

Science and Engineering Practices of the Next Generation Science Standards

In 2012 the National Research Council (NRC) released the *Framework for K–12 Science Education*, which describes the key practices, crosscutting concepts, and core ideas that all students should learn by the end of high school. This document served as the foundation for the *Next Generation Science Standards* (NGSS) published in 2013. The NRC identified eight scientific and engineering practices that are an essential part of science learning. Every *AfterSchool KidzScience* kit is intentionally designed to focus on a set of science content learning goals appropriate for out-of-school time. The grid below offers an at-a-glance view of how these practices are supported by the *AfterSchool KidzScience* kits.

		Asking Questions and Defining Problems	Developing and Using Models	Planning and Carrying Out Investigations	Analyzing and Interpreting Data	Using Mathematics and Computational Thinking	Constructing Explanations and Defining Solutions	Engaging in Argument from Evidence	Obtaining, Evaluating, and Communicating Information
Physical Science	Bubbles	✓		✓	✓	✓	✓		
	Falling and Flying	✓	✓	✓			✓		
	Magnets	✓		✓					
	Oobleck	✓	✓	✓			✓		
Life Science	Beach Science	✓	✓	✓	✓		✓		✓
	Colors in Nature	✓	✓				✓	✓	
	Exploring Habitats			✓	✓		✓		
	Predators and Prey		✓		✓		✓	✓	
Green Science	Alternative Energy	✓	✓	✓	✓		✓		
	Food from Plants	✓						✓	
	Fresh Water		✓	✓	✓	✓			✓
	Waste Not	✓	✓		✓			✓	✓
Forensic Science	Crime Lab Science	✓			✓		✓	✓	✓
	Mystery Detectives	✓	✓	✓	✓		✓	✓	✓
Earth & Space Science	Sunlight Science	✓	✓	✓	✓		✓		