

Science - Energy Study Guide

Please refer to your child's student booklet to study for the unit test on energy.

Students should be able to:

1. Know what a force is
2. Know what a non-contact and contact force is
3. Explain how and why the strength of non-contact forces changes as objects are further apart
4. Explain what gravity is and how it affects us
5. Explain what an electrostatic force is
6. Explain what static electricity is and how to produce it
7. Explain why static electricity can be dangerous and how to stay safe
8. Explain how lightning is formed
9. Explain how magnetic force is a non-contact force
10. Explain the poles of a magnet
 - a. Name the poles
 - b. Explain how the poles attract or repel each other
 - c. Explain where the force is strongest in a magnet
 - d. Explain what happens when a magnet is broken
 - e. Look at a diagram of magnets and determine if the poles will repel or attract each other
11. Explain how a compass works because of magnetic fields
12. Explain how magnetic force can pass through some materials and not others
 - a. Can be influenced by the thickness of the material the force is attempting to pass through
 - b. Can be influenced by the strength of the magnet
13. Explain how to magnetize an object like a paperclip or a nail
 - a. Rubbing a magnet on the item to align the atoms
 - b. Using wire and a battery to make an electromagnet

