Simple Machines: Student Activity Sheet

Name:_____ Date:_____

Part 1: Explore

Nail Clipper Base	Assembled Nail Clipper

1. Draw the nail clipper base above. Label the point where you pressed to try to cut the toothpick. Also, point out the part of the clipper that applied force to the toothpick.
2. Draw the assembled nail clipper above. Label the point where you pressed to cut the toothpick and where the clippers applied force to the toothpick.
3. Write down as many differences as you can think of between the way the clipper worked as one piece, and the way it worked completely assembled. _____

Part 2: What Makes Them Work

1. Use your ruler and measure the distance, in millimeters, that the blades travel from completely open to completely closed. Write that number beside the blades on your diagram of the clippers above.
2. Measure the distance, in millimeters, that the lever travels from the point where the blades are completely open to the point where the blades are completely closed. Measure the lever from the end farthest away from the pin. Write that number beside the lever on your diagram above.
3. What do you notice about the two measurements? _____
4. Write a rule in your own words about what allows the clippers to apply a greater force. _____

Scissor Extension

1. What similarities do you see between the measurements of the scissors and the clippers? _____
2. What do these similarities tell you about what makes the items press harder? _____
3. Look around your home or school and locate a simple machine with a lever. Explain how that lever works. _____