

# QUICKER PICKER UPPER

## **BENCHMARK and TASK**

**SC.A.1.1.1** The student knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color, size, and shape).

- The student demonstrates that water can be poured, evaporated, and absorbed.

## **KEY QUESTION**

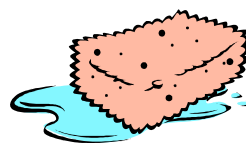
What happens to water when it is placed on a variety of surfaces?

## **BACKGROUND INFORMATION**

Water is one of our most vital natural resources. All living things require water to survive. Although it is the second most abundant substance on earth, the amount of fresh water available for use is very limited. Most of the water on the earth is salt water, which is found in the oceans and the seas.

Water is a liquid and flows easily. All liquids are able to flow, but some liquids flow faster than others. Water also has other observable properties:

- Water is transparent.
- Water is “sticky,” causing water drops to combine when they meet.
- Water exerts pressure.
- Water can be poured.
- Water has mass.
- Water can dissolve some materials.
- Water can be absorbed.
- Water can evaporate.
- Water can act as a filter.



Absorption is the act of soaking in or up.

## **MATERIALS**

### **Teacher**

small amount of liquid (coffee, milk, water or soda)

*Absorption Results* class chart

### **Per group**

- \*1 piece of paper towel
- \*1 piece of wax paper
- \*1 piece of plastic garbage bag material
- \*1 piece of aluminum foil
- \*1 piece of colored construction paper
- 1 cotton ball
- 1 Styrofoam plate or tray
- 1 eye dropper
- 1 cup of water

## **TEACHING TIPS**

1. Cut enough 2 x 2 inch pieces of all \*materials for each group.
2. You may have to do a mini-lesson on how to use an eye dropper.

### **ENGAGE**

Spill some liquid (coffee, milk, water, or soda) onto a table top/tray. Encourage students to share ideas on how the mess can be cleaned up. Leave the spill to be revisited later in the lesson.

### **EXPLORE**

1. Distribute materials to each group. Have students place the wax paper on one of the paper plates. Ask students to predict what will happen when a drop of water is placed on the wax paper.  
Have one member of each group use the dropper to place a drop of water on the wax paper. Record student descriptions of the results on the *Absorption Results* chart.
2. Have each group repeat step #1 with the other five materials. Dry the plate or tray each time, if necessary.

### **Absorption Results**

| <b>construction paper</b> | <b>cotton ball</b> | <b>aluminum foil</b> | <b>paper towel</b>                             | <b>plastic garbage bag</b> | <b>wax paper</b>                     |
|---------------------------|--------------------|----------------------|--|----------------------------|--------------------------------------|
|                           |                    |                      | It disappeared.<br><br>It went into the towel. |                            | It made a ball.<br><br>It was round. |

### **EXPLAIN**

1. Ask:  
*How did the materials act with the water?*  
*Did they all act the same way?*  
*Did any of them act the same way? Which ones?*  
*On which materials did the water “stay on top”?*  
*On which materials did the water “go into” the material?*
2. On the board, write the words absorb and does not absorb and explain the headings. Have the students tell you under which headings each of the materials would fit.
3. Go back to the spill you made in the Engage part of the lesson and discuss the best material for cleaning up the mess. Emphasize absorption as the cleanup process.  
*Ask: Now which one of the materials do you think would best clean up or absorb the coffee I spilled earlier?”*

### **EXTEND/APPLY**

Ask students to discuss the kind of material they would want for a raincoat and to give reasons for their suggestions. Have students make a rain hat from materials that the student thinks will repel a small amount of water. Go outside and pour a small amount of water onto the rain hat (while wearing) to test how well it resists the “rain.”

### **EXTENSIONS**

This is a follow-up activity that connects both absorption and evaporation. Show students a dry sponge. Pour about half a cup of water onto the sponge. Ask students if the water was absorbed or not absorbed by the sponge. Next, squeeze the water from the sponge back into the measuring cup to show students how much water was absorbed by the sponge.

Let a student touch the sponge and tell the class whether or not it is still wet. Finally, place the damp sponge on a plate. Later in the day when the sponge is dry, ask the students what happened to the water. (It evaporated. Tie this to student experiences with puddles, wiping the kitchen cabinets or classroom tables, sidewalks after it rains and the sun comes out, etc.)

### **ASSESSMENT**

1. Put out materials – absorbent and non-absorbent (e.g., paper towels, aluminum foil, paper, etc.).
2. Have students design a raincoat for a paper doll. Observe whether or not they use materials that repel water.