Dance! Styrofoam Ball!

Dancing Styrofoam Ball in the PET bottle

Point — *Using properties of Electricity*

Prepare

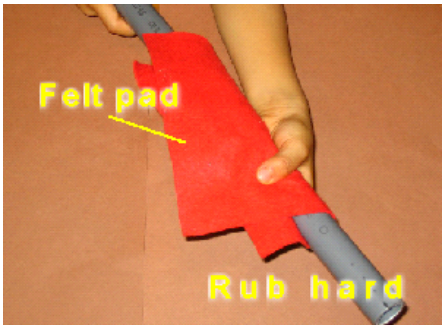
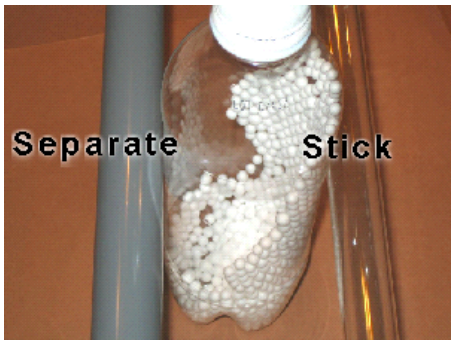
- PET bottle (500ml)
- Styrofoam ball (1–1.5 cm diameter)
- PVC pipe (polyvinyl chloride pipe)
- Acrylic pipe
- Felt pad or tissue paper

Preparing for experiment

1. Prepare the styrofoam ball.

2. Put the styrofoam ball into the PET bottle (2cm in depth)

Let the styrofoam ball dance!

1	Shake the PET bottle up and down repeatedly.		
2	Rub the PVC pipe with felt pad or tissue paper.		
3	Bring the electrostatically charged PVC pipe closer to the PET bottle.	 Using PVC pipe	 How about acrylic pipe？
4	Let's try it again using acrylic pipe instead of PVC pipe.		

Progress

What if something other than acrylic pipe and PVC pipe were used? What other things can we used instead of felt pad for rubbing? What would happen if two bottles were used? Let's experiment on it using different conditions.	

Information

- The nature of electrons is to repel each other when both electron charges are the same and attract if the electron charges are different.
- PVC pipe become negatively charge when rub by the felt pad and acrylic pipe becomes positive.
- Styrofoam ball have more negative charge electron so it separate when PVC pipe bring close to it.
- You can buy the Styrofoam ball in the home center or craftwork shop.

＊It is better to use the small one.