



PLTW Launch Modules Overview K-5

Computer Science

Florida's State Academic Standards for Computer Science

This curriculum guide highlights the PLTW Launch Modules with the most connections to Computer Science through Florida's State Academic Standards for Computer Science.

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.






PLTW Launch Modules have been thoughtfully connected to Florida's State Academic Standards for Computer Science for use by Florida educators. Each grade level shows the PLTW Launch Modules that are the "best-fit" for the 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.


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



 **PLTW**

LAUNCH K-5 Modules Overview

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

		Essential Questions	CSTA	
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?	SC.K.CC.1.1 SC.K.HS.1.3, 1.4 SC.K.CO.1.3, 1.4	SC.K.PE.1.1, 1.2 SC.K.PE.3.1 →4 SC.K.TI.1.1
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?	SC.1.CC.1.1 SC.1.CO.1.1, 1.2 SC.1.CO.1.5	SC.1.PE.1.1 SC.1.PE.3.1, 3.2 SC.1.RI.2.1
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?	SC.2.HS.1.2 SC.2.HS.1.3 SC.2.HS.2.1	SC.2.PE.1.1 SC.2.PE.3.1, 3.2 SC.2.TI.1.1, 2
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?	SC.3.CC.1.1, 1.2 SC.3.CC.2.2 SC.3.HS.1.3 SC.3.HS.2.2	SC.3.CO.1.5 SC.3.PE.1 SC.3.PE.2 SC.3.PE.3.2, 3.3
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?	SC.4.CC.1.1 → 4 SC.4.HS.1.4 SC.4.HS.2.1 SC.4.CO.1.2, 3 SC.4.CO.1.5, 1.7	SC.4.PE.1.2, SC.4.PE.2.1, 2.2 SC.4.PE.3.1 SC.4.TI.1.2
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?	SC.5.CC.1.2 SC.5.CC.1.3	SC.5.PE.1.4
	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?	SC.5.CC.1.2 SC.5.CC.1.3 SC.5.CO.1.2	SC.5.PE.1.4 SC.5.PE.2.2 SC.5.PE.3.1 SC.5.TI.1.1, 2