Course Materials

Student-Supplied Resources:

Students need to supply the following materials to complete the coursework.

Required:

Entire course	scientific or graphing calculator
03.05: Molecular Structure	deionized (distilled) water, rubbing alcohol, vegetable oil, iodine, sodium chloride (salt), acetic acid (vinegar), test tubes or clear plastic cups, tablespoon and teaspoon, stirring sticks, permanent marker for labeling
08.03: Solutions Lab	13 plastic cups (12 oz), permanent marker for labeling, measuring stick, tablespoon and teaspoon, kitchen scale that measures in grams (optional), water, source of heat, granulated sugar, sugar cubes, spoon for stirring, three to four packages of powdered drink mix (6.6 ounces per package)

Optional:

01.05: Changes in Matter	ice cubes (at least one cupful), one two- to three-quart saucepan, a kitchen thermometer (that measures temperatures up to at least 105 °C, or around 215 °F), a stove top
01.06: Pure Substances and Mixtures	candy with a colored coating, like Skittles® or M&Ms® (four different colors), rubbing alcohol or isopropyl alcohol, coffee filters (two), tall glasses or plastic cups (two), pencil, ruler, tape, foil or paper plate, table salt, water, toothpicks or cotton swabs (four), measuring cups or spoons, clean pitcher or two-liter bottle
01.07: Laboratory Techniques	apple juice, orange juice, or milk; any type of vinegar, cooking wine, saltwater, thermometer, pots, heat source
02.06: Periodic Table	empty container, 100 random pennies, kitchen scale
03.03: Covalent Bonding	multicolored gumdrops, marshmallows, soft candy, fruit, aluminum foil balled up, foam balls, cotton balls, play dough, or cereal; Q-tips, hair pins, toothpicks, paperclips, or other stick-like objects; paper and pencil

04.02: Synthesis and Decomposition Reactions	assorted colors of building blocks (such as Legos®)
04.04: Combustion and Redox Reactions	20 dull pennies, 1/4 cup white vinegar (diluted acetic acid), one teaspoon table salt (NaCl), 1 shallow, clear glass or plastic bowl (not metal), one plastic spoon or fork, one or two clean steel screws or nails (not galvanized) or plain metal paper clips, water, measuring spoons, paper towels
05.05: Limiting Reactant	two boxes/packages of the same cookie mix, measuring cups and spoons, mixing spoons and bowls, two baking pans of the same size and depth, additional ingredients requested by cookie mix recipe
05.06: Percent Yield	heat source (a stove or hot plate will work best), baking soda, kitchen scale, stirring spoon, cooking pot
06.01: Kinetic Molecular Theory	friend or family member, scented candle, matches or lighter, spray air freshener, stopwatch or timer
06.02 Phase Changes	household or crafting items
06.03: Gas Laws	3-inch × 5-inch card, marker, pencil, one empty soda can, tongs, water, one two- to three-quart saucepan
07.01: Endothermic and Exothermic	bowl of cold water, second bowl of very warm (but still safe to the touch) water, third bowl of room-temperature water
08.01: Properties of Water	toothpick, cup, water, small bowl, soap, staple or paperclip
08.04: Acids and Bases	red cabbage, rubbing alcohol, cheesecloth, paper towels, 10 clear plastic cups, labeling pen or marker, two small bowls, tablespoon, three tablespoons of: distilled water, lemon juice, cola, corn oil, shampoo, vinegar, dishwashing liquid

School-Supplied Resources:

Free Downloads:

- **Adobe Flash Player**
- **Java**
- **Windows Media Player**
- **Apple iTunes**