

Classroom Ecosystem Explorer (CEE) • Sequence of Concepts Taught • K-3 Science

	September				April				June	
Area of Study	Physical Science -----									
Topic	States of Matter ----- <div>Force &amp; Motion ----- Kinetic &amp; Potential Energy -----</div>									
Big Idea	Constancy & Change		Systems  Constancy & Change	Constancy & Change	Cause & Effect			Conservation	Cause & Effect	
Concept	Matter has properties and characteristics	Matter comes in different states	Matter takes up space	Temperature affects matter in different ways	Force causes motion		Energy is stored and energy is released	Energy changes from one form to another	Simple machines make work easier	
Experiences	- Categorizing solids - Representing properties of solids using body motions or poses	- Collecting, sorting and categorizing solids and liquids - Experimenting with liquids, solids and gases	- Experimenting with filling jars with rocks, sand and water	- “Dancing Molecules” Using movement to represent molecules in different forms of matter	- Experimenting with force and motion—rolling large water bottles across the floor, using swings and other play equipment, setting up inclined planes	- Setting up inclined planes - Building ramps for a model roller coaster	- Building and testing a model roller coaster and explaining how it works	- Building and testing a model roller coaster and explaining how it works - Running up and down a hill and labeling potential and kinetic energy	- Performing tasks with and without using simple machines and comparing - Observing simple machines and taking them apart - Visiting a theme park and going on rides that are simple machines -Adding simple machines to roller coaster project	
Video	<i>Make Your Body a Rough Piece of Wood</i> (Kinesthetic Representation)	<i>What is the World Made Of?</i> (Thirdhand Experiences)	<i>Rocks and Sand and Awesome Scientists</i> (Secondhand Experiences)  <i>Rocks and Sand and Awesome Scientists 2</i> (2-Dimensional Representation)		<i>Lunchtime Planning</i> (Formal Planning)  <i>Water Wheels</i> (Oral Textual Representation)	<i>The Project</i> (Project Planning)  <i>The Roller Coaster</i> (Student-Student Culture)  <i>The Roller Coaster 2</i> (3-Dimensional Representation)	<i>Alex Being Forthright – and Mistaken</i> (Teacher-Student Culture)	<i>Potential, Potential, Potential</i> (Flexible Planning)	<i>Simple Machines Make Work Easier</i> (Firsthand Experiences)  <i>The Project</i> (Project Planning)	