General Information:
1. You may do a project on your own or in a team of no more than 3 students.
2. The three age groups available for Google International Science Fair judging are
   - 13-14 years old
   - 15-16 years old
   - 17-18 years old
   - *ALL students from Grades 6-11 will complete a project according to the guidelines regardless of their eligibility for Google International Science Fair judging.*
3. Project Categories:
   - Computer Science & Math
   - Earth & Environmental Sciences
   - Behavioral & Social Sciences
   - Flora & Fauna
   - Energy & Space
   - Inventions & Innovation
   - Physics
   - Chemistry
   - Food Science
   - Electricity & Electronics
   -

Final Product: In lieu of the traditional science board, students will provide a digital final project of either a
1. 2 minute video
2. 20 slide presentation

AND a project portfolio (see below).

Project Presentation Day: Saturday, March 22, 2014 (Key Assignment Day)

Due Date: Monday, March 10, 2014

Project Portfolio: Your digital project portfolio must contain the following information
1. Finding a Project worksheet
2. Project Summary
3. About Me
4. Question/Proposal
5. Research
6. Method/Testing & Redesign
7. Results
8. Conclusion/Report
9. Bibliography, References & Acknowledgements

Variables

<u>Variables:</u>
- Manipulated/Independent Variable: what you are testing. The variable you purposely change.
- Responding/Dependent Variable: how you are measuring the results of the change in the manipulated variable.
- Control: the experiment minus the manipulated variable. For comparison purposes.

** Remember, you need to perform a controlled experiment, so only one variable can be changed at a time.

Project Portfolio
Not only are the following part of the experimental process, they are also the areas in which you will be judged at QISS and by the Google International Science Fair judges.

Summary: A brief overview of your project (250 words max).

Additions to your summary. Submit only one of the following:

- A two-minute YouTube video
- A Google presentation with a maximum of 20 slides
  (If you do submit a video or presentation, it might be a good idea to provide a transcript (the words from your presentation or video) - it's not essential, but it might help the judges to review your project if they can't access your video or presentation because of technical issues.)

You might want to include:

- why you chose to investigate this particular aspect of science or engineering
- the question or problem that you investigated, and your hypothesis or predicted outcome
- an overview of your research
- the method or technique that you used in your experiment or testing
- what you discovered
- your conclusion: did the results of your experiment or testing support your hypothesis or predicted outcome?
- how your project will prove innovative in the area you've explored
- what you might do next

About Me: Tell us all about yourself or your team (250 words max).

You might want to include:

- where you live, where you go to school, and what you love doing most
- what made you passionate about science or engineering, and how it has influenced your life
- the names of scientists or engineers that you admire, or those who have inspired you
- what you might like to do in the future, such as in college or for your career
- what winning would mean to you, and how the prizes would change your life

Question / Proposal: Describe the question that you'll be investigating and your hypothesis, or the problem that you'll try to solve and the outcome you expect (250 words max).

You might want to include:

- the primary question you're investigating, or the problem that you're trying to solve; make sure this is specific, measurable, worded scientifically and safe to investigate
- your hypothesis or the outcome that you expect: what do you think will happen during your experiment or testing process, and how will your results show this?

Research: This is an account of the research you've done in your chosen category, and how this influenced your project (500 words max).

You might want to include:

- a summary of the work that others have already done in your chosen area
- an explanation of how your research into the existing work has shaped your own project

Method / testing and redesign: Describe how you carried out your experiment or tested your solution (500 words max).

You might want to include:

- a step-by-step description of your experiment or testing process
- your variable and independent variables (if relevant)
- a write-up on how you ensured that your experiment or testing process was fair
- info about where the experiment occurred, and the equipment you used
- a list of any safety measures that you used

Results: This is where you show your findings and the observations gathered during your experiment or testing. Make sure it's presented clearly, with a description of any patterns or trends that you found (500 words max).

You might want to include:

- Critical data presented clearly (as in a table, graph, or chart)

Conclusion / Report: Explain how your experiment or testing answers your question - or why it fails to do so - and whether the outcome was what you expected (500 words max).

You might want to include:

- a summary of your results
- an explanation of whether your results support your hypothesis or expected outcome - and why
- a reflection on any limitations in your results: are they completely reliable, or are there ways in which you could improve your method?
- what kind of impact your results might have in the future, and whether further work is needed: have your results inspired you to ask additional questions?

Bibliography, References and Acknowledgements: Acknowledge any help you received, and cite all your references and resources (2,000 words max).

You might want to include:

- a list of all books, journal articles, and websites you've used in your research; include the author, title, and date it was written (or else cite the website name and address)
- acknowledge the contribution of anyone who helped with your project (such as a parent, teacher, professor, or mentor), making it clear exactly what they did, and what you did on your own
- details of any facilities to which you were given access (such as a school or university lab) and any specialized equipment you used.