

Promising Practices to Close the Achievement Gap Building Partnerships to Reach All Students

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What makes SPARK so promising?

Nurturing each students' brilliance through:

- English Language Development
- Opportunity to Learn
- 21st Century Skills
- Integrated learning
- College AND Career Readiness
- Engagement; High/low tech, high touch

English Language Development

- According to Diane August (2002), a senior research scientist at the Center for Applied Linguistics, English Language Learners (ELLs) spend less than two percent of their school day in oral language development.
- EL students, when speaking in school, often are not discussing academic topics or rigorous content.



- According to Gibbons (2002), EL students participate mostly in less complex forms of speech, such as only one-word responses.

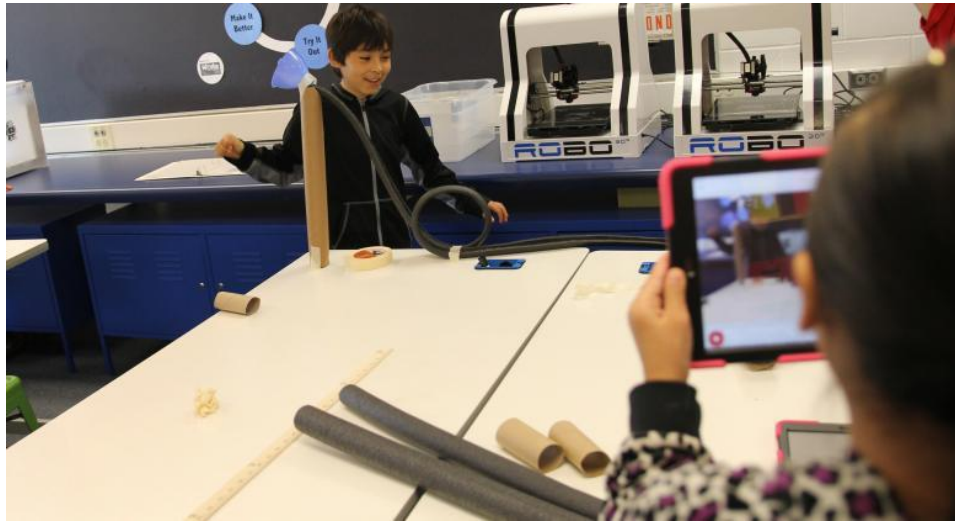


Opportunity to Learn

- According to Dr. Robert Marzano's 30 year meta-analysis, the number one factor impacting student achievement is having the opportunity to learn.
- According to our Program Evaluation of Elementary Science in Roseville, large amounts of students receiving intervention for reading and/or mathematics are not participating in content-area learning (science, social studies, health).
- SPARK is designed to mitigate this opportunity to learn gap



21st Century Skills

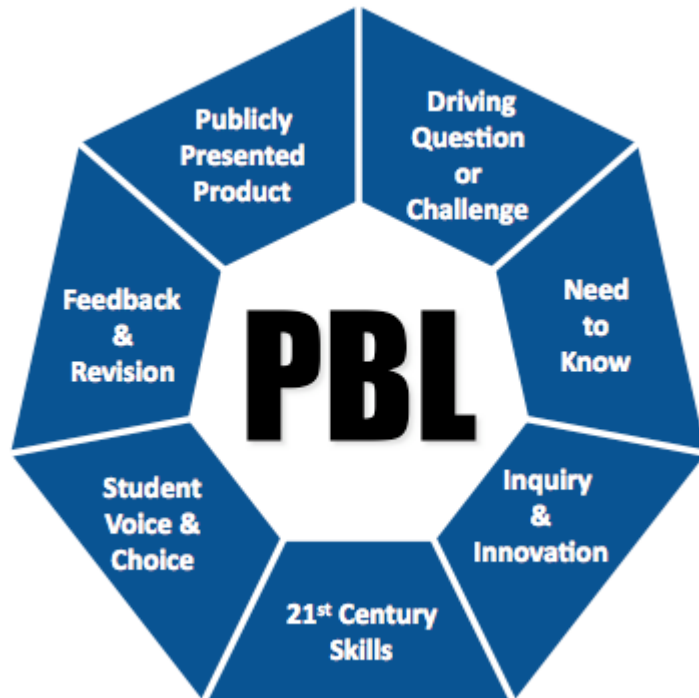
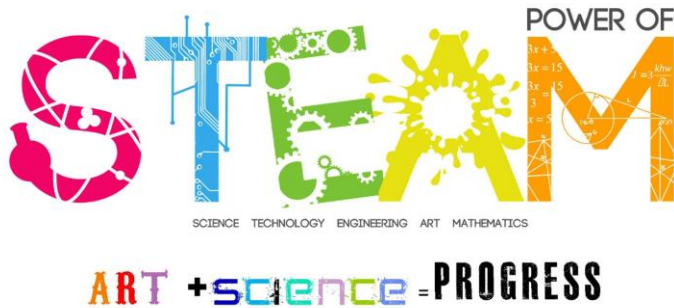


- Creating and Innovating
- Communicating
- Collaborating

- Analytical Thinking
 - Problem Solving
- Finding and Evaluating Information



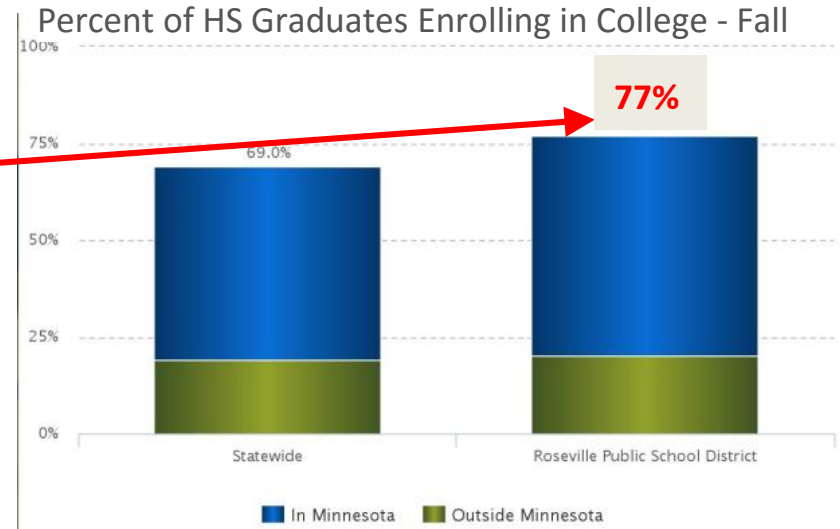
Integrated, Project-Based Learning



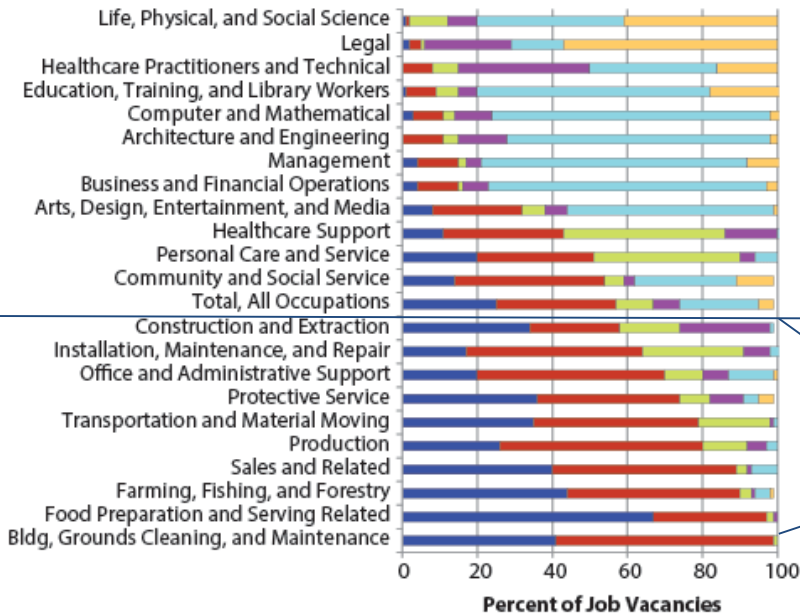
- Studies have shown that STEM/STEAM-based integration can enhance learning and instructional quality over traditional methods through use of hands-on inquiry-science activities and projects (Satchwell and Loepp, 2002; Wicklein and Schell, 1995).
- Investigations which involve active thinking (e.g., drawing conclusions from data) are more likely to increase conceptual understanding ([Minner, Levy, and Century, 2010](#)).

College AND Career Readiness

- College preparations; something schools are built for



Distribution of Minnesota Job Vacancies by Educational Level, 2Q 2013



Career preparation; something schools hope happen



Source: DEED, Job Vacancy Survey

Engagement; High/low tech, high touch

- High Tech- 3D Printers, Lego WeDo, Laser Engravers
- Low Tech- PVC Pipes (plumbing challenges), Dominos



SPARK LAB and Program at Central Park Elementary

[SPARK @ CP](#) (eMagazine)

[What are students saying?](#)

References

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