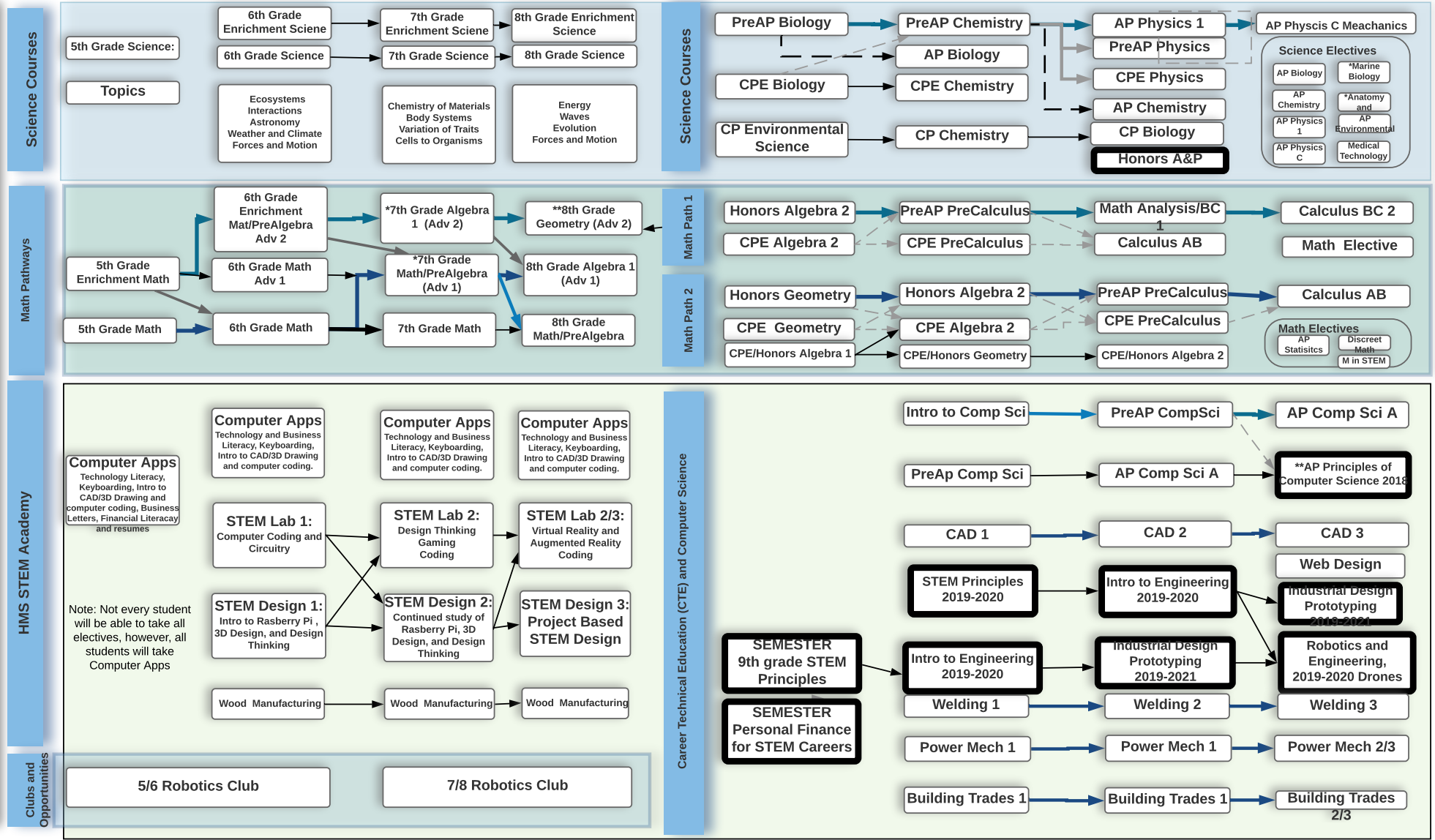




Hackensack Public Schools Science and Engineering Pathway 2018-2019

HMS STEM Course Offerings and Pathways



5th Grade

6th Grade

7th Grade

8th Grade

9th Grade

10th Grade

11th Grade

12th Grade

Science Courses

Math Pathways

HMS STEM Academy

Clubs and Opportunities

Science Courses

Math Path 1

Math Path 2

Career Technical Education (CTE) and Computer Science

5th Grade Science:

Topics

6th Grade Enrichment Science
6th Grade Science
Ecosystems Interactions
Astronomy
Weather and Climate Forces and Motion

7th Grade Enrichment Science
7th Grade Science
Chemistry of Materials
Body Systems
Variation of Traits
Cells to Organisms

8th Grade Enrichment Science
8th Grade Science
Energy Waves
Evolution
Forces and Motion

5th Grade Enrichment Math

5th Grade Math

6th Grade Enrichment Mat/PreAlgebra Adv 2
6th Grade Math Adv 1
6th Grade Math

*7th Grade Algebra 1 (Adv 2)
*7th Grade Math/PreAlgebra (Adv 1)
7th Grade Math

**8th Grade Geometry (Adv 2)
8th Grade Algebra 1 (Adv 1)
8th Grade Math/PreAlgebra

Computer Apps
Technology Literacy, Keyboarding, Intro to CAD/3D Drawing and computer coding, Business Letters, Financial Literacy and resumes

Computer Apps
Technology and Business Literacy, Keyboarding, Intro to CAD/3D Drawing and computer coding.

Computer Apps
Technology and Business Literacy, Keyboarding, Intro to CAD/3D Drawing and computer coding.

Computer Apps
Technology and Business Literacy, Keyboarding, Intro to CAD/3D Drawing and computer coding.

STEM Lab 1:
Computer Coding and Circuitry

STEM Lab 2:
Design Thinking
Gaming
Coding

STEM Lab 2/3:
Virtual Reality and Augmented Reality
Coding

STEM Design 1:
Intro to Rasberry Pi, 3D Design, and Design Thinking

STEM Design 2:
Continued study of Rasberry Pi, 3D Design, and Design Thinking

STEM Design 3:
Project Based STEM Design

Wood Manufacturing

Wood Manufacturing

Wood Manufacturing

5/6 Robotics Club

7/8 Robotics Club

SEMESTER 9th grade STEM Principles

SEMESTER Personal Finance for STEM Careers

Intro to Comp Sci

PreAp Comp Sci

CAD 1

STEM Principles 2019-2020

Intro to Engineering 2019-2020

Welding 1

Power Mech 1

Building Trades 1

PreAP CompSci

AP Comp Sci A

CAD 2

Intro to Engineering 2019-2020

Industrial Design Prototyping 2019-2021

Welding 2

Power Mech 1

Building Trades 1

AP Comp Sci A

**AP Principles of Computer Science 2018

CAD 3

Industrial Design Prototyping 2019-2020

Robotics and Engineering, 2019-2020 Drones

Welding 3

Power Mech 2/3

Building Trades 2/3

Science Electives
AP Biology
AP Chemistry
AP Physics 1
AP Physics C
*Marine Biology
*Anatomy and AP Environmental
Medical Technology

Math Electives
AP Statistics
Discreet Math
M in STEM