



PLTW Launch Standards Guide

Ohio's Learning Standards and Model
Curriculum - Science



PLTW Launch (PreK-5) is designed to support your science learning needs. The modules are developed to ensure an unmatched experience, combining three-dimensional learning; unique, problem-based instructional approach; real-world applied learning; as well as Spanish language options – all in one program.

This Standards Guide shows how each PLTW Launch module supports Ohio's Learning Standards and Model Curriculum - Science. Because schools need the flexibility to implement the curriculum in the way that best meets their students' needs, PLTW Launch is designed to support a wide range of implementations. Whether the modules are offered in all classrooms, as a specials rotation, as grade level rotations, as an after-school program, or even as a summer learning implementation, PLTW Launch offers the flexibility to meet your needs.

The module charts below provide a single-grade, up or down shift in the grade level recommendations to represent the range of school needs across the country.

Use this Standards Guide in combination with the [Module Descriptions PDF](#) as planning tools to explore how you can implement PLTW Launch as your elementary learning solution.



Kindergarten

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	K.ESS.1	Weather changes are long-term and short-term.	Sunlight and Weather (K)
	K.ESS.2	The moon, sun and stars can be observed at different times of the day or night.	Light: Observing the Sun, Moon and Stars (1)
Physical Science (PS)	K.PS.1	Objects and materials can be sorted and described by their properties.	Living Things: Needs and Impacts (K)
	K.PS.2	Some objects and materials can be made to vibrate to produce sound.	Light and Sound (1)
Life Science (LS)	K.LS.1	Living things have specific characteristics and traits.	Living Things: Needs and Impacts (K)
	K.LS.2	Living things have physical traits and behaviors, which influence their survival.	Designs Inspired by Nature (1)

First Grade

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	1.ESS.1	The sun is the principal source of energy.	Sunlight and Weather (K)
	1.ESS.2	Water on Earth is present in many forms.	The Changing Earth (2)
Physical Science (PS)	1.PS.1	Properties of objects and materials can change.	Materials Science: Properties of Matter (2)
	1.PS.2	Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth.	Pushes and Pulls (K)
Life Science (LS)	1.LS.1	Living things have basic needs, which are met by obtaining materials from the physical environment.	Living Things: Needs and Impacts (K) Living Things: Diversity of Life (2)
	1.LS.2	Living things survive only in environments that meet their needs.	Living Things: Needs and Impacts (K)

Second Grade

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	2.ESS.1	The atmosphere is primarily made up of air.	Weather: Factors and Hazards (3)
	2.ESS.2	Water is present in the atmosphere.	Standard not currently supported.
	2.ESS.3	Long- and short-term weather changes occur due to changes in energy	Weather: Factors and Hazards (3)
Physical Science (PS)	2.PS.1	Forces changes the motion of an object,	Stability and Motion: Forces and Interactions (3)
Life Science (LS)	2.LS.1	Living things cause changes on Earth.	Environmental Changes (3)
	2.LS.2	All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms today.	Environmental Changes (3)

Third Grade

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	3.ESS.1	Earth’s nonliving resources have specific properties.	Standard not currently supported.
	3.ESS.2	Earth’s resources can be used for energy.	Earth: Human Impact and Natural Disasters (4)
	3.ESS.3	Some of Earth’s resources are limited.	Earth: Human Impact and Natural Disasters (4)
Physical Science (PS)	3.PS.1	All objects and substances in the natural world are composed of matter.	Materials Science: Properties of Matter (2)
	3.PS.2	Matter exists in different states, each of which has different properties.	Materials Science: Properties of Matter (2)
	3.PS.3	Heat, electrical energy, light, sound and magnetic energy are forms of energy.	Energy Exploration (4)
Life Science (LS)	3.LS.1	Offspring resemble their parents and each other.	Variation of Traits (3)
	3.LS.2	Individuals of the same kind of organism differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing.	Variation of Traits (3) Organisms: Structure and Function (4)
	3.LS.3	Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.	Life Cycles and Survival (3)

Fourth Grade

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	4.ESS.1	Earth's surface has specific characteristics and landforms that can be identified.	Earth: Past, Present, and Future (4) Earth's Water and Interconnected Systems (5)
	4.ESS.2	The surface of Earth changes due to weathering.	Earth: Past, Present and Future (4)
	4.ESS.3	The surface of Earth changes due to erosion and deposition.	Earth: Past, Present and Future (4)
Physical Science (PS)	4.PS.1	When objects break into smaller pieces, dissolve, or change state, the total amount of matter is conserved.	Matter: Properties and Reactions (5)
	4.PS.2	Energy can be transferred from one location to another or can be transformed from one form to another.	Energy Exploration (4)
Life Science (LS)	4.LS.1	Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.	Environmental Changes (3)
	4.LS.2	Fossils can be compared to one another and to present-day organisms according to their similarities and differences.	Environmental Changes (3)

Fifth Grade

		Content Statement	PLTW Launch Modules
Earth and Space Science (ESS)	5.ESS.1	The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics	Patterns in the Universe (5)
	5.ESS.2	The sun is one of many stars that exist in the universe.	Patterns in the Universe (5)
	5.ESS.3	Most of the cycles and patterns of motion between the Earth and sun are predictable.	Patterns in the Universe (5)
Physical Science (PS)	5.PS.1	The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.	Energy Exploration (4)
	5.PS.2	Light and sound are forms of energy that behave in predictable ways.	Waves and the Properties of Light (4)
Life Science (LS)	5.LS.1	Organisms perform a variety of roles in an ecosystem.	Ecosystems: Flow of Matter and Energy (5)
	5.LS.2	All of the processes that take place within organisms require energy.	Ecosystems: Flow of Matter and Energy (5)