

## **BUBBLES, BUBBLES!!**

### **BLOWING BUBBLES**

*Dip your pipe and gently blow.  
Watch the tiny bubble grow  
Big and bigger, round and fat  
Rainbow-colored, and then--  
SPLAT!*

*Margaret Hillert*

*Spend some time exploring bubbles with your children. Besides just plain being fun, many scientific processes can be used in your exploration and this unit can be adapted to a wide range of ages. The first section will have several "recipes" for making the "bubble base." The second section will offer activities for each age group. Be sure to look at all the activities; some may be used outside the age group suggested. You know your children and their capabilities the best! So explore, observe, measure, predict, investigate, communicate and enjoy!*

#### **RECIPE #1**

*1 cup liquid dishwashing soap (Joy or Dawn work best)  
1 gallon water  
2 tablespoons glycerin (optional) - may be purchased at a pharmacy*

#### **RECIPE #2**

*1/4 cup liquid dishwashing soap  
1/2 cup water  
few drops of food coloring  
1 teaspoon sugar  
(This recipe works best if made and allowed to age a few days.)*

#### **RECIPE #3**

*2 tablespoons of liquid dishwashing soap  
1/4 cup water  
tempera paint*

#### **RECIPE #4**

3 parts water  
2 parts Dawn detergent  
1/2 part Karo syrup

#### **EXAMPLE:**

3 cups water  
2 cups detergent  
1/2 cup Karo syrup

#### **RECIPE #5**

4 parts water  
1 tablespoon (per gallon) glycerin  
(Let sit for one week.)

#### **ACTIVITIES FOR TODDLERS:**

1. Allow toddlers to blow bubbles using regular bubble wands and/or the super size bubble wands. Encourage lots of language about what they see:
  - > Is it big or little?
  - > Did you blow one, a few, or many?
  - > Can you blow a bubble high in the air? Low?
  - > What colors do you see?
  - > Did the bubble break right away? Did it last a long time?
2. Discover other "blowers" to use and compare the results:
  - > plastic rings from pop 6-packs: dip in bubble solution and wave
  - > straws: can also rubber band several straws together to dip and blow
  - > paper/styrofoam cups: poke holes in the bottom; set the cup in bubble solution; blow through the holes
  - > plastic strawberry baskets
  - > kitchen utensils (look in your drawers and cupboards and experiment!): strainers, funnels, open-ended cans
3. Fill a wading pool with water and #5 solution. Have child stand in middle of pool. Lower a hula hoop over the child and set in the bubble solution. Carefully pull the hula hoop over the child, encasing him/her in a bubble.

#### **ACTIVITIES FOR PRESCHOOLERS:**

1. Using Recipe #2 or #3 put the mixture in a small margarine tub. Use a separate tub for each color. Let one child at a time put a straw into the paint mixture and blow through it until the bubbles rise above the rim of the margarine tub. Then lay a piece of white paper on top of the bubbles and let the child rub across it gently. As the bubbles break, they will leave delicate prints on the paper. Try various kinds of paper for different results. (HINT: To prevent the children from accidentally sucking up the paint mixture, poke holes near the tops of the straws.) The child can overlap colors and bubble prints.

2. *Let the children take turns blowing all the bubbles they can with one breath. Have the rest of the children count the bubbles.*
3. *Have the children blow bubbles and look at them closely. When the reflection from the sun (or other light source) hits the bubbles, a rainbow of colors can be seen. Ask the children to look for the different colors and name the ones they see.*
4. *Let the children pretend to be bubbles. Talk about the properties of bubbles: soft, light, airy; and how they can pretend to be one. Play soft music and have them "float" like bubbles around the room.*

**ACTIVITIES FOR SCHOOL-AGE CHILDREN:**

1. *Extend Toddlers, Activity #2. Challenge the children to try at least 8-10 different bubble blowers. Have them predict whether the blower will work or not; and chart their response. After they have tried the blower, respond on the chart as to whether it worked or didn't.*

	<i>PREDICTION</i>	<i>ACTUAL</i>
<i>FUNNEL</i>		
<i>PAPER TOWEL TUBE</i>		
<i>(list other blowers)</i>		

*Follow up this activity with a discussion and further experimentation. Include:*

- > *what worked, what didn't and why?*
- > *what special techniques worked?*
- > *what did the working bubble makers have in common?*
- > *what happens if you change the shape of the "wire?"*
- > *what happens if you change the length of the paper tube?*
- > *do paper or styrofoam cups work best?*
- > *what other materials could we try? (piece of paper?)*

**ADDITIONAL ACTIVITIES TO USE WITH BUBBLES:**

1. Sing songs:

**MY BUBBLE**

(sung to "My Bonnie Lies Over the Ocean")

*My bubble flew over the ocean,  
My bubble flew over the sea,  
My bubble flew over the rainbow,  
Oh, come back; my bubble to me.*

*Come back, come back  
Oh, come back, my bubble to me, to me.  
Come back, come back  
Oh, come back, my bubble to me.*

*Jean Warren  
Theme-A-Saurus*

2. Make and serve Orange Fluff

*Pour 1/4 cup water into a bowl and add 2 envelopes unflavored gelatin. Stir and let set for 5 minutes. Add 3/4 cup boiling water and stir again until gelatin is dissolved. Pour mixture into a blender container and add one 6-ounce can unsweetened frozen orange juice concentrate. Blend until fluffy, then pour into small cups. Chill for about 15 minutes. Makes 4 to 6 servings.*

3. Read books:

*Bubble, Bubble by Mercer Mayer (Macmillan, 1980)  
The Magic Bubble Trip by Ingrid and Dieter Schubert (Kane Miller, 1985)*