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

★★★★	★★★	★★	★	
• Report contains **all** of the criteria listed below and makes clear **connections** among them. • The report is well organized, neat and well presented. • The writing is **clear** and **concise**. • The report contains the five elements required for acceptance, clearly labeled. • Members of the project team respond to judges' comments with additional insights gained.	• Report contains **all** of the elements and **most** of the criteria listed below and makes clear **connections** among them. • The report is well organized, neat and well presented. • The writing is **clear**. • The report contains the five elements required for acceptance, clearly labeled.	• Report contains **most** of the criteria listed below. • The report is well organized. • The report contains the five elements required for acceptance, clearly labeled.	• Report contains the **five** elements required for acceptance, clearly labeled. (1, 2, 3, 5 & 8)	• Report submitted, but does not contain all five elements required for acceptance.

ADDITIONAL BADGES (UP TO 6—OPTIONAL)

B1. Collaboration	B2. Community impact	B3. Connecting to a STEM Professional	B4. Interscholastic connection	B5. Engineering solution	B6. Exploring STEM Careers
All team members are listed, along with clearly defined roles, how these roles support one another, and descriptions of each student's contribution. The descriptions clearly indicate the advantages of the collaboration.	The report clearly describes how a local issue led to the research questions and makes connections between local and global impacts.	The report clearly describes collaboration with a STEM professional that enhanced the research methods, contributed to improved precision, and supported more sophisticated analyses and interpretations of results.	The report describes a carefully planned interscholastic or international collaboration that describes rationales for data collection in different regions and the advantages of comparing results.	The report describes an engineering solution to a real-world problem, based on student-generated sources of evidence, and describes the potential impact of the solution on the environment.	The report describes how the project is related to a STEM career or profession, including the ways the data gathered, skills gained, and results might be used.

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)**

   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**

   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**