What is STEM education? According to [Wyatt Dalton of Pearson Accelerated. Com](https://pearsonaccelerated.com/blog/stem%20it)says, it can simply be defined as a "teaching philosophy " that integrates Science, Technology, Engineering, and Math "together into a single, cross-disciplinary program".   The acronym STEM was reportedly first used in 2001 by the U.S. National Science Foundation in this [source](https://www.britannica.com/topic/STEM-education). The article continues by stating that in the early 2000’s, reports came out stating that the students in the United States were not as proficient in the STEM subjects as those of other competing countries. This fear has been a driving force in the development of educational programs across the United States in mathematics and science as well as engineering and technology for many decades.

Some argue the roots of STEM education go back all the way to the middle of the cold war. In this argument, a key moment in the space race, the beginnings of STEM can be traced to the launch of Sputnik in 1957.  [In his article, Alvin Powell](https://news.harvard.edu/gazette/story/2007/10/how-sputnik-changed-u-s-education/) suggests that the launch of Sputnik helped highlight the need for better education in the fields of science and mathematics in the United States. This heightened understanding and the urgency created by our need to compete in the global race for technological advancement would go on to create the first of many math and science schools. These schools would later prove to be the foundation for the new philosophy of STEM education.

So, what sets STEM apart from other forms of education? How is it different from traditional education?   Simply put it's the philosophy.  In a [TEDx talk](https://youtu.be/Xi2Qm87kC7o) posted March 11th, 2014, nationally recognized educator, Robert Stephenson lays out one of the most compelling arguments for this new teaching philosophy.  In his presentation he explained how the philosophy of STEM focuses on the innate desire for children to think "outside the box" to problem solve.  And that when you give them a task with minimal rules and no concrete model to follow, they will become engaged and persevere in search of a solution.  STEM fosters the child’s imagination and desire to learn. This coupled with another aspect of STEM, community integration, where businesses engage with the schools and students encourages the students even more.

Could STEM be the solution for the U.S. to become more competitive in this global Market?  There is much to be explored about STEM. Where can this teaching philosophy take us?  Already scholars have considered incorporating Arts into the STEM model "STEAM".  Some suggest adding Reading. "STREAM".

It's the excitement about this open-ended philosophy of integrating Science, Technology, Engineering, and Mathematics and possibly other subjects that makes STEM arguably one of the more innovative and encouraging teaching philosophy of the 21st century.  Perhaps STEM will be the future of education not only in the U.S. but worldwide.

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| **Project Portion** | **Ideal Criteria** | **Overall Feedback** |
| Introduction | * Engaging * Shows importance of question * Indicates major parts and content |  |
| Background | * Uses credible, neutral sources * Effectively and sufficiently explains essential information * Written objectively in own words * Well organized and focused paragraphs with transitions * Minimal error | The history part is a very nice addition. I’m not sure the talk by Tyson is neutral, but you’ve primarily used it to talk about the philosophy, which is also a nice addition if treated objectively.  Just watch to keep those value-laden statements out (until the last part of the project at least). |
| Analysis | * Smooth transition from background * Summarizes accurately and in own words two opposing answers and one objective answer to the question * Recognizes and shows bias * Reasonable observations about how all sources make their arguments impactful * Well-organized and focused paragraphs with transitions * Minimal error |  |
| Response | * Smooth transition from analysis * Incorporates strong points from sources * Draws a reasonable and well-supported conclusion, answering the question * Provides satisfying conclusion to the project * Good transitions between focused paragraphs * Minimal error |  |