

Cool Tool Creations

Create a tool that helps perform a job more effectively.

Big Idea

People use tools to make tasks easier.

Standards

1.B Communicate effectively using language appropriate to the situation or audience.	1.C Use language to convey information and ideas.
7 Explore measurement of objects and quantities.	8 Identify and describe common attributes, patterns and relationships in objects.
9.B Demonstrate an understanding of location and ordinal position, using appropriate vocabulary.	10.A Generate questions and processes for answering them.
11.A Develop beginning skills in the use of science and engineering practices, such as observing, asking questions, solving problems and drawing conclusions.	13 Understand important connections and understandings in science and engineering.

Materials

For brainstorming:

- Markers
- Paper
- Pencils

Variety of materials to be used for creating tools. Materials may include, but not be limited to the following:

- String
- Plastic utensils (spoons, knives)
- Masking tape
- Cardboard
- Wooden dowels of various sizes
- Craft sticks
- Pipe cleaners
- Paper tubes
- Paper
- PVC pipes of various sizes
- Clay
- Plastic cups
- Magnets
- Glue

Setup

This activity can be done on the floor or at a table.

Directions

1. Discuss various tools you can find at home and how each is used (stapler, eraser, sponge, etc.). Record responses on a piece of paper.
2. Review the concept that tools help people work more effectively and brainstorm something that you wish you had a tool for to make it easier to do.
3. Gather useable materials from around the home.
4. Prior to making tools, allow for time to design a new tool by drawing ideas or taking notes or generating a list of ideas for their tool. **Q.** How will the tool be used? **Q.** What will the tool look like? From the available materials, **Q.** What will they use to make their tool?
5. Provide plenty of time to make their tools.
6. After making their tools, encourage everyone to share them what they created and why.

Activity Extension:

During your search for tools around the house, think of ways you can sort them by attribute/characteristic or by how its used. **Q.** What groups can you make? **Q.** Which group has the most tools?

Investigation Questions:

Q. What tools make it easier to clean up spills? **A.** Mop, sponge etc.

Q. What tools do we use to make a snack? **A.** Measuring cups, measuring spoons, mixer, spoon, etc.

Q. What type of tools would help us build a house? **A.** Hammer, nails, screwdrivers, drills etc.

Q. What types of tools does a veterinarian use to care for animals? **A.** Scale, x-ray, syringe etc.

Vocabulary

Tool: an object designed to do a specific kind of work