newton's 3rd Law – downward force (weight/gravity) must equal upward

Book Included: *Javier Builds a Bridge*, Museum of Science 2011
When the plank footbridge to Javier's fort on the island breaks, he and his step sister fall in the water. After investigating bridge types, Javier's dad will help him make a suspension bridge.

Windmills

Grades 2-5

Objectives: Design a windmill that can lift small objects. Redesign the blades to lift more weight. Investigate weather tools by building an anemometer. Mechanical engineering skill

Book Included: *Leif Catches the Wind*, Museum of Science 2005
Leif and his cousin Dana save fish when their water is low on oxygen. The paddles of Leif's windmill move the water and add oxygen from the air.

Circuits

Grades 3-4

Objectives: Learn about complete and incomplete circuits. Solve a problem by designing a switch. Electricity and electrical engineering skill

Book Included: *A Reminder for Emily*, Museum of Science 2011
Emily is out riding her horse and forgets to water the sheep. She builds a switch which closes the circuit and lights a bulb and causes a buzzer to ring. Now she will be on time for her chores.