Math Inventions

Creating inventions to solve problems and make ours lives easier!







Brainstorming pt 1

Inquire into a handful of inventions that are related to a math concept(s). For example, the calculator or GPS. Talk about their impact on the world, describing what life was like before their invention. Also, include the related math concepts that they solve or make more convenient.

Invention	Impact	Concepts
Calculator	Fast and accurate calculating. There are less errors now in things like accounting, sales, grades, etc. Things get done quicker thanks to calculators.	 Multiplication Division Additon Subtraction Decimals Square roots And more!
GPS	GPS plays a critical role in weather forecasting, agricultural planning, and even disaster relief efforts. To think of a world without GPS today makes me feel lost!	 Coordinates Measurement Angles Geometry And more!



Brainstorming pt 2

Now, begin brainstorming your own math-related invention.

You'll need to first identify a real-world problem and come up with an inventive solution that uses math concepts. This problem could be on a global scale, or at a personal level. Be creative and use your imagination!

Here are two examples of such inventions below:

- A kitchen gadget that helps users easily measure and adjust recipes for fractions of ingredients, ensuring accurate and efficient cooking.
 - Math Concepts: Fractions, measurement, proportions.
- A digital tool that generates unique art pieces based on mathematical formulas and patterns chosen by the user.
 - Math Concepts: Fractals, symmetry, patterns, digital art.

Sketch, annotate, and write notes for your proposed invention in the box below. Check in with the rubric throughout your planning.





Presenting your invention

It is up to you to decide how you'll present your invention. Presentations can take many forms: posters, scripts, diaramas, powerpoints, to name a few! However, your presentation should include the following (at minimum)

- Sketch of your prototype/invention
- Other visual aids to support your invention
- Description of the related math concepts
- How your invention works
- How your invention will impact the world or individuals
- Persuasive language to engage your audience

Plan and sketch ideas for your presentation below:



Invention Rubric

Math Dogs	→	\rightarrow	→
Research	The connection of the math concept(s) related to the invention needs to be developed more. More research is needed to connect the invention to a real-world need.	The connection of the math concept(s) is clear but needs further research. Research is evident but doesn't wholly support the invention's purpose.	The connection of the math concept(s) and the invention is clear and creative. Research is evident through explanations and connections to real-world problems.
Invention Creation	The invention inadequately addresses a real- world problem and lacks the use of math concepts. The solution is not practical or creative.	The invention addresses a real- world problem with some use of math concepts. The solution may lack practicality or creativity.	The invention effectively addresses a real- world problem using math concepts. The solution is practical and shows creativity.
Presentation	The presentation is disorganized and lacks clarity. The problem, math concepts, and solution are unclear. Visual aids are not used effectively.	The presentation is somewhat organized and communicates the problem, math concepts, and solution with some clarity. Visual aids are used minimally.	The presentation is organized and effectively communicates the problem, math concepts, and solution. Visual aids are used appropriately.