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RESEARCH & EVALUATION
CEMSE | UNIVERSITY OF CHICAGO

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Identifying and Measuring STEM Schools and Programs

This material is based upon work supported by the National Science Foundation under Grant No. 1445592



What is a STEM School?



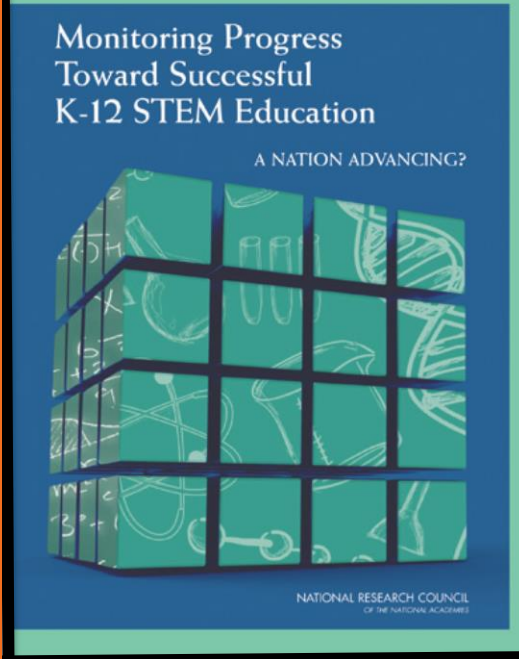
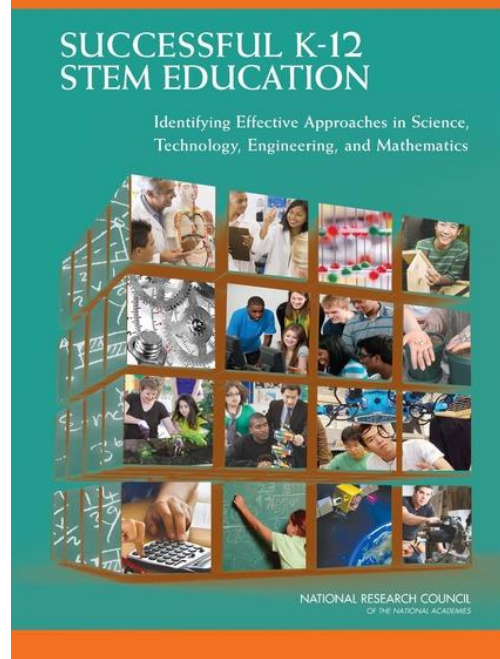
What is a STEM School?



What is a STEM School?



**What is
success?**



**How can we
measure
success?**

14 Indicators



Identifying and Measuring STEM Schools and Programs

K-12 STEM SCHOOL TAXONOMY

REQUIRED ATTRIBUTES

at least one

At least one of these is necessary for a STEM School designation.

NUMBER of S, T, E, M courses offered is greater than typical state and/or college admissions requirements (e.g. Advanced Calculus; AP Computer Science) **AND is required for ALL students in school.**

SCOPE of S, T, E, M courses is greater than typical state and/or college admissions (e.g. Computer Science, Engineering) **AND is required for ALL students in school.**

STEM is integrated throughout all STEM disciplines and core humanities/language arts courses that **ALL students in the school are required to take.**

ADDITIONAL COMPONENTS

no limit

These components further differentiate STEM schools.

S.T.E.M. (or S.T.E.M.-related)
SPECIFIC

PBL

Research
Experiences

Technology
Integration

Career
Connections

Early
College

Some
Integration

Internship and / or
Mentorship Opportunities

S.T.E.M.
Name

S.T.E.M.
Mission

Commitment to Spreading
S.T.E.M. Practices

NOT S.T.E.M. SPECIFIC

Personalization
of Learning

College Readiness Activities

Focus on 21st
Century Skills

Varied
Assessments

Shared
Culture

Partnerships and
Community Ties

Sustainability/
Improvement Plan

DESCRIPTIVE VARIABLES

These are descriptive qualities; they do not affect the STEM school designation.

SELECTION
(one or more)

Application -
Interest and Academic Evaluation

Application -
Interest and Lottery

No Application -
Assigned School (e.g. neighborhood)

STRUCTURE
(only one)

School within a school

Residential School

Whole STEM School

Cyber/online School

FUNDING

Private

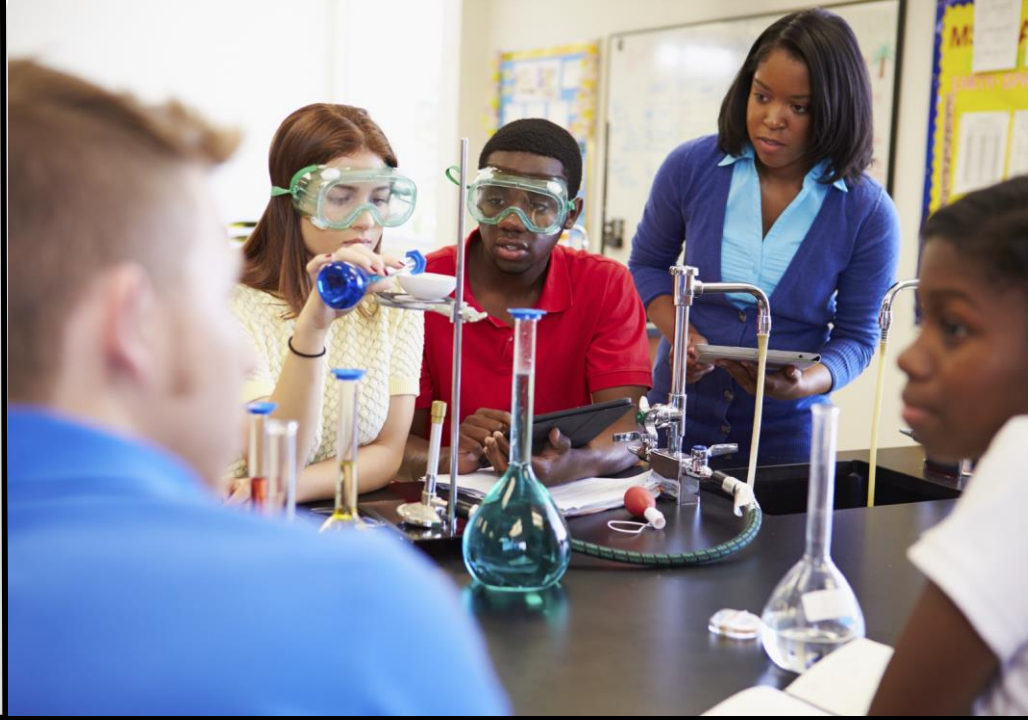
Public

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Recap:

All schools should have a high quality S.T.E.M. program.

STEM Schools should have **MORE**



To create STEM School opportunities for kids we all need to:

- **Communicate clearly and specifically**
- **Learn together**
- **Accumulate Knowledge**