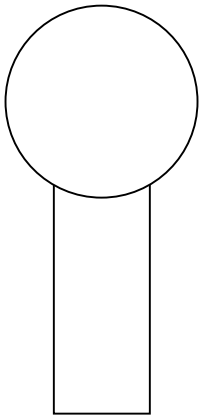
Van De Graff Generator Demos

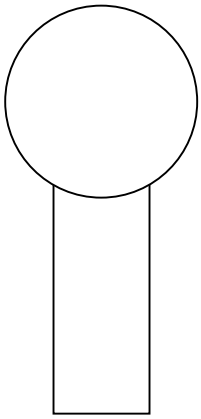
Name_____
Period_____
Date_____

A Van De Graff Generator is a machine that helps build up charge on an object. When we turn the machine on. Charge builds up. Below predict how the charge will be distributed on the spherical metal conductor (Remember our laws).

PREDICTION



ACTUAL



Why is the charge distributed this way?

Now that we know how charge is distributed on the machine, lets see how it interacts with other objects?

TEST 1: Pie Tins
Pie tins will be stacked on top of the machine. The machine will then be turned on.

Prediction	Actual
Why?	Why?

TEST 2: Packing Peanuts

Packing Peanuts will be put in a pie tin on the top of the machine. The machine will then be turned on.

Prediction	Actual
Why?	Why?

TEST 3: Human experiment

A gracious volunteer will inch closer and closer to the machine when it is turned on and will touch machine.

Prediction	Actual
Why?	Why?

TEST 4: Human Experiment #2

Before the machine is turned on, a gracious female volunteer will put her hand on the machine while standing on an insulated plastic box. What do you think will happen after the machine is turned on?

Prediction	Actual
Why?	Why?

TEST 5: Human Experiment #3

Before the machine is turned on, a gracious volunteer will put their hand on the machine while standing on an insulated plastic box. Once they are charged up they will grab the hands of a line of volunteers. What do you think will happen?

Prediction	Actual
Why?	Why?