

1. Order Up!

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 2 hours
Objectives: <ul style="list-style-type: none">• We will use decomposition skills to break a complex problem down into smaller parts.	Standards: 7.AP.A.01: Select and modify existing algorithms and pseudocode to solve complex problems. 6.AP.M.01: Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs.
Synopsis: <p>In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.</p>	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions (two sets)

2. Out of Stock

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 2 hours
Objectives: <ul style="list-style-type: none">• We will identify and fix programming problems.	Standards: 7.CS.T.01: Identify and fix problems with computing devices and their interfaced components using a variety of strategies.
Synopsis: In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions

3. Monitor Your Shipment

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 3 hours
Objectives: <ul style="list-style-type: none">• We will develop our ability to recognize patterns and create effective programs.	Standards: 6.AP.PD.02: Incorporate existing code, media, and libraries into original programs from secure sources, and give appropriate attribution.
Synopsis: In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions (two sets)• Track Your Packages Map copies• Optional supplies for extension activity:<ul style="list-style-type: none">○ Pencils○ Plain paper○ Rubber bands

4. Privacy Protection

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 3 hours
Objectives: <ul style="list-style-type: none">• We will explore conditional programming.• We will explain the principles of digital security.	Standards: <p>8. AP.C.01: Develop secure programs that utilize combinations of nested loops, compound conditionals, procedures with and without parameters, and the manipulation of variables representing different data types.</p> <p>7.NI.C.01: Explain how to protect electronic information using both physical (hard drive) and digital measures; explain existing cybersecurity concerns with the internet and the systems it uses.</p>
Synopsis: <p>In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.</p>	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions (2 sets)

Extra Activity: Automation

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 3 hours
Objectives: <ul style="list-style-type: none">• We will use computational thinking skills to produce a complete solution to a problem.	Standards: MS-ETS1-4: Develop a model to generate data for iterative testing and modification of a proposed object, tool or process such that an optimal design can be achieved. 6-CS-HS-01: Identify ways that hardware and software are combined and work synchronously to collect, store, retrieve, and exchange data.
Synopsis: <p>In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.</p>	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions (3 sets)• Inventor Notebook copies (one per student)

Extra Activity: Maximum Security

Building Business Basics

Subject: STEAM, Coding, Computer Science	Topic or Unit of Study: Engineering Design, Coding
Grade/Level: Grades 6-8	Time Allotment: 3 hours
Objectives: <ul style="list-style-type: none">• We will explore compound conditional programming.	Standards: 8. AP.C.01: Develop secure programs that utilize combinations of nested loops, compound conditionals, procedures with and without parameters, and the manipulation of variables representing different data types.
Synopsis: In this unit, your students will develop effective problem-solving skills by decomposing problems into smaller parts. They'll use pseudocode as a tool for sequencing actions, use existing code with attributions in order to recognize patterns, systematically identify and fix bugs, and use conditions and compound conditions to program encoded devices.	Materials: <ul style="list-style-type: none">• Teacher/instructor lesson plan• Teacher/instructor Google Slides presentation• Teacher computer with access to internet and teacher presentation• LEGO-Education SPIKE-Prime Kits (one per two students)• SPIKE-Prime building instructions (2 sets)