



STEM Education Works®

Scope & Sequence

Circuitry with littleBits - Foundations of Design and Innovation



CIRCUITRY WITH LITTLEBITS – Foundations of Design and Innovation

	Grade Band	Unit	Overview
CIRCUITRY WITH LITTLEBITS – Foundations of Design and Innovation	K-5	Meet littleBits	Students design a self-driving vehicle in order to be prepared for the rest of the units in this module.
	K-1	Jack's Treasure Hunt	Using the fairy tale <i>Jack and the Beanstalk</i> , students use littleBits to create a circuit and illuminate a beanstalk to help Jack retrieve the giant's treasure.
	2-3	Animal Adaptations	Is there anything cuter than a sloth? There is much more than meets the eye with these slow-moving, furry creatures. Students investigate how sloths and other animals use their senses to survive. They use littleBits to create a device to help an injured sloth find food
	4-5	Current Energy	Batteries go dead. Light bulbs go out. A campfire dwindles to nothing. Students learn that energy never actually disappears, but rather changes into a new form. They design a circuit that demonstrates one or more types of energy conversion.



NGSS Standards Alignment	NGSS Discipline	Connected Subjects	Time Required
3-5-ETS1-2 4-PS5	Engineering, technology, and applications of science	ELA, science, SEL	1.5 hours
1-PS4 K-2-ETS1-1	Physical science	ELA, science, SEL, movement	2.5 hours
2-LS4-1 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Life science	ELA, science, social studies, SEL, movement	5 hours
4-PS3-2 4-PS3-4 3-5-ETS1-1	Physical science	ELA, science, math, social studies, SEL	2.5 hours

