

| Teacher ID: | Student ID(s) | | Project Name: | | Grade Level: | Date: |
|---|--|---|--|--|--|----------|
| Level of Understanding | Novice | Developing | Proficient | Advanced | 1 = Novice 2 = Developing 3 = Proficient 4 = Advanced | Comments |
| Content Knowledge | Demonstrates a very elementary understanding of basic scientific concepts and fundamental principles covered in the GLOBE protocol learning objectives. | Demonstrates a moderate understanding of basic scientific concepts and fundamental principles covered in the GLOBE protocol learning objectives. | Demonstrates a clear understanding of basic scientific concepts and fundamental principles covered in the GLOBE protocol learning objectives. | Demonstrates a clear and deep understanding and integrates and applies basic scientific concepts and fundamental principles covered in the GLOBE protocol learning objectives. | 1, 2, 3, 4 | |
| Asking Questions | The question cannot be scientifically tested or is beyond the scope of a GLOBE project. | The question is stated unclearly and can only be partially scientifically tested. | The question is stated explicitly with the appropriate focus and can be scientifically tested. | The question contributes to new thinking and is clearly stated and scientifically testable. | 1, 2, 3, 4 | |
| Planning Investigations | An elementary investigation plan exists. | A partially complete investigation plan exists, that describes a student-led research process. | A complete investigation plan is present that (1) Describes a student-led research process AND (2) Lists the steps to complete project. | A clear and complete investigation plan is present that (1) Describes a student-led research process AND (2) Clearly outlines the steps to complete project AND (3) Describes the collaboration | 1, 2, 3, 4 | |
| Carrying Out Investigations | The investigation includes use of at least one GLOBE protocol. | GLOBE protocols are used, and the data presented partially address at least one student research question. | A combination of GLOBE protocols is used, and the data presented are sufficient to answer at least one student research question. | Full advantage is taken of a combination of GLOBE protocols such that (1) There is a direct link provided between the datasets and the student research question(s) AND (2) The scope of student research is fully detailed, including how the | 1, 2, 3, 4 | |
| Analyzing Data | A simple data analysis is performed. | A partial analysis of the data is performed that is appropriate to the research topic. | A complete analysis of the data is performed, that (1) Is clearly explained AND (2) Is relevant to the research question(s) AND (3) Presents sufficient mathematics and equations to clearly define the analysis AND (4) Briefly mentions any uncertainties or limitations present in the dataset. | An insightful and meticulous analysis of the data is performed that (1) Is clearly explained AND (2) Completely addresses the research question(s) posed to the extent possible for the grade level AND (3) Is scientifically valid AND (4) Clearly discusses any uncertainties or limitations present in the dataset. | 1, 2, 3, 4 | |
| Interpreting Data and Drawing Conclusions | A conclusion is present and relevant to the report. AND Some discussion of the limitations of the methods used is presented. | A conclusion is present and supported by the data. AND A partial discussion of the limitations of the methods used is presented. | A conclusion is present, supported by the data that (1) Gives a partial explanation of how the conclusion was reached. AND (2) Describes how the data support the conclusion AND (3) Presents a clear and complete discussion of the limitations of the methods used. | A thorough conclusion is present, supported by the data that (1) Gives a thorough and insightful explanation as to how the conclusion was reached, and recommends future research AND (2) Presents a clear, complete and insightful discussion of the limitations of the methods used AND | 1, 2, 3, 4 | |
| Communication (Presentation skills) [optional] | Communicates with (1) minimal use of presentation skills, including body posture, language, eye contact, voice and timing AND (2) Uses language that is unsuited to the topic and audience AND (3) Responses to the questions are vague and demonstrate a minimal command of the facts or understanding of the topic. | Communicates with (1) partial use of presentation skills, including body posture, language, eye contact, voice and timing AND (2) Uses language that is at times unsuited to the topic and audience AND (3) Responses to the questions are limited and demonstrate a partial command of the facts or understanding of the topic. | Communicates with a (1) command of presentation skills, including body posture, language, eye contact, voice and timing AND (2) Uses appropriate language that is suited to the topic and audience AND (3) Responses relate to the questions and demonstrate an adequate command of the facts and understanding of the topic. | Communicates with a (1) consistent command of presentation skills, including body posture, language, eye contact, voice and timing that keep the audience engaged. AND (2) Uses sophisticated and varied language that is suited to the topic and audience AND (3) Responses to questions are precise and persuasive, demonstrating an in-depth understanding of the facts and topic. | 1, 2, 3, 4 | |
| Total | | | | | | |