

## Science Olympiad IA Invitational 2012

International Academy, Troy, February 4<sup>th</sup>, 2012

### Experimental Design

**Task:** You are to design and conduct an experiment using at least two (2) materials provided. You have 50 minutes to conduct, write up and clean up your experiment station.

#### **Materials you may use:**

1 foam board, 1 ping-pong ball, 1 golf ball, 1 rubber ball, 3 rubber pads, 1 measuring tape, 1 scotch tape, table.

#### **Materials you may also use if brought:**

Timepiece, Non-programmable calculator, Ruler, Writing instruments, Goggles

#### **Your Write-Up Must Include the Following Parts:**

(Rubric points are given in parenthesis)

1. Statement of Problem (2)
2. Hypothesis (4)
3. Variables (10)
4. Experimental Control (2)
5. Materials (3)
6. Procedure: including diagrams (6)
7. Qualitative results and observations (4)
8. Quantitative Data Table (6)
9. Graph (6)
10. Statistics (2)
11. Analysis and interpretation of data (4)
12. Possible experimental errors (3)
13. Conclusion (4)
14. Applications and Recommendations for Further Use (4)

#### **Clean up direction:**

Put all materials you took out from bag back to the bag, and leave it on table. Failure to do so may result in your team's disqualification.