Lesson 9: Lesson Questions: *(1) How can electromagnetism transform mechanical energy (energy of object motion) into electrical energy?? (2) What factors affect the strength of electromagnetic forces?*

A. What activity did we do?	Built & tested electromagnets. • nail • coiled wire • battery pack w/ wires • alligator clips • paper clips
B. What evidence did we gather?	gathered evidence about how electromagnet function (strength or how many paperclips were picked up) is affected by nail thickness, number of coils, wire thickness & number of nails.
C. My answer to the lesson question:	1.) When electricity is following in a wire (current) & magnetic fields interact, an electromagnetic force can be observed. This force is used to generate electricity in wires & create a magnetic field, which we observe when electricity flows through a coil of wire. 2.) As the number of coils increases, so does the electromagnetic force.
D. Connecting my ideas to the Unit Challenge:	We explored the relationship between electromagnets & generators. We saw how related the devices are & revisited our generator models to improve our explanation of how generators work in wind & water.