

Opportunities and Challenges in Developing STEM Plans

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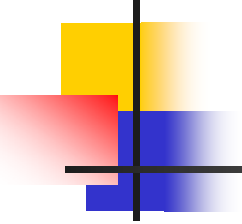


Why Develop STEM Plans?

An opportunity to:

- Identify strengths and weaknesses in the district
- Use data productively to make a difference
- Set measurable goals and objectives
- Create a vision for the district

Why Develop STEM Plans? con't.

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- Student knowledge and skills need improvement
 - Highly qualified teachers are limited
 - Limited understanding of the variety of career options in STEM fields
 - Significant need to increase the numbers of students pursuing STEM majors in college leading to more individuals to fuel the pipeline
 - Females and minorities are underrepresented in the field



How to begin ~

- Identify a team comprised of:
 - Teachers from various levels
 - Building administrators
 - Central office administrators
- Evaluate where you currently stand
- Examine the data
- Develop a vision, goals, and strategies
- Set a timeline
- Involve a business partner



Challenges

- Finding time for the team to meet
- Assessing curriculum and how it aligns to Massachusetts Frameworks
- Assessing course offerings
- Compiling and analyzing the data
- Teachers qualified and interested in teaching STEM subjects



Challenges, con't.

- Developing a clear and concise vision for STEM education in the district
- Setting measurable goals and objectives
- Identifying strategies which are:
 - Cost effective
 - Doable and feasible
 - Interesting and pertinent to students
- Identifying role of business partner
- Funding for initiatives



Opportunities

- In-depth look at STEM needs
- Cross grade level collaboration
- Initiatives linked to data identified needs
- Creates new offerings for teachers and students
- Increase student achievement in STEM subjects and on mandated testing



Opportunities, con't.

- Creative initiatives will advance interest in STEM majors and careers
- Provides a focus and direction for the district
- May make district eligible for state/grant funding



Successes

- Seven districts in the Northeast STEM Network developed plans which have helped shaped STEM education
- Their success led to the expansion of this initiative to six more districts and one charter school
- Begin the process by conducting an Assessment of Current Status form