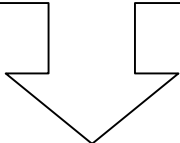


**Math—A State of Mine:  
II. Research Details**

<b>Buddies (4<sup>th</sup> – 6<sup>th</sup>)</b>	<b>Chosen Mathematician</b>
Arthur – Kyle	Boole
Brad – Dave	Newton
Brianne, Mallory – Elizabeth	D'Alembert
Cameron – Ben	Copernicus
Cody – Dan	Galileo
Daniel – Tarun	Babbage
Hannah, Julianne – Maegan	Al-Khwarizmi
James – Bruce	Archimedes
Joe – Jeff, Eric	Bernoulli (Jacque)
Kelley, Abby – Dana	Gauss
Ken – Yuh	Dodgson
Lizzie, Maria – Rosalind	Euclid
Maiki – Michael	Descartes
Maya, Isabel – Jessica	Einstein
Melina – Lindsay	Diophantus
Paul – Phillip	Hypatia
Ryan – Tim	Pascal
Seaun – Casey	Venn

So. We talked, discussed and decided what we wanted the project to look like. It is time to explore the inner working of a mathematics mind, Frankenstein.  
Heh, heh, heh!



Thanks to your valiant brainstorming and work, you have now set your direction for the “how” and the “what” of the project. These words come from what you wrote:

***The "How" of the Project:***

1. *What will make our partnership fair?*
  - Everyone should have a specific job and the same amount of work. No one should work alone and everyone should be willing to share ideas. We must take responsibility for our work, be willing to try, and work towards agreeing with each other. However, we should have fun and say relaxed.
  
2. *Where can we get our information?*
  - Books: biographies, fiction and factual books.
  - Encyclopedias: Britannica, World Book of Knowledge, Comptons
  - Electronic Encyclopedias: Britannica, Comptons, Encarta
  - Web Sites: Yahoo! Altavista, Google, Ask Jeeves
  
3. *What will make us legal?*
  - Cite all our sources. (See the enclosed form for how to do that.)
  - Write things in our own words and, if we do use someone else's words, we must put them in quotes and credit them. If we use another person's pictures, we must give credit and get permission to use it from them.

4. *How can we show our clear understanding of the information and present it in such a way to other people so that they understand it as well as we do?*

Format: That all the spelling, mechanics and grammar are correct. That there are topic sentences with a great deal of "because" and clear examples in the body of the paragraphs. Any new vocabulary must be clearly explained so that people can get it. No boring thoughts-- add adverbs, adjectives and powerful verbs. Make the sentences sing!

5. *How can we present our material differently so that great exclamations of "Whoa! How cool! We never would have thought of it like that!", light bulb flashes go off rather than having gentle snores of the brain-dead?*

- Have clear examples of their inventions and how they work?
- Be sure to have a history of the life of the person.
- Choose interesting facts and things no one knows.
- Use a poem, a game, a puzzle, a rap—a different way to show the same thing.

### ***The "What" of the Project***

As you recall, there are three major questions that have to be answered in the project. Along with the three primary questions, you must choose two secondary questions in each category for a total of 9 questions. You may select from the questions listed below.

1. *As a historical figure, what was your mathematician like?*

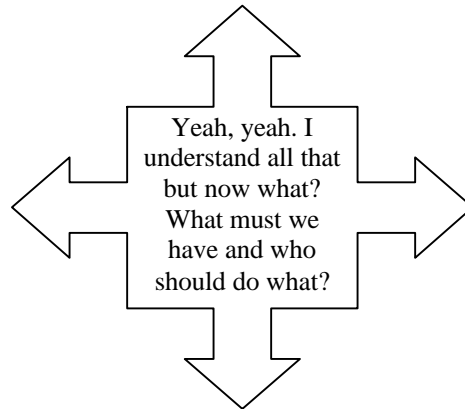
- As a child, what was he thinking he was going to be when he grew up?
- What was he or she like as a person? What kind of family life did he or she have?
- What was his motivation as a person?
- What would happen if he lived in a different place or in a different time?
- What kind of place did he live in and how did it help him think of or make the things he made?
- How did the time and place that he lived in affect his ability to explore the world of mathematics?
- Did his life change because of his invention? Why or why not?

2. *What great contribution to the world did your mathematician make?*

- Was what he made mostly for himself or for other people? How do I know?
- What is mostly considered to be his greatest discovery and why?
- Why did he invent what he invented?
- What kinds of tools, or preexisting ideas, did he have to use to make his invention?
- What if the world he lived in didn't contribute to, or support, his idea?
- Did he have government support? How did having, or not having that, make a difference?

3. *How did this contribution continue to make a difference in the world of today?*

- What do the people of today use with what he/she invented?
- What would happen if his invention didn't exist today?
- What are some of the practical applications of his invention?
- What applications of his invention have a direct influence on me and why?



Before creating your web site, everyone must have:

- selected the 9 questions you are going to target
- collect information and cite your sources
- have information about your person as a historical figure (see characteristics)
- have a timeline of the person
- have direct mathematical examples of things that person invented and be ready to explain how the examples work

## *Citation Styles: Math – A State of Mine*

### **Print Sources**

#### **A book with a single author:**

Taylor, Barbara. *Mountains and Volcanoes*. New York: Kingfisher Books, 1993.

#### **A book with two authors:**

Smith, Bruce, and David McKay. *Geology Projects for Young Scientists*. New York: Franklin Watts, 1992.

#### **A book with a corporate author:**

American Heritage. *To the Pacific with Lewis and Clark*. New York: American Heritage Publishing, 1967.

#### **A book with no author:**

*Our Violent Earth*. Washington: National Geographic Society, 1982.

#### **An unsigned article in an encyclopedia:**

“Volcano” World Book Encyclopedia. 1994 ed.

#### **An article in a monthly magazine:**

Miller, Jeanne. “Stopping Mother Nature.” *Odyssey* May 2000: 40-43.

### **Electronic Sources**

#### **A web site:**

“The Title of the Web”. Fincher, Bridgette. <http://theurl.com/thefullpath>. Date

#### ***Characteristics Found in a Good Biography of a Mathematician!***

- The paragraph has to explain how the person was important or made a difference in the lives of other people.
- It has to give the reader an idea about the characteristics of the person- what he or she looked like, how they moved, where they lived, their level of education, or their likes and dislikes. **(This is a very important one!)**

- The paragraph has to be accurate! It has to be sure that the *place* the person is described as living in is right and that it has the right things in it. The dates and facts have to be correct and there should be nothing important left out.

### **What is *Place*?**

The whole idea of *place* is that it shows a mental picture of where the person lives and how they go about their daily life in their own familiar environment. **Place** holds the physical characteristics of the environment and the human characteristics.

The physical characteristics cover: the land forms, the climate, the plants and animals and types of soil.

The human characteristics cover: the types of language, clothing, architectural style and general rules and laws the person follows. Transportation, communication, business and the ways people make their money are also important.

When you are looking at a person in their *place* you have to take several other things into account about how they fit into the place where they are. For example:

- What is the time in history they live in?
- What are the assumptions held by the people around them to be "truths"?
- What kinds of prejudices or limitations do the people have to strive against?
- What kinds of advantages do they have because of where they live and who they are?

Taken all together, these factors make us what we are and the mathematicians who they are.