

Leadership Project Proposal
Implement a Professional Development Experience:
Embedding STEM in ELA classrooms

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The audience for our professional development experience will be middle school educators grades 6-8 in the subject areas of ELA and STEM. Projects will be designed to meet the needs of our 350 students to enhance literacy skills within STEM disciplines. Literacy skills play a vital role in developing success in all disciplines. Integrating literacy and STEM will allow students to become stronger readers, while exploring topics that may stimulate curiosity in STEM. Teachers will present lessons focused on the use of 3D printers from elements of stories from selected science fiction and incorporating a series of engineering design challenges through the lessons. As part of the engineering design challenge, students will design a rover specifically for Mars using the characteristics of the planet and then code their rover using the Project from NASA's Jet Propulsion Laboratory (JPL) *Code a Mars Rover Driving Game*.

As an outcome of the professional learning experience, we hope our faculty will learn how STEM subject skills overlap with most subject areas, specifically ELA, and how projects in ELA can be enhanced by increased critical thinking, real-world application through embedded STEM curriculum. We will share a Google Classroom with our faculty to continue working on lessons together during content and grade level PLC's.

References

NASA. (2021, November 17). *Student project: Code a mars rover driving game*. NASA. Retrieved September 18, 2022, from <https://www.jpl.nasa.gov/edu/learn/project/code-a-mars-rover-driving-game/>