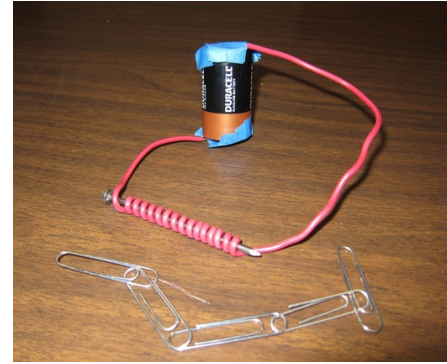


Name _____ Hour _____

Electromagnets

Materials:

- Iron Nail
- Wire
- D battery
- Battery Holder
- Paper Clips/Staples



Procedure:

1. Wind the wire around the nail in a neat, even pattern. Each set of trials has a different number of winds. Make sure to leave enough wire at the ends so that you can connect it to the battery.
2. Connect the wire to the battery holder...**disconnect the battery between trials!**
3. Touch the end to the paper clips to see how many it will lift.
4. Repeat for the other trials.

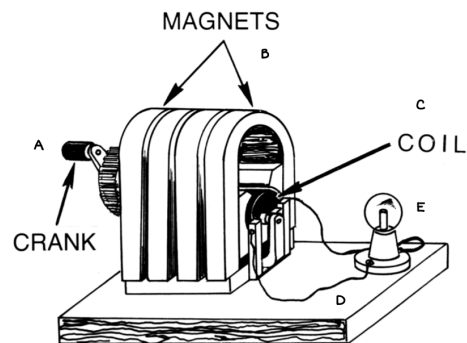
Number of Winds and Paper Clips/Staples Lifted

Number of Winds	# of Paper Clips/Staples Lifted			
	Trial #1	Trial #2	Trial #3	Average
10				
20				
30				
40				

Claim: What is the relationship between the number of winds and electromagnetic force?

Evidence/Reasoning: Use two sets of data and units as evidence for this claim.

Think back to our model of the generator. How does this new information about the number of winds (coils) apply to a generator?



How does the information from today's experiment help us understand how to make the best generator? _____
