“The House That FORCE Built”

Third Grade Science Project

NGSS: 3-PS2-d.Apply scientific knowledge to design and refine solutions to a problem by using the properties of magnets and the forces between them.\* [Clarification Statement: Example problems include constructing a latch to keep a door shut, or creating a device to keep two moving objects from touching each other. Students should understand that the results of investigations about non-contact forces inform design solutions.]

Question: How do scientists use the information we’ve discovered about forces to solve real life problems?

Materials:

1 box- no larger than 17 x 11 inches- a Staples or case of paper box is the perfect size.

Tape, scissors, glue,

All displays must have:

**A working light force**,

**A working magnetic force** –

**Must have examples of heat force, sound force( heat and sound can be illustrations)**

**At least four of the simple machines**- ( pulley, screw, inclined plane, wheel and axle, wedge, or lever. We will be visiting the following website at school but I recommend you watch it with your students. It is an excellent resource for learning about simple machines in a house.

<http://www.edheads.org/activities/simple-machines/frame_loader.htm>

Students should label each force as well as demonstrate they can design a house with **latching doors and windows**. They also can show force and motion as well as an example of unbalanced and balanced forces.

This project is DUE: February 10th- Please work on it in small increments as your students become more and more familiar with forces and motion. You can be as creative as you like but MUST adhere to the one size –It is more important that your student can demonstrate their understanding of how forces work in their daily lives than presenting a Barbie dream house. Students should be able to verbalize and explain in detail the elements of their houses – this will be a part of the projects final grade.