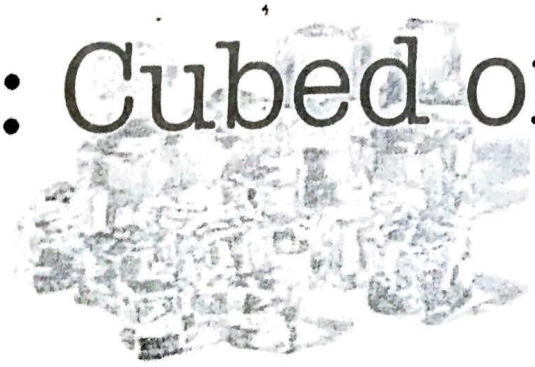
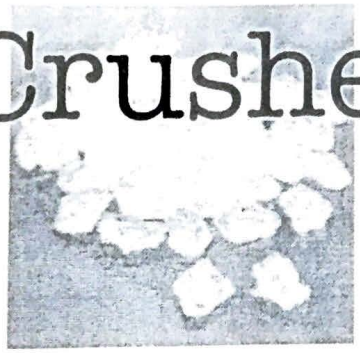
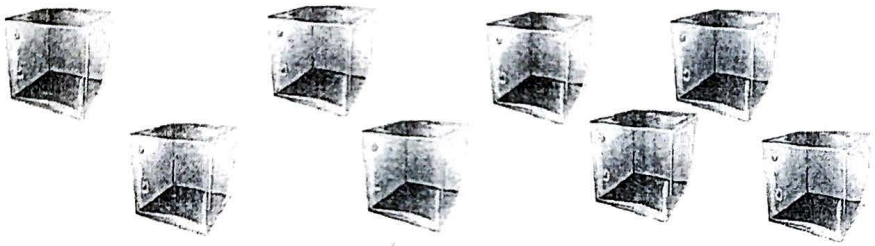
Ice: Cubed or Crushed?





Instructions: Today we will be comparing the surface area of various configurations of ice. In the first exercise, you will take 8 1" square ice cubes, connect them in different ways, and then sketch and calculate the surface area. At the end of class, we'll answer the question: what's the best way to cool down a warm drink?

Sketch	Surface Area
	
	$=36\ in^2$
	$=40\ in^2$
	$=24\ in^2$

Findings: Look at the chart you made on the opposite side of this page and use the information you collected to support your answers.

Which would cool down your drink faster, ice with more surface area or less surface area?

Which kind of ice would last longer in your drink, 8 single cubes of 1 cubic inch each, or fewer cubes with the same volume? Why?

Sketch the kind of ice that has the most surface area and compare it to another sized cube that has less surface area. Use the examples from the other side of the paper.

Restaurants usually mix their drinks "on the spot" by combining carbonated water with syrup to make the soda, neither of which is cooled down. Why do you think many restaurants prefer to use crushed ice instead of cubed ice to cool down their drinks?