

PLTW PREK-12 CURRICULUM

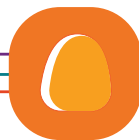


PLTW LAUNCH

PreK-5 **43 modules**
~12-14 hours each

Focus areas:

Life Science, Physical Science,
Earth & Space Science,
Biomedical Science, Computer
Science, Engineering

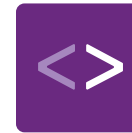


PLTW GATEWAY

6-8 **10 units**
~36-45 hours each

Focus areas:

Biomedical Science,
Computer Science,
Engineering



PLTW COMPUTER SCIENCE

9-12 **4 year-long high school courses**



PLTW ENGINEERING

9-12 **10 year-long high school courses**



PLTW BIOMEDICAL SCIENCE

9-12 **4 year-long high school courses**

PLTW PREK-12 CURRICULUM

PLTW LAUNCH

- PreK** Healthy Habits
Living and Nonliving Things
Floating and Sinking
Spatial Sense and Coding
- K** Structure and Function: Exploring Design
Pushes and Pulls
Structure and Function: Human Body
Animals and Algorithms
Sunlight and Weather
Living Things: Needs and Impacts
- 1** Light and Sound
Light: Observing Sun, Moon, and Stars
Animal Adaptations
Animated Storytelling
Designs Inspired by Nature
- 2** Materials Science: Properties of Matter
Materials Science: Form and Function
Grids and Games
The Changing Earth
Living Things: Diversity of Life
- 3** Stability and Motion: Science of Flight
Stability and Motion: Forces and Interactions
Variation of Traits
Programming Patterns
Weather Factors and Hazards
Life Cycles and Survival
Environmental Changes
- 4** Energy: Collisions
Energy: Conversions
Input/Output: Computer Systems
Input/Output: Human Brain
Waves and Properties of Light
Organisms: Structure and Function
Earth: Past, Present, and Future
Earth: Human Impact and Natural Disasters
- 5** Robotics and Automation
Robotics and Automation: Challenge
Infection: Detection
Infection: Modeling and Simulation
Matter: Properties and Reactions
Ecosystems: Flow of Matter and Energy
Patterns in the Universe
Earth's Water and Interconnected Systems

PLTW GATEWAY

- Medical Detectives
- App Creators
- Computer Science for Innovators and Makers
- Automation and Robotics
- Design and Modeling
- Energy and the Environment
- Flight and Space
- Green Architecture
- Magic of Electrons
- Science of Technology

Focus Areas

- Computer Science
- Engineering
- Biomedical Science

PLTW COMPUTER SCIENCE

- Computer Science Essentials
- Cybersecurity
- Computer Science Principles
- Computer Science A

PLTW ENGINEERING

- Engineering Essentials
- Introduction to Engineering Design
- Principles of Engineering
- Aerospace Engineering
- Civil Engineering and Architecture
- Computer Integrated Manufacturing
- Digital Electronics
- Environmental Sustainability
- Computer Science Principles
- Engineering Design and Development

PLTW BIOMEDICAL SCIENCE

- Principles of Biomedical Science
- Human Body Systems
- Medical Interventions
- Biomedical Innovation