

Name _____

_____ **First Class Lever**

1. Draw a first class lever with the input and output forces labeled.
2. Make a first class lever using a meterstick, lever clamps, and a 100 g weight. Put the fulcrum at the 50 cm mark, the output force at 10 cm and the input force at 90 cm. Lift the weight (output force) using this lever.
3. Have your teacher sign the blank above to indicate your success.
4. Explain what makes this a first class lever.
5. Move the fulcrum **closer** to the output and lift the weight again. Did this take more effort or less effort than step one? _____
Explain why:

_____ **Second Class Lever**

1. Draw a second class lever with the input and output forces labeled.
2. Make a second class lever using a meterstick, clamps, and a 100 g weight. Put the fulcrum at the 10 cm mark, one force at 20 cm, and the other force at 90 cm. Lift the weight (output force) using this lever.
3. Have your teacher sign the blank above to indicate your success.
4. Explain what makes this a second class lever.
5. Move the fulcrum closer to the output and lift the weight again. Did this take more effort or less effort than step one? _____
Explain why:

----- Third Class Lever

1. Draw a third class lever with the input and output forces labeled.

2. Make a third class lever using a meterstick, clamps, and a 100 g weight. Put the fulcrum at the 5 cm mark, one force at 45 cm, and the other force at 90 cm. Lift the weight (output force) using this lever.
3. Have your teacher sign the blank above to indicate your success.
4. Explain what makes this a third class lever.

5. Move the effort closer to the fulcrum and lift the weight again. Did this take more effort or less effort than step one? _____
Explain why:

Bonus:

1. Use a Spring Scale and record the force it takes to lift the effort side of each lever. Record Data on the bottom of this sheet. Be specific!