



Electric Charge Lab

PSI Physics

Name _____

Date _____ Period _____

Objectives:

- Observe how static electricity is generated
- Determine the properties of electric charge

Materials:

- 2 Plastic Rods
- 2 Glass Rods
- 2 Acrylic Rods
- Thread
- Fur
- Silk
- Aluminum Foil
- Insulated Pivot Stand

Procedure:

1. Set up the pivot stand on a level surface.

For all rods:

2. Using the table below as a guide, place a rod onto the swivel.
3. Bring another rod close to the object on the pivot. Observe if the objects are attracted, repelled, or if nothing occurs. Record these observations in the table.

Table 1:

	Un-rubbed plastic rod on a swivel	Un-rubbed glass rod on a swivel	Un-rubbed acrylic rod on a swivel
Un-rubbed Plastic rod			
Un-rubbed Glass rod			
Un-rubbed Acrylic rod			

4. Perform the same procedure for all combinations but rub the rod with fur before bringing it near the object on the pivot. Record all observations in the table below.

Table 2:

	Un-rubbed plastic rod on a swivel	Un-rubbed glass rod on a swivel	Un-rubbed acrylic rod on a swivel
Rubbed Plastic rod with fur			
Rubbed Glass rod with fur			
Rubbed Acrylic rod with fur			



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5. Perform the same procedure for all combinations but rub the rod with silk before bringing it near the object on the pivot. Record all observations in the table below.

Table 3:

	Un-rubbed plastic rod on a swivel	Un-rubbed glass rod on a swivel	Un-rubbed acrylic rod on a swivel
Rubbed Plastic rod with silk			
Rubbed Glass rod with silk			
Rubbed Acrylic rod with silk			

6. Perform the same procedure for all combinations but rub both rods as directed by the tables below. Record all observations in the table below.

Table 4:

	Rubbed plastic rod with fur on a swivel	Rubbed glass rod with fur on a swivel	Rubbed acrylic rod with fur on a swivel
Rubbed Plastic rod with fur			
Rubbed Glass rod with fur			
Rubbed Acrylic rod with fur			

7. Repeat the last experiment, but vary the distance between the rods, and record your observations.

Table 5:

	Rubbed plastic rod with fur on a swivel	Rubbed glass rod with fur on a swivel	Rubbed acrylic rod with fur on a swivel
Rubbed Plastic rod with fur			
Rubbed Glass rod with fur			
Rubbed Acrylic rod with fur			

