## **SWSC Science Competition Rules Template**

Science Competition Title:	"Shoot to Win"
Instructor's Name:	William Hedden
School of Instructor:	Thornridge High School
Email Address of Instructor:	hedden.william@district205.net
Date Competition Rules were created:	10/1/10

## **Description and Rules for Competition:**

Teams will be given an aluminum ramp, a clamp, and a photogate, and a target sheet.

Teams will clamp the ramp to a table or desk, and set up the photogate.

When the team is ready, the instructor will release a marble down the ramp through the photogate and catch it before it hits the ground.

The team will then use the time the marble took to pass through the photogate and the diameter of the marble to find the marble's initial velocity.

The team will take careful measurements of height and use physics equations to determine how far away the marble will land horizontally from the ramp.

Placing the target "bullseye" at that location, the team will call ready and the instructor will place carbon paper over the target and release the marble.

The marble rolls off the ramp and marks the target from the carbon paper.

## How Scoring will be performed:

The team with the marble closest to the center wins.

## How Tie-Breaker will be performed (if needed):

Instructor will rearrange the ramps and repeat the challenge.

Number of students allowed in each individual team: 2 students / team

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