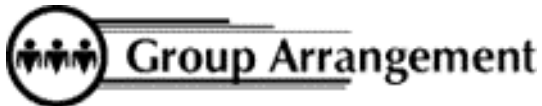


Bubbles: Student Worksheet

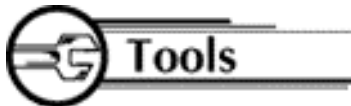
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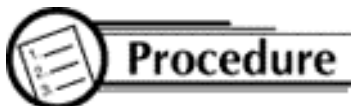
How big is a bubble?



Students work in pairs



- 4 kinds of liquid dishwasher detergent such as Joy, Ivory, Dawn, Palmolive
- commercial bubble liquid
- water
- glycerin
- rulers
- straws
- pie tins



1. Mix the bubble liquid using 1 part detergent to 6 to 10 parts water for each liquid dishwasher detergent in separate pie tins. Have a container for the commercial bubble liquid also
2. Using a straw, blow gently into each soapy liquid
3. Time the duration of the bubbles
4. Also, using a ruler, measure the diameter and height of the largest bubbles.

5. Make a bar graph for each measurement.
 - One bar graph for detergent names and duration of bubbles
 - One bar graph for detergent names and diameters
 - One bar graph for detergent names and heights
6. Repeat the previous experiments, but this time add glycerin to the liquids
7. Using your graphs, explain if and how the glycerin made a difference to the bubbles
8. Explain how the home-made liquid compared to the commercial liquid



Math Connection

As a result of this activity, students collect, graph and interpret data