

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM—BADGES AND CRITERIA FOR 6–8 SCIENCE PROJECTS

GLOBE INTERNATIONAL SCIENCE SYMPOSIUM  
STUDENT RESEARCH BADGE (ALL PROJECTS—OVERALL REPORT)

★★★★	★★★	★★	★	
<ul style="list-style-type: none"> <li>• Report contains <b>all</b> of the criteria listed below and makes clear <b>connections</b> among them.</li> <li>• The report is well organized, neat and well presented.</li> <li>• The writing is <b>clear</b> and <b>concise</b>.</li> <li>• The report contains the five elements required for acceptance, clearly labeled.</li> <li>• Members of the project team respond to judges' comments with additional insights gained.</li> </ul>	<ul style="list-style-type: none"> <li>• Report contains <b>all</b> of the elements and <b>most</b> of the criteria listed below and makes clear <b>connections</b> among them.</li> <li>• The report is well organized, neat and well presented.</li> <li>• The writing is <b>clear</b>.</li> <li>• The report contains the five elements required for acceptance, clearly labeled.</li> </ul>	<ul style="list-style-type: none"> <li>• Report contains <b>most</b> of the criteria listed below.</li> <li>• The report is well organized.</li> <li>• The report contains the five elements required for acceptance, clearly labeled.</li> </ul>	<ul style="list-style-type: none"> <li>• Report contains the <b>five</b> elements required for acceptance, clearly labeled. (1, 2, 3, 5 &amp; 8)</li> </ul>	<ul style="list-style-type: none"> <li>• Report submitted, but does not contain all five elements required for acceptance.</li> </ul>

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### Project elements and criteria (\*required element)

#### 1. Title\*

- a. Concise (less than 15 words)
- b. Summarizes paper's content

#### 2. Abstract\*

- a. Concise (less than 300 words)
- b. Context of research
- c. Research questions
- d. Objectives set
- e. Brief methods description
- f. Results
- g. Conclusions
- h. Recommendations for a way forward
- i. Key words that emphasize key ideas in the paper (3-5 words)

#### 3. Research Questions\*

- a. Include why they are important and are of scientific interest
- b. Concern some aspect of Earth's environment (local or global issue)
- c. Provide significant insight into both the topic of investigation and the research process
- d. Answering them requires an advanced understanding of the subject matter
- e. Require a thoughtful research plan
- f. Are answerable through scientific research appropriate to the scope of the report.

#### 4. Introduction

- a. Thorough (150–300 words)

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- b. Description of the problem**
  - c. Importance**
  - d. Community relevance**
  - e. At least 3-5 references. Do not include wikis or Q&A sites such as answers.com. Look at The Purdue “OWL” for guidance and resources: owl.english.purdue.edu)**
- 5. Research Methods\***
  - a. There is a direct link provided between the datasets and research question(s)**
  - b. Study site: A map and description of the study site. It should mention area of study, climatic characteristics and basic aspects of land cover**
  - c. Data collection: A description of GLOBE protocols used to answer the research question as well as where and how data was gathered in the field (sampling method: Where, how many samples were measured)**
  - d. Print screen of data entry in the Web page of GLOBE.**
  - e. Data analysis: Mention what kind of mathematical calculation was applied to analyze the data**
  - f. The data presented are sufficient to answer the research question(s)**
- 6. Results**
  - a. Tables and graphics applying statistical analysis of data to show mean, dispersion or grouping data.**
  - b. Data support the conclusions**
  - c. Print screen of GLOBE visualization page**
- 7. Discussion**
  - a. Interpretation of results**
  - b. Possible sources of error**
  - c. Comparison with similar studies**
  - d. Discuss whether results answer the research question or not, and how**
- 8. Conclusion\***
  - a. Gives a thorough and insightful explanation as to how the conclusion was reached**

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- b. Put findings in context, stating why they are important or relevant**
  - c. What follow-on research and actions could be taken; future protocols that could be added**
  - d. Impact of working with a project mentor**
- 9. Bibliography/citations**
  - a. Materials correctly cited**
  - b. GLOBE materials used**
  - c. Sources beyond those provided by GLOBE**