



Main Criteria: California Content Standards

Secondary Criteria: LEGO® Education BricQ Motion Prime, LEGO® Education SPIKETM Prime

Subject: Technology Education

Grades: 6, 7, 8

Correlation Options: Show Correlated

California Content Standards

Technology Education

Grade: 6 - Adopted: 2018

CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P3.	Core Practice 3 – Recognizing and Defining Computational Problems
EXPECTATION / SUBSTRAND	P3.2.	Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures. <u>LEGO® Education SPIKETM Prime</u> Kickstart A Business: Place Your Order
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P4.	Core Practice 4 – Developing and Using Abstractions
EXPECTATION / SUBSTRAND	P4.1.	Extract common features from a set of interrelated processes or complex phenomena. <u>LEGO® Education SPIKETM Prime</u> Competition Ready: Mission Ready Competition Ready: The Guided Mission Kickstart A Business: Track Your Packages
EXPECTATION / SUBSTRAND	P4.2.	Evaluate existing technological functionalities and incorporate them into new designs. <u>LEGO® Education SPIKETM Prime</u> Competition Ready: Mission Ready Competition Ready: The Guided Mission Kickstart A Business: Track Your Packages
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P5.	Core Practice 5 – Creating Computational Artifacts
EXPECTATION / SUBSTRAND	P5.1.	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations. <u>LEGO® Education SPIKETM Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps

EXPECTATION / SUBSTRAND	P5.2.	Create a computational artifact for practical intent, personal expression, or to address a societal issue. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
EXPECTATION / SUBSTRAND	P5.3.	Modify an existing artifact to improve or customize it. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P6.	Core Practice 6 – Testing and Refining Computational Artifacts
EXPECTATION / SUBSTRAND	P6.1.	Systematically test computational artifacts by considering all scenarios and using test cases. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
EXPECTATION / SUBSTRAND	P6.3.	Evaluate and refine a computational artifact multiple times to enhance its performance, reliability, usability, and accessibility. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
CONTENT STANDARD / DOMAIN / PART		Computing Systems
PERFORMANCE STANDARD / MODE		Devices
EXPECTATION / SUBSTRAND	6-8.CS.1.	Design modifications to computing devices in order to improve the ways users interact with the devices. (P1.2, P3.3) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Assembling an Advanced Driving Base Competition Ready: Training Camp 1: Driving Around Training Trackers: Stretch with Data Training Trackers: Time for Squat Jumps Training Trackers: Watch Your Steps
CONTENT STANDARD / DOMAIN / PART		Computing Systems
PERFORMANCE STANDARD / MODE		Hardware & Software

EXPECTATION / SUBSTRAND	6-8.CS.2.	Design a project that combines hardware and software components to collect and exchange data. (P5.1) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Automate It! Life Hacks: The Coach Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps Training Trackers: Watch Your Steps
CONTENT STANDARD / DOMAIN / PART		Computing Systems
PERFORMANCE STANDARD / MODE		Troubleshooting
EXPECTATION / SUBSTRAND	6-8.CS.3.	Systematically apply troubleshooting strategies to identify and resolve hardware and software problems in computing systems. (P6.2) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Out of Order
CONTENT STANDARD / DOMAIN / PART		Network & The Internet
PERFORMANCE STANDARD / MODE		Cybersecurity
EXPECTATION / SUBSTRAND	6-8.NI.5.	Explain potential security threats and security measures to mitigate threats. (P3.1, P3.3) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Keep It Safe
CONTENT STANDARD / DOMAIN / PART		Data & Analysis
PERFORMANCE STANDARD / MODE		Storage
EXPECTATION / SUBSTRAND	6-8.DA.7.	Represent data in multiple ways. (P4.4) <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Rain or shine? Life Hacks: Veggie Love Life Hacks: Wind Speed Training Trackers: Time for Squat Jumps Training Trackers: Warm-Up Training Trackers: Watch Your Steps
CONTENT STANDARD / DOMAIN / PART		Data & Analysis
PERFORMANCE STANDARD / MODE		Inference & Models
EXPECTATION / SUBSTRAND	6-8.DA.9.	Test and analyze the effects of changing variables while using computational models. (P4.4, P6.1) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Mission Ready Competition Ready: The Guided Mission Life Hacks: Repeat 5 Times Life Hacks: Veggie Love
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
PERFORMANCE STANDARD / MODE		Algorithms
EXPECTATION / SUBSTRAND	6-8.AP.10.	Use flowcharts and/or pseudocode to design and illustrate algorithms that solve complex problems. (P4.1, P4.4) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Place Your Order
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming

PERFORMANCE STANDARD / MODE		Variables
EXPECTATION / SUBSTRAND	6-8.AP.11.	Create clearly named variables that store data, and perform operations on their contents. (P5.1, P5.2) LEGO® Education SPIKE™ Prime Competition Ready: Mission Ready Competition Ready: The Guided Mission Life Hacks: Repeat 5 Times Life Hacks: Veggie Love
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
PERFORMANCE STANDARD / MODE		Control
EXPECTATION / SUBSTRAND	6-8.AP.12.	Design and iteratively develop programs that combine control structures and use compound conditions. (P5.1, P5.2) LEGO® Education SPIKE™ Prime Competition Ready: Training Camp 2: Playing with Objects Competition Ready: Training Camp 3: Reacting to Lines Kickstart A Business: Keep It Really Safe! Kickstart A Business: Keep It Safe
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
PERFORMANCE STANDARD / MODE		Modularity
EXPECTATION / SUBSTRAND	6-8.AP.13.	Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs. (P3.2) LEGO® Education SPIKE™ Prime Kickstart A Business: Place Your Order
EXPECTATION / SUBSTRAND	6-8.AP.14.	Create procedures with parameters to organize code and make it easier to reuse. (P4.1, P4.3) LEGO® Education SPIKE™ Prime Competition Ready: Mission Ready Competition Ready: The Guided Mission Kickstart A Business: Track Your Packages
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
PERFORMANCE STANDARD / MODE		Program Development
EXPECTATION / SUBSTRAND	6-8.AP.16.	Incorporate existing code, media, and libraries into original programs, and give attribution. (P4.2, P5.2, P7.3) LEGO® Education SPIKE™ Prime Competition Ready: Mission Ready Competition Ready: The Guided Mission Kickstart A Business: Track Your Packages
EXPECTATION / SUBSTRAND	6-8.AP.17.	Systematically test and refine programs using a range of test cases. (P6.1) LEGO® Education SPIKE™ Prime Competition Ready: Time for an Upgrade Prime Combined: Lesson 2 Protect Our Produce LEGO® Education BricQ Motion Prime Prime Combined: Lesson 2 Protect Our Produce
EXPECTATION / SUBSTRAND	6-8.AP.19.	Document programs in order to make them easier to use, read, test, and debug. (P7.2) LEGO® Education SPIKE™ Prime Competition Ready: Mission Ready Competition Ready: The Guided Mission
CONTENT STANDARD / DOMAIN / PART		Impacts of Computing
PERFORMANCE STANDARD / MODE		Culture

EXPECTATION / SUBSTRAND	6-8.IC.20.	Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) <u>LEGO® Education SPIKE™ Prime</u> <u>Life Hacks: The Coach</u>
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California Content Standards
Technology Education
Grade: 7 - Adopted: 2018

CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P3.	Core Practice 3 – Recognizing and Defining Computational Problems
EXPECTATION / SUBSTRAND	P3.2.	Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures. <u>LEGO® Education SPIKE™ Prime</u> <u>Kickstart A Business: Place Your Order</u>
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P4.	Core Practice 4 – Developing and Using Abstractions
EXPECTATION / SUBSTRAND	P4.1.	Extract common features from a set of interrelated processes or complex phenomena. <u>LEGO® Education SPIKE™ Prime</u> <u>Competition Ready: Mission Ready</u> <u>Competition Ready: The Guided Mission</u> <u>Kickstart A Business: Track Your Packages</u>
EXPECTATION / SUBSTRAND	P4.2.	Evaluate existing technological functionalities and incorporate them into new designs. <u>LEGO® Education SPIKE™ Prime</u> <u>Competition Ready: Mission Ready</u> <u>Competition Ready: The Guided Mission</u> <u>Kickstart A Business: Track Your Packages</u>
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P5.	Core Practice 5 – Creating Computational Artifacts
EXPECTATION / SUBSTRAND	P5.1.	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations. <u>LEGO® Education SPIKE™ Prime</u> <u>Life Hacks: Brain Game</u> <u>Life Hacks: Break Dance</u> <u>Training Trackers: Aim for It</u> <u>Training Trackers: Stretch with Data</u> <u>Training Trackers: The Obstacle Course</u> <u>Training Trackers: This is Uphill</u> <u>Training Trackers: Time for Squat Jumps</u>
EXPECTATION / SUBSTRAND	P5.2.	Create a computational artifact for practical intent, personal expression, or to address a societal issue. <u>LEGO® Education SPIKE™ Prime</u> <u>Life Hacks: Brain Game</u> <u>Life Hacks: Break Dance</u> <u>Training Trackers: Aim for It</u> <u>Training Trackers: Stretch with Data</u> <u>Training Trackers: The Obstacle Course</u> <u>Training Trackers: This is Uphill</u> <u>Training Trackers: Time for Squat Jumps</u>

EXPECTATION / SUBSTRAND	P5.3.	Modify an existing artifact to improve or customize it. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P6.	Core Practice 6 – Testing and Refining Computational Artifacts
EXPECTATION / SUBSTRAND	P6.1.	Systematically test computational artifacts by considering all scenarios and using test cases. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
EXPECTATION / SUBSTRAND	P6.3.	Evaluate and refine a computational artifact multiple times to enhance its performance, reliability, usability, and accessibility. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
CONTENT STANDARD / DOMAIN / PART		Computing Systems
PERFORMANCE STANDARD / MODE		Devices
EXPECTATION / SUBSTRAND	6-8.CS.1.	Design modifications to computing devices in order to improve the ways users interact with the devices. (P1.2, P3.3) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Assembling an Advanced Driving Base Competition Ready: Training Camp 1: Driving Around Training Trackers: Stretch with Data Training Trackers: Time for Squat Jumps Training Trackers: Watch Your Steps
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EXPECTATION / SUBSTRAND	6-8.CS.2.	Design a project that combines hardware and software components to collect and exchange data. (P5.1) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Automate It! Life Hacks: The Coach Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps Training Trackers: Watch Your Steps
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EXPECTATION / SUBSTRAND	6-8.CS.3.	Systematically apply troubleshooting strategies to identify and resolve hardware and software problems in computing systems. (P6.2) LEGO® Education SPIKE™ Prime Kickstart A Business: Out of Order
CONTENT STANDARD / DOMAIN / PART		Network & The Internet
PERFORMANCE STANDARD / MODE		Cybersecurity
EXPECTATION / SUBSTRAND	6-8.NI.5.	Explain potential security threats and security measures to mitigate threats. (P3.1, P3.3) LEGO® Education SPIKE™ Prime Kickstart A Business: Keep It Safe
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CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
PERFORMANCE STANDARD / MODE		Algorithms
EXPECTATION / SUBSTRAND	6-8.AP.10.	Use flowcharts and/or pseudocode to design and illustrate algorithms that solve complex problems. (P4.1, P4.4) LEGO® Education SPIKE™ Prime Kickstart A Business: Place Your Order
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PERFORMANCE STANDARD / MODE		Control

EXPECTATION / SUBSTRAND	6-8.AP.12.	Design and iteratively develop programs that combine control structures and use compound conditions. (P5.1, P5.2) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Training Camp 2: Playing with Objects Competition Ready: Training Camp 3: Reacting to Lines Kickstart A Business: Keep It Really Safe! Kickstart A Business: Keep It Safe
CONTENT STANDARD / DOMAIN / PART		Algorithms & Programming
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EXPECTATION / SUBSTRAND	6-8.AP.13.	Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs. (P3.2) <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Place Your Order
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EXPECTATION / SUBSTRAND	6-8.AP.17.	Systematically test and refine programs using a range of test cases. (P6.1) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Time for an Upgrade Prime Combined: Lesson 2 Protect Our Produce <u>LEGO® Education BricQ Motion Prime</u> Prime Combined: Lesson 2 Protect Our Produce
EXPECTATION / SUBSTRAND	6-8.AP.19.	Document programs in order to make them easier to use, read, test, and debug. (P7.2) <u>LEGO® Education SPIKE™ Prime</u> Competition Ready: Mission Ready Competition Ready: The Guided Mission
CONTENT STANDARD / DOMAIN / PART		Impacts of Computing
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PERFORMANCE STANDARD / MODE	P3.	Core Practice 3 – Recognizing and Defining Computational Problems

EXPECTATION / SUBSTRAND	P3.2.	Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures. <u>LEGO® Education SPIKE™ Prime</u> Kickstart A Business: Place Your Order
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PERFORMANCE STANDARD / MODE	P5.	Core Practice 5 – Creating Computational Artifacts
EXPECTATION / SUBSTRAND	P5.1.	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
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CONTENT STANDARD / DOMAIN / PART		Computer Science Core Practices
PERFORMANCE STANDARD / MODE	P6.	Core Practice 6 – Testing and Refining Computational Artifacts

EXPECTATION / SUBSTRAND	P6.1.	Systematically test computational artifacts by considering all scenarios and using test cases. <u>LEGO® Education SPIKE™ Prime</u> Life Hacks: Brain Game Life Hacks: Break Dance Training Trackers: Aim for It Training Trackers: Stretch with Data Training Trackers: The Obstacle Course Training Trackers: This is Uphill Training Trackers: Time for Squat Jumps
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