

“In the Water”

Module 14, Adventure 2

The logo for "EXPLORE IT" is enclosed in a black rectangular border. The word "EXPLORE" is in a bold, sans-serif font, with the letter "O" colored green and the letter "R" colored purple. The word "IT" is in a smaller, regular sans-serif font.

Prompt:

In this activity, you will learn how to make your own bubbles solution, then you will create 3-D shapes out of pipe cleaners to try making different bubble shape creations!

Materials:

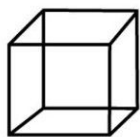
- 1 Cup of dish soap
- 1 Gallon of water
- 1 Bucket/pail/container for bubble solution
- 25+ Pipe cleaners
- Explorer Notebook or a piece of paper
- Pencil or pen
- *Optional: Other materials to try using for bubble wands, such as string, plastic straws, fly swatters, recycled containers, etc.*

Note: We recommend you make the bubble solution one day early so it has a chance to sit. It is ok if you would prefer to make it the same day as the adventure, however! To make the bubble solution: Mix 1 cup of dish soap per gallon of water in a bucket.

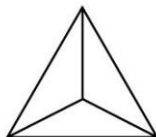
Instructions:

1. Decide on a good spot to do this activity with your grown-up. It can get messy and slippery! You might want to do this outside or put down a plastic tablecloth.
2. Making the bubble solution:
 - a. In a bucket, mix 1 cup of dish soap per gallon of water.
3. Creating 3-D shapes:
 - a. In your Explorer Notebook or on a piece of paper, draw any 3-D shapes you'd like to try to create. These are shapes like cubes, pyramids, or tetrahedrons.

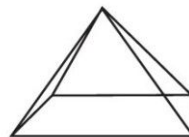
- i. Check out the last page for a page design idea. You can use this or set up your page however you want!
- b. Make 3-D shapes out of pipe cleaners. You may want to attach an extra pipe cleaner to your shapes so that you have a handle to hold on to.



cube



tetrahedron



pyramid

4. Dip the shapes into the solution and pull them out to observe what happens.
 - a. The solution should be deep enough to fully submerge the shape.
 - b. Observe the bubbles before blowing air.

Resources:

1. Take a [virtual tour](#) of Boston Children's Museum, and see if you can find the Bubbles exhibit on the first floor!
2. Watch this [Boston Children's Museum video](#) about making bubble solution and bubble wands by Alissa Daniels, our Science Program Manager.

Extensions:

The following are optional steps you can take if you want to extend this adventure:

1. Try inventing your own 3-D shape, then test it in the bubble solution!
2. Make some bubble wands using other materials. What works well? What doesn't?
3. Go to the "In the Water" topic on Flipgrid and share your bubble wands!

Explorer Notebook

You can use this to help you set up your Explorer Notebook!

<p>In the Water Module 14, Adventure 2</p>	
<p>Sketch of a 3-D Shape</p>	<p>Sketch of a 3-D Shape</p>
<p>Sketch of a 3-D Shape</p>	<p>Sketch of a 3-D Shape</p>