Research

Each team should be researching their topic and creating a professional bibliography. You will need at least five citations (books, magazines, web sites) for your Interim Report due in December.

Here is Brendan Kuncel from Manzano HS working with Mrs. Glennon at Jackson Mid explaining Citation Machine, http://citationmachine.net. This easy program will help you get that bibliography started now.

https://photos.app.goo.gl/FrtMYmNtpKO5Pslk1

Flash drives??? Do you get a flash drive at the kickoff? Do you need one to save your research and use the resources on the drive? Please let consult1718@supercomputingchallenge.org know how many your school needs asap.

NCWIT applications needed! Especially for North/Central NM!!

Deadline is Nov. 6th. This is an amazing opportunity!! Encourage girls you know to apply!

HS Girls 9th-12th grade
Educators

Why are we called the Supercomputing Challenge?

SC has been around for 28 years. It has been marketed throughout the state and the nation and has branding value which means people are familiar with our name and our logo. When the Challenge started, one of the goals was to have students use the national labs' supercomputers. Now our laptops have the same amount of power as those computers had 28 years ago. The labs' computers are still available for teams to use if they need super parallel processing.

The Challenge still pushes parallel processing. "The simultaneous use of more than one CPU to execute a program. Ideally, parallel processing makes a program run faster because there are more engines (CPUs) running it." The lab computers can make this happen.

And a little pet peeve of Celia's, we are SC, Supercomputing Challenge, not SCC, Super Computing Challenge. We are super but we are referencing parallel processing, critical thinking, communication, coding and collaboration!

Research is Never a Waste of Time, But Always Make Good Use of Your Time.
https://www.sophia.org/tutorials/choosing-and-narrowing-a-topic-to-write-about-for

To choose a general topic, follow the following steps:
1) Choose a topic area in which your team is interested. *Example: hurricane evacuation*
 2) Begin to research the topic. Which questions are answered? Which questions are unanswered? Do you need to change your topic? *Example: Evacuation was not the problem, **flooding** was. Our new proposal topic: Houston Flooding*

3) **Take your topic area and describe it more specifically.**   *Example: After research, we found a study that had some ideas for solutions. How can we use Chinese sponge city protocols to solve the*

flooding problem in Houston?

4) **Answer questions you've found in your research. Do some more research on what you don't know or need more information**. *Example: What are sponge city or softscape solutions to flooding?*
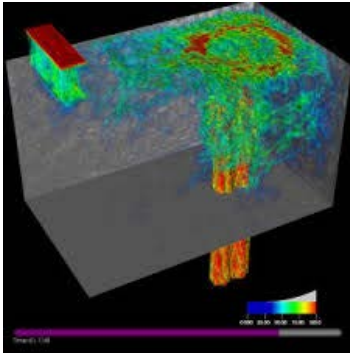
To narrow down the focus of your topic, follow the following three steps:

1) **Write down additional specifics about your topic.** Example: softscaping solutions, which ones narrow our focus?

5) **Turn your topic into a sentence that is a statement.** Example: We plan to solve flooding in Houston by using gardens in front of personal residences entrances.

6) **Now add "fine" focus to your statement by making a statement that can refer back to your research.** Example: We plan to solve flooding in Houston by using small perimeter gardens sloped away from personal residences entrances. We plan to use data from Hurricane Harvey and Rita to plot the areas most often flooded in Hurricane rains. We will validate information with elevation data. We plan to show the affect of sloped house perimeter gardens and water pooling as compared to hardscaped home entrances.

What is a Computer Model? **https://www.sciencenewsforstudents.org/article/explainer-what-computer-model**

A program that runs on a computer that creates a model, or simulation, of a real-world feature, phenomenon or event.

- Create a hypothesis about your topic.
- Eliminate unnecessary parts; start with two variables.
- Create "what if" scenarios in your model.
- Explain, control, predict, visualize events on the basis of research and observations
- Add more features or variables or test a larger hypothesis.

Free Online Course from the Park City Math Institute: Geometry Transformed!
Dates: November 7 - December 5
Description: A five-week course for teachers who want to deepen their understanding of transformations in plane geometry and who seek examples of how rigid motions and dilations and their combinations can be presented in the classroom.
For more information, please visit http://mathforum.org/pcmi/outreach/#two. Please contact Gabe Rosenberg at pcmigeom@gmail.com with any questions.

We hope some of this information helps you move forward. Remember if you have any questions, please contact consult1718@supercomputingchallenge.org

"Computingly" yours,
Celia, David, Karen, Josephine and Patty