

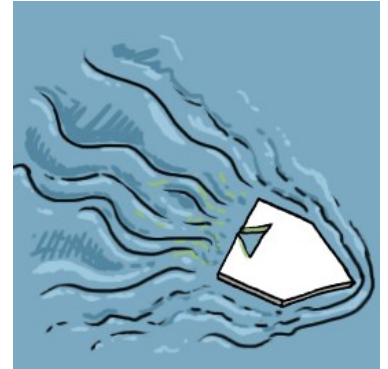
Fun with Science: Soap Boats

Having faith in what we cannot see

Step 1: Cut out a boat that is similar in size and shape to the image at the right (around 2" long seems to be a good size). Use milk cartons, meat trays, or smooth (not corrugated) cardboard.

Step 2: Pour about 1/4 inch of water into a tray. Place the boat on the tray.

Step 3: Dip a toothpick into the dish soap. Touch the toothpick to the surface of the water in the slot at the back of the boat. What happens?



<https://sciencebob.com/build-a-soap-powered-model-boat/>

Step 4: Rinse all traces of soap from the tray and start over to do the demonstration again.

Experiment by trying some different materials, one at a time. Answer these questions:

1. Does liquid soap last longer than a solid piece of soap?
2. Does warm water work better than cold water?
3. What materials make the best floating boat?

How does it work?

Water is made up of molecules. Water molecules naturally stick to one another, like a line of children holding hands. Dish soap molecules cause the water molecules to lose their grip on one another and push away from the dish soap. The notch in the boat means that those molecules can only push out in one direction, and that propels the boat forward.

How do Science and Faith work together?

We believe that soap can move these boats because we saw them move. Jesus calls us to faith in things we cannot see. We can have faith that Jesus is present and active, as we witness God's awesome creation around us, and experience the kind and loving action of God's children.