## K-6 Grade ELA Ed Tech Task Guide

### Content Standard(s)

**PARCC/Smarter Balanced Assessment Skills**
-Click/tap
-Drag and drop
-Select and drag/slide
-Select object
-Use video player

**CC Mathematical Practices**
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**CC Math Standards**
**OA: Operations and Algebraic Thinking, MD: Measurement and Data, GA: Geometry, NBT: Numbers and Operations in Base Ten**
1.OA - Represent and solve problems involving addition and subtraction
1.MD - Reason and interpret data
1.GA - Reason with shapes and their attributes
2.OA - Represent and solve problems involving addition and subtraction
2.MD - Relate addition and subtraction to length
2.GA - Reason with shapes and their attributes
2.NBT - Understand place value
3.OA - Represent and solve problems involving multiplication and division
3.GA - Reason with shapes and their attributes
4.MD.A- Solve problems involving measurement and conversions of measurements
4.MD.C- Geometric measurement: Understand concepts of angles and measure angles.
4.GA- Draw and identify lines and angles and classify shapes by properties of their lines and angles.
4.NBT- Use place value to understand properties of operations and to perform multi-digit arithmetic
5.GA- Graph points on a coordinate plane to solve real-world and mathematical problems



Code.org,. (2015). *Code.org*. Retrieved 24 September 2015, from https://code.org/teacher-dashboard#/plan

5.NBT- Perform operations with multi-digit whole numbers and with decimals to hundereths

**CC ELA Standards**
**SL: Speaking and Listening, L: Language, W: Writing**
SL.1 - Comprehension and Collaboration
L.1 - Vocabulary Acquisition and Use
W.1 - Production and Distribution of Writing
SL.2 - Comprehension and Collaboration
L.2 - Vocabulary Acquisition and Use
W.2 - Text Types and Purposes
SL.3 - Comprehension and Collaboration
L.3 - Vocabulary Acquisition and Use
W.3 - Text Types and Purposes
W.3 - Production and Distribution of Writing

SL.4- Comprehension and Collaboration
L.4- Vocabulary Acquisition and Use
SL.5- Comprehension and Collaboration
L.5- Vocabulary Acquisition and Use

| **Ed Tech Standard(s)** |
|---|
| **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 |

| **Student Task (Description):** | **Timeframe (Twenty-four 30-minute sessions)** |
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| Students create programs with loops, events, and conditionals and write algorithms for everyday tasks. They will translate their names into binary, investigate different problem-solving techniques, and discuss societal impacts of computing. By the end of the curriculum, students create interactive games or stories they can share. | |

| **Content Targets** | **Ed Tech Targets** | **Vocabulary** |
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| **I will be able to...**<br>• Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (CCSS Math - 1.OA.A.1)<br>• Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (CCSS Math - 1.MD.C.4)<br>• Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. (CCSS Math - 1.G.A.1)<br>• Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (CCSS Math 1.G.A.2)<br>• Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (CCSS Math 2.OA.A.1)<br>• Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. (CCSS | **I will be able to…**<br>• Organize objects and ideas using: digital drawing tools, digital templates and graphic organizers, brainstorming/mind mapping software.(Example: Smart Notebook, MSPaint, drawing apps, Inspiration/Kidspiration, spreadsheet, etc.) (K-1.1.1.a I)<br>• Explore and practice skills using teacher-selected interactive resources (Dreambox etc.) (K-1.1.2.a P)<br>• Access content-related digital images, digital stories, audio and video to develop cultural understanding. (K-1.2.2.a I)<br>• Access digital content (audio, video) to build background knowledge and investigate topics. (K-1.3.1.a I)<br>• Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (K-2.1.1.a I)<br>• Understand and comply with the District Acceptable Use Guidelines. (K-2.1.2.a P)<br>• Show respect for opinions and work of others posted electronically. (K-2.1.2.b I)<br>• Properly use a mouse and/or touchpad: single- and double-click, drag-and-drop. (K-2.2.1.a P)<br>• Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (K-2.2.1.b I)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (K-2.2.2.a I)<br>• Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (K-2.2.2.b I)<br>• Navigate to and use teacher-selected websites. (K-2.3.2.a I)<br>• Access content-related digital images, digital stories, audio and video to develop cultural understanding. (1-1.2.2.a D)<br>• Access digital content (audio, video) to build background knowledge and investigate topics. (1-1.3.1.a D) | • Algorithm<br>• Binary<br>• Blockly<br>• Bug<br>• Code<br>• Computer Science<br>• Conditionals<br>• Debugging<br>• Digital Footprint<br>• Event<br>• Loop<br>• Pixels<br>• Program<br>• Username |



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| Math 2.MD.B.5)<br>• Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (CCSS Math 2.G.A.1)<br>• Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. (CCSS Math 2.G.A.2)<br>• Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. (CCSS Math 2.G.A.3)<br>• Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. (CCSS Math 2.NBT.A.4)<br>• Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (CCSS Math 3.OA.A.3)<br>• Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. (CCSS Math 3.G.A.2)<br>• Apply the area and perimeter formulas for rectangles in real world and mathematical problems. (CCSS Math 4.MD.A.3)<br>• Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. (CCSS Math 4.MD.C.5)<br>• Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle | • Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (1-2.1.1.a I)<br>• Understand and comply with the District Acceptable Use Guidelines. (1-2.1.2.a P)<br>• Show respect for opinions and work of others posted electronically. (1-2.1.2.b I)<br>• Properly use a mouse and/or touchpad: single- and double-click, drag-and-drop. (1-2.2.1.a P)<br>• Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (1-2.2.1.b D)<br>• Identify the following components: CPU/computer, monitor, mouse /touchpad, speakers, keyboard, headphones/earbuds, microphone. (1-2.2.1.c D)<br>• Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (1-2.2.1.d I)<br>• Demonstrate correct posture while using the keyboard. (1-2.2.1.e I)<br>• Locate, identify, and use letter, number, and punctuation keys. (1-2.2.1.f I)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (1-2.2.2.a I)<br>• Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (1-2.2.2.b I)<br>• Turn on speakers, mute, and adjust volume using speaker icon in system tray. (1-2.2.2.c I)<br>• Open and close applications. (1-2.3.1.a I)<br>• Navigate to and use teacher-selected websites. (1-2.3.2.a D)<br>• Organize objects and ideas using: digital drawing tools, digital templates and graphic organizers, brainstorming/mind mapping software. (Example: Smart Notebook, MSPaint, drawing apps, | |



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| measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. (CCSS Math 4.MD.C.7)<br>• Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. (CCSS Math 4.G.A.3)<br>• Fluently add and subtract multi-digit whole numbers using the standard algorithm. (CCSS Math 4.NBT.B.4)<br>• Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. (CCSS Math 5.G.A.2)<br>• Fluently multiply multi-digit whole numbers using the standard algorithm. (CCSS Math 5.NBT.B.5)<br>• Make sense of problems and persevere in solving them. (CC Mathematical Practices 1)<br>• Reason abstractly and quantitatively. (CC Mathematical Practices 2)<br>• Construct viable arguments and critique the reasoning of others. (CC Mathematical Practices 3)<br>• Model with mathematics. (CC Mathematical Practices 4)<br>• Use appropriate tools strategically. (CC Mathematical Practices 5).<br>• Attend to precision. (CC Mathematical Practices 6)<br>• Look for and make use of structure. (CC Mathematical Practices 7)<br>• Look for and express regularity in repeated reasoning. (CC Mathematical Practices 8)<br>• Participate in collaborative conversations with diverse | Inspiration/Kidspiration, spreadsheet, etc.) (2-1.1.1.b P)<br>• Access content-related digital images, digital stories, audio and video to develop cultural understanding. (2-1.2.2.a P)<br>• Access digital content (audio, video) to build background knowledge and investigate topics. (2-1.3.1.a P)<br>• Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (2-2.1.1.a D)<br>• Understand and comply with the District Acceptable Use Guidelines. (2-2.1.2.a P)<br>• Show respect for opinions and work of others posted electronically. (2.1.2.b D)<br>• Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (2-2.2.1.b P)<br>• Identify the following components: CPU/computer, monitor, mouse /touchpad, speakers, keyboard, headphones/earbuds, microphone. (2-2.2.1.c P)<br>• Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (2-2.2.1.d D)<br>• Demonstrate correct posture while using the keyboard. (2-2.2.1.e D)<br>• Locate, identify, and use letter, number, and punctuation keys. (2-2.2.1.f D)<br>• Use correct hand-finger, home row, and pairing of fingers. (2-2.2.1.h I)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (2-2.2.2.a D)<br>• Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (2-2.2.2.b D)<br>• Turn on speakers, mute, and adjust volume using speaker icon in system tray. (2-2.2.2.c D) | |



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| partners about *grade 1 topics and texts* with peers and adults in small and larger groups. (CCSS ELA SL.1.1)<br>• Ask and answer questions about key details in a text read aloud or information presented orally or through other media. (CCSS ELA SL.1.2)<br>• With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. (CCSS ELA L.1.5)<br>• Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*). (CCSS ELA L.1.6)<br>• With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (CCSS ELA W.1.6)<br>• Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. (CCSS ELA SL.2.1)<br>• Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. (CCSS ELA SL.2.2)<br>• Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*). (CCSS ELA L.2.6)<br>• Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. (CCSS ELA W.2.3)<br>• Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) | • Power on and shut down; log in and log out. (2-2.2.2.d I)<br>• Open and close applications. (2-2.3.1.a D)<br>• Navigate to and use teacher-selected websites. (2-2.3.2.a P)<br>• Use interactive resources. (Example: digital/online: virtual field trips, math manipulatives, Google Maps and other simulations and models, etc.) (3-1.1.2.d I)<br>• Explore and use content-related websites to build background knowledge, investigate topics and plan projects. (3-1.3.1.c I)<br>• Access, analyze and evaluate electronic content-related audio and/or video to make informed decisions. (3-1.3.3.c D)<br>• Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (3-2.1.1.a P)<br>• Understand and comply with the District Acceptable Use Guidelines. (3-2.1.2.a P)<br>• Show respect for opinions and work of others posted electronically. (3-2.1.2.b P)<br>• Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (3-2.2.1.d P)<br>• Demonstrate correct posture while using the keyboard. (3-2.2.1.e P)<br>• Locate, identify, and use letter, number, and punctuation keys. (3-2.2.1.f P)<br>• Use correct hand-finger, home row, and pairing of fingers. (3-2.2.1.h D)<br>• Use mouse: left-click to select, right-click for menus. (3-2.2.1.j I)<br>• Use correct technique for key striking and keying by touch (3-2.2.1.k I)<br>• Use correct spacing between words and following punctuation. (3-2.2.1.l I)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (3-2.2.2.a D)<br>• Ask for help and/or troubleshoot common technology-related | |



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| with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.3.1)<br>• Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. (CCSS ELA SL.3.3)<br>• Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*). (CCSS ELA L.3.6)<br>• Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (CCSS ELA W.3.3)<br>• With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. (CCSS ELA W.3.6)<br>• Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.4.1)<br>• Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation). (CCSS ELA L.4.6)<br>• Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.5.1) | problems. (Example: disconnected cables, caps lock, num lock, etc.) (3-2.2.2.b D)<br>• Turn on speakers, mute, and adjust volume using speaker icon in system tray. (3-2.2.2.c P)<br>• Power on and shut down; log in and log out. (3-2.2.2.d D)<br>• Open and close applications. (3-2.3.1.a P)<br>• I will be able to use basic web-navigation skills.(Example: select browser, favorites, URLs, home page, etc.) (3-2.3.2.b I)<br>• Create original multimedia products to present solutions and ideas. I will be able to include text, images, sound, audio and/or video. (Example: infographics, documentary film, music video, etc.) (4-1.1.1.e I)<br>• Use interactive resources. (Example: digital/online: virtual field trips, math manipulatives, Google Maps and other simulations and models, etc.) (4-1.1.2.d D)<br>• Explore and use content-related websites to build background knowledge, investigate topics and plan projects. (4-1.3.1.c D)<br>• Access, analyze and evaluate electronic content-related audio and/or video to make informed decisions. (4-1.3.3.c P)<br>• Create and store strong individual passwords. (Example: Strong password checker found at www.howsecureismypassword.net) (4-2.1.1.c I)<br>• Understand and comply with the District Acceptable Use Guidelines. (4-2.1.2.a P)<br>• Use correct hand-finger, home row, and pairing of fingers. (4-2.2.1.h P)<br>• Use mouse: left-click to select, right-click for menus. (4-2.2.1.j D)<br>• Use correct technique for key striking and keying by touch. (4-2.2.1.k D)<br>• Use correct spacing between words and following punctuation. (4-2.2.1.l D)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (4-2.2.2.a D) | |



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| • Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*). (CCSS ELA L.5.6) | • Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc. (4-2.2.2.b D)<br>• Power on and shut down; log in and log out. (4-2.2.2.d P)<br>• Use basic web-navigation skills. (Ex: select browser, favorites, URLs, home page, etc.) (4-2.3.2.b D)<br>• Create and store strong individual passwords. (Example: Strong password checker found at www.howsecureismypassword.net) (5-2.1.1.c D)<br>• Understand and comply with the District Acceptable Use Guidelines. 5-2.1.2.a P)<br>• Use mouse: left-click to select, right-click for menus. (5-2.2.1.j P)<br>• Use correct technique for key striking and keying by touch. (5-2.2.1.k P)<br>• Use correct spacing between words and following punctuation. (5-2.2.1.l P)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (5-2.2.2.a D)<br>• Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (5-2.2.2.b P)<br>• Use basic web-navigation skills. (Example: select browser, favorites, URLs, home page, etc.) (5-2.3.2.b P)<br>• Create and store strong individual passwords. (Example: Strong password checker found at www.howsecureismypassword.net) (6-2.1.1.c P)<br>• Understand and comply with the District Acceptable Use Guidelines. (6-2.1.2.a P)<br>• Identify and describe the impact of ethical and unethical or illegal use of technology on individuals and society. (6-2.1.2.e D)<br>• Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student | |



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| | response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (6-2.2.2.a P)<br>• Generate ideas and create original works for personal and group expression using a variety of digital resources. (1.1.1)<br>• Use models and simulations to explore systems, identify trends and forecast possibilities. (1.1.2)<br>• Identify and define authentic problems and significant questions for investigation and plan strategies to guide inquiry. (1.3.1)<br>• Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results. (1.3.3)<br>• Practice personal safety. (2.1.1)<br>• Practice ethical and respectful behavior. (2.1.2)<br>• Develop skills using technology. (2.2.1)<br>• Use a variety of hardware to support learning. (2.2.2)<br>• Select and use common applications. (2.3.1)<br>• Select and use online applications. (2.3.2) | |
| **Continue through this document for the task outline, instructions for each lesson, supporting documents and scoring rubrics.** | | |

# Code.org Course Two: Task Lesson Plan

- Task Outline

| Session #/Title | Standard(s) | Time | Preparation/Materials |
|---|---|---|---|
| Session 1/ Unplugged: Graph Paper Programming | **CC Mathematical Practices**: 1, 2, 3, 6, 7, 8<br>**CC Math Standards**: 2.G.A.<br>**CC ELA Standards:** SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • Code.org Course Two: Lesson One<br>• Session 1 Video<br>• Session 1 Activity Four-by-Fours Activity Worksheet<br>• Session 1 Assessment Graph Paper Programming |
| Session 2/ Unplugged: Real-Life Algorithms: Paper Airplanes | **CC Mathematical Practices:** 1, 2, 3, 6, 7, 8<br>**CC Math Standards**: 1.G.A., 2.G.A<br>**CC ELA**: SL.1, L.1, SL.2, L.2, Sl.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two-30 minute sessions | • Code.org Course Two: Lesson Two<br>• Session 2 Video<br>• Session 2 Activity Real Life Algorithms<br>• Session 2 Assessment Everyday Algorithms<br>• **Paper for airplanes**<br>• **Scissors** |
| Session 3/ Maze: Sequence | **PARCC/ SBAC Skills:**<br>Click/tap, Drag and drop, Select and drag/slide, Select object, Video player<br>**CC Mathematical Practices**: 1, 2, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 2.OA, 3.OA<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, | 30 minutes | • Code.org Course Two: Lesson Three<br>• Maze Intro Video<br>• **Computers**<br>• **Headphones** |

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| | 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| Session 4/ Artist: Sequence | **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player<br>**CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 1.GA, 2.OA, 2.GA, 3.OA, 3.OA<br>**CC ELA:** SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • **Code.org Course Two: Lesson Four**<br>• **Artist Intro Video**<br>• **Computers**<br>• **Headphones** |
| Session 5/ Getting Loopy | **CC Mathematical Practices**: 1, 2, 4, 6, 7, 8<br>**CC Math Standards**: 1.MD<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two- 30 minute sessions | • **Code.org Course Two: Lesson Five**<br>• **Session 5 Video Getting Loopy**<br>• **Session 5 Activity Getting Loopy**<br>• **Session 5 Assessment Getting Loopy**<br>• **Computers**<br>• **Headphones** |
| Session 6/ Maze: Loops | **PARCC/ SBAC Skills:** Click/tap, drag and drop, Select and drag/slide, Select object, Use video player<br>**NGSS**:K-2-PS3, K-2-ETS1, 3-5-ETS1<br>**CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 2.OA, 3.OA<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, | 30 minutes | • **Code.org Course Two: Lesson Six**<br>• **Computers**<br>• **Headphones** |

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| | 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| Session 7/ Artist: Loops | **PARCC/SBAC Skills:** Click/tap, drag and drop, select object, use video player<br>**CC Mathematical Practices**: 1, 2, 3, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 1.GA, | 30 minutes | • **Code.org Course Two: Lesson Seven**<br>• **Computers**<br>• **Headphones**<br>• **Protractors** |
| Session 8/ Bee: Loops | **PARCC/SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player<br>**CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards:** 1.OA., 2.OA., 3.OA, 3.GA<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • **Code.org Course Two: Lesson Eight**<br>• **Bee Loops Video**<br>• **Computers**<br>• **Headphones** |
| Session 9/ Unplugged: Relay Programming | **CC Mathematical Practices**: 1, 2, 3, 6, 7, 8<br>**CC ELA:** SL.1, L.1, SL.2, L.2, SL.3, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two-30 minute sessions | • **Code.org Course Two: Lesson Nine**<br>• **Relay Programming Video 1**<br>• **Relay Programming Video 2**<br>• **Session 9 Activity Relay Programming**<br>• **Session 9 Relay Programming Assessment**<br>• **Blank Paper or Index Cards** |
| Session 10/ Bee: Debugging | **PARCC/SBAC Skills:** Click/tap, Drag and drop, Select object, Use video player<br>**Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 2.OA, 3.OA | 30 minutes | • **Code.org Course Two: Lesson Ten**<br>• **Bee Debugging Video**<br>• **Computers**<br>• **Headphones** |

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| | **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| Session 11/ Artist: Debugging | **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select object, Use video player<br>**Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 1.GA, 2.OA, 2.GA, 3.OA, 3.GA<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • **Code.org Course Two: Lesson Eleven**<br>• **Artist Debugging Video**<br>• **Computers**<br>• **Headphones** |
| Session 12/ Unplugged: Conditionals with Cards | **Mathematical Practices**: 1, 2, 4, 6, 7, 8<br>**CC Math Standards**: 1.MD<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two-30 minute sessions | • **Code.org Course Two: Lesson Twelve**<br>• **Session 12 video**<br>• **Session 12 Sample Program for Conditionals with Cards**<br>• **Session 12 Assessment Conditionals with Cards**<br>• **Playing Cards**<br>• **Paper**<br>• **Pens and Pencils** |
| Session 13/ Bee: Conditionals | **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player<br>**Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 2.OA, 2.GA, 2.MD, 2.NBT, 3.OA<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, | 30 minutes | • **Code.org Course Two: Lesson Thirteen**<br>• **Bee Conditionals Video**<br>• **Computers**<br>• **Headphones** |

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| | 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| Session 14/ Unplugged: Binary Bracelets | **Mathematical Practices**: 1, 2, 4, 6, 7, 8<br>**CC ELA**: SL.1, L.1, SL.2, L.2 SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two-30 minute sessions | • **Code.org Course Two: Lesson Fourteen**<br>• **Session 14 Video**<br>• **Session 14 Activity Binary Bracelets**<br>• **Session 14 Assessment Binary Bracelets**<br>• **Pens and Pencils**<br>• **Scissors** |
| Session 15/ Unplugged: The Big Event | **Mathematical Practices**: 1, 2, 6, 7, 8<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • **Code.org Course Two: Lesson Fifteen**<br>• **Session 15 Activity The Big Event**<br>• **Session 15 Assessment The Big Event**<br>• **Session 15 Video**<br>• **Pens, pencils, and markers** |
| Session 16/ Flappy | **PARCC/SBAC Skills:**<br>Click/tap, Drag and drop, Scroll, Select and drag/slide, Select object<br>**CC Mathematical Practices**: 1, 2, 5, 6, 7, 8<br>**CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | 30 minutes | • **Code.org Course Two: Lesson Sixteen**<br>• **Computers**<br>• **Headphones** |
| Session 17/ Play | **PARCC / SBAC Skills:** Click/tap**,** Drag and drop**,** Scroll**,** | 30 | • **Code.org Course Two: Lesson Seventeen** |

Course 2

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| Lab: Create a Story | Select and drag / slide**,** Select object<br>**CC Mathematical Practices**: 1, 2, 5, 6, 7, 8<br>**CC Math Standards**: 1.OA, 2.OA, 2.MD<br>**CC ELA**: SL.1, L.1, SL.2, L.2, W.2, SL.3, L.3, W.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | minutes | • **Session 17 Video Create a Story**<br>• **Computers**<br>• **Headphones** |
| Session 18/ Unplugged: Your Digital Footprint FOR 5/6 Use Session 20: Course 3: Digital Citizenship | **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>**Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3,2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | Two-30 minute sessions | • **Code.org Course Two: Lesson Eighteen**<br>• **Session 18 Pause & Think Online Video**<br>• **Session 18 Video**<br>• **Activity Animal Tracks Chart-Page seven of Document**<br>• **Session 18 Assessment Digital Footprint**<br>• **Pens and Pencils**<br>• **FOR 5/6**<br>  • **Code.org Course Two: Lesson Eighteen for 5 and 6**<br>  • **Paper Craft Superheros- Pick a super hero, print and fold.**<br>  • **Session 18 Digital Citizenship Video**<br>  • **Session 18 Cyber Safety Video**<br>  • **Session 18 Assessment Digital Citizenship** |

| Session One: Unplugged-Graph Paper Programming | Timeframe: 30 minutes |
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***Background:***

Students write an algorithm (a set of instructions) using a set of predefined commands to direct their classmates to reproduce a drawing.

**Materials:**

- Code.org Course Two: Lesson One
- Session 1 Video
- Session 1 Activity Four-by-Fours Activity Worksheet
- Session 1 Assessment Graph Paper Programming
- **Computers**
- **Headphones**

**Standard(s):**

- **CC Mathematical Practices**: 1, 2, 3, 6, 7, 8
- **CC Math Standards**: 2.GA.
- **CC ELA Standards:** SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- CC Mathematical Practices: 1, 2, 3, 6, 7, 8
- CC Math Standards: 2.G.2
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will begin by introducing vocabulary words **algorithm** and **program** to students.<br>• Teacher will explain how to play Graph Paper programming.<br>• Teacher will project the arrow key onto the board.<br>• Teacher will select a simple graph paper drawing and introduce the symbols in the arrow key.<br>• Teacher will walk the class through translating | • Students will practice **Session 1 Activity Four-by-Fours Activity Worksheet** in pairs.<br>• Students will pick an image from the worksheet and discuss the algorithm to draw that image with their partner.<br>• Students will convert the algorithm into a program using symbols. | • **Students will be assessed using the Session 1 Assessment Graph Paper Programming**<br>• Students can also be assessed by completing **Stage 1: Graph Paper Progamming Assessment 1 and 2** online. |

| | | |
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| the directions for the graph paper image using the algorithm into the program.<br>• Teacher will instruct students to play the **Session 1 Activity Four-by-Fours Activity Worksheet.**<br>• **After students complete the Four by Fours activity worksheet, teacher will review the vocabulary words learned.** | • Students will trade programs with another pair and draw one another's image.<br>• Students can repeat this process time permitting. | |

| Session Two: Unplugged-Real-Life Algorithms: Paper Airplanes | Timeframe: Two 30 minute sessions |
|---|---|

***Background:***

This lesson calls out ways we use algorithms in our daily lives. This lesson also focuses on the bigger picture of computer science and how algorithms play an essential part.

**Materials:**

- **Code.org Course Two: Lesson Two**
- **Session 2 Video**
- **Session 2 Activity Real Life Algorithms**
- **Session 2 Assessment Everyday Algorithms**
- **Paper for airplanes**
- **Scissors**
- **Computers**
- **Headphones**

**Standard(s):**

- **CC Mathematical Practices:** 1, 2, 3, 6, 7, 8
- **CC Math Standards**: 1.G.A., 2.G.A
- **CC ELA**: SL.1, L.1, SL.2, L.2, Sl.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 3, 6, 7, 8
- CC Math Standards: 1.G.1, 2.G.3
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review Lesson 1 and review the term **algorithm.**<br>• Teachers will guide a whole group lesson, asking students, “What did you do to get ready this morning?” Discuss | • Students will work in small groups or partners to complete **Session 2 Activity Real Life Algorithms**<br>• students will work together to choose the 6 correct steps from the 9 total options.<br>• Students will glue the correct steps in order onto | • Students will be assessed using the **Session 2 Assessment Everyday Algorithms**.<br>• Students can also be assessed by completing **Stage 2: Real-Life Algorithms: Paper Airplanes 1 and 2** online. |

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| things that are a daily part of their morning routine, recording answers on board. Number them in the order they happen in the morning routine.<br>• Teacher will explain that algorithms can be created for the things we do every day.<br>• Teacher will ask students how to make breakfast, brush their teeth, etc. listing the steps for the students.<br>• Teacher will pass out the Real Life Algorithm Worksheet.<br>• After students complete the Real-Life Algorithm worksheet, review the algorithms with the students. Ask the students how many were successful in making their classmates' paper airplanes? | a separate piece of paper.<br>• Students will trade the finished algorithm with another group and let them use it to make their plane. | |

| Session Three: Maze: Sequence | Timeframe: 30 minutes |
|---|---|

***Background:***

Students write programs (algorithms for the computer) that get a character through a maze. They'll understand the importance of sequence in the programs they write.

**Materials:**

- **Code.org Course Two: Lesson Three**
- **Maze Intro Video**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Video player
- **CC Mathematical Practices**: 1, 2, 5, 6, 7, 8
- **CC Math Standards**: 1.OA.A, 2.OA.A, 3.OA.A
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- CC Mathematical Practices: 1, 2, 5, 6, 7, 8
- CC Math Standards: 1.OA.A.1, 2.OA.A.1, 3.OA.3
- CC ELA: SL.1.1, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will ask students if they are familiar with the game Angry Birds. | • Students will complete **Stage 3: Maze Sequence 1-9** online using blockly coding to | Students will be assessed by completing **Stage 3: Maze Sequence 10-11** online. |

| | | |
|---|---|---|
| • Teacher will explain that they will be writing programs to help the Angry Bird locate a Pig.<br>• The teacher will introduce "blockly" coding to students using the Maze Intro video.<br>• Teacher will instruct students to complete the Stage 3: Maze Sequence online activity using the blockly coding. | create a sequenced algorithm that will take the Angry Bird to the Pig.<br>• Students will share strategies with the whole class.<br>• Students will discuss the multiple strategies shared by the class that take the Angry Bird to the Pig.<br>• If extra time, students will create their own maze sequence and challenge other students to complete it. | |

| Session Four: Artist: Sequence | Timeframe: 30 minutes |
|---|---|

***Background:***

Students write programs to draw different lines and shapes.

**Materials:**

- **Code.org Course Two: Lesson Four**
- **Artist Intro Video**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player
- **CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8
- **CC Math Standards**: 1.OA.A, 1.G.A.2, 2.OA.A, 2.G.A., 3.OA.A, 3.OA.A
- **CC ELA:** SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8
- CC Math Standards: 1.OA.1, 1.G.A.1, 1.G.A.2, 2.OA.1, 2.G.A.1, 3.OA.3, 3.G.A.2
- CC ELA: SL.1.1, L.1.5, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will brainstorm with students ways to tell someone else how to draw a picture. Ask students how you might do that with a computer?<br>• Teacher will introduce pixels and degrees to students using the Artist Intro | • Students will complete **Stage 4: Artist: Sequence 1-10** online using blockly coding to create a sequenced algorithm that will help the artist complete the picture.<br>• Students may need to use protractors to help them visualize the angles they might | • Students will be assessed by completing **Stage 4: Artist: Sequence 11-12** online. |

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| Video.<br>• Teacher will instruct students to complete the Stage 4: Artist Sequence 1-10 online. | need to use in their programming.<br>• With time available, students can extend their learning by creating images on paper using rulers and protractors. Students will create a line drawing using only straight lines, and then create instructions to complete the drawing by describing the lines and angles. Students will exchange instructions and complete their partner's drawing. | |

| Session Five: Unplugged: Getting Loopy | Timeframe: Two 30 minute sessions |
|---|---|

***Background:***

This lesson introduces the programming concept of loops (repeated instructions) through a dance activity. Students will learn simple choreography and then be instructed to repeat it.

**Materials:**

- Code.org Course Two: Lesson Five
- Session 5 Video Getting Loopy
- Session 5 Activity Getting Loopy
- Session 5 Assessment Getting Loopy
- **Computers**
- **Headphones**

**Standard(s):**

- **CC Mathematical Practices**: 1, 2, 4, 6, 7, 8
- **CC Math Standards**: 1.MD
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 4, 6, 7, 8
- CC Math Standards: 1.MD.4
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review previous lesson.<br>• Teacher will introduce the term **loop** by asking one student to walk around an object in the classroom. When the student finishes, they are asked to repeat.<br>• Teacher asks the students if it would have been easier to ask the student to go around the room 4 times? What if | • **Students will learn the term 'loop' by performing dance moves in a repetetive pattern.**<br>• **Students will practice looping dance using the two paged Session 5 Activity Getting Loopy.** | • **Students will be assessed by completing** Stage 5: Getting Loopy 1 **online/ Session 5 Assessment Getting Loopy on paper** |

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| we wanted you to do it 10 times?<br>• Teacher introduces the term **loop** as "the action of doing something over and over again."<br>• **Teacher plays Session 5 Video Getting Loopy**<br>• Teacher passes out the Getting Loopy Worksheet.<br>• Teacher will assist students and probe students to find ways to incorporate loops in the dance sequence. | • **If time allowes, students can search for dance videos online that include repetitive loops.** | |

| Session Six: Maze: Loops | | Timeframe: 30 minutes |
|---|---|---|
| ***Background:***<br>Student write programs in the Maze environment using loops. | | |
| **Materials:**<br>• **Code.org Course Two: Lesson Six**<br>• **Computers**<br>• **Headphones** | | |
| **Standard(s):**<br>• **PARCC/ SBAC Skills:** Click/tap, drag and drop, Select and drag/slide, Select object, Use video player<br>• **CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>• **CC Math Standards**: 1.OA.A, 2.OA.A, 3.OA<br>• **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>• **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| **Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**<br>• CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8<br>• CC Math Standards: 1.OA.1, 2.OA.1, 3.OA.3<br>• CC ELA: SL.1.1, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6<br>• Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P | | |
| **Teach, Engage, and Explore** | **Guided/Independent Practice** | **Evaluate (formative assessment)** |
| • Teacher will review loops and why they are used.<br>• Teacher will instruct students to complete Stage 6: Maze Loops 1-11 online using blockly coding.<br>• Teacher will ask students to figure out how many fewer blocks they can use with a loop | • Students will complete **Stage 6: Maze: Loops 1-11** online using blockly coding to create a looping algorithm that will help the characters complete their goals.<br>• Students will figure out how many fewer blocks they can use by using a | • Students will be assessed by completing **Stage 6: Maze: Loops 12-14** online. |

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| vs. without using a loop. | loop in their programming.<br>• If time allows, students will choreograph their own dance using loops and teach it to the class. | |

| Session Seven: Artist: Loops | Timeframe: 30 minutes |
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***Background:***

Students write programs to draw different shapes while identifying patterns in their code. They learn about the programming concept of loops (repeated statements), which can be used to make their programs more efficient.

**Materials:**

- **Code.org Course Two: Lesson Seven**
- **Computers**
- **Headphones**
- **Protractors**

**Standard(s):**

- **PARCC/SBAC Skills:** Click/tap, drag and drop, select object, use video player
- **CC Mathematical Practices**: 1, 2, 3, 4, 5, 6, 7, 8
- **CC Math Standards**: 1.OA, 1.G.A, 2.OA.1, 2.G.A, 3.OA.3, 3.G.A
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8
- CC Math Standards: 1.OA.1, 1.G.A.1, 1.G.A.2, 2.OA.1, 2.G.A.1, 3.OA.3, 3.G.A.2
- CC ELA: SL.1.1, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
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| • Teacher will review loops and why they are used.<br>• Teacher will ask students to name as | • Students will complete **Stage 7: Artist: Loops 1-13** online using blockly coding to create a looping algorithm that will help the artist complete the picture.<br>• Students may need protractors to help them understand different angle degrees. | • Students will be assessed by completing **Stage 6: Maze: Loops 14-16** online. |

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| many simple shapes as possible, focusing on shapes with equal sides and angles.<br>• Teacher will ask students to think about how they would explain to someone how to draw that shape? Could they draw this using loops?<br>• Teacher will instruct students to complete Stage 7: Artist Loops levels 1-13 online. | • If time allows, students will draw geometric shapes on paper using rulers and protractors, and create a set of directions for recreating their shapes. Students will trade papers to see if they can follow their classmate's directions. | |

| Session Eight: Bee: Loops | Timeframe: 30 minutes | |
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| ***Background:***<br>Students write programs using loops in the Bee environment. | | |
| **Materials:**<br>• **Code.org Course Two: Lesson Eight**<br>• **Bee Loops Video**<br>• **Computers**<br>• **Headphones** | | |
| **Standard(s):**<br>• **PARCC/SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player<br>• **CC Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>• **CC Math Standards:** 1.OA., 2.OA., 3.OA, 3.G.A<br>• **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>• **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| **Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**<br>• Mathematical Practices: 1, 2, 4, 5, 6, 7, 8<br>• CC Math Standards: 1.OA.1, 2.OA.1, 3.OA.3, 3.G.A.2<br>• CC ELA: SL.1.1, L.1.6 , SL.2.1, L.2.6, SL.3.1, L.3.6<br>• Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P | | |
| **Teach, Engage, and Explore** | **Guided/Independent Practice** | **Evaluate (formative assessment)** |
| • Teacher will review loops and why they are used.<br>• Teacher will ask students what other elements of our programs could benefit from loops? How could we use loops to make the Bee programs more efficient? | • Students will complete **Stage 8: Bee: Loops 1-12** online using blockly coding to create a looping algorithm that will help the bee complete his goal.<br>• Students will try to incorporate more | • Students will be assessed by completing **Stage 8: Bee: Loops 13-14** online. |

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| • Teacher will instruct students to complete Stage 8: Bee Loops online using blockly coding incorporating a looping algorithm to help the bee complete his goal. | moves into their loops. | |

| Session Nine: Unplugged: Relay Programming | Timeframe: Two 30 minute sessions |
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***Background:***

Students run a relay race, where they dash across the yard to write an algorithm based on a "Graph Paper Programming" image. They can only write one instruction at a time and if there's an error, they have to erase everything back to the error.

**Materials:**

- Code.org Course Two: Lesson Nine
- Relay Programming Video 1
- Relay Programming Video 2
- Session 9 Activity Relay Programming
- Session 9 Relay Programming Assessment
- **Blank Paper or Index Cards**

**Standard(s):**

- **CC Mathematical Practices**: 1, 2, 3, 6, 7, 8
- **CC ELA:** SL.1, L.1, SL.2, L.2, SL.3, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 3, 6, 7, 8
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1, SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
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| • Teacher will review previous lesson, graph paper programming and looping.<br>• Teacher will introduce the term, **debugging** as "finding and fixing problems in your algorithm or program."<br>• Teacher will review graph paper programming with a refresher graph paper programming image, either one the students have already seen or an entirely new one. | • Students will play "Relay Programming" in groups of 3-5 using the **Relay Programming Activity Sheets**.<br>• Students will work together to debug the graph paper image. | • Students will be assessed by completing **Stage 9: Relay Programming Assessment: Debugging 1-2** online. |

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| • Teacher will tell students that they are going to do the same kind of thing today, but instead of controlling each other, they will work together to create a program one symbol at a time.<br>• Teacher will explain how to play “Relay Programming."<br>• Teacher will divide students into groups of 3-5 in relay style lines.<br>• Teacher will place an identical image at the other end of the room/gym/field from each team.<br>• Teacher will have the first student in each line run over to the image, review it, and write down the first symbol in the program to reproduce that image. That student runs back and tags the next person in line and heads to the back of their line.<br>• The next student runs to the image, reviews the image, reviews the program that has been written, and either debugs the program by crossing out an incorrect symbol or adds a new one. The first team to complete the image correctly wins!<br>• Teacher can repeat this game several times increasing the level of difficulty each time.<br>• After the game concludes, teacher will reflect with students about the importance of debugging our own work and the work of the programmer before them. Is it easier or harder having multiple people working on the same program? | | |

| Session Ten: Bee: Debugging | Timeframe: 30 minutes | |
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| ***Background:***<br>Students are presented with a pre-written program that fails to complete the puzzle. Students will have to "debug" or fix the pre-written program. | | |
| **Materials:**<br>• **Code.org Course Two: Lesson Ten**<br>• **Bee Debugging Video**<br>• **Computers**<br>• **Headphones** | | |
| **Standard(s):**<br>• **PARCC/SBAC Skills:** Click/tap, Drag and drop, Select object, Use video player<br>• **Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8<br>• **CC Math Standards**: 1.OA.A, 2.OA.A, 3.OA.A<br>• **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3<br>• **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | |
| **Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**<br>• Mathematical Practices: 1, 2, 4, 5, 6, 7, 8<br>• CC Math Standards: 1.OA.A.1, 2.OA.A.1, 3.OA.3<br>• CC ELA: SL.1.1, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6<br>• Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P | | |
| **Teach, Engage, and Explore** | **Guided/Independent Practice** | **Evaluate (formative assessment)** |
| • Teacher will review debugging with the students by asking students to think about problems they have to solve in everyday life.<br>• Teacher will instruct students to complete Stage 10 Debugging lessons online, paying special attention to the 'bugs' in the program. Students will be tasked with finding errors in | • Students will complete **Stage 10: Bee: Debugging 1-10** online using blockly coding to debug programs.<br>• If time allows, students can go back into previous levels and purposefully put a 'bug' into their coding and challenge a classmate to find the 'bug' | • Students will be assessed by completing **Stage 10: Bee: Debugging 11** online. |

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| programming and 'debugging' them.<br>• Teacher will observe students working on debugging programming, and will identify strategies students are using to find the 'bugs'.<br>• Teacher will instruct students to follow the path described by the code with their fingers to find potential bugs in the programming. | in the programming. | |

| Session Eleven: Artist: Debugging | Timeframe: 30 minutes |
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***Background:***

Students are presented with a drawing and a pre-written program that fails to create that drawing. Students will have to "debug" or fix the pre-written program.

**Materials:**

- **Code.org Course Two: Lesson Eleven**
- **Artist Debugging Video**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select object, Use video player
- **Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8
- **CC Math Standards**: 1.OA, 1.G.A, 2.OA, 2.G.A, 3.OA.A.3, 3.G.A.2
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 4, 5, 6, 7, 8
- CC Math Standards: 1.OA.1, 1.G.A.1, 1.G.A.2, 2.OA.1, 2.G.A.1, 2, 3.OA.3, 3.G.A.2
- CC ELA: SL.1.1, L.1.6, SL.2.1, L.2.6, SL.3.1, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review debugging by bringing the group together and discussing debugging tactics and difficulties. Discuss easiest bugs to find, hardest bugs to find, and things students are looking for in the programs.<br>• Teacher will instruct the students to complete | • Students will complete **Stage 11: Artist: Debugging 1-10** online using blockly coding to debug programs.<br>• Students will work on finding the bugs in the programming and fixing them so the artist will complete his goal. | • Students will be assessed by completing **Stage 11: Artist: Debugging 11-12** online. |

| | | |
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| Stage 11: Artist Debugging online. While students are completing the lessons, teacher will remind students that sometimes the easiest way to find out what's wrong with a program is to watch it fail.<br>• Teacher will instruct students to watch the program fail before it's fixed in order to find the bug in the program. | | |

| Session Twelve: Unplugged: Conditionals with Cards | Timeframe: Two 30 minute sessions |
|---|---|

***Background:***

To learn about conditional statements, students play a card game and create rules like “If I draw a red card, I get a point” and “If I draw a black card, you get a point.”

**Materials:**

- Code.org Course Two: Lesson Twelve
- Session 12 Video
- Session 12 Sample Program for Conditionals with Cards
- Session 12 Assessment Conditionals with Cards
- **Playing Cards**
- **Paper**
- **Pens and Pencils**

**Standard(s):**

- **Mathematical Practices**: 1, 2, 4, 6, 7, 8
- **CC Math Standards**: 1.MD.C.4
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 4, 6, 7, 8
- CC Math Standards: 1.MD.4
- CC ELA: SL.1.1, SL.1.2, L.1.6 SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review debugging with students.<br>• Teacher will introduce the vocabulary word **conditionals** as "statements that only run under certain conditions."<br>• Teacher will introduce concept of 'one condition' language - if the class can be completely quiet for 30 seconds, they can do something like extra recess, dance | • Students will learn about the term "conditionals" and will identify several "IF" and "ELSE" statements.<br>• Students will play **Conditionals with Cards** as teams.<br>• Students will work in teams to determine how many points they earn on the | • **Students will be assessed by completeing Session 12 Assessment Conditionals with Cards** |

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| party, sing a song. Teacher will count for 30 seconds. If the students succeeded, they do get the reward. If students were unable to be quiet for 30 seconds they do not get the reward.<br>• Teacher will ask the class "what was the condition of the reward?" The condition was IF you were quiet for 30 seconds, you would get the reward. If you were quiet, the condition would be true and you would get the reward. If you weren't quiet, the condition would be false and the reward would not apply.<br>• Teacher will challenge the class to come up with another conditional. (e.g. If you can guess my age correctly the class can give you applause. If I know an answer, I can raise my hand.)<br>• Teacher will explain that sometimes we want to have an extra condition, in case the IF statement is not true. This extra statement is called an "ELSE" statement. If the IF condition is not met, we can look at the ELSE for what to do. (e.g. IF I draw a 7, everybody claps. Or ELSE everyone says "awwwwwe.")<br>• Teacher will explain that there is a 3rd option. What if I wanted you to clap if I draw a 7, or else if I draw something less than seven you say "yay", or else you say "awwwwwe?" This is why we have the terms If, Else-If, and Else. If is the first condition, Else-If gets looked at only if the "IF" isn't true. Else gets looked at only if nothing before it is true.<br>• Teacher explains Session 12 Sample Program for Conditionals with Cards.<br>• Teacher will split class into teams and give each team a pile of cards (as many cards as team members).<br>• Teacher will put one "program" up on the board for all to see. Teams will take turns drawing cards following | Conditionals cards. | |

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| the program and calculating how many points they score in each round.<br>• Teacher will play this game with the class several times with several programs to help the students understand conditionals.<br>• Once the students have had practice, teacher can encourage students to "nest" conditionals inside one another.<br>• Teacher will wrap up and reflect about using conditionals inside blockly coding.<br>• Teacher will ask students what other things they do during the day that use conditionals. | | |

| Session Thirteen: Bee: Conditionals | Timeframe: 30 minutes |
|---|---|

***Background:***

Students write programs using conditional statements using the Bee environment.

**Materials:**

- **Code.org Course Two: Lesson Thirteen**
- **Bee Conditionals Video**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC/ SBAC Skills:** Click/tap, Drag and drop, Select and drag/slide, Select object, Use video player
- **Mathematical Practices**: 1, 2, 4, 5, 6, 7, 8
- **CC Math Standards**: 1.OA.A, 2.OA.A, 2.G.A., 2.MD, 2.NBT, 3.OA.A
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 4, 5, 6, 7, 8
- CC Math Standards: 1.OA.1, 2.OA.1, 2.G.2, 2.MD.5, 2.NBT.A.4, 3.OA.3
- CC ELA: SL.1.1, L.1.6 SL.2.1, L.2.6, SL.3.1, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review Conditionals Cards activity with the class. When are conditionals useful? What are some of the conditionals we have used so far?<br>• Teacher will introduce the Stage 13: Bee conditionals levels with the students.<br>• Teacher will instruct students to use | • Students will complete **Stage 13: Bee: Conditionals 1-12** online using blockly coding to create programs using conditionals.<br>• Students will use conditionals to program their bee to harvest nectar from flowers if the flower contains | • Students will be assessed by completing **Stage 13: Bee: Conditionals 11-12** online. |

| | | |
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| conditionals in their blockly programming to collect nectar from the purple flowers if the flower has nectar, but to leave the flower if it doesn't have nectar. | nectar, but to leave the flower if it doesn't have nectar. | |

| Session Fourteen: Unplugged: Binary Bracelets | Timeframe: T |
|---|---|

***Background:***

Students create bracelets from a paper template that is a binary representations of the first letter of their name. Students learn that the same set of data can be represented in more than one way.

**Materials:**

- Code.org Course Two: Lesson Fourteen
- Session 14 Video
- Session 14 Activity Binary Bracelets
- Session 14 Assessment Binary Bracelets
- **Pens and Pencils**
- **Scissors**

**Standard(s):**

- **Mathematical Practices**: 1, 2, 4, 6, 7, 8
- **CC ELA**: SL.1, L.1, SL.2, L.2 SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 4, 6, 7, 8
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1, SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review previous lesson.<br>• Teacher will introduce the term **binary** - a way of representing information using only two options.<br>• Teacher will discuss how computers use information in two ways using electricity. This electrical information is either "off" or "on". Computers send information this way, and also stores information this way, sometimes as "positive" or "negative." | • **Students will work individually, in pairs, or small groups to complete Session 14 Activity Binary Bracelets.**<br>• Students will convert letters into binary code and back again using the Binary Bracelet activity worksheet.<br>• If there is extra time or materials, students can create actual bracelets using thread and beads to represent their letter in binary. | • **Students will be assessed by completeing the Session 14 Assessment Binary Bracelets.** |

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| • Teacher will ask how we convert information into binary, starting with letters.<br>• Teacher will explain to how use Session 14 Activity Binary Bracelets and show Session 14 Video.<br>• Teacher will pass out the Binary Decoder Key.<br>• Teacher will demonstrate converting letters into binary and back again.<br>• Teacher will write a coded message to the class in binary. | | |

| Session Fifteen: Unplugged: The Big Event | Timeframe: 30 minutes |
|---|---|

***Background:***

Students are introduced to the programming concept of "events," which are actions that a computer constantly monitors for. The teacher will press buttons on a fake remote, and student have to shout specific phases depending on which button is pressed.

**Materials:**

- **Code.org Course Two: Lesson Fifteen**
- **Session 15 Activity The Big Event**
- **Session 15 Assessment The Big Event**
- **Session 15 Video**
- **Pens, pencils, and markers**

**Standard(s):**

- **Mathematical Practices**: 1, 2, 6, 7, 8
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- Mathematical Practices: 1, 2, 6, 7, 8
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review previous lesson.<br>• Teacher will introduce the term **event** - An action that causes something to happen**.**<br>• Teacher will probe students to identify events in their day that give signals.<br>• **Show Session 15 Video**<br>• Teacher will project the Event-O-Matic-Inator on the board. | • **Students will work whole group to complete Session 15 Activity The Big Event game.** | • Students will be assessed bycompleteing Session 15 Assessment The Big Event |

| | | |
|---|---|---|
| • Teacher will ask students to determine what each button will do.<br>• Teacher will ask the students to start another activity and interrupt them with the pressing of the buttons on the board.<br>• Teacher will continue until students understand the different between actions that are guided by a plan and actions that are event driven. | | |

| Session Sixteen: Flappy | Timeframe: 30 minutes |
|---|---|

***Background:***

Using the concept of "Events," students will create their own game with events like "When the mouse is clicked, make the bird flap" and "When the bird hits the ground, end the game."

**Materials:**

- **Code.org Course Two: Lesson Sixteen**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC/SBAC Skills:** Click/tap, Drag and drop, Scroll, Select and drag/slide, Select object
- **NGSS**:K-2-PS3, K-2-ETS1, 3-5-ETS1
- **CC Mathematical Practices**: 1, 2, 5, 6, 7, 8
- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- NGSS:K-2-PS3-2, K-2-ETS1-1, 3-5-ETS1-2
- CC Mathematical Practices: 1, 2, 5, 6, 7, 8
- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review the previous lesson on events.<br>• Teacher will introduce adding their own events to their coding.<br>• Teacher will instruct students to create an event on the mouse click that controls the bird's movements and what happens when | • Students will complete **Stage 16: Flappy 1-9** online using blockly coding to create programs using events.<br>• Students will control what happens to their bird when the mouse is clicked, and what happens to the bird when it crashes into an object. | • Students will be assessed by completing **Stage 16: Flappy 10** online. |

| | | |
|---|---|---|
| the bird crashes into an object.<br>• Teacher will introduce the idea of "collision detection," which is what happens when one object collides with or touches another object in the game.<br>• Teacher will ask students what kind of collisions they have seen in their own games.<br>• Teacher will challenge students to make their own games as unique as they can within the time constraints.<br>• If time allows, teacher will ask students to share their games and their coding with the class. | • If time allows, students will save and share their games and programming with their classmates. | |

| Session Seventeen: Play Lab: Create a Story | Timeframe: 30 minutes |
|---|---|

***Background:***

Students employ all the different programming concepts they have learned in the curriculum this far to make a customized, interactive story or game of their own.

**Materials:**

- **Code.org Course Two: Lesson Seventeen**
- **Session 17 Video Create a Story**
- **Computers**
- **Headphones**

**Standard(s):**

- **PARCC / SBAC Skills:** Click/tap**,** Drag and drop**,** Scroll**,** Select and drag / slide**,** Select object
- **NGSS**: K-2-PS3, K-2-ETS1, 3-5-ETS1
- **CC Mathematical Practices**: 1, 2, 5, 6, 7, 8
- **CC Math Standards**: 1.OA.A, 2.OA.A, 2.MD
- **CC ELA**: SL.1, L.1, SL.2, L.2, W.2, SL.3, L.3, W.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- NGSS: K-2-PS3-2, K-2-ETS1-1, 3-5-ETS1-2
- CC Mathematical Practices: 1, 2, 5, 6, 7, 8
- CC Math Standards: 1.OA.A.1, 2.OA.A.1, 2.MD.5
- CC ELA: SL.1.1, SL.1.5, L.1.6, SL.2.1, SL.2.5, L.2.6, W.2.6, SL.3.1, L.3.6, W.3.3, W.3.6
- Ed Tech: **K-**1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b I, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.1.f I, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.2.a P, 2.1.2.b D, 2.2.1.b P, 2.2.1.c P, 2.2.1.d D, 2.2.1.e D, 2.2.1.f D, 2.2.1.h I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.2.b P 2.2.1.d P, 2.2.1.e P, 2.2.1.f P, 2.2.1.h D, 2.2.1.j I, 2.2.1.k I, 2.2.1.l I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.h P, 2.2.1.j D, 2.2.1.k D, 2.2.1.l D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.1.j P, 2.2.1.k P, 2.2.1.l P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review the previous lesson, where students controlled their Flappy bird. | • Students will complete **Stage 17: Play Lab: Create a Story 1-10** online using | • Students will be assessed by completing **Stage 17: Play Lab: Create a Story 11** online. |

| | | |
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| • Teacher will introduce Play Lab: Create a Story. This is the most unstructured lesson, and so teachers might provide specific parameters for the stories students write.<br>• Teacher will instruct students to complete Stage 17: Play Lab Create a Story levels 1-10 online.<br>• Teacher will instruct students to share their completed stories with the class, and discuss the coding strategies they used. | blockly coding to create a story using what students have learned about computer coding.<br>• Students will share their stories with their class and the coding strategies they used. | |

| Session Eighteen: Unplugged: Digital Footprint (K-3) | Timeframe: Two 30 minute sessions |
|---|---|

***Background:***

Teachers introduce to students the idea that putting information about themselves online creates a digital footprint or "trail" that has consequences.

**Materials:**

- **Code.org Course Two: Lesson Eighteen**
- **Session 18 Pause and Think Online Video**
- **Session 18 Video**
- **Activity Animal Tracks Chart-Page Seven of Document**
- **Session 18 Assessment Digital Footprint**
- **Pens and Pencils**
- **FOR 5/6**
  - **Code.org Course Two: Lesson Eighteen for 5 and 6**
  - **Paper Craft Superheros- Pick a super hero, print and fold.**
  - **Session 18 Digital Citizenship Video**
  - **Session 18 Cyber Safety Video**
  - **Session 18 Assessment Digital Citizenship**

**Standard(s):**

- **CC ELA**: SL.1, L.1, SL.2, L.2, SL.3, L.3
- **Ed Tech**: **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2 **2**-1.1.1, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3**-1.1.2, 1.3.1, 1.3.3,2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2

**Lesson Learning Targets (which Content area and/or Ed Tech targets will be addressed in this lesson):**

- CC ELA: SL.1.1, SL.1.2, L.1.6, SL.2.1, SL.2.2, L.2.6, SL.3.1. SL.3.3, L.3.6
- Ed Tech: **K**-1.1.1.a I, 1.1.2.a P, 1.2.2.a I, 1.3.1.a I, 2.1.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.2.a I, 2.2.2.b I, 2.3.2.a I **1**-1.2.2.a D, 1.3.1.a D, 2.1.1.a I, 2.1.2.a P, 2.1.2.b I, 2.2.1.a P, 2.2.1.b D, 2.2.1.c D, 2.2.2.a I, 2.2.2.b I, 2.2.2.c I, 2.3.1.a I, 2.3.2.a D **2**-1.1.1.b P, 1.2.2.a P, 1.3.1.a P, 2.1.1.a D, 2.1.2.a P, 2.1.2.b D, 2.2.1.c P, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d I, 2.3.1.a D, 2.3.2.a P **3**-1.1.2.d I, 1.3.1.c I, 1.3.3.c D, 2.1.1.a P, 2.1.2.b P, 2.2.1.j I, 2.2.2.a D, 2.2.2.b D, 2.2.2.c D, 2.2.2.d D, 2.3.1.a P, 2.3.2.b I **4**- 1.1.1.e I, 1.1.2.d D, 1.3.1.c D, 1.3.3.c P, 2.1.1.c I, 2.1.2.a P, 2.2.1.j D, 2.2.2.a D, 2.2.2.b D, 2.2.2.d P, 2.3.2.b D **5**-2.1.1.c D, 2.1.2.a P, 2.2.2.a D, 2.2.2.b P, 2.3.2.b P **6**-2.1.1.c P, 2.1.2.a P, 2.1.2.e D, 2.2.2.a P

| Teach, Engage, and Explore | Guided/Independent Practice | Evaluate (formative assessment) |
|---|---|---|
| • Teacher will review what students have learned about computer coding.<br>• Teacher will introduce the term **digital footprint** - The information about someone on the internet.<br>• Teacher will ask students what they think it means to be safe online.<br>• Teacher will show Pause and Think video.<br>• Teacher will discuss the 3 kinds of websites. | • Students will complete the Animal Tracks Chart in groups of four.<br>• Students will work together to follow the digital trail of Mizzle the Mouse and Electra the Elephant.<br>• Students will take detailed notes and fill out their handouts as they go.<br>• Students will identify which animal had the biggest digital footprint. | • Students will be assessed by completing Your Digital Footprint: Staying Safe and Responsible Assessment/ **Digital Citizenship Assessment**<br>• Students will be assessed by completing **Stage 18: Your Digital Footprint 1** online. |

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|---|---|---|
| ○ Green: websites that are safe and appropriate for kids, with appropriate words and doesn't let you talk to people you don't know.<br>○ Yellow: a website that you aren't sure is appropriate for kids that asks for personal information or is a place that you can freely chat with people you don't know.<br>○ Red: A site that is not right for kids, meant for adults<br>• Teacher will explain how to play Follow the Digital Trail.<br>• Teacher will pass out the Animal Tracks chart.<br>• After the activity, teacher will ask the students, "Which animal had the biggest digital footprint? Which animal can we find out more about and why? Was there any information posted online that could become a problem? Why?" | • After the activity is complete, students will discuss what is appropriate and inappropriate information to share online. | |

**Task Rubric**

| Standard | Description | Performance Indicators | Points |
|---|---|---|---|
| | | Insert level 1 descriptor. | 1 |
| | | Insert level 2 descriptor. | 2 |
| | | Insert level 3 descriptor. | 3 |
| | | Insert level 4 descriptor. | 4 |
| | | Insert level 1 descriptor. | 1 |
| | | Insert level 2 descriptor. | 2 |
| | | Insert level 3 descriptor. | 3 |
| | | Insert level 4 descriptor. | 4 |
| | | Insert level 1 descriptor. | 1 |
| | | Insert level 2 descriptor. | 2 |
| | | Insert level 3 descriptor. | 3 |
| | | Insert level 4 descriptor. | 4 |

**Insert grade level specific Ed Tech Scoring Rubric below (as the last page if needed) Insert grade level specific Ed Tech Scoring Rubric here**