

GLOBE INTERNATIONAL SCIENCE FAIR—JUDGING RUBRIC AND BADGES FOR 3–5 SCIENCE PROJECTS

Level Element	Superior - 4	Good – 3	Progressing – 2	Basic – 1	Score
1. Summary	A well-written, complete summary is present that includes all of the components required at level 3.	A complete summary of the report is present. The summary includes: <ul style="list-style-type: none"> • The problem, • Questions asked, • Objectives set, and • Conclusions made. 	A description of the problem and conclusion are present.	A conclusion is present.	
2. Research question(s) (required for acceptance)	Clear, creative , and student-led research question(s) include all of the components at level 3, and: <ul style="list-style-type: none"> • Require a thoughtful research plan, and • Provide insight into the topic of investigation. 	Original , student-led research question(s) include all of the components at level 2, and: <ul style="list-style-type: none"> • Include a brief description of background information, • Include why they are important, and • Are of scientific interest. 	Student-led research question(s) are asked, explained , and: <ul style="list-style-type: none"> • Concern some aspect of Earth’s environment, and • Are answerable through scientific research appropriate to the scope of the report. 	Student-led research question(s) are asked ; questions may be simple enough to answer without research or are beyond the scope of a GLOBE project report.	
3. Student-led investigation plan	A clear and complete investigation plan is present that includes the components at level 3, and: <ul style="list-style-type: none"> • Clearly outlines the steps to complete project, and • Describes the collaboration process. 	A complete investigation plan is present that: <ul style="list-style-type: none"> • Describes a student-led research process, and • Lists the steps to complete project. 	A partially complete investigation plan is present that describes a student-led research process.	A few steps in the investigation plan are present.	
4. Research methods: Extent to which GLOBE protocols are incorporated (required for acceptance)	Full advantage is taken of a combination of GLOBE protocols , and: <ul style="list-style-type: none"> • There is a direct link provided between the datasets and research question(s).. 	A combination of GLOBE protocols is used, and: <ul style="list-style-type: none"> • The data presented are sufficient to answer at least one research question. 	GLOBE protocols are used, and: <ul style="list-style-type: none"> • The data presented partially address at least one research question. 	The investigation includes use of at least one GLOBE protocol .	

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5. GLOBE data and data entry (required for acceptance)	GLOBE data use includes all of the components at level 3, and: Data sources are clearly labeled by school.	GLOBE data use includes all of the components at level 2, and: • GLOBE data are entered into the GLOBE database.	GLOBE data were collected, and: • Data from other GLOBE school(s) are included in the project (<i>if appropriate for the research question</i>).	GLOBE data were collected for the project.	
6. Data summary: Use of tables and/or graphics for data display (required for acceptance) <i>Other images are not scored for this element.</i>	Tables and graphics are accurate are present that include the components at level 3, and • Display enough of the data to support the conclusion, and • Are well labeled and easy to interpret.	Tables and/or graphics are present that include the components at level 2, and: • Provide comparisons between data, and • Display data that supports the conclusion.	Tables and/or graphics are present that include components at level 1, and: • Other appropriate visualizations of the data.	Tables and/or graphical representations of data are present, including: • Graphs, • Maps, or • Time series plots.	
7. Conclusion: Strength of conclusion (required for acceptance)	A thoughtful conclusion is present that includes the components at level 3 and: • Clearly explains how the conclusion was reached.	A conclusion is present, supported by the data, and: • Partially explains how the conclusion was reached, and • Describes how the data support the conclusion.	A conclusion is present and supported by the data.	A conclusion is present and relevant to the report.	
8. Bibliography	Materials used are clearly and appropriately listed, including any graphics, tables, or figures not created by students.	Most materials used are listed, including graphics, tables, or figures not created by students.	Some sources used are listed.	At least one source of information is listed.	
9. Response to judges' comments	All comments are addressed by making clear connections between the report, revisions and comments. Responses clearly indicate additional insight gained by addressing the comments.	Most of the comments are addressed by making clear connections between the report, revisions and the comments.	Most of the comments are addressed by responses make connections to the report, with some indication of ways to improve.	A few responses are included that partially describe how the report addresses the comments.	
Total score					

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GLOBE INTERNATIONAL SCIENCE FAIR BADGE (ALL PROJECTS—OVERALL REPORT)

★★★★	★★★	★★	★
Report contains all nine of the elements listed above, is well organized, neat and well presented. All of the elements are scored at the 3-point level or above. Most are scored at the 4-point level. The writing is clear and concise.	Report contains all nine of the elements listed above, is organized and well presented. Most of the elements are scored at the 3-point level or above. Most of the writing is clear.	Report contains six to eight of the elements listed, and is organized and well - presented.	Report contains the five elements required for acceptance, clearly labeled. (2, 5, 6, 7 & 9)

ADDITIONAL BADGES (UP TO 5—OPTIONAL)

Level Badge	★★★★	★★★	★★	★
B1. Collaboration	All team members are listed, along with clearly defined roles, how these roles support one another, and descriptions of each student’s contribution.	All team members are listed, along with clearly defined roles, and descriptions of each student’s contribution, and how students helped each other.	All team members are listed, along with a clear description of each student’s contribution and some indication of how students supported one another.	All team members are listed, along with some brief examples of contributions from each.
B2. Community impact	The report clearly describes how a local issue led to the research questions and describes possible local and global impacts.	The report describes how a local or global issue led to the research questions, and describes possible impacts of the results.	The report describes how a local or global issue motivated the research.	The report includes a description of a local or global issue and how it is related to the research.
B3. Connection to local or network scientist	The report describes collaboration with a scientist that improved the research methods and interpretations of results.	The report describes how input from a scientist improved the research methods and students’ understanding of the results.	The report describes how input from a scientist extended students’ understanding of the project.	The report includes a description of input from a scientist.

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<p>B4. Interscholastic connection</p>	<p>The report describes how students planned interscholastic or international collaboration, including the advantages of comparing results.</p>	<p>The report describes an interscholastic or international collaboration, including planning for data collection and comparing results.</p>	<p>The report includes GLOBE data from at least two different schools, regions or countries, and describes efforts to coordinate data collection. Data from the student expedition to Mt. Kilimanjaro may be included as part of this badge.</p>	<p>The report includes GLOBE data from at least two different schools.</p>
<p>B5. Engineering solution</p>	<p>The report includes all of the components for level 3, and: Describes the potential impact of the solution on the environment.</p>	<p>The report includes all of the components for level 2, and applies scientific ideas to the solution.</p>	<p>The report describes an engineering solution to a real-world problem, based on student-generated sources of evidence.</p>	<p>The report describes an engineering solution to a real-world problem.</p>