

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
- ___ 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
- OR
- ___ 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 spools, 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!)