

1. **DESCRIPTION:** This event will determine a team's ability to design and build an original computer game using the program Scratch incorporating the scientific theme provided to them by the supervisor.

A TEAM OF UP TO: 2

APPROXIMATE TIME: 50 minutes

2. **EVENT PARAMETERS:**

- a. Teams must bring a writing utensil(s) and may bring:
 - i. Headset(s) to assist in testing audio, and
 - ii. A microphone to assist in recording original audio.
- b. No Internet access outside of the Scratch program is allowed. No external resources or computer programs of any kind are allowed. No pre-constructed games, game assets or files are allowed.
- c. Supervisors will provide:
 - i. A computer capable of running Scratch. Tournament Directors are encouraged to provide computer specifications to the teams as early as possible; and,
 - ii. Scrap paper.

3. **THE COMPETITION:**

- a. The supervisor will assign the teams a broad **scientific** theme that the original computer game will be built around. The **scientific** theme must be the same for all teams and allow students to build games involving some scientific principles associated with the theme.
- b. Students will use the Scratch program (available for download from <http://scratch.mit.edu>) to create an original computer game based on the assigned **scientific** theme.
- c. When teams are finished, they must save their game following the supervisor's instructions in the specified format in a designated location (i.e., USB drive, desktop, online repository).

4. **SAMPLE GAME THEMES:**

Some game themes that have been used in the past that are not intended for current tournament use: Wave, Fire, Gravity, Frogs, Newton's Second Law, Light.

5. **SCORING:**

- a. **High score wins.** Scoring of the event will be done using the Game On Rubric found on soinc.org.
- b. Points will be awarded based on the coding and/or game play of the items.
- c. Zero points will be awarded for items not being present in the game or inappropriate content.
- d. Any team caught using outside resources or accessing the internet outside of the scratch program will be asked to leave the room and be disqualified from the event.
- e. Any team not addressing the assigned **scientific** theme in their game will **have their final score multiplied by 0.67** because not addressing the theme is a violation of the spirit of the competition.
- f. Ties will be broken by comparing the point totals in the scoring areas in the following order:
 - i. Game Mechanics
 - ii. Game Play
 - iii. User Control
 - iv. Balanced Play
 - v. Overall Impression/Originality

Recommended Resources: The Science Olympiad Store (store.soinc.org) carries the Game On Video Download and Problem Solving/Technology CD; other resources are on the event page at soinc.org.

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