

STEM Endorsement

Science, Technology,
Engineering, & Math



Click to watch STEM video...

<http://www.youtube.com/watch?v=zgB-Diy8imo>



SCIENCE



TECHNOLOGY



ENGINEERING



MATH

HB 5 Video

<https://player.vimeo.com/video/85165185>



SCIENCE



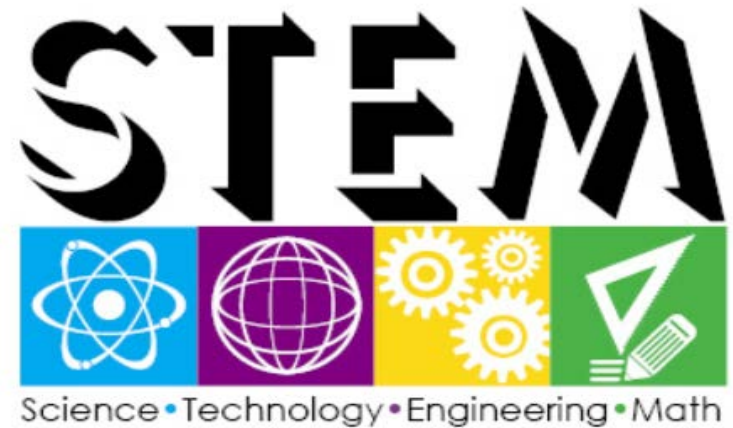
TECHNOLOGY



ENGINEERING



MATH



Overview

- This endorsement includes courses directly related to science, technology (including computer science), engineering, and advanced mathematics.
- You would choose this endorsement if you have an interest in or if you plan to study or pursue a career in one of the following areas:

Science

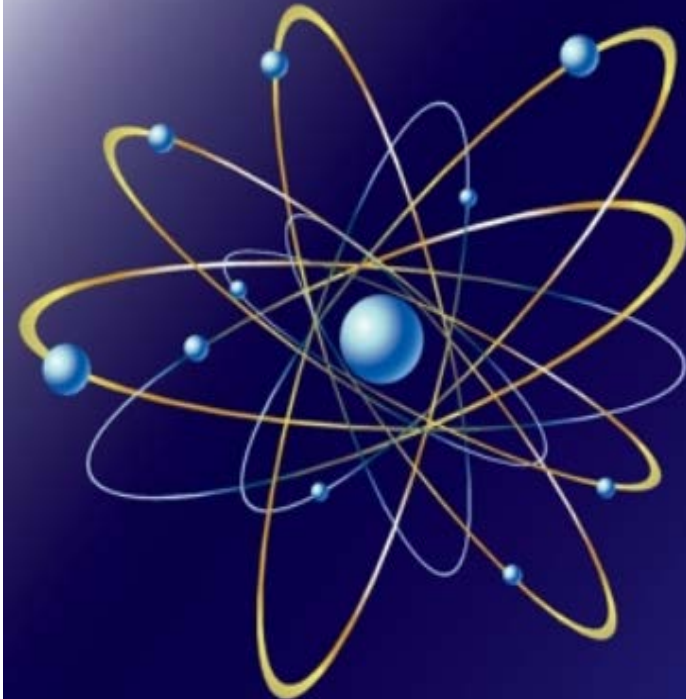
Possible career areas:

- Medical/Dental
- Marine Biology
- Environmental Science
- Forensic Science
- Physics



Advanced Science courses available:

- Biology, Chemistry, Physics, Environmental
- Aquatic, Forensic, Earth & Space, Astronomy
- Anatomy & Physiology
- Engineering Design & Problem Solving
- Advanced Animal



Technology

- **Computer Science**
 - **Possible career areas:**
 - Computer Programming/Analyst
 - Software Engineer
- **Courses available:**
 - Computer Programming K
 - AP Computer Science
 - Advanced Computer Science
 - Computer Science – Problems & Solutions





Engineering

- Possible career areas:
 - Civil
 - Chemical
 - Petroleum
 - Biomedical
 - Mechanical
 - Electrical
- Some of the courses available:
 - Concepts of Engineering
 - Engineering Design & Presentation; Adv. Engineering Design
 - Electronics; Robotics
 - Problems & Solutions in Technology Education
 - Engineering Design & Problem Solving K

Math

- Possible career areas:
 - Data Analyst
 - University Professor
 - Research Development
- Courses available:
 - Pre-Calculus
 - AP Calculus - AB or BC
 - AP Statistics
 - AQR K (Advanced Quantitative Reasoning)
 - Advanced Algebra
 - College Algebra K





Important!

All STEM endorsements must include:

Algebra II

Chemistry

Physics or AP Physics I

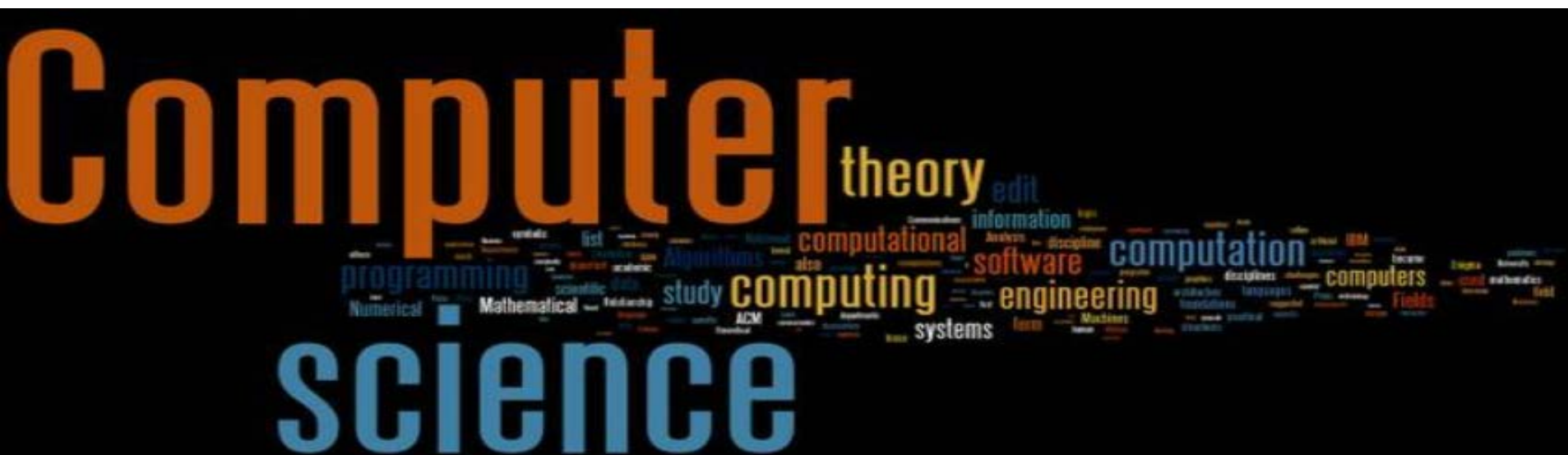
IN ADDITION TO the courses outlined in the
specific option chosen

The STEM endorsement can be earned by completing
one of the following 5 options:

Option 1: Computer Science

Students take **4** computer science courses:

- Computer Programming K
- Computer Science AP
- Advanced Computer Science
- Computer Science – Problems & Solutions



Option 2: Career & Technology Education (Engineering)

- Students earn 4 credits in the **STEM cluster**
- At least 1 of the courses must be an advanced level (3rd year or higher course in the sequence)
- Example:
 - Engineering Design
 - Robotics or Electronics
 - Adv. Engineering Design (2 credits)



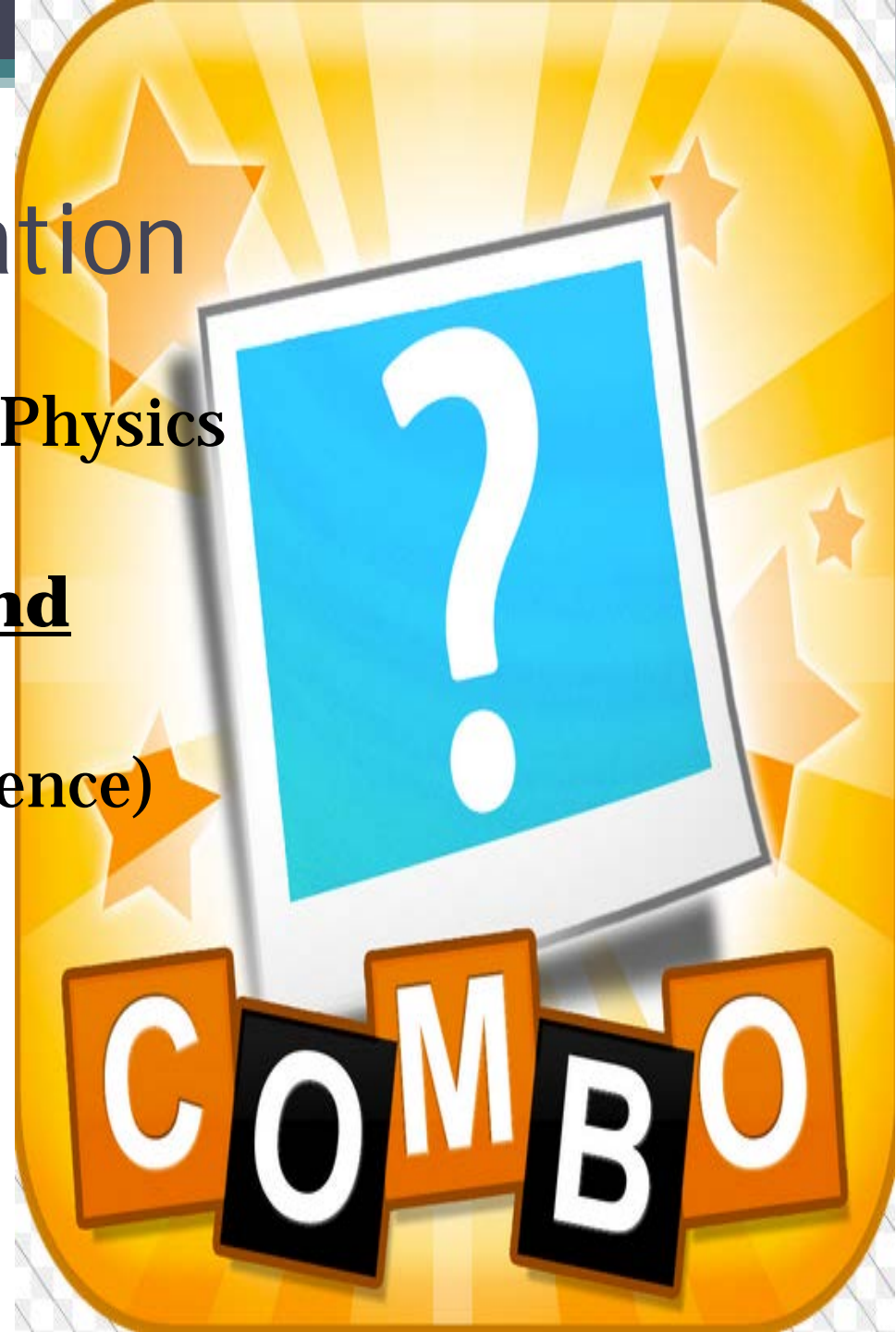
Options 3 & 4: Math & Science

- Option 3: Math
 - 5 credits: Algebra I, Geometry, & Algebra II **and** 2 courses for which Algebra II is a prerequisite
- Option 4: Science
 - 5 credits: Biology, Chemistry, & Physics or AP Physics I **and** 2 courses from the 3rd & 4th Science course list



Option 5: Combination

- Algebra II, Chemistry & Physics or AP Physics I
- 4th math & 4th science **and**
- **3** more credits from:
Option 1 (Computer Science)
and/or
Option 2 (Engineering)



Explore

STEM Careers – page 37



www.careercruising.com

- Careers
- Career Clusters
 - STEM
 - Related Majors, Programs of Study

Check out these other videos!

Science

- <http://www.youtube.com/watch?v=HtBl153jMcM>

Information Technology

- <https://corporate.target.com/careers/career-areas/information-technology>

review

- The STEM endorsement must include what three courses regardless of the option chosen?
- What are the 5 options available for the STEM endorsement?