



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 UPTO: 2

APPROXIMATE TIME: 50 minutes

2. **EVENT PARAMETERS:**

- a. Teams must bring a writing utensil(s) and may bring:
 - i. Headset(s), including audio port adapters, to assist in testing audio
 - 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
 - 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. **PRACTICE 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.

This event is sponsored by Code.org