



2019

https://www.globe.gov/science-symposium











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GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM

- Online space for students to share and discuss GLOBE research with other students, STEM professionals, GLOBE community
- Open to all GLOBE students K-16
 - Rubrics by grade level
- 2019 = Sixth year!











Volunteer Judges

Region	Number of Judges
Africa	2
Asia and Pacific	10
Europe and Eurasia	12
Latin America and Caribbean	6
Near East and North Africa	4
North America	36
Total	70

"Thank you for the opportunity to score the student research. These students give me hope for our future!"

- GISN Scientist











Student Projects:

Region	Number of Projects
Africa	1
Asia and Pacific	27
Europe and Eurasia	13
Latin America and Caribbean	8
Near East and North Africa	31
North America	33
Total	113

Region	Country	Number of Projects
Africa	Kenya	1
Asia and Pacific	Taiwan Partnership	11
	Thailand	16
Europe and Eurasia	Croatia	7
	Estonia	2
	France	1
	Israel	2
	Netherlands	1
Latin America and Caribbean	Argentina	4
	Brazil	1
	Colombia	2
	Uruguay	1
Near East and North Africa	Oman	18
	Saudi Arabia	13
North America	United States	33
	Total	113









Drawing Winners

United States:

Project Title: <u>Surface Ozone</u>

Teacher: Amy Woods

School: St. Francis Xavier Catholic School Location: Gettysburg, Pennsylvania, USA

Project Title: Analysis of Data Collected During the 2017 Solar Eclipse at Eighty Percent Totality

Teacher: Diana Rae Johns

School: Crestwood High School

Location: Dearborn Heights, Michigan, USA

International:

Project Title: The influence of fireworks on the amount of aerosols.

Teacher: Maaike Vollebregt School: Helen Parkhurst

Location: Almere, Flevoland, Netherlands

Project Title: Investigating the Effectiveness of Using Common Reed (Phragmites australis) in

Fertilizing Plants and its Impact on Water and Soil

Teacher: Nawar Alrawahi School: Um hany basic school

Location: Nizwa, Oman









2016 - 2018 GLOBE International Virtual Science Symposia

Student Projects

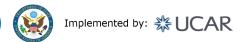
Judges

Region		2018	2017	2016
Africa	Kenya	1	2	0
	Madagascar	0	1	0
Asia and Pacific	India	0	1	5
	New Zealand	0	1	0
	Philippines	0	0	5
	Sri Lanka	0	0	1
	Taiwan Partnership	11	9	6
	Thailand	16	9	4
Europe	Croatia	7	8	3
	Estonia	2	0	0
	France	1	3	0
	Israel	2	7	2
	Italy	0	1	0
	Netherlands	1	4	1
	Poland	0	3	0
	Spain	0	0	1
Latin America and	Argentina	4	1	4
Caribbean	Brazil	1	0	0
	Chile	0	0	2
	Colombia	2	1	0
	Trinidad and Tobago	0	0	1
	Uruguay	1	0	0
Near East and North	Oman	18	14	11
Africa	Saudi Arabia	13	48	33
North America	United States	33	32	21
	Total	113	145	100

Region	2018	2017	2016
Africa	2	3	3
Asia and Pacific	10	4	4
Europe	12	14	5
Latin America & Caribbean	6	7	2
Near East & North Africa	4	6	1
North America	36	27	9
Total	70	61	24

Note: Due date in 2018 was over a month earlier than previous years.







Timeline:

- 25 Oct 2018: Informational Webinar
- January 10 April 2019:
 Reports Accepted
- 25 April 2019: Judging Webinar
- 26 April 05 May 2019: Judging Period
- 17 May 2019: Feedback and badges
- 17 May 2019: Live Drawing for stipends













Merit Based Student Research Badge

- Students earn points
- No limit to projects that earn top ranking



Optional Badges

- Possible for students to earn up to 3 out of 6 additional badges
- Students describe how each badge was earned in their report document
- Students need to select badges when uploading project
- Minimum of two required to be part of the drawing











Optional Badges for Scientist Skills



- Be 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.
- Be 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.
- Be 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.











Optional Badges for Scientist Skills



- 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.
- Be 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.
- Be 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.







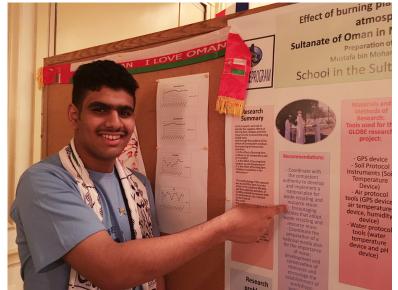




Drawing

- Earn 4 star Student Research
 Badge AND at least two
 optional badges → entered
 into a drawing on 17 May
 2019
- Projects drawn will receive funds to help offset the cost of attendance at the GLOBE Annual Meeting in Detroit, Michigan, USA

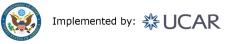








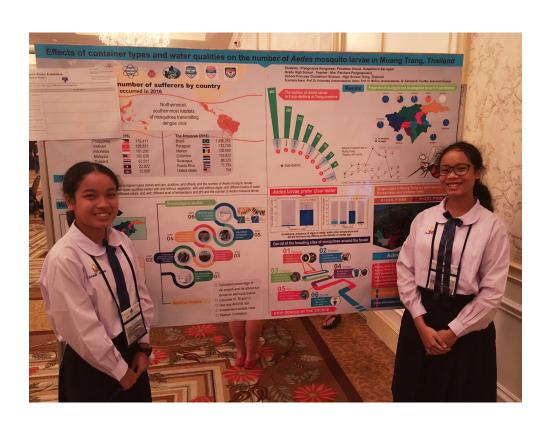






How to Enter

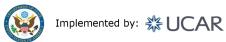
- Entries include:
 - **Abstract**
 - Research Report
 - Narrative on each badge completed
 - Presentation
 - Narrated Power Point
 - Video link
 - Scientific Poster
 - Photo Releases













Presentations

Important to communicate science!

- Poster
- Narrated PowerPoint (or similar)
- Video link











Nitrate Concentration of the Cove River Biome During a Six Month Period



Abstract

Abstract

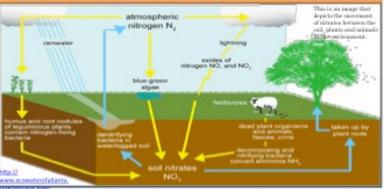
One Have bloom consists of a seven followed in the and a 18.28 are not appeared by the guidely use, though it is madely used for research and a continuity to guidely used for research and a state and purposes, such as the CLOME Program and archaeological.

The Cove Bloom blanc is born to show a simular introducing force, go trave that produce which amounts of can approve and plant life and in the revers and in the soft This organizate in being performed to sever the intrate concentration of the Cove Bloom as ways to excitant the reverse field of plottings and to describe the first and of the cover the intrate concentration of the Cove Bloom as a way to excitant the reverse field of plottings and to describe the first according to the cover Bloom of a suparitive effect on the biass. Prove October of 2011 to March of 2, data was coldiscal from water amplies of the Cove Bloom to extract the supervision of the river the pld of the cities. Then altered to the clother and the dissoluted organization of the Cove Bloom to exist the experiment is on the impact of a factions on the Cove Bloom to entire the cover accounted for bosons the lad group searched to check other factors considered with the levels of raints. Such correlation was in some force as whose lost guide and of the river. But the cover dissolved compact and raints beyond that the cover the guide and date, Orecall, data above that the Cover Brown bearing the cover that the cover filters benefit to be 10 percent of 18 med.

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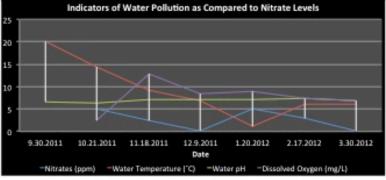
Problem Statement

Method/Procedure



Indicators of Pollution as Compared to Nitrate Levels

Indicators of Water Pollution as Computed to Nitrate Levels							
Date	9,30.11	10.21.11	11.18.11	12.9.11	1.30.12	2.17.12	3,30,12
Water Temperature (°C)	29.2	14.5	9.2	7.0	1.1	6.0	6.0
Water pill	6.5	6.3	7.1	7.2	7.1	7.4	6.8
Dissolved Oxygen (mg/L)	N/A	2.5	12.8	8.5	9.0	7.4	7.0
Nitrates (ppm)	N/A	5.0	2.5	0.0	5.0	3.0	0.0
Recent Precipitation	Yes; Heavy Reinfall on Previous Night	Yes; Constant Rainfall Throughout the Week	No	No	Yes; Snow on Previous Night	Yes; Rainfall on the Previous Night & Morning	Yes; Constant Roinfal Throughout the Week



Conclusions

Future Directions

turbles experimentaries extending catalide the hydrosphese can be inferrable to increase confinement extending of the tops. In the future cond to an additional force sitrages distribe, a region six distributed for the strongestiment of the survey of the future conditions to administ level and those spike in altraste herein really increase or administrative force in an administration.

References

Acknowledgements



How to Enter

Updated upload tool available online early 2019

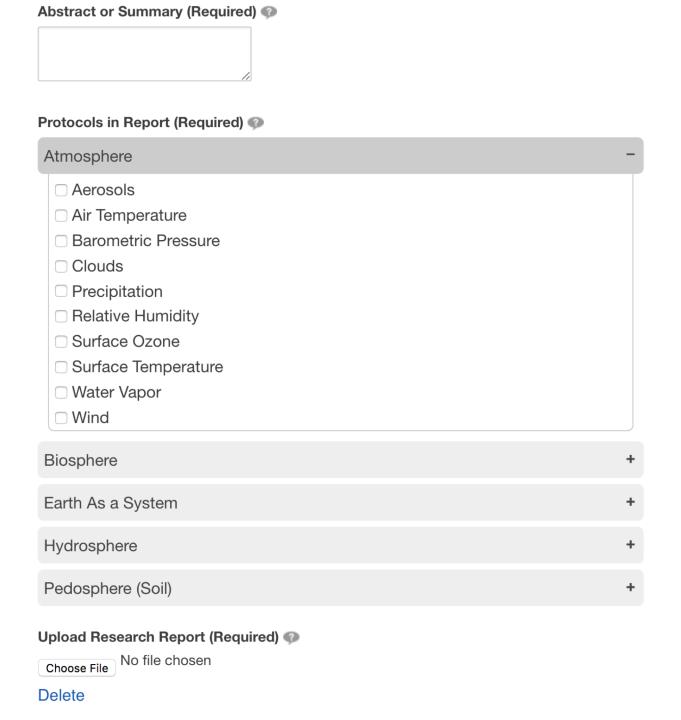
Upload your research report



Student Research Reports

mm/dd/yyyy

School / Organization (Required)	Select	× Delete	0 0
GLOBE Teacher (Required) 🗫	Select		
Student(s) (Required) 🌮			
Additional Contributors			
Grade Level (Required)			
Lower Primary (grades K-2, ag	es 5-8)	\$	
Report Title (Required)			
Report Description (Required)			
Report Date* (Required)			





Optional Badges (maximum of 3 badges) Collaboration Community Impact □ Connection to a STEM Professional Engineering Solution ■ Exploring STEM Careers Interscholastic Connection



Note: Reports are subject to review before being posted on the website.









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2019 International Virtual Science Symposium

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Students Needing Mentors

Shareable Images



2019 GLOBE International Virtual Science Symposium

GLOBE is excited to host the 2019 GLOBE International Virtual Science Symposium (IVSS). The IVSS is a way for primary through undergraduate students from all GLOBE countries to showcase their hard work. With GLOBE, students learn the practices of science through hands-on investigations in their own communities, sparking their curiosity and interest in science. This often leads to inquiries that help solve real-world problems and further understanding of our global environment. Now it's time for your students to show the world what they've learned!

IVSS Informational Webinar:

Dr. Julie Malmberg from the GLOBE Implementation Office will host an informational webinar about the 2019 GLOBE International Virtual Science Symposium at 10:00 am MT/12:00 pm ET/4:00 pm GMT on Thursday, 25 October 2018. A recording will be shared here after the webinar. Click here on 25 October to join the webinar.

Timeline:

- Informational Webinar 25 October 2018 at 10:00 am MT/12:00 pm ET/4:00 pm GMT Click here to join at the time webinar. A recording will be shared after the webinar.
- Reports accepted 01 January 2019 to 10 April 2019
- Due date for all student reports 10 April 2019
- Judging Webinar 25 April 2019 (More information will be sent to judges in 2019)
- Judging Period 26 April 05 May 2019
- Feedback and Virtual Badges Shared 17 May 2019

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2019 GLOBE IVSS - Instructions

How and What to Submit:

Each student project should include the following components and should be submitted via the Virtual Science Symposium Report Tool. Make sure to have all the items prepared when accessing the tool.

- 1. Abstract or Summary: A 200 word or less description of the research project.
- 2. Research Report: The complete research report as .PDF or .DOCX/.DOC. If including more than one language, make sure the report is just one file. Elements of the Research Report are described in the rubrics.
- 3. Badge Description: For any of the optional badges (you may select up to three), include a short summary of how each badge has been completed.
- 4. Presentation: Either the link to an uploaded video hosted on an online video sharing site (YouTube, Vimeo, TeacherTube, etc) or the presentation poster. Please do not upload the actual video, just the video link! Whether presented as a video, a narrated PowerPoint, or as a poster, the presentation should describe the student research. Videos should be 10 minutes or less.
- 5. Thumbnail Image: An image to be displayed with the student report.
- 6. Photo Release Forms: All individuals who appear in photos or video must send in a photo release. Save all the photo releases into one file.

Reports are due 10 April 2019. Project submitted after this date will not be scored.

Scoring:

Information about scoring is provided on the Rubrics page. All projects will be scored by a team of judges from the GLOBE International STEM Professionals Network.

Every student project will receive a virtual Student Research Badge. Scored projects will receive between one and four stars on the Student Research Badge, with a 4-star research badge representing superior projects. Additionally, students have the option to complete up to three additional badges. The badge options are: Be a Collaborator, Be a Data Scientist, Be an Engineer, Make an Impact, Be a STEM Professional, Be a STEM Storyteller.

Please note that if students choose to submit a report in a language that is not English, it will be shared with the community via the Virtual Science Symposium webpages, but it will not be scored. Only reports in English will be scored by the team of judges. However, students are encouraged to submit their reports in English and their first language (as one document).

Awards:









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Rubrics and Badges Badges

2019 IVSS - Rubrics and Badges

Rubrics

To score the International Virtual Science Symposium projects, a team of scientists will use the rubrics on this page. Note that rubrics are listed by grade level. Students and teachers are encouraged to use these documents when creating their reports.

Kindergarten - 2nd Grades (Lower Primary, ages 5-8)

3rd - 5th Grades (Upper Primary, ages 8-11)

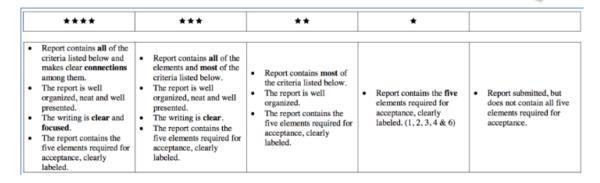
6th - 8th Grades (Middle School, ages 11-14)

9th - 16th Grades (High School, ages 14-18, and Undergraduates)

SIUM — BADGES AND CRI.

PDF: Kindergarten - 2nd Grades (Lower Primary, ages 5-8)

GLOBE INTERNATIONAL VIRTUAL SCIENCE SYMPOSIUM — BADGES AND CR. SCIENCE PROJECTS



Project elements and criteria (*required element)

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

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2019 IVSS - Resources

Below are resources to help in the completion of your student research report. If you need any additional resources, please contact the Community Support Team at help@globe.gov.

Previous Virtual Conferences

- 2012
- 2013
- 2016
- 2017
- 2018

Creating a Research Project

- Steps in the Scientific Process
- Worksheet to Evaluate Possible Research Questions
- How to Create a Student Research Report | en Español
- Sample Research Report
- Purdue Online Writing Lab Research and Citation Resources
- The Simple Guide to Storytelling by All Good Tales: From the GLE Student Journal

Tips for preparing a presentation:

- Ten Secrets to Giving a Good Scientific Talk
- Poster Template PowerPoint | PDF (note: this includes the middle school and high school/undergraduate elements, modify as needed for primary school)



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2019 IVSS - Frequently Asked Questions

Q. My students have never participated in a science fair or symposia before. Can they still enter?

A. Yes! Students with a wide variety of expertise participate in the IVSS. Whether this is your first research project or your 100th, we encourage you to participate. And, if you have any questions along the way, let us know.

Q. Why did the name change from a science fair?

A. A science symposium is a place for researchers to present and discuss their work. In order to reflect the overarching goal of students sharing their GLOBE research, we thought a science symposium better represented this event than a science fair.



Q. Can I submit my project in a language that is not English?

A. Yes, however, it will not be scored. We are only able to score projects submitted in English.

Q. I submitted a project, but isn't showing up yet. When do projects appear in "Student Reports"?

A. For the IVSS, we wait until the due date to publish projects. If you don't receive confirmation that your report was uploaded, send an email to help@globe.gov to check.

Q. Can I use Google Translate or another translating program to translate my project?

A. Yes, the judges will then be able to score your project. However, keep in mind that Google Translate often makes mistakes. If possible, have someone familiar with English read over the translation.

Q. I'm a science, technology, engineering, or math (STEM) professional. How can I be involved?

A. If you are part of the GLOBE International STEM professionals Network (GISN), we would love for you to help score the projects. If not, think about applying to be part of the network! If you are interested in scoring or mentoring projects, fill out the Volunteering form. If you are interested in being part of the GISN, send an email to help@globe.gov.

Q. What if the scientist or other STEM professional I want to work with is not part of the GLOBE International STEM professionals Network (GISN)?

A. That's fine! But, encourage the scientist or STEM professional to join the GISN.

Q. I teach 1st grade. Can my students also submit a project?

A. Yes! We have customized the scoring rubrics by grade level. Younger students will be scored differently than older students. We also have a webinar about K-4 projects and lots of K-4 resources.

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Shareable Images

2019 IVSS - Judges

Fill out the form below to volunteer to score projects for the 2019 GLOBE International Virtual Science Symposium (IVSS).

Scoring projects: In late April-early May 2019, we need assistance scoring all of the student projects after they have been submitted. Scoring takes anywhere from one hour to several hours (depending on how much time you are able to commit). We will

"Thank you for the opportunity to score the student research. These students give me hope for our future!"

- GISN Scientist

have an informational webinar (which will be recorded) on 25 April 2019 at 10:00 am MT (click here at the time of the webinar to join!) and then judging will need to take place sometime between 25 April-05 May 2019. Judging consists of filling out a Google form with your scores and feedback for the project.

We are hopeful that STEM (science, technology, engineering, and math) professionals, GLOBE alumni, teachers, graduate students, and other interested community members will volunteer to assist scoring the projects. (Note - you do not need a GLOBE account to score projects.) The students really appreciate getting feedback on their projects in order to improve as researchers!

Please note: In order to receive a certificate and have your name listed in the 2019 GLOBE Annual Meeting agenda, you will need to score a minimum of 3 projects by the judging due day (05 May 2019).

If you are interested in being a **mentor** this year, please look at the teacher requests on the "Students Needing Mentors" page. If you think you are a good fit based on the request, please contact the teacher listed.

If you are interested in scoring, please fill out the form below. We will contact judges in April. If you have any questions, please send an email to help@globe.gov.



2019 GLOBE IVSS Volunteering (Judging)

We are looking for volunteer judges for the 2019 GLOBE International Virtual Science Symposium (IVSS).

We need volunteers to score projects entered into the GLOBE International Virtual Science Symposium. To take part in this, you will be provided with scoring information and assigned projects. More information will be available later in 2018 and early in 2019. But, you should plan on spending some time during between 25 April-5 May 2019 scoring projects. Please note: If you would like to receive a certificate of recognition for judging, you will need to score a minimum of 3 projects.

If you are a Science, Technology, Engineering, or Mathematics professional, we invite you to mentor students. To find students to mentor, you can look at the "Student Groups Looking for Mentors" page (https://www.globe.gov/news-events/globe-events/virtual-conferences/2019-international-virtual-science-symposium/students-needing-mentors) and contact the teacher listed. Please note: these projects are looking for people with specific areas of expertise. If you are qualified to help with their project based on their research interests, please contact the teacher directly (do not fill out this form - this form is for volunteer judges only).

If you are interested in being a JUDGE for the 2019 IVSS, please fill out this form.

We appreciate your interest in helping with the Science Symposium! If you have any questions, please contact help@globe.gov or see the Science Symposium webpage at http://www.globe.gov/science-symposium.

Name Your answer Your Email Your answer

AR

Home > News & Events > Events > Virtual Science Symposia > 2019 International Virtual Science Symposium > Students Needing Mentors



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2019 IVSS - Students Needing Mentors

This is the place for mentors to find students with research questions or in need of some project help.

Teachers - Are you working with a group of students that would like a mentor? Please fill out the Google form below. Note that no student email addresses should be shared! Mentors should only contact the teachers to provide support for the student researchers. Once you have been contacted by a mentor, let us know at help@globe.gov and we'll remove the request from the list.

Mentors - The student groups below are seeking mentors. Please email them if you feel qualified to assist with their request. And, send us an email at help@globe.gov to let us know if you do contact them.



This is the place for teachers to request mentors for their student groups. Do your students have a question about a science topic? Need guidance on developing a project? Want to talk about careers in their research area? Request help here!

Teacher Name

Your answer

Teacher Email Address

Your answer



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.











Project elements for HS and Undergrad (bold=required)

- 1. Title
- 2. Abstract or Summary
- Research Question(s)
- 4. Introduction and review of the literature
- 5. Research Methods
- 6. Results
- Discussion
- 8. Conclusion
- 9. Bibliography/Citations
- 10. Badges Selected









Project elements for 6-8 (bold=required)

- 1. Title
- 2. Abstract or Summary
- 3. Research Question(s)
- 4. Introduction
- 5. Research Methods
- 6. Results
- 7. Discussion
- 8. Conclusion
- 9. Bibliography/Citations
- 10. Badges Selected









Project elements for 3-5 (bold=required)

- 1. Title
- 2. Summary
- 3. Research Question(s)
- 4. Introduction
- 5. Research Methods
- 6. Results
- 7. Discussion
- 8. Conclusion
- 9. Bibliography/Citations
- 10. Badges Selected









Project elements for K-2 (bold=required)

- 1. Title
- 2. Summary
- 3. Research Question(s)
- 4. Introduction
- 5. Research Methods
- 6. Results
- 7. Discussion
- 8. Conclusion
- Badges Selected











Questions

- Who can judge projects?
- We put a minimum of one STEM professional on each project.
 Other judges can be teachers, graduate students, community members, or alumni.
- Do judges have to be part of the GLOBE International STEM Network (GISN)?
- No! If a scientist or other STEM professional doesn't have a login for globe.gov, we have a generic "STEM professional" account he or she can use.
- Why aren't the instructions translated?
- We need volunteers to translate them! If you are able to translate any of the materials, I will add them to the website.











Questions

- Do I have to pick optional badges to be eligible for the drawing?
- Yes! All students receive the "Student Research" badge. But, students must select at least TWO additional badges to be eligible for the drawing. Also, they should describe how they earned the badge(s) in their report.
- My students have never participated in a science fair or symposium before. Can they take part?
- Yes! We have a lot of resources available for new participants.
 Please join us!
- Can younger kids enter a project?
- Yes! We have grade-specific guidelines for students starting from Kindergarten to undergraduates. We also have a webinar all about K-4 (lower primary or ages 5-8) projects.











Questions

- Do my students have to write their reports in English?
- If the students want their project scored, then yes. We don't have enough judges to score projects in other languages.
 Videos can be in the students' first language and captioned in English.









Find info Online

https://www.globe.gov/science-symposium

GLOBE.gov → News & Events → Meetings & Symposia → Virtual Science Symposia









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