STEAM Infusion?

You’ve probably heard a lot about STEM in the news lately. STEM stands for science, technology, engineering and math. In the school setting, STEM is an interdisciplinary approach to learning. When these areas are taught in an integrated way, students are better able to appreciate how each part is necessary for the success of any complex, real world project.

***What is it?***

STEAM’s foundations lie in inquiry, critical thinking, and process-based learning. That is extremely important. The entire idea surrounding STEAM lessons and the STEAM approach is that it’s based around questioning, and really deep questioning.  We want to start asking non-Google-able questions.  
Inquiry, curiosity, being able to find solutions to a problem, and being creative in the finding of the solutions is at the heart of this approach. This means that the humanities are woven into STEAM just like everything else.  
*Using STEAM does not mean letting English language arts or social studies go to the wayside!* You can use a STEAM lesson with those ideas, because it’s fundamentally built upon asking really good questions, and then seeking solutions to the problems that are presented in those content areas.  
That doesn’t have to just happen in the STEM areas, or in the arts areas with STEM; you can connect all of the humanities through STEAM through the idea that you’re looking for a solution to a very specific problem which comes out of the inquiry process.  
This approach to learning is certainly not an easy task, but the benefits to students and the entire school communities are tremendous.  Students and teachers engaged in STEAM make more real-life connections so that school is not a place where you go to learn but instead becomes the entire experience of learning itself.  STEAM ensures that students and teachers alike are always learning, always growing, and always experimenting.

**Why implement STEAM?**

The idea behind STEM education is to prepare students for successful careers in the 21st century workforce. We live in a time of knowledge and information explosion. Our children will be working in jobs that don’t even exist today. One thing which is certain about careers of the future is that they will involve constant change. STEM education seeks to teach students to be creative, innovative, critical thinkers; all skills needed for adapting to change. It engages students in project based learning, where they are often given real world engineering challenges where teams of students work together to seek multiple solutions to these challenges. They learn that failure is sometimes part of the process and they should seek to try again and improve upon ideas. If students develop skills needed to think deeply and critically, they will be prepared to become the innovators and leaders of our future.