## Giant Bubbles

All bubbles are fun- but huge bubbles are SO MUCH more fun!

## WHAT TO DO

Holding the ends of the metal stakes close together, dip the ropes into the bubble solution and pull them back out, then slowly open and close them to launch giant soap bubbles.

## WHAT'S HAPPENING?

Water molecules attract and pull other molecules very powerfully. This force is called "cohesion", and is what normally causes water droplets to gather into "beads" on waxy surfaces. Adding soap to water weakens these cohesive forces (the soap molecules instead grab some of the water's bonds) and allows the solution to spread out into a thin- but still strong- film which can form a skin around an air bubble (like the rubber skin of a balloon). Adding certain ingredients to the different bubble solutions like cornstarch or guar gum make the skin even stronger, allowing you to make huge, long lasting bubbles with the long rope wands. Be sure to try each of the bubble recipes to see which you think makes the best bubbles.

