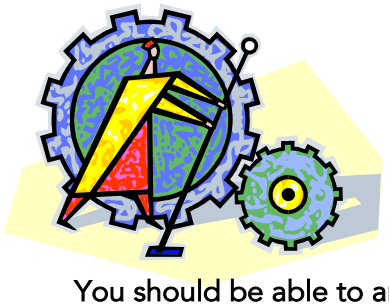

Name: _____

Science Test on: _____

Wheels and Levers Study Guide

You should be able to answer all of these questions using your notes from your Science binder and experiments we did in class.

1. Friction is a force which results from one thing rubbing against another.

2. Rollers are used to reduce friction when moving an object. Rollers are great but they must be repositioned a lot in order to make them useful as they tend to move out of position.

3. You should be able to list at least 3 places where rollers are used.

4. Wheels are created around a roller which is called an axle when it is attached to a wheel. The best place to put an axle on the wheel is the center. Then the load will be centered and the vehicle will move smoothly and not move up and down a lot.

5. Pulleys – simple pulleys, fixed pulleys, movable pulleys and fixed and movable pulleys – please refer to the notes from Miss Schellenberg in your Science binder.

6. You should be able to list three places where pulleys are found.

7. We made wheel to wheel systems. When the driver is turned clockwise, the driven wheel turns counterclockwise. Likewise when the driver is turned counterclockwise, the driven wheel turns clockwise.

8. Belt systems are wheel to wheel systems with space between the wheels. In a belt system, the belt causes the wheels to both turn in the same direction. To get the wheels to turn in different directions, you have to twist the belt.

9. Gears are really wheels with teeth. Please see your notes on gears from Miss Schellenberg in your Science binder.

10. Review Three Gear systems using your notes "Who Drives Who."

11. You should know the differences between parallel gear systems and 90° gear systems. Please see your notes.

12. Levers are used in many places. Please see your notes about 1st, 2nd and 3rd class levers. Use your pictures of levers that we labeled as a class to help you study. There are pictures of levers on your unit test that you will need to label.