

Design Tool 3.1: STEM School—Yes or No?

Directions: Do any of these qualify as good examples of a school STEM program or approach? When discussing this with colleagues, be ready to justify your thinking. (The eight criteria for STEM programs can help you make decisions if needed.)

School #1 wants to be recognized as a STEM middle school. The principal adds a computer programming course to its curriculum offerings, along with algebra and biology.

School #2 identifies itself as a STEM high school because it offers Advanced Placement and International Baccalaureate Programs in science and in mathematics.

School #3 decides to transform science classes into STEM classes and sends teachers to workshops purporting to prepare them for this task.

School #4 adds an engineering course to a curriculum that already offers honors courses in calculus, statistics, and the theory of knowledge.

School #5 offers a STEM elective during school and an after-school STEM program for students.

School #6 integrates student learning in all subjects, including STEM subjects, through a problem-based learning approach.

School #7 already offers math, science, and technology, so it simply declares itself a STEM school.

School #8 plans to involve all students in STEM. It sends science and math teachers to a workshop to learn about STEM and asks them to implement a lesson per quarter in their classes.

School #9 decides to offer a career fair featuring STEM occupations along with a robotics elective for students.

School #10 designates one teacher as a STEM teacher and offers STEM as an elective during the school day.