## **ELEMENTARY** EXPLORATION: Simple Machines: Lever

Background: You and your best friend are on the playground. Your friend weighs 100 pounds and you

weigh 50 pounds. He dares you to lift him and hold him up for 5 minutes. A simple

machine called a lever can help you.

**Question:** Can you lift an object much heavier than you are?

**Hypothesis:** I think I ...

Materials: 2 pencils (hexagonal - not round)

3 pennies

Tape Ruler

## Procedure:

1. Make a lever with two pencils. Tape one penny to each end of the top pencil.

- 2. Move the top pencil until the lever is balanced. Measure the distances from the middle of each penny to the fulcrum. Are the distances the same?
- 3. Tape two pennies to one end of the top pencil and one penny to the other end.
- 4. Move the top pencil until the lever is balanced. Measure the distances from the middle of the pennies to the fulcrum. Which distance is longer?

**Conclusion**: How would you set up a seesaw so that you can lift your friend?

