Name: _____ Date:_____ Per: _____ Mr. Ahearn

Shot Put Physics

Objectives:
Students will predict how launching point height affects the distance thrown.
Students will predict which is the optimum launch angle.
Students will observe Newton's second law of motion.

Materials:
Pencil Calculator Meter Stick Shot Put (6lb & 8lb) Stop Watch

Question 1: Does launching height affect the distance a shot put is thrown?

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Procedure A:

1. Measure the shoulder height of the thrower and record in your data chart. Then take a knee, measure and record shoulder height of the thrower.
2. Make 3 throws from standing. Record each distance and average the distances.
3. Make 3 throws from a knee position. Record each distance and average the distances.
4. Try and keep the force the same for each throw. Do your best!

Question 2: What is the optimum launch angle to throw a shot put?

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Procedure B: (Approximate launch angles)

1. Using the 6lb. shot put you will complete 3 launches for each angle {0 degrees (straight forward), 45 degrees and 68 degrees.}
2. Record the distances in the data chart and average the distance

State Newton's Second Law of Motion:

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Question 3: What will take more force to throw, a 6lb shot put or a 8 lb shot put?

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Procedure C: (You will create the procedure to test your above hypothesis)

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