

# Break the Tension!

## ***Part 1: Surface Tension***

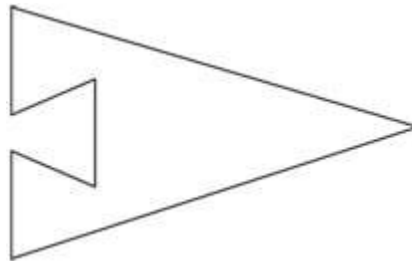
1. Test ways to get the paper clip to "float." Which ways work? Which ways do not work?
2. If you cannot get the paper clip to float at all, place a paper clip on a small piece of toilet paper, and then place it gently on top of the water.

## ***Part 2: Surface Tension and Surfactants***

1. Place a few droplets of liquid soap into their water before trying to get the paper clip to float again.
2. Test all of the ways that worked before to get the paper clip to float on water.

## ***Part 3: Surface Tension/Surfactant-Powered Boats***

1. Using the attached Surface Tension Boat Template, cut out small paper boats.



2. Place the paper boats into a small tub filled with water. Ask the students: How might we power this boat? How can we propel it from one end of the tub to the other?
3. Drop 1-2 droplets of liquid soap into the small triangle cutout at the back of the boat. The boat should propel at least a few inches.