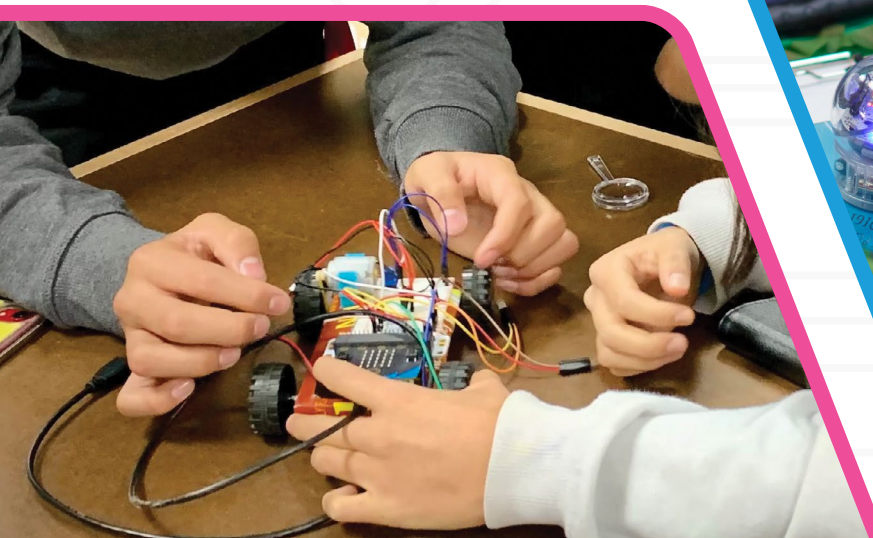




STEM Education Works®

Scope & Sequence

Sphero BOLT/BOLT+ - Elementary
Foundations of Design and Innovation



Sphero BOLT/BOLT+ – Elementary Foundations of Design and Innovation

Sphero BOLT/BOLT+ – Elementary Foundations of Design and Innovation	Grade Band	Unit	Overview
	K-5	Meet the Technology	Students learn coding and robotics with this maze-following activity, introducing block coding basics to students of all levels. This unit serves as a foundation for the rest of the course.
	K-1	Which Way?	Students learn the importance of simple, concrete directions as they break larger code into smaller tasks. Then they use their knowledge of directions to lead their teammates through a maze.
	K-1	The Ugly Duckling	In this integrated literacy and science activity, students guide Sphero BOLT/BOLT+ (as the ugly duckling) through various habitats, applying their knowledge of animal life cycles to reunite him with his family.
	2-3	Coding My Way to the Game	Students physically code a basketball game by breaking down complex tasks into smaller ones before taking on the role of a city planner, maneuvering around closed roads and roadblocks to ensure Sphero BOLT/BOLT+ reaches the game on schedule.
	4-5	Sphero Bowling	Students explore block coding fundamentals while constructing a bowling alley with an automatic return and adding a playful twist by using Sphero BOLT/BOLT+ as the bowling ball.
	4-5	Sphero Solar System	Students explore the scale of the solar system, including the sizes and relative distances of the planets from the sun. Students also explore a scale model and the rotations of the planets.

Sphero BOLT/BOLT+ – Elementary Foundations of Design and Innovation	NGSS Standards Alignment	NGSS Discipline	Connected Subjects	Time Required
	3-5-ETS1-3	Engineering, technology, and applications of science	Science, math, SEL, movement	1.5 hours
	K-PS2-1 K-2-ETS1-2	Engineering, technology, and applications of science	ELA, science, social studies, art, SEL, movement	3 hours
	1-LS1-2 1-LS3-1 K-2-ETS1-2	Life science	ELA, science, social studies, art, SEL, movement	3 hours
	K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Engineering, technology, and applications of science	ELA, science, math, social studies, SEL	3 hours
	3-PS-1 3-PS2-2 3-5-ETS-1	Engineering, technology, and applications of science	Science, math, SEL, movement	2.5 hours
	5-ESS1-1 3-5-ETS-1-1 3-5-ETS1-3	Earth and space science	ELA, science, math, SEL, movement	2.5 hours



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