Week 8, Day 1

1. Why was it hard to keep the brooms apart?

2. What type of simple machine works in a similar way?

Week 8, Day 2

A pulley is a small wheel with a groove in the rim in which a rope or belt moves. When a heavy object is fastened to one end of the rope, it can be lifted by pulling on the other end. It is useful because pulling a rope down is more comfortable than lifting an object up, but actually the pulley has only changed the direction of the effort. To raise a heavy object up, we must pull the rope down two feet. When a force is applied to the rope, the rope will move twice the distance that the weight moves, but you only need to apply half as much effort.

1. What might be a good title for this passage?
   A Hard to Move Objects
   B Applying Force
   C How a Pulley Works
   D Pulling A Rope

2. The word fastened in this passage means--
   F tied
   G looped
   H lifted
   J pulled

3. You can tell from the story that using a pulley probably--
   A makes it harder to lift objects
   B makes you work when you lift a heavy object
   C makes it easier to do some kinds of work
   D takes a lot of rope
Week 8, Day 3

You need a pencil, a 30 cm length of string, the baggie with the large paper clips and some tape. Tie one end of the string to the baggie securely. Tape the other end of the string around to the middle of your pencil. Hold the pencil on the ends and slowly spin it. What happens? ________________________________

What kind of simple machine did you make? ________________________________

Week 8, Day 4

1. Terry made 2 pulleys to use in his invention. One pulley used a string that was 52 centimeters long, and the other pulley used a string that was 119 centimeters long. What was the difference in the lengths of the 2 pieces of string?
   
   A 57 cm
   B 67 cm
   C 134 cm
   D 171 cm

2. Frank, Stan, Richard, and Peter were using a pulley to lift some buckets filled with sand. Frank lifted more sand than Stan. Stan lifted less sand than Richard. Peter lifted more sand than Frank. Which is a reasonable conclusion?
   
   A Richard lifted the least amount of sand.
   B Peter lifted more sand than Stan.
   C Richard lifted the most sand.
   D Frank lifted less sand than Stan.

Week 8, Day 5

List the six simple machines. Give an example of each one.

1.

2.

3.

4.

5.

6.