**SWSC Science Competition Rules Template**

**Science Competition Title: 2012 Physics Olympics**

**Instructor’s Name: Bob Champlin**

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**Date Competition Rules were created: 11/2/2011**

**Description and Rules for Competition:**

**Objective**: To move a bowling ball around a course with the smallest number of impulses in the shortest amount of time**.**

**Equipment**: 1 bowling ball ( we will use either a 14 or 16 lb ball). Teachers may be acquire an old ball from a bowling alley if you ask. Students may have old ball to donate for practice purposes.

**Rules:** Each team will move bowling ball around a course using only hits from a rubber mallet. The ball must move around each of the pylons (pop bottles). If a pylon is knocked over (regardless how this happens) a time penalty of 10 seconds will be added to the overall time. Each time the ball is contacted by any other object (except a wall or other stationary object) there will be a time penalty of 10 seconds added to the overall time. The students can only move the ball by hitting it with the rubber head of the mallet. The ball must be HIT, not PUSHED. The judge will determine if the ball was pushed and will give a 10 second penalty for each push. Each team will be given two trials, average score of the two will be used. We will round to 3 significant digits for score. A team can use only one trial if desired.

**How Scoring will be performed:**

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**How Tie-Breaker will be performed (if needed):** The team with the shorter time will be used as a tiebreaker.

**Number of students allowed in each individual team:** 4 students per team**.**

**Number of teams allowed to compete from each individual school:** 1 team per school