## Beyond Earth Shopping List

### Activity 1: Rocket Launch

For each child or small group of children:
- Oak-tag poster board (8 x 10 sheets)
- Rocket cutout pattern guide
- Plastic 35-mm film canisters (Fuji Film® canisters are recommended)
- Cellophane tape
- Scissors
- Colored markers
- Decorative stickers
- Plastic picnic spoons (or a set of measuring spoons)
- Baking soda
- Vinegar
- Optional: Alka-Seltzer and water (can be substituted for baking soda and vinegar)
- Paper towels
- Eye protection

### Activity 2: Heavy Rockets

For each child or small group of children:
- 1 (1” x 1”) piece of modeling clay
- Blackboard or chart paper for recording flight results

### Activity 3: Strange New Planet

For the group:
- Modeling clay, Play-Doh®, Styrofoam™ balls, plastic balls, balloons, or rounded fruit (pumpkins, oranges, grapes, etc., enough to make 3 “planets” with additional for “moons,” if desired)
- Craft and food materials:
  - Planet surface features: small stickers, sequins, candy, marbles, cotton balls, felt, toothpicks, pasta, beads (use your imagination!)
  - “Life”: butterfly stickers or cloves
  - Scents (optional): scent stickers, spices such as cloves, vinegar, perfume, or other scents
  - 1 (2’ x 3’) dark-colored cloth
  - Glue or tape
  - Toothpicks
  - 1 pedestal or stool
  - A space large enough for the children to observe the “planets” from varying distances of 30 feet to less; children should be able to circle the “planets” from a distance of 2 to 5 feet
- 5 sheets of poster paper
- 2-4 markers of different colors

For each team of three to four children:
- 2 cardboard or rolled paper tubes
- 2 (5” x 5”) blue cellophane squares
- 2 rubber bands
- Masking tape
- 1 set of Our Solar System (NASA educational product number LS-2001-08-002-HQ) lithographs, preferably in color
- 1–2 copies of Solar System Exploration Timeline 2008–2010+, preferably in color
- Books about the exploration of the bodies in the solar system (optional)
- Paper
- Pencils or pens

### Activity 4: Eggstronaut Drop

For the group:
- Chalkboard, dry erase board, easel or large piece of paper, with chalk or markers (optional)

For each child or small group of children:
- 1 raw egg
- 1 hard-boiled egg (or plastic egg)

For the group:
- Paper, pencils, markers, crayons
- Construction materials, such as: straws, cardboard, packing material, Styrofoam™, clean meat trays, egg cartons, string, rulers, paper towels, garbage bags, cotton, toothpicks, paper cups, sandwich bags, Ziploc® bags, cloth, etc.
- Scissors
- Tape
- Drop cloth
- Ladder (or balcony)
- Paper towels
- Scents
- Weighing scale (optional)

### Activity 5: Build a Colony

For each group of three to four:
- 1 large piece of cardboard

For the group:
- A fictional story about space colonies
- An article about future bases, such as those that can be found in issues of Discover Magazine, Scientific American, or National Geographic (optional)
- Chalkboard, dry erase board, easel or large piece of paper, with chalk or markers (optional)
- Rulers
- Colored pencils/markers
- Craft supplies such as: small boxes, aluminum foil, different-sized Styrofoam blocks, Saran Wrap of all colors, old CDs, pipe cleaners, toothpicks, wire, wire cutters, LEGO® toys with wheels (for rovers), tinsel, ribbon, fabric, gauze, straws, pencil top erasers, beads of various sizes, wooden spoons, foil cupcake holders, wooden miniatures, buttons, bottle caps, plastic screen of different sizes, clay (use your imagination and best judgment for providing safe, fun materials!)