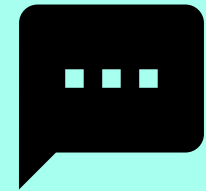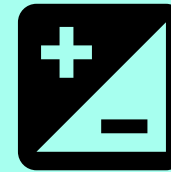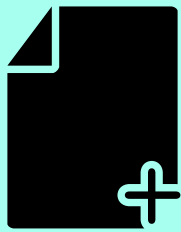# IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

SCORING INFORMATION

A 5-STEP PROCESS

1 — LOOK AT YOUR ASSIGNED PROJECTS

Your assigned projects are on your Google Sheet. These projects will be assigned to you by GIO staff and you will receive a spreadsheet with your specific assigned projects. Please do not score other projects than the ones you are assigned.

2 — FIND YOUR ASSIGNED PROJECT

All the projects are available in the 2020 IVSS database. The easiest way to find a project is to filter by country ("Organization") or to sort by title.

3 — USE THE CORRECT GRADE RUBRIC

Scoring guides are available below and online. Please make sure to use the appropriate scoring guide/rubric. The grade band is included with the project.

4 — FILL OUT YOUR SCORING FORM

Use the Google scoring form to submit your scores. You should fill out this form once for each of your assigned projects. Also make sure to include the exact report title as we do have some very similar project titles.

5 — MAKE COMMENTS TO THE STUDENTS

To make comments, you will need to use your globe.gov login. If you have an account, but need help accessing it, contact help@globe.gov. If you do not have an account, but wish to make comments or ask questions on a student report, use the login - science@globe.gov, password: IVSS2017. Make sure to sign your name if using the science@globe.gov account.

IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

SCORING RUBRIC

LOWER PRIMARY
GRADES K-2
AGES 5-8

PROJECT ELEMENTS AND CRITERIA (*REQUIRED ELEMENT)

★★★★	★★★	★★	★	
• 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 **focused**. • The report contains the five elements required for acceptance, clearly labeled.	• Report contains **all** of the elements and **most** of the criteria listed below. • 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, 4 & 6)	• Report submitted, but does not contain all five elements required for acceptance.

1. Title*
a. Concise (less than 15 words)
b. Summarizes paper's content

2. Summary*
a. The problem
b. Research questions
c. Conclusions

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. Are answerable through scientific research appropriate to the scope of the report.

4. Research Methods*
a. There is a direct link provided between the datasets and research question(s)
b. 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)
c. The data presented are sufficient to answer the research question(s)

5. Results
a. Tables and graphics of data
b. Data support the conclusions

6. Conclusion*
a. Gives a thoughtful explanation as to how the conclusion was reached
b. Put findings in context, stating why they are important or relevant
c. Impact of working with a project mentor

IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

SCORING RUBRIC

UPPER PRIMARY
GRADES 3-5
AGES 8-11

PROJECT ELEMENTS AND CRITERIA (*REQUIRED ELEMENT)

★★★★	★★★	★★	★	
• 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 & 7)	• Report submitted, but does not contain all five elements required for acceptance.

1. Title*
a. Concise (less than 15 words)
b. Summarizes paper's content

2. Summary*
a. The problem
b. Research questions
c. Objectives set
d. Conclusions

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. Require a thoughtful research plan
e. Are answerable through scientific research appropriate to the scope of the report.

4. Introduction
a. Description of the problem
b. Importance
c. Community relevance

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. The data presented are sufficient to answer the research question(s)

6. Results
a. Tables and graphics of data
b. Data support the conclusions

7. 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

8. Bibliography
a. Materials listed
b. GLOBE materials used

IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

SCORING RUBRIC

MIDDLE SCHOOL
GRADES 6-8
AGES 11-14

PROJECT ELEMENTS AND CRITERIA (*REQUIRED ELEMENT)

★★★★	★★★	★★	★	
• 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.

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 research questions 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 powered by GLOBE

IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

PROJECT ELEMENTS AND CRITERIA (*REQUIRED ELEMENT)

★★★★	★★★	★★	★	
• 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.

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 and review of the literature
a. Thorough (250-500 words)
b. Description of the problem
c. State of the science
d. Importance
e. Community relevance
f. Citations in text (at least 3-5 references, including one primary source in a peer-reviewed journal. 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 support the hypothesis or not, and why

8. Conclusion*
a. Gives a thorough and insightful explanation as to how the conclusion was reached
b. Put findings in context, why it's important/relevant, impact, with regard to the science
c. What improvements in methods
d. What follow-on research/actions to be taken, future protocols that could be added
e. Impact of working with a project mentor

9. Bibliography/citations
a. Materials correctly cited
b. GLOBE materials used
c. Sources beyond those powered by GLOBE

IVSS

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

OPTIONAL BADGES

SELECT UP TO 3

I AM A COLLABORATOR

ALL TEAM MEMBERS ARE LISTED INCLUDING STUDENTS FROM THE SAME SCHOOL OR SCHOOLS FROM AROUND THE WORLD, 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. IF THE STUDENTS COLLABORATED WITH STUDENTS FROM ANOTHER SCHOOL, DESCRIBE HOW WORKING WITH OTHER SCHOOLS IMPROVED THE RESEARCH.

I AM AN ENGINEER

THE REPORT USES STUDENT-GENERATED SOURCES OF EVIDENCE TO DESCRIBE AN ENGINEERING PROBLEM, LOOKS AT SOLUTIONS THROUGH ENGINEERING, OR OPTIMIZES A DESIGN TO ADDRESS A REAL-WORLD PROBLEM, AND DESCRIBES THE POTENTIAL IMPACT OF THE ENGINEERING PRINCIPLES ON THE ENVIRONMENT.

I MAKE AN IMPACT

THE REPORT CLEARLY DESCRIBES HOW A LOCAL ISSUE LED TO THE RESEARCH QUESTIONS OR MAKES CONNECTIONS BETWEEN LOCAL AND GLOBAL IMPACTS. THE STUDENTS NEED TO CLEARLY DESCRIBE OR SHOW HOW THE RESEARCH CONTRIBUTED TO A POSITIVE IMPACT ON THEIR COMMUNITY THROUGH MAKING RECOMMENDATIONS OR TAKING ACTION BASED ON FINDINGS.

I AM A DATA SCIENTIST

THE REPORT INCLUDES IN-DEPTH ANALYSIS OF STUDENTS' OWN DATA AS WELL AS OTHER DATA SOURCES. STUDENTS DISCUSS LIMITATIONS OF THESE DATA, MAKE INFERENCES ABOUT PAST, PRESENT, OR FUTURE EVENTS, OR USE DATA TO ANSWER QUESTIONS OR SOLVE PROBLEMS IN THE REPRESENTED SYSTEM. CONSIDER DATA FROM OTHER SCHOOLS OR DATA AVAILABLE FROM OTHER DATABASES.

I AM A STEM PROFESSIONAL

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.

I AM A STEM STORYTELLER

THE REPORT DESCRIBES OR SHOWS HOW THE STUDENTS SHARED THE STORY OF THEIR RESEARCH IN A CREATIVE WAY. THIS COULD BE VIA A DRAMATIC INTERPRETATION, A BLOG, INSTAGRAM POST, ARTISTIC RENDERING, OR ANY OTHER WAY TO CREATIVELY SHARE WHAT THE STUDENTS LEARNED.

Thee badge criteria is the the same in 2020.