PLTW Launch Modules Overview K-5 IL Computer Science Standards

PLTW Launch Modules integrate Science, Engineering, Computer Science, ELA, and Math. This Module Overview highlights the PLTW Launch Modules that focus on Computer Science and provide the greatest number of connections to the IL Computer Science Standards. All modules contain connections to this body of standards; more detail on all modules can be found in the PLTW Launch Standards Guide for IL Computer Science.

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 become



PLTW Computer Science

PLTW Engineering









LAUNCH K-5 Modules Overview

	Physical Science	Life Science	Earth and Space Science	Engineering	Computer <>
Κ	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 Animal by Nature Adaptations	Light: Observing the Sun, Moon, and Stars		Animated Storytelling
2	Materials Science:MaterialsProperties of MatterScience: Form and Function	Living Things: Diversity of Life	The Changing Earth		Grids and Games
3	Stability andStability andMotion:Motion:Forces andScience ofInteractionsFlight	Variation of Environmental Life Cycles and Traits Changes Survival	Weather: Factors and Hazards		Programming Patterns
4	Energy Exploration Exploration Exploration Exploration	Organisms: Structure Input/Output: and Function 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	Earth's Patterns in the Water and Universe Interconnected Systems	Robotics and Automation: Infection: Detection	Robotics and Automation: Challenge Infection: Modeling and Simulation



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Computer Science		Essential Questions	IL 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?	K-2.CS.01 K-2.AP.09 → 12	K-2.AP.14, 15 K-2.AP.17, 18
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?	K-2.CS.01 → 03 K-2.NI.04 K-2.DA.05	1A-AP.08 → 15 1A-IC.16 → 18
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?	K-2.CS.01 → 03 K-2.NI.04 K-2.DA.05	K-2.AP.09 → 15 K-2.IC.16 → 18
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?	3-5.CS.02, 03 3-5.NI.05 3-5.AP.08	3-5.AP.10, 11 3-5.AP.13 3-5.AP.15 → 17
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?	3-5.CS.01 → 03 3-5.NI.04, 05 3-5.DA.06, 07	3-5.AP.08 → 17 3-5.AP.19, 20
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?	3-5.CS.01, 03 3-5.NI.05 3-5.AP.08, 10 → 13	3-5.AP.15, 17 3-5.IC.18 3-5.ET.B
	Modeling and	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?	3-5.CS.03 3-5.NI.05 3-5.DA.06, 07	3-5.AP.08 → 17 3-5.IC.20

