



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		Required Courses/Electives PE, Health, Art, Foreign Language, or Computer Technology		Advanced Technology/Engineering Electives Advanced Technological Applications*		Technology Capstone Engineering Design*	
		Career Electives Foundations of Technology * (Transition Course)		Career Electives Advanced Design Applications*					
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