



## Science Dinner

Bending Water      Does it always go straight????

What you'll need:



- Styrofoam cups
- Cocktail sticks
- Readily available water
- Containers to hold water

Instructions:

- Push a cocktail stick into the bottom of a styrofoam cup, but leave in the bottom.
- Fill the cup with some water, but do not remove the cocktail stick.
- Take another cup and rub it against your hair.
- Hold the filled cup about 30cm above an empty cup.
- Remove the cocktail stick so that water runs into the cup underneath.
- Bring the rubbed cup towards the flow of water, but do not touch the water with the cup.
- What do you notice?

## Discussion points:

- Why does this happen?
- Can you get it to bend the other way?
- What happens if you use more than one rubbed cup?
- How far will it bend?
- Can you use other rubbed items to make a bend?



### EXPLANATION

The way electrons are distributed throughout a water molecule makes the oxygen atom more negatively charged and the hydrogen atoms are more positively charged.

When water flows out of the bottom of the cup, the molecules tumble any way they want.

As the molecules come nearer to the negative charge of the cup the molecules rotate.

As the positive side of the molecule is pointed toward the cup it is drawn in that direction.

