**Build a Drifter**

Plant and animal plankton float in the estuary, following the currents. But plankton don’t float on the surface of the water, instead they are “neutrally buoyant”, floating within the water column.

**Step 1:** Look at pictures of plankton. What shapes and features do you think help them avoid sinking to the bottom? What features stop them from floating all the way up to the surface?

**Step 2:** Using the materials provided, and what you learned from looking at the pictures, design your own plankton model.

**Step 3:** Test your model by lowering it gently in the aquarium filled with water.

**Step 4:** Evaluate your model: Did it sink? Did it float at the surface? If so, redesign it and try again! And again, and again, until it is successful. *{Note: Success can be a model that is truly neutrally buoyant or one that takes more than 3 seconds to sink to the bottom of the aquarium/bucket. The latter is easier for kids.}*

**Step 5:** Have Sarah take a picture of your successful model!

**Step 6:** Check out our blog at [www.sfbaynerr.org](http://www.sfbaynerr.org) to see pictures of the successful models!

Challenge: Many plankton move up and down in the water column. For example, they may sink down deeper during the day and float closer to the surface at night. How could they do that? Can you design a model that can float higher or lower in the water with just a simple change?