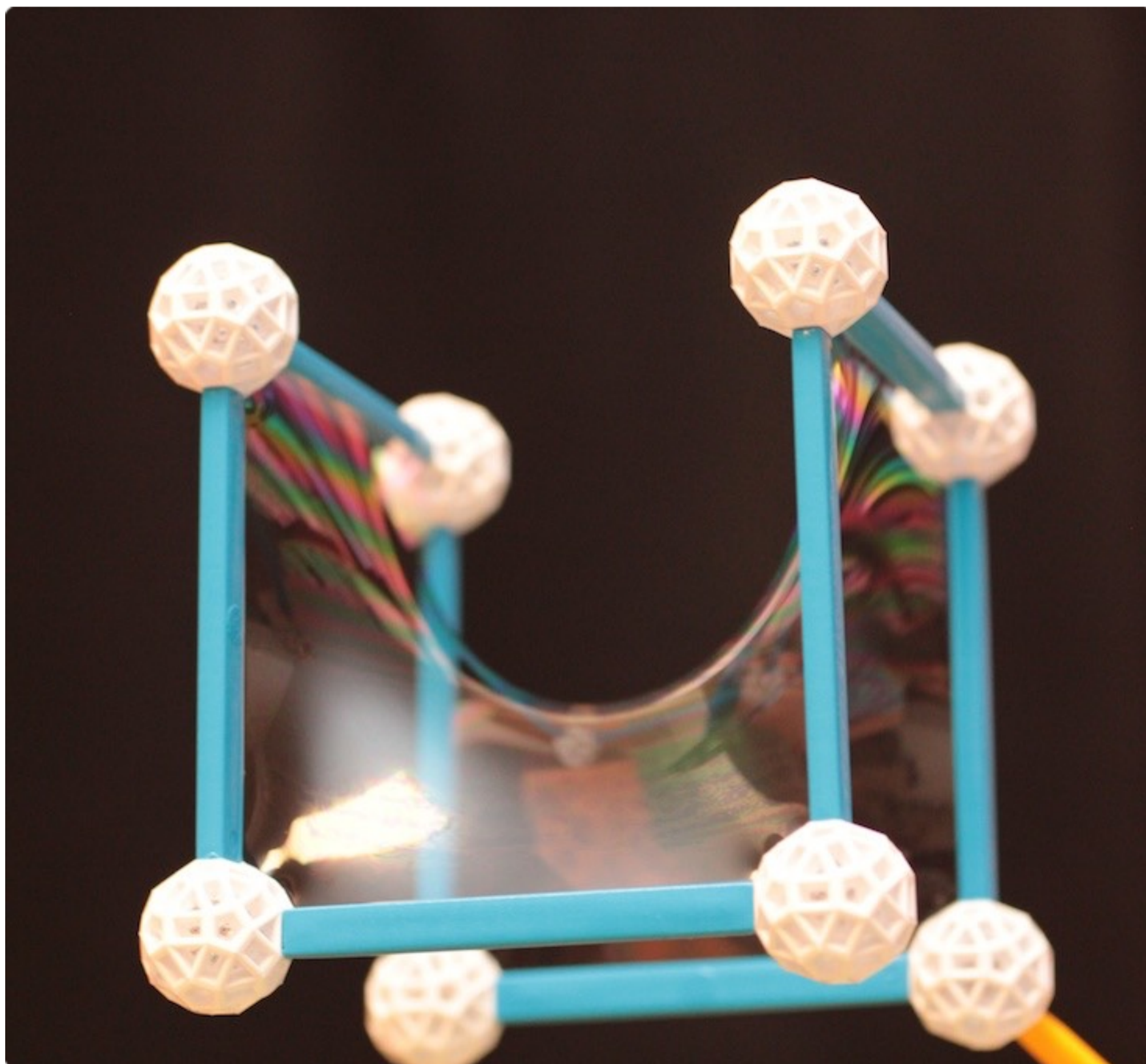


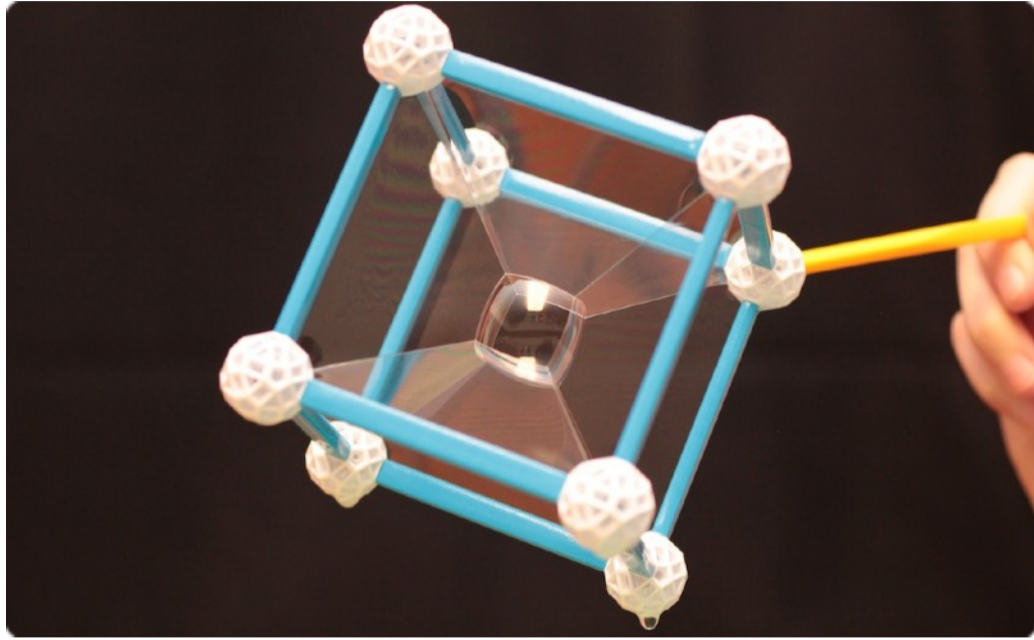
2019 Math Festival

Bubble Station

INSTRUCTION SHEET



Instructions for Museum Education Coordinators, Staff and Volunteers

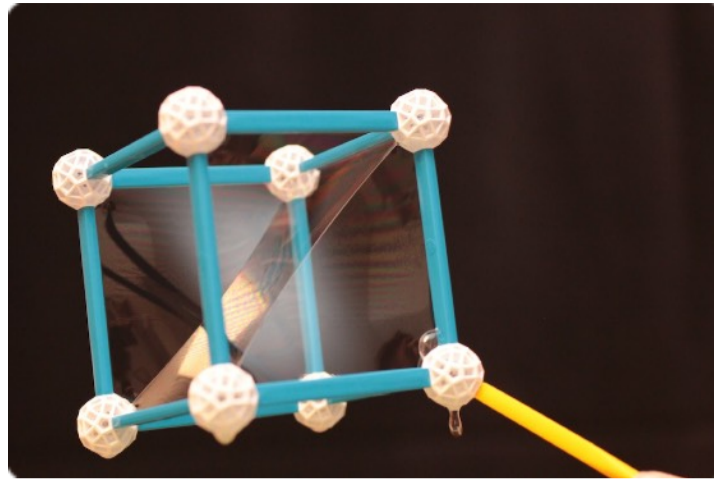


Contents of the Bubble Station Kit

- Eight (8) unassembled Zometool Frames plus spare parts
- PDF with CONTENT CARDS with structure assembly instructions, facilitator training, tips, guidelines and suggested questions / prompts
- “Where is the Math” Appendix to Content Cards with links between Bubbles and Math
- PDF with SIGNS which you can print and display next to the activity
- PDF with INSTRUCTION SHEET for Station Setup (*this document*).

Additional Items Needed:

- Dawn soap (or other dish soap without any additives) to be diluted with water
- Paper towels
- One or two (1 or 2) six-foot tables
- Drop cloths (and perhaps large towels) - bubbles are messy and WILL make the floors slippery
- Three (3) large clear tubs, we recommend 2-gallon or slightly larger. Please bear in mind you will have to dunk the models entirely.



How to set up your Bubble Station

- Based on your space, you'll need 1 or 2 six-foot tables. You may want to set this station up in a courtyard, grassy area or non-carpeted location –If you are doing the activity outdoors please try to get some shelter from the wind. Windy conditions will make the activity more difficult (but not less fun). You may also set up a station on the floor for the little ones.
- A drop cloth under the tables would be good protection for the floors. Be sure to tape down this cloth for safety of your patrons. Suds are slippery!
- You should cover your tables as well. There will be dripping for sure.
- You will need three large, clear tubs for the bubble solution at the three stations.
- Fill each tub with warm water 3/4 full. Slowly add the Dawn (or other detergent) to the water and test the bubble and soap film formation as you go. Please test your bubbles!
- Paper towels nearby for cleanups throughout the bubble dipping process.
- At least one facilitator at each station should be familiar with the suggested activities and questions/prompts from the provided PDF guides.
- You will want to have straws (to “drop” bubbles inside the structures) and some fresh water for cleanup after the activity.
- You should build your Zometool bubble frames ahead of time. Ideally at least one facilitators at each table should know how to (re)build the structures. There's a good chance models will be disconnected / parts broken in the activity. An experienced hand will be able to repair things very quickly
- If your center purchased Zometool products for sale, it would be a good idea to display them near the bubble station.

Let's Get Started!

Each facilitator of the Bubble Station will need to be familiar with

The Frames. It is a good idea to practice using the Zometool frames to familiarize yourself with some of the experiences you want your visitors to walk away with.

The Content Cards. We will also provide some suggested prompts/questions for your visitors and some practice can give you a good sense of when to bring up specific prompts/questions.

Zometool Product for Your Store

Zometool has put together a special bundle for those members who want to make the product available to their visitors. Your museum store / marketing contact will be receiving an email from Zometool (*please make them aware of the fact that this activity will be taking place*). If you have any Zome-related questions, don't be shy about writing directly. You can reach Carlos Neumann at carlos@zometool.com.