



STEM Cluster Science & Mathematics Pathway



Elementary		Middle School	6 th Grade		7 th Grade		8 th Grade		
Integrated Lessons (KITS)*			Exploring Technology*		Invention & Innovation*		Technological Systems* Algebra I		
High School	9 th Grade		10 th Grade		11 th Grade		12 th Grade		
	English I		English II		English III		English IV		
	Geometry		Algebra II		Pre-Calculus, or Trigonometry		Trigonometry or Calculus		
	AP Biology		AP Chemistry I		AP Physics		Engineering Science		
	Geography/State History		World History		American History		Economics/Government		
	Required Courses/Electives PE, Health, Art, Foreign Language, or Computer Technology Career Electives Foundations of Technology * (Transition Course)		Required Courses/Electives PE, Health, Art, Foreign Language, or Computer Technology Career Electives Advanced Design Applications*		Advanced Technology/Engineering Electives Advanced Technological Applications*		Technology Capstone Engineering Design*		
Post-Secondary	Technology Center			Community College			College/University		
	<input type="checkbox"/> Automated Manufacturing Technology <input type="checkbox"/> Drafting and CAD <input type="checkbox"/> Electronics <input type="checkbox"/> Industrial Maintenance <input type="checkbox"/> Manufacturing Engineering Technology <input type="checkbox"/> Precision Machining			<input type="checkbox"/> Design Engineering Technology <input type="checkbox"/> Pre-Engineering <input type="checkbox"/> Industrial Drafting <input type="checkbox"/> Biology <input type="checkbox"/> Chemistry <input type="checkbox"/> Physics <input type="checkbox"/> Mathematics			<input type="checkbox"/> Mechanical Engineering <input type="checkbox"/> Civil Engineering <input type="checkbox"/> Mathematics <input type="checkbox"/> Biology <input type="checkbox"/> Biochemistry <input type="checkbox"/> Chemistry <input type="checkbox"/> Physics <input type="checkbox"/> Management Science and Systems Analysis		
Career Enhancement Options	Work-based Learning Options			Short-Term Training Options					
	Job-Shadowing: Internship/Mentorship: On-The-Job Training:			<input type="checkbox"/> Safety Training <input type="checkbox"/> Visual Basic 6 <input type="checkbox"/> Internet & Network Security			<input type="checkbox"/> Wireless Technology <input type="checkbox"/> VB Net <input type="checkbox"/> AutoCAD		

*These courses are part of the Engineering byDesign™ Program curriculum. More information is available at www.teachstem.org