PLTW Launch Modules Overview K-5

North Carolina Computer Science Standards

This Module Overview highlights the PLTW Launch Modules with the most connections to Computer Science through the NC Computer Science Standards.

All PLTW Launch Modules contain connections to this body of standards, and more detail on all modules can be found in the PLTW Launch Standards Guide for NC Computer Science.

PLTW Launch Modules have been thoughtfully connected to standards for North Carolina educators. Identified for each grade level, are PLTW Launch Modules that are the "best-fit" for the North Carolina Science Standards; for consistency, the same modules are used in this guide. When grade level suggestions vary from the intended grade level it is shown like this: *Light and Sound (1)* to indicate that the module was originally developed for use in 1st Grade.

North Carolina educators also have the flexibility to utilize the PLTW Launch Modules in the grade level that works best for their students.

PLTW Computer Science

PLTW Engineering

Please note: The information included in this document is subject to change. As with all course materials, we will continue to update as more information becomes available.

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LAUNCH North Carolina K-5 Modules Overview

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

Infection: Detection

Robotics and Automation: Challenge

PLTW LAUNCH Computer Science		Essential Questions	NC Computer Science Standards
K	Animals and Algorithms	How do you use algorithms in your daily life? How can you use computer programming to complete a task? How can a step-by-step process help you design or improve a solution to a problem?	K2-CS-03 K2-NI-03 K2-AP-02➔05 K2-AP-07, 08 K2-IC-03, 04
1	Animated Storytelling	In what ways can stories be told using different tools? How does technology impact our lives? How can collaboration help you design or improve a solution to a problem?	K2-CS-02➔04 K2-NI-02, 03 K2-DA-01 K2-AP-01➔08 K2-IC-01 K2-IC-03, 04
2	Grids and Games	How can learning from others help you design or improve a solution to a problem? In what ways can computer science impact our lives?	K2-CS-02➔04 K2-NI-02, 03 K2-DA-01 K2-AP-02➔08 K2-IC-01 K2-IC-03, 04
3	Programming Patterns	How does technology impact our lives? How can a step-by-step process help you design or improve a solution to a problem?	35-CS-02, 03 35-NI-02 35-AP-01 35-AP-03➔06 35-AP-08 35-AP-10➔12
4	Input/Output: Computer Systems	How does technology impact our lives? In what ways do computing systems work together to accomplish tasks? How can a step-by-step process help you design or improve a solution to a problem?	35-CS-02, 03 35-NI-01, 02 35-AP-01➔12 35-IC-02, 03
5	Robotics and Automation: Challenge	How can autonomous robots be used to help people? How can a step-by-step process help you design or improve a solution to a problem?	35-AP-01 25-AP-03➔06 35-AP-08 35-AP-10➔12 25-IC-01
	Infection: Modeling and Simulation	How do computer models and simulations help us make sense of scientific phenomena? In what ways can computer models and simulations be used to predict outcomes? How can a step-by-step process help you design or improve a solution to a problem?	35-DA-03, 04 35-AP-01➔12