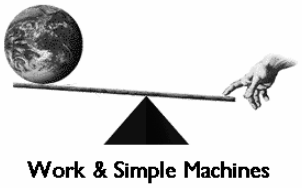

Name_____

Clever Levers on the 'Net

Begin by going to
http://www.enchantedlearning.com/physics/machines/Levers.shtml

Read the information on the webpage to fill in the following blanks:

1. A lever is a simple machine that makes _____ easier; it involves moving a _____ around a pivot called a fulcrum using a force. Many of our basic tools use levers.
2. In a Type 1 [1st class] Lever, the _____ is between the effort and the load. In an off-center type one lever (like a pliers), the load is larger than the effort, but is moved through a smaller_____.
3. Examples of common tools (and other items) that use a type 1 [1st class] lever include:

   _____

   _____

   _____

4. In a Type 2 [2nd class] Lever, the _____is between the pivot (fulcrum) and the effort.
5. Examples of 2nd class levers are:

   _____

   _____

   _____

6. In a Type 3 [3rd class] Lever, the _____is between the pivot (fulcrum) and the load.
7. Examples of 3rd class levers are:

   _____

   _____

   _____

Now go to http://www.flying-pig.co.uk/mechanisms/pages/lever.html

8. Levers are an essential part of many mechanisms. They can be used to change the_____, the _____ and the _____ of movement.
9. The fixed point of the lever about which it moves is known as the_____.
10. In the example on the webpage, the force and the load move in opposite directions. With the force three times closer to the fulcrum them the load lifted is only one _____ of the force but it move three times as_____.

Click the *next* link at the bottom of the page.

11. *First order lever.* Like a see-saw or balance, the _____ and the _____ are separated by the fulcrum. As one moves up the other moves_____. The amount and the strength of the movement are proportional to the _____from the fulcrum.
12. *Second order lever.* A wheel barrow is a second order lever. Here the load is between the _____and the fulcrum. This uses mechanical advantage to ease lifting of a large weight.
13. *Third order lever.* Here the _____ is between the fulcrum and the load. Mechanical advantage is reduced but the movement at the load point is increased.

Draw and label a diagram of each of the 3 types of levers:

1st Class	2nd Class	3rd Class