



Curriculum Framework

Code.org K-5 Curriculum Course 1

Lesson 1: Happy Maps (unplugged)	
Objectives	<ul style="list-style-type: none">List steps to move character around a map.Arrange directions to reach predetermined goal.Predict where character will land, given a list of steps.
Themes	Algorithms
Practices	Collaboration, Problem Solving
Standards	ISTE: 1.c, 2.d, 6.a CSTA: CPP.L1:3-04, CT.L1:6-01, CT.L1:6-02, CT.L2-03, CT.L2-06 CC Mathematical Practices: 1, 2, 6, 7, 8 CC Math Standards: K.G.A.1 CC ELA: SL.K.1, SL.K.2, SL.K.5, L.K.6 SL.1.1, SL.1.2, SL.1.5, L.1.6 SL.2.1, SL.2.2, SL.2.5, L.2.6
Lesson 2: Move it, Move it (unplugged)	
Objectives	<ul style="list-style-type: none">Recognize situations where they can create programs to complete tasks.Predict moves necessary to get teammate from start to finish.Convert movements into symbolic instructions.Relate algorithms as programs to teammate.
Themes	Algorithms
Practices	Collaboration, Problem Solving
Standards	ISTE: 1.c, 2.d, 4.b, 6.a CSTA: CPP.L1:3-04, CPP.L1:6-05, CT.L1:6-01, CT.L1:6-02, CT.L2-03, CT.L2-06 CC Mathematical Practices: 1, 2, 6, 7, 8 CC Math Standards: K.G.A.1, K.CC. 4 CC ELA: SL.K.1, SL.K.2, L.K.6 SL.1.1, SL.1.2, L.1.6 SL.2.1, SL.2.2, L.2.6
Lesson 3: Jigsaw - Learn to Drag and Drop	
Objectives	<ul style="list-style-type: none">Use a mouse to input information into a computer.Recall and apply the rules of pair programming.Use pair programming to complete collaborative tasks with or without a computer.Identify situations when the rules of pair programming are not followed.Arrange puzzle pieces into the proper order.
Themes	Computing Practice and Programming
Practices	Collaboration, Problem Solving
Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c CSTA: CD.L1:3-01, CL.L1:3-02, CT.L1:3-01, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08



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	<p>CC Mathematical Practices: 1, 2, 5, 6, 7, 8 CC Math Standards: K.G.A.1 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6</p>
<h3>Lesson 4: Maze - Sequence</h3>	
<p>Objectives</p>	<ul style="list-style-type: none"> Express movement as a series of commands. Order movement commands as sequential steps in a program. Represent an algorithm as a computer program. Count the number of times an action should be executed and represent it as instructions in a program.
<p>Themes</p>	<p>Computing Practice and Programming</p>
<p>Practices</p>	<p>Problem solving</p>
<p>Standards</p>	<p>ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CD.L1:3-01, CL.L1:3-02, CT.L1:3-01, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2 CC Mathematical Practices: 1, 2, 5, 6, 7, 8 CC Math Standards: K.CC.B.4, K.OA.A.3, K.OA.A.5, K.G.A.1 1.OA.A.1 2.OA.A.1, 2.G.A.2 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6</p>
<h3>Lesson 5: Maze - Debugging</h3>	
<p>Objectives</p>	<ul style="list-style-type: none"> Predict where a program will fail. Modify an existing program to solve errors. Identify an algorithm that is unsuccessful when the steps are out of order.
<p>Themes</p>	<p>Computing Practice and Programming</p>
<p>Practices</p>	<p>Problem Solving, Persistence</p>
<p>Standards</p>	<p>ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT.L1:3-01, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2 CC Mathematical Practices: 1, 2, 3, 5, 6, 7, 8 CC Math Standards: K.CC.B.4, K.OA.A.3, K.OA.A.5, K.G.A.1 1.OA.A.1 2.OA.A.1, 2.G.A.2 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6</p>
<h3>Lesson 6: Real Life Algorithms - Plant a Seed (unplugged)</h3>	
<p>Objectives</p>	<ul style="list-style-type: none"> Name various activities that make up their day. Decompose large activities into a series of smaller events. Arrange sequential events into their logical order.



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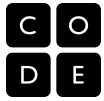
Themes	Algorithms
Practices	Problem solving, Collaboration
Standards	ISTE: 1.a, 1.c, 2.d, 4.b, 6.a CSTA: CT.L1:3.03, CT.L1:6.01, CT.L1:6.02, CT.L1:6.05, CPP.L1:3.04, CPP.L1:6-05, CT.L2-03, CT.L2-06 NGSS: K-LS1.1 CC Mathematical Practices: 1, 2, 3, 6, 7, 8 CC ELA: SL.K.1, SL.K. 5, L.K.6 SL.1.1, SL.1.2, SL.1.5, L.1.6 SL.2.1, SL.2.2, L.2.6
Lesson 7: Bee - Sequence	
Objectives	<ul style="list-style-type: none"> Express movement as a series of commands. Order movement commands as sequential steps in a program. Represent an algorithm as a computer program. Convert a whole number to the equivalent quantity of individual blocks. Distinguish between flowers and honeycombs. Express the relationships between flowers, nectar, honeycombs, and honey.
Themes	Computing Practice and Programming
Practices	Problem Solving
Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT. L1:3-01, CPP. L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2, K-ESS3-1 CC Mathematical Practices: 1, 2, 5, 6, 7, 8 CC Math Standards: K.CC.B.4, K.OA.A.3, K.OA.A.5, K.G.A.1 1.OA.A.1 2.OA.A.1, 2.G.A.2 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6
Lesson 8: Artist - Sequence	
Objectives	<ul style="list-style-type: none"> Create a program to complete an image using sequential steps. Select an argument for a given command. Choose the appropriate blocks to draw images with non-continuous lines.
Themes	Computing Practice and Programming
Practices	Problem Solving
Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT. L1:3-01, CPP. L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2 CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8 CC Math Standards: K.G.A.1, K.G.A.2, K.G.B.6 1.G.A.1, 1.G.A.2 2.G.A.1 CC ELA: SL.K.1, SL.K.5, L.K.6



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	SL.1.1, SL.1.5, L.1.6 SL.2.1, L.2.6
Lesson 9: Building a Foundation (unplugged)	
Objectives	<ul style="list-style-type: none"> Outline steps to complete a structural engineering challenge. Predict and discuss potential issues in structure creation. Build a structure based on team plan. Revise both plan and structure until they satisfy challenge.
Themes	Algorithms
Practices	Creativity, Collaboration, Problem Solving, Persistence
Standards	ISTE: 1.b, 1.c, 2.d, 4.b, 4.d, 6.c CSTA: CPP.L1:3-04, CT.L1:6-01, CT.L1:6-02, CT.L1:6-05, CL.L1:6-03, CL.L2-04 NGSS: K-2-ETS1-1, K-2-ETS1-2, K-2-ETS1-3 Mathematical Practices: 1, 2, 3, 5, 6, 7, 8 CC Math Standards: K.CC.4, K.MD.1, K.MD.2 CC ELA: SL.K.1, SL.K.2, SL.K.5, L.K.6 SL.1.1, SL.1.2, SL.1.5, L.1.6 SL.2.1, SL.2.2, L.2.6
Lesson 10: Artist - Shapes	
Objectives	<ul style="list-style-type: none"> Create a program to draw a shape using sequential steps. Explain the difference between squares and rectangles and support it with evidence consisting of the commands used to draw the different shapes. Compare the positions of different objects using "above", "below", "next to". Correctly identify shapes regardless of their overall size. Compare and contrast squares and rectangles by their number of sides and side lengths.
Themes	Computing Practice and Programming
Practices	Problem Solving, Creativity
Standards	ISTE: 1.a, 1.b, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT. L1:3-01, CPP. L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-ETS1-1 CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8 CC Math Standards: K.G.A.1, K.G.A.2, K.G.B.6 1.G.A.1, 1.G.A.2, 1.G.A.3 2.G.A.1 CC ELA: SL.K.1, SL.K.5, L.K.6 SL.1.1, SL.1.5, L.1.6 SL.2.1, L.2.6
Lesson 11: Spelling Bee	
Objectives	<ul style="list-style-type: none"> Arrange sequential movement commands to search for and identify target words within a grid of letters. Practice spelling age-appropriate words.
Themes	Computing Practice and Programming
Practices	Problem Solving



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Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT. L1:3-01, CPP. L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2 CC Mathematical Practices: 1, 2, 5, 6, 7, 8 CC ELA: SL.K.1, L.K.6, RF.K.1.B SL.1.1, L.1.6, RF.1.3.B SL.2.1, L.2.6
Lesson 12: Getting Loopy (Unplugged)	
Objectives	<ul style="list-style-type: none"> Repeat actions initiated by the instructor. Translate a picture program into a live-action dance. Convert a series of multiple actions into a single loop.
Themes	Abstraction
Practices	Creativity, Collaboration, Problem Solving
Standards	ISTE: 1.c, 2.d, 4.b, 6.a CSTA: CT.L1:3-03, CT.L1:6-01, CT.L1:6-02, CT.L1:6-05, CPP.L1.3-04, CPP.L1:6-05, CT.L2-03, CT.L2-06 NGSS: K-2-PS3-2 Mathematical Practices: 1, 2, 4, 6, 7, 8 CC Math Standards: K.CC.4, K.CC.6, K.MD.3 CC ELA: SL.K.1, SL.K.2, L.K.6 SL.1.1, SL.1.2, L.1.6 SL.2.1, SL.2.2, L.2.6
Lesson 13: Maze - Loops	
Objectives	<ul style="list-style-type: none"> Identify the benefits of using a loop structure instead of manual repetition. Create a program for a given task which loops a single command. Break down a long sequence of instructions into the smallest repeatable sequence possible. Create a program for a given task which loops a sequence of commands. Employ a combination of sequential and looped commands to reach the end of a maze.
Themes	Computing Practice and Programming
Practices	Problem Solving
Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT.L1:3-01, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2, K-2-ETS1-1 CC Mathematical Practices: 1, 2, 4, 5, 6, 7, 8 CC Math Standards: K.CC.4, K.OA.A.3, K.OA.A.5, K.G.A.1 1.OA.A.1 2.OA.A.1 2.G.A.2 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6



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Lesson 14: Bee - Loops	
Objectives	<ul style="list-style-type: none"> Write a program for a given task which loops a single command. Identify when a loop can be used to simplify a repetitive action. Employ a combination of sequential and looped commands to move and perform actions.
Themes	Computing Practice and Programming
Practices	Problem solving
Standards	ISTE: 1.a, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CL.L1:3-02, CT.L1:3-01, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-08, CT.L2-12 NGSS: K- 2-PS3-2, K-2-ETS1-1, K-ESS3-1 Mathematical Practices: 1, 2, 4, 5, 6, 7, 8 CC Math Standards: K.CC.B.4, K.OA.A.3, K.OA.A.5, K.G.A.1 1.OA.A.1 2.OA.A.1 CC ELA: SL.K.1, L.K.6 SL.1.1, L.1.6 SL.2.1, L.2.6
Lesson 15: The Big Event (unplugged)	
Objectives	<ul style="list-style-type: none"> Repeat commands given by an instructor. Recognize actions of the teacher as signals to initiate commands. Practice differentiating pre-defined actions and event-driven ones.
Themes	Algorithms
Practices	Creativity, Collaboration, Communication
Standards	ISTE: 1.c, 4.b, 6.a CSTA: CPP.L1:3-04, CT.L1:6-02, CT.L1:6-05, CT.L1:6-01, CT.L 2-06 NGSS: K-2-ETS1-1 CC Mathematical Practices: 1, 2, 6, 7, 8 CC Math Standards: K.CC. 4 CC ELA: SL.K.1, SL.K.2, L.K.6 SL.1.1, SL.1.2, L.1.6 SL.2.1, SL.2.1, L.2.6
Lesson 16: Play Lab - Create a Story	
Objectives	<ul style="list-style-type: none"> Identify actions that correlate to input events. Create an animated, interactive story using sequence, loops, and event-handlers. Share a creative artifact with other students.
Themes	Computing Practice and Programming
Practices	Creativity, Communicating
Standards	ISTE: 1.a, 1.b, 1.c, 4.b, 6.a, 6.c, 6.d CSTA: CT.L1:3-01, CL.L1:3-02, CPP.L1:6-03, CPP.L1:6-05, CPP.L1:6-06, CT.L2-01, CT.L2-06, CT.L2-07, CT.L2-08, CT.L2-12 NGSS: K-2-PS3-2, K-2-ETS1-1 CC Mathematical Practices: 1, 2, 5, 6, 7, 8 CC Math Standards: K.CC.B.4 , K.OA.A.5 1.OA.A.1



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	2.OA.A.1 CC ELA: SL.K.1, SL.K.5, L.K.6, W.K.3, W.K.6 SL.1.1, SL.1.5, L.1.6, W.1.6 SL.2.1, SL.2.5, L.2.6, W.2.3
Lesson 17: Going Places Safely (unplugged)	
Objectives	<ul style="list-style-type: none">• Understand that being safe when they visit websites is similar to staying safe in real life.• Learn to recognize websites that are alright for them to visit.• Recognize the kind of information that is private.• Understand that they should never give out private information on the Internet.• Learn to create effective usernames that protect their private information.
Themes	Community Global and Ethical Impacts
Practices	Communicating, Problem Solving
Standards	ISTE: 5.a, 5.b, 6.a CSTA: CI.L1:3-01, CPP.L2-06 CC ELA: SL.K.1, SL.K.2, L.K.6 SL.1.1, SL.1.2, , L.1.6 SL.2.1, SL.2.2, L.2.6