



Chapter 3 Design Tools

Design Tool 3.1: STEM Criteria Checklist

Directions for teachers: Use this as a checklist to help you keep track of how well STEM projects you design, or existing lessons you explore, meet these ten criteria for STEM projects. Keep in mind that each project does not need to meet every criterion, but over the course of your STEM program, see that your projects have addressed all of them.

✓	STEM Criteria
	1 Integrates and applies content and skills from the four STEM disciplines.
	2 Uses inquiry-based instruction and a problem-based learning approach.
	3 Involves students in addressing relevant real-world challenges.
	4 Uses an engineering design process for learning and problem-solving.
	5 Requires student collaboration and teamwork to plan, design, and create solutions.
	6 Focuses on developing life and leadership skills.
	7 Promotes clear and effective communication skills in multiple ways.
	8 Considers failure as a normal part of creating successful solutions.
	9 Includes all students, regardless of background, ability, gender, or ethnicity.
	10 Connects students to real situations, careers, and life applications.