PLTW Launch Modules Overview K-5

WA Computer Science

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 Washington State Computer Science K-12 Learning 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 the WA 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 becomes

PLTW
Computer Science

PLTW
Engineering

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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

PLTW LAUNCH Computer Science		Essential Questions	Washington State Computer Science K-12 Learning 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?	1A-CS-01 1A-AP-09 → 12	1A-AP-14, 15 1A-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?	1A-CS-01 → 03 1A-NI-04 1A-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?	1A-CS-01 → 03 1A-NI-04 1A-DA-05	1A-AP-09 → 15 1A-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?	1B-CS-02, 03 1B-NI-05 1B-AP-08	1B-AP-10, 11 1B-AP-13 1B-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?	1B-CS-01 → 03 1B-NI-04, 05 1B-DA-06, 07	1B-AP-08 → 17 1B-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?	1B-CS-01, 03 1B-NI-05	1B-AP-08, 10 → 13 1B-AP-15, 17 1B-IC-18
	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?	1B-CS-03 1B-NI-05 1B-DA-06, 07	1B-AP-08 → 17 1B-IC-20