CTE Career Clusters

LEGO® Education has aligned LEGO Learning Solutions and Lesson Plans to
5 of the 15 Career and Technology Education (CTE) Career Clusters for students PK-Grade 6
to explore careers through hands-on playful learning.

CTE Career Clusters Overview

CTE Career Cluster	Description	Occupations	Pathways
Health Science	Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.	Dentist, Pharmacist, Psychologist, Social Worker, Veterinarian, Animal Behavioralist	Therapeutic Services Diagnostics Services Health Informatics Support Services Biotechnology Research and Development
Manufacturing	Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering	Design Engineer, Machine Operator, Safety Engineer, Environmentalist	Production Manufacturing Production Process Development Maintenance, Installation & Repair Quality Assurance Logistics & Inventory Control Health, Safety and Environmental Assurance
Information Technology	Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services	Game developer, Programmer, Information Technology Engineer, Blog Developer	Network Systems Information Support and Services Web and Digital Communications Programming and Software Development
Transportation, Distribution and Logistics	Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance	Logistical Engineer, Air Traffic Controllers, Commercial Pilots, Civil Engineers, Automotive or Marine Mechanics	Transportation Operations Logistics Planning and Management Services Warehousing and Distribution Center Operations Facility and Mobile Equipment Maintenance Transportation Systems/ Infrastructure Planning, Management, and Regulation Health, Safety and Environmental Management Sales and Service
STEM	Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services	Zoologist, Ecologist, Architectural Engineer, Aerospace Engineer, Environmental Engineer	Engineering and Technology Science and Math

CTE Career Clusters, PreK and KDG

			Recommended LEGO Education Learning System Lessons - PreK and KDG		
LEGO Learning Solution	**Health Science**	**Manufacturing**	**Information Technologies**	**Transportation, Distribution, Logistics**	**STEM**
Coding Express	Music – Animal Concert		First Trip	First Trip	
			O-Shaped Track - Looping	Train Sound	
			Y-Shaped Track – Conditional Statements	Journey – Troubles on the Road	
STEAM Park		Functional Elements			Gears
					Chain Reaction
		Gears			Probability
Tech Machines		Wheeling Away	Explore Helping Machines	Water Vehicles	Park Project
		Safety First			
		Heavy Load			Machines with a Purpose
		Explore Special Machine Parts			
My XL World			Build My Community		
	Healthcare Workers			Traveling Around	Trash Recycling
	A Helping Hand				

CTE Career Clusters, Grades 1-5

	Recommended LEGO Education Learning System Lessons, Grades 1-5				
LEGO Learning Solution	**Health Science**	**Manufacturing**	**Information Technologies**	**Transportation, Distribution, Logistics**	**STEM**
SPIKE™ Essential Grades 1-2	Illumination 1	Treehouse Camp 1-2	Arctic Ride 1-2	Underwater Quest 1-2	Communicate with Light and Sound 1
			Animal Alarm 1-2		Classify and Choose Materials 2
	Musical Vibration 1	The Perfect Swing 1-2	Underwater Quest 1-2	The Fast Lane 1-2	Protection from Wind 2
			Treehouse Camp 1-2		
SPIKE™ Essential Grades 3-5	Life Cycles	Big Little Helper 3-5	Big Little Helper 3-5	Taxi! Taxi!	Mini Mini Golf 3-5
					A-Maze-Ing 3-5
	How Eyes See	Trash Monster 3-5	Winning Goal 3-5	Hovering Helicopter	Avoid the Edge 3-5
					Solving Problems When Environments Change 3
	Animal Behavior	Loads of Laundry 3-5	Literary Randomizer 3-5	Swamp Boat	Energy Resources 4
				Big Bus	Prepare for Natural Hazards 4
	Animal Structures		Information Transfer 4	Get Around Town	Protect the Environment 5

CTE Career Clusters, Grades 6-8

Recommended LEGO Education Learning System Lessons, Grades 6-8					
LEGO Learning Solution	Health Science	Manufacturing	Information Technologies	Transportation, Distribution, Logistics	STEM
SPIKE Prime	Design for Someone	Super Cleanup	Broken	Track Your Packages	Hopper Race
		Broken	Keep It Safe		
	Stretch With Data	Place Your Order		Automate It!	Broken
		Automate It!	Keep It Really Safe!		
SPIKE Prime Combined		Protect Our Produce			SMART House: Go Green