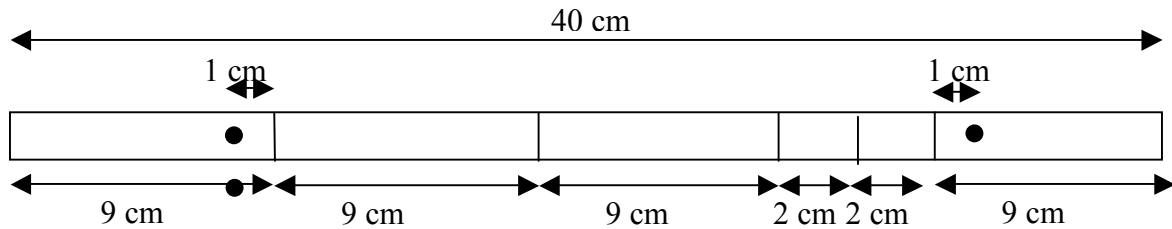


Name \_\_\_\_\_

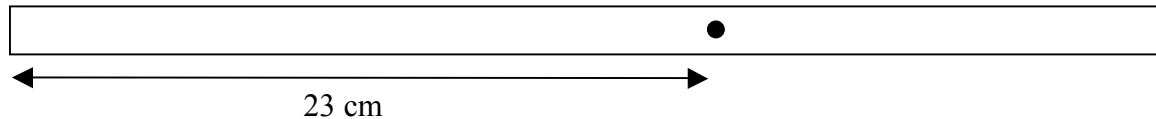
## Catapult Worksheet

Measure basswood strips:

1 cm x 1 cm strip



1 cm x 3 mm strip



While you are waiting to cut your basswood strips:

1. Draw a line 1 cm long.
2. Draw a line 10 cm long.
3. Draw a line 1 mm long.
4. How many millimeters are in a centimeter?
5. How many centimeters are there in one meter? (If you don't know, first answer this question: How many cents are in a dollar?)
6. Why do you think that is it important for scientists and engineers to know the metric system?

7. Draw a square 10 cm on each side.

8. Pretend that you are going to build a 10 cm square using 1 cm x 1 cm basswood strips. What lengths will you need to cut? Draw the correct length strips on your picture above.

9. Next class period, your group will build a 10 cm cube with basswood strips. As a group, design the cube now. Your group will be asked to build a cube with the pieces you request. Experiment with cut basswood pieces to make sure your plans are correct.

Names of group members \_\_\_\_\_

### **Basswood Cube Worksheet I**

Draw a detailed diagram of 10 cm cube made of 1 cm x 1 cm basswood strips.

Make a list of the number and lengths of pieces you will need.

Names of group members \_\_\_\_\_

### **Basswood Cube Worksheet II**

1. Make a list of the lengths of the basswood strips you have to build your 10 cm cube.
2. Try putting the pieces together without glue. Do you have all the pieces you need? If not, what do you need?
3. Do you have any pieces left over that you do not need?
4. If you plan to use triangular pieces to strengthen your cube, how many will you need?
5. Get all the materials you need. If there is a glue station available, and if everyone has glued together their catapult pieces, glue together your cube.
6. Measure your cube. What are its dimensions? If your cube is not exactly 10 cm on each side, what do you think happened?
7. How could you make your cube stronger?