

BubbleMania!

Objectives:

- Understand that it takes air to make bubbles.
- Understand that water has a special force or “stick-togetherness” called surface tension, which can be broken by soap.
- Understand that light bends as it passes through bubble film to produce colors.
- Enhance youth science skills of observing, communicating, comparing, and measuring.

Background:

Water, like all substances, is made of molecules too small to see. These water molecules are attracted to each other. The effect of this attraction is called surface tension. Surface tension makes the water act as if it has an elastic skin.

When soap is added to water, the molecules of the soap spread over the water and break the surface tension. A bubble is made of a sandwich-like covering made up of water and detergent that encloses some air. Light shining through a bubble makes beautiful colors. As the walls of the bubble become thinner, the light is reflected back-either from inside the soapy film or from the outside. When this happens, the colors of the spectrum appear. The colors change by disappearing and reappearing as the bubble stretches to become thinner and thicker.

Life Skills:

Children develop social-interaction skills when working together in teams and when sharing. Learning skills are developed as the children gain new information. Eye-hand coordination and fine motor skills are promoted by using scissors and making and using bubble blowers.

Safety Precaution:

Before every activity requiring soap, remind the children not to touch or rub their eyes during the activity. At the conclusion of the activity the children should thoroughly rinse and dry their hands. Clean up all spills promptly so children do not slip.



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