

Activity Instructions

Frozen Bubbles

The following items will be needed for this activity:

per group:

- bubble mixture (see *Prep Instructions*)
- bubble wands (see *Prep Instructions*)

Step 1

Choose a cold day (at least $-10\text{ }^{\circ}\text{C}$) with minimal wind.

Step 2

Instruct the students to wave their wand through the air to create bubbles. This technique works better than blowing bubbles through the wand. The bubbles will freeze on the wand (**Figure 1**) and students can then study the frozen bubbles (**Figure 2**).



Figure 1



Figure 2

Shape Bubbles

The following items will be needed for this activity:

per group:

- container of bubble mixture (see *Prep Instructions*)
- pipe cleaner bubble shape (see *Prep Instructions*)
- plastic drinking straw

Step 1

Dip a pipe cleaner shape into the mixture and gently remove it.

Step 2

Dip one end of the straw in the bubble mixture and gently insert this end into the 3-D bubble shape. Blow gently to create a bubble within a bubble. An example of a smaller cube bubble forming within a larger cube bubble is shown in **figure 3**.

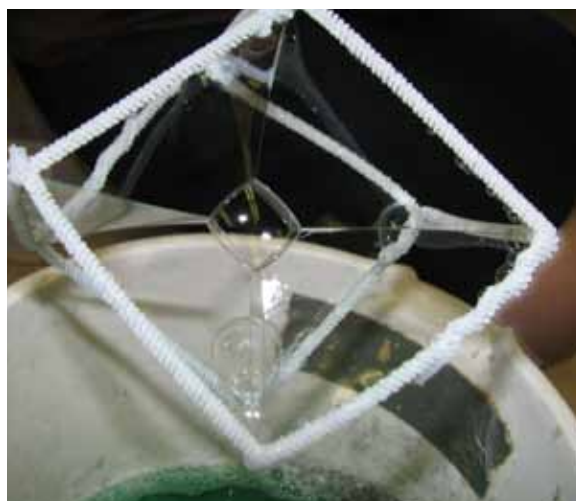


Figure 3

Coloured Bubble Art

The following items will be needed for this activity:

- coloured bubble mixtures (see *Prep Instructions*)
- bubble wands (one per student or group)
- roll of white craft paper or pieces of card paper and cardboard bases

Step 1

Set out the containers with the coloured bubble mixtures.

Step 2

Use a bubble wand to blow bubbles, allowing them to pop on the paper covering either their desks or the floor, or on card paper attached to cardboard. **Figure 4** shows the coloured imprints that are left behind on the paper once the bubbles have popped.



Figure 4

Bouncing Bubbles

The following items will be needed for this activity:

per group:

- container of glycerin bubble mixture (see *Prep Instructions*)
- bubble wand
- bubble bouncer
- cotton or acrylic glove

Step 1

Carefully blow bubbles and bounce them as many times as possible (**Figure 5**).

It is important to hit the bubbles from the bottom; if the top of the bubble is hit, it is more likely to pop. Too much force will also pop the bubble and it will take some practice to learn how to gently bump the bubbles. Try to spin the bubbles as they bounce as this will keep the water and soap from settling and popping the bubble.



Figure 5