**STUDENT OUTCOME:** Students will be prepared to present their research at the [GLOBE Student Research Symposium](https://www.globe.gov/web/united-states-of-america/home/student-research-symposia) on **May 1st & 2nd, 2020** and/or submit to the  [GLOBE International Virtual Science Symposium](https://www.globe.gov/news-events/globe-events/virtual-conferences/2020-international-virtual-science-symposium) by **March 10th**.

***(RUBRICS are at the bottom of document.)***

**TIMELINE Pacific SRS:**

**🞎 Month of January:**

* [**Apply for funding by February 1st**](https://docs.google.com/forms/d/e/1FAIpQLSdIWU6w5yuuihTxoqo_AotdvCkcKUO-zxW7DFhkZpycIUR_Jw/viewform)
* Assign Student Groups (no more than 3 per group)
* Research questions developed by each student group

**🞎 Week of February 3th and 7th: *The Research Question and Revision of Research Question***

* Types of Research Questions:
* **Relational.** When a study is designed to look at the relationships between two or more variables.
* How does \_\_\_ and \_\_\_ compare?
	+ **Causal.** When a study is designed to determine whether one or more variables causes or affects one or more outcome variables. n
* What affect does \_\_\_ have on \_\_\_?
* Write a one sentence HYPOTHESIS that answers the research question and is testable.

**🞎 From February 10th to March 30th: *Collect Data***

* Determine equipment need to perform field work
* Design data collection plan
	+ Determine frequency of data collection
	+ Decide where will data be collected
	+ Identify who will collect data
	+ Identify who will enter data into GLOBE database
* Data Collection from:
	+ Field work from data collection plan
	+ GLOBE Visualization Tool
	+ MyNASAData Satellite data/images

**🞎 Week of March 16th: *Write* *Introduction***

* Obtain SRS poster template with sentence starters and SRS rubric

**🞎 Week of March 23rd: *Write About Your* *Research Method***

* Obtain SRS poster template with sentence starters and SRS rubric
* Include a picture of your study area (use GoogleEarth)
* Include an image of students collecting data

**🞎 Week of March 30th: *Analyze Results***

* Obtain SRS poster template with sentence starters and SRS rubric
* Create a table of results
* Create a visualization of results – graph of some sort

**🞎 Week of April 6th: *Discussion of the Results***

* Obtain SRS poster template with sentence starters and SRS rubric
* Summarize (in words) results by referring to tables(s) and graphs(s)
* Write about possible sources of error with data

**🞎 Week of April 13th: *Conclusion***

* Obtain SRS poster template with sentence starters and SRS rubric
* Write about the impact of working with a project mentor/scientist

**🞎 Week of April 20th: *Bibliography***

* Obtain SRS poster template with sentence starters and SRS rubric

**🞎 Week of April 20th: *Abstract***

* Obtain SRS poster template with sentence starters and SRS rubric

**🞎 Week of April 20th: *Practice Presentation***

* Prepare Posters
* Students present to Class and Other Stakeholders

**TIMELINE IVSS – International Virtual Science Symposium**

**IVSS – LAST SUBMITTAL DAY March 10th**

* If you want to submit to the [International Virtual Science Symposium](https://www.globe.gov/news-events/globe-events/virtual-conferences/2019-international-virtual-science-symposium/instructions) and compete for a cash prize:
* Required Elements:
1. Visual (poster or power point or video)
2. Written report(your written report can be adapted from your poster information)
3. 2 badges with summary in visual and report
4. Abstract
5. Photo release form
6. Thumbnail image

**🞎 Week of January 13th: Assign Groups**

**🞎 Week of January 13th: Research Question**

**🞎 January 20th – February 21st: Collect/Organize Data**

**🞎 Week of February 24th: Write Introduction**

**🞎 Week of February 24th: Write Research Methods**

**🞎 Week of February 24th:: Analyze Results**

**🞎 Week of February 24th:: Discuss Results**

**🞎 Week March 2nd: Write Conclusion, Bibliography and Abstract**

**🞎 Week March 10th: Upload to GLOBE website**

**Rubrics**

Teachers using the GME project rubric should evaluate all students’ projects (whether submitted to the SRS or IVSS or local exhibitions. A hard copy of the completed rubric for each project will need to be turned into GME (Tracy) after the project presentation.

**GLOBE Mission EARTH**

* [Project Rubric Scoring Sheet](https://www.globe.gov/web/mission-earth/overview/about-us/partners/uc-berkeley/lessons-activities) developed for GME Teachers by GME-West teachers and it aligns to [Project Poster Template](https://www.globe.gov/web/mission-earth/overview/about-us/partners/uc-berkeley/lessons-activities)
* Must turn in completed rubric to Tracy for all student projects (NASA Evaluation)

**Pacific SRS:**

* [SRS Reviewer Rubric](https://www.globe.gov/documents/20016639/51966230/SRS2019_ReviewerFeedbackForm.pdf/9781b0bb-8607-4cdc-b01f-e1cd5b124b78) will be used at the SRS
* [Peer Rubric](https://www.globe.gov/documents/20016639/51966230/SRS2019_PeerReviewFeedbackForm_Updated.pdf/e79d4163-aaf1-4fbe-b8ab-9da539b6c68d) will be used at the SRS

**IVSS:**

* [IVSS Rubric](https://www.globe.gov/news-events/globe-events/virtual-conferences/2020-international-virtual-science-symposium)  (includes types of badges) will be used for reports/visuals uploaded to the GLOBE website for the IVSS.