








LEGO® All-Ages DANCE PARTY	LEGO® Education Lesson Resources	Science: Force and Motion	Computer Science: Algorithmic Thinking	Concept: Cause and Effect
	STEAM Park Gears Include Minifigs in the build so they, too, can dance!	Grades PK-2 —Investigate how pushing on an object can change the speed or direction of its motion, and start or stop its movement. How do gears of different sizes push each other? Which sizes move faster or slower?	Grades PK-2 —Create and follow algorithms (sets of step-by-step instructions) to complete tasks. Have students line up the gears in a row and place them so that when they move one of the gears, all the gears move.	Grades PK-2 —Design and perform tests to gather evidence to support or refute student ideas about causes. What happens when you interlock a large gear with a small gear? What happens when you interlock two gears of the same size?
	BricQ Motion Essential Get Up and Dance		—Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.	
	SPIKE™ Essential Classic Carousel	Grades 3-5 —Demonstrate and explain that objects push on one another when they touch and that this can change their motion.	Grades 3-5 —Compare and refine multiple algorithms for the same task and determine which is the most appropriate.	Grades 3-5 —Identify and test causal relationships and use these relationships to explain change.
	BricQ Motion Essential Cheering Crowd	What is the relationship between force and motion?	How can you iterate on (change and improve) the build or the code?	Can you explain How and Why the build moves as it does?
	WeDo 2.0 Make a Dancing Robot	Grades 6-8 —Explain, using evidence from the model, that when two objects interact, each one exerts a force on the other, and these forces can transfer energy between them. Create a diagram from the model that shows the direction of forces.	Grades 6-8 —Compare and refine multiple algorithms for the same task and determine which is the most appropriate. How will you define or determine “most appropriate” or “best”?	Grades 6-8 —Classify relationships as causal or correlational. Use cause and effect relationships to predict phenomena in designed systems.
	SPIKE™ Essential Twirling Teacups		—Demonstrate ways a given algorithm applies to problems across disciplines. How can this build and code be applied to authentic products/processes?	
	SPIKE™ Prime Break Dance		—Describe choices made during program development using code comments and demonstrations.	