

Materials Needed

- A work area such as a table or floor area
- Note taking materials
- Large containers like a shoebox or cardboard box
- List materials children can explore and use

Grade Range

3-8

Topics/Skills

Science: Classification
Math: Counting

Learning Standards

NGSS: [Matter and Its Interactions](#)

Duration

20-30 minutes

Prep Time

5-10 minutes

Scavenging for Science

Stocking a personal laboratory with creative materials



This activity is a great way to identify household materials that can be used for a wide range of fun and engaging learning opportunities. Students will sharpen their classification skills among other key foundational science concepts.

Activity Challenge

Collect and sort a variety of household materials that can be used for science experiments and other projects.

Preparation

1. Choose a work area for collecting and sorting materials, like a table or an area on the floor.
2. Discuss the best places and safest way to search for materials.
3. Encourage students to look for materials that can be used in other projects such as cardboard, cardboard rolls, paper clips, binder clips, paper, pens, aluminum foil, rubber bands, hair ties, coins, etc. See Common Household Item Project Supplies (next page) for a long list of common household objects that make great project supplies.
4. Pick the area to be searched and set a time limit.

To Do

1. Have students search for, and collect, 5-20 different items that will fit in a container such as a shoebox.
2. Ask students to sort these items into groups of similar materials. Aim for 3 to 5 groups with 1 to 4 items per group.
3. Have students say, or write, the name of each item and grouping category.
4. If possible, hold onto the materials for future RAFT Learning Activities.

Observation

Ask students to draw at least one item from each group. Have students provide examples of what they could make with each item or with a combination of the items.

Extensions

Choose one or all the following challenges to extend the activity.

Creativity Challenge

- o Imagine a way to change one item so that it could be classified with other groups.
- o Imagine a way to reorganize the items into different groupings. (Examples: cuttable, puncturable, stapleable, meltable, bendable, growable).

Math Challenge

- o Count to 20 using the items found (e.g., using cans or bottle caps as counters).
- o Pick an item for students to measure length, width, perimeter, weight, and/or volume.
- o Create math problems using the collected items. For example, if 10 items are in the shoebox then remove 6 and ask students how many are left in the shoebox.

Language Challenge

- o Ask students to alphabetize the list of material names.
- o Direct students to a specific item by describing the item in increasing detail. Example, "I spy with my little eye something that is small (and wooden).

Common Household Item Project Supplies

Rubbing Alcohol	Empty Tissue Box	Potatoes
Amazon packages	Flashlight	Pots and pans
Bamboo skewers	Flashlight bulb	Paper plates
Batteries	Flour	Rice
Bottle Caps	Flowers	Salt
Cardboard Boxes	Glass Containers	Sand
Cereal Boxes	Ice cubes	Straws
Chopsticks	Junk mail	Socks
Clean Foil	Leaves	Soda Cans
Cloth	Markers	Soup cans
Craft sticks	Old Coins	Sticks
Cooking sheet	Pebbles	String
Cotton balls, cotton fluff	Pencil	Towels
Dental Floss	Pens	Wire hanger
Dried beans	Plastic bottles	Yarn
Empty food containers (Cleaned)	Plastic cutlery	Yeast
	Plastic containers	