

**Jefferson County Educational Service Center  
Virtual Learning Academy  
Required Course Materials  
SCI 180: SCIENCE 180**

**Unit 02: Gravitational Forces**

Flat Magnet (the stronger the better), Ball bearing (at least 8mm)  
large piece of cardstock (~1ft.x3ft.)

**Unit 03: Asteroids and Comets**

Pictures of craters from the Moon and Mars (Printed from internet is best.)  
safety glasses  
large tub or aluminum pan  
fine white powder (sand, flour, sugar, etc.)  
fine colored powder (cocoa, powdered drink mix, dry powdered tempera paint, pudding, etc.)  
sieve, sifter, large spoon, or cheese cloth to sprinkle the dark powder  
two same sized balls of different weights (e.g., marbles, ball bearings, gum balls, grapes, etc.)  
two same weight balls of different sizes (e.g., rubber balls, golf balls, water-filled ping pong balls) try to have one small, one medium, and one large ball.  
small irregularly shaped rocks.  
tape measure  
toothpicks  
3x5 index card (to smooth the surface of the powder)  
newspaper or drop cloths  
paper and pencils for sketches of craters  
paper with data chart

**Unit 13: Wave Energy**

Plastic or metal slinky, a meter tape, and safety goggles/glasses, and a partner

**Unit 14: Vibrations and Waves**

Tall & narrow glass jar with a tight-fitting lid, cold tap water, blue food coloring, & vegetable oil  
1m of 2cm-wide unstretched elastic, 25 plastic drinking straws, staples, stapler, and a table  
8 to 10 books, 2 or 3 rubber bands, masking tape, ruler, felt-tip pen, several metal washers (with a hole diameter of 14-15 mm), a small piece of clay, and a legal size sheet of paper.

**Unit 24: Technological Design**

A potato, 36 inches of white string, 72 inches of tape, any brand or type, 20 popsicle

sticks, a ruler with inches and centimeters displayed, scissors, paper, pencil

### **Unit 26: What is Scientific Inquiry**

Rulers, plastic bags, pennies, spring scale, inclined plane or ramp, marbles, cardboard, hole puncher, stapler, weight tapes to test: band aids, masking tape, cellophane tape, first aid tape, packing tape, electrical tape, post-it notes

### **Unit 31: Our Dynamic Earth. What causes major geological events?**

12 inch by 12 inch piece of styrofoam

salt dough, plastic soda bottle, baking pan, red food coloring, liquid detergent, baking soda, vinegar

### **Unit 32: Creations of Landforms**

Plastic coffee can lid or frisbee, 2 pieces of sandstone , 2 pieces of limestone  
small bottle of vinegar with dropper, assortment of leaves, rocks, shells, twigs,  
Small plastic containers (from frozen lunches or small plastic margarine containers).  
water, paper, pencil.

### **Unit 33: Models of the Earth**

World map, a globe, and a measuring device (preferably a metric ruler).

### **Unit 34: The Rock Cycle**

Water, large pan, several grains of rice, oven mitt, stove top