JSHS recognizes students for original research achievements in the sciences, technology, engineering or mathematics (STEM). The overall test is that students demonstrate valid investigation and experimentation aimed at discovery of knowledge. The judging criteria and scoring for JSHS are presented. A total score of 30 points is assigned using the below scale and serves as the basis for discussions among the judging team. Rank each students’ oral presentation using the following criteria and weights:

<table>
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<th>5 = Superior</th>
<th>4 = Excellent</th>
<th>3 = Good</th>
<th>2 = Satisfactory</th>
<th>1=Fair</th>
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### Statement and Identification of Research Problem
- Is the problem clearly stated?
- Does the presenter demonstrate understanding of existing knowledge about the research problem?

### Scientific Thought, Creativity/Originality
- Student demonstrates his or her individual contributions to and understanding of the research problem
- Appropriate duration of collection and data analysis
- Innovation of Original Concept and Scientific Thought/Process
  - Standard Protocol/Design
  - Innovative Protocol/Design

### Research Design, Procedures (Materials & Methods), Results

#### Science
- Appropriateness of research design and procedures
- Process skills demonstrated by the student in the solution to the research problem and/or the research design
- Identification and control of variables
- Reproducibility

#### Engineering, Computer Science, Technology
- Workable solution that is acceptable to a potential user
- Recognition of economic feasibility of solution
- Recognition of relationship between design and end product
- Tested for performance under conditions of use
- Results offer an improvement over previous alternatives
### Discussion/Conclusions
- Clarity in stating conclusion
- Logical conclusion that is relevant to the research problem and the results of experimentation or testing
- Recognizes limits and significance of results
- Evidence of student’s understanding of the scientific or technological principles
- Theoretical or practical implications recognized
- What was learned?

### Skill in communicating research results-- Oral Presentation and written report
- Clarity in communicating research results to non-specialized audience and to judges
- Definition of terms as necessary
- Appropriate use of audio-visuals
- Response to questions from audience and judges

### Includes References/Bibliography and acknowledges major assistance received

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</table>

**Total Score**

**Comments:**

Name of Student:________________________________________________________

Name of Judge:_________________________________________________________