Rubber Band Boat

Build and experiment with your own rubber band powered boat.

Materials:
- Plastic bottle with cap
- 2 chopsticks or other wooden sticks
- Duct tape or hot glue
- 2 plastic spoons
- Rubber bands

1. Add Sticks to Bottle Boat:
   - Line up sticks on either side of the bottle. Make sure that four inches stick out off the back.
   - Secure firmly by wrapping with tape or gluing.

2. Make Paddles:
   - Cut or break handle off of the spoons so that they are one inch long.
   - Line up short handles with each other, flipping one spoon so the cups of the spoon point in different directions.
   - Tape or glue the shortened handles together.
3. Add Rubber Bands:
   - Stretch two rubber bands over the ends of the sticks.
   - Twist and re-wrap the rubber bands until they are tight.

4. Connect Paddles:
   - Slide the spoon paddle between the tight rubber bands until it is centered.
   - Tape or glue the spoon paddle so just the middle of the rubber bands is holding it in place.

5. Test It:
   - Spin the spoon paddle so that the rubber bands begin to twist.
   - Keep the paddles still and lower your boat into the water.
   - Let go!

6. Experiment:
   - What happens if you spin the spoon paddle the other direction?
   - Add different amounts of water to the bottle, how does this change how the boat behaves?
   - How much does twisting the rubber bands matter? Try twisting them a little bit versus a whole lot!