Week 6, Day 1
Each group needs a ruler, a dictionary, and a large Lego® block or wooden block to perform this investigation. Lift the book with your hands. Is it heavy? ___________ Balance the ruler across the block to make a lever. The ruler should rest across the block close to one end. Place the book on the end of the ruler nearest the block. Press down gently on the other end of the ruler. Was it easier to lift the book using your hands or with the lever?

Week 3, Day 2
Each person needs a ruler and a math book to perform this investigation. Place the ruler perpendicular (at a right angle) to the edge of the table or desk with about 5 cm sticking out over the edge of the table. Center your math book on the opposite edge of the ruler at the 20 cm mark. Push down on the end of the ruler hanging out over the edge of the table. Is it very easy to lift the book? ___________ Pull the ruler with the book on it so that about 10 cm of the ruler extends over the edge of the table. Try to lift the book with the ruler now. Is it harder or easier to lift the book? ___________ Pull the ruler with the book on it so that about 15 cm of the ruler is sticking out over the edge of the table. Try to lift the book with the ruler now. Is it harder or easier to lift the book? ___________ If you have a heavy load to lift, should you use a long lever or a short lever? ___________ Why? ___________

Week 6, Day 3
Follow the directions below to make a model seesaw.
1. You need to a paper tube cut in half, a ruler, and 3 pennies.
2. Place the paper tube flat side down on your desk or table.
4. Put a penny on one end of the ruler. Observe what happens.
5. Now put a penny on the other end of the ruler. Observe what happens. (Discuss with your class what happens.)
6. Put a second penny on one side of the ruler.
7. Find a way to balance the seesaw without adding any more pennies.
8. How did you make the seesaw balance with one penny on one end and two pennies on the other end? Draw a picture below to show what your balanced seesaw looked like.
What is wrong with the picture below? Draw a ring around the fulcrum of the lever.

1. Larry and Lori are sitting on a seesaw. Larry weighs 150 kg and Lori weighs 120 kg. If the seesaw is evenly balanced, who is sitting closer to the fulcrum?

1. Four children were playing on the seesaw. Three of the children were very small. Each of the small children weighed between 30 and 40 pounds. The largest child weighed about 90 pounds. Which is a reasonable total for the combined weight of the three small children?
   A. Less than 90 pounds
   B. Between 90 and 120 pounds
   C. Between 120 and 150 pounds
   D. Between 150 and 211 pounds

Could the larger child balance the three smaller children on the seesaw?

How could they make the seesaw balance?