What You Need:

- About 60 or more inches of bell wire
- Large nail
- Short thick (vegetable type) rubber band
- Small paper clips

What You Do:

- Strip both ends of the wire with the toenail clipper leaving one inch on both ends
- Take the bell wire and wrap a hoop around the head of the nail
- Leave about 30 inches of bell wire on the other side
- Holding the nail carefully with one hand, wrap the wire tightly around and around the nail toward the tip of the nail. Leave about 1/5 inches of nail showing
- Loop off the wire near the tip and wrap tap around the coil to hold it in place if needed
- Attach one end of the wire to the plus side of the battery and the other end to the negative side of the battery by wrapping the rubber band around the battery and sticking the wire the wire between the rubber band and the terminal end.
- Count how many paper clips are picked up and record your count.
- Now do the same thing exactly with TWO layers of wire, then three, then four. Each time count/record the number of paper clips attracted holding it against the clips the same exact way.

Organizing your data table:

Number of Coils	Number of Paper Clips Attracted			
	First Try	**Second Try**	**Third Try**	**Average?**
One				
Two				
Three				
Four				

©2020 Science Guy 911 LLC. All rights reserved.

Electromagnet Bar Graph

Number of Coils	Number of Paper Clips Attracted							
One								
Two								
Three								
	0	**2**	**4**	**6**	**8**	**10**	**12**	**14**