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