



Levers Around the House: Student Activity Sheet

Name: _____

Date: _____

Part 1: Exploration, fingernail clipper

Nail Clipper Base	Assembled Nail Clipper

1. Draw the nail clipper base above. Label the point where you pressed to try to cut your nail or toothpick. Also, label the part of the clipper that applied force to your nail or toothpick.
2. Assemble the nail clipper. Draw the assembled nail clipper above. Label the point where you pressed to cut your nail or toothpick and where the clippers applied force to your nail or 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: Exploration, scissors

1. Draw the scissors above. Mark the three points where you cut the toothpick and label: easier, harder, hardest.
2. What is similar between the way the nail clippers and the scissors work, aside from the fact tht they both cut things? _____

Part 3: What makes them work

1. Use your ruler and measure the distance, in millimeters, that the clipper 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 clipper 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. Open the scissors blades as far as they will go, and measure the distance the blades travel from all the way open to all the way closed at **each of the the 3 points** you have marked. Write the numbers on your diagram above.
5. Measure the distance the scissors handles travel from all the way open to all the way closed. Write the number beside the handles on your diagram above.
6. What similarities do you see between the measurements of the scissors and the clippers? What do these similarities tell you about what makes the two items press harder? _____

7. Write a rule in your own words about what allows the scissors and the clipps to apply a greater force.

