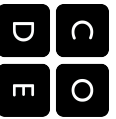


Standards Alignment

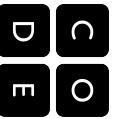
Code.org K-5 Curriculum Course 2

1. Graph Paper Programming (Unplugged)

ISTE	1.b - Create original works as a means of personal or group expression. 1.c - Use models and simulation to explore complex systems and issues. 2.d - Contribute to project teams to produce original works or solve problems. 4.b - Plan and manage activities to develop a solution or complete a project. 4.d - Use multiple processes and diverse perspectives to explore alternative solutions.
CSTA	CPP.LI:3-04. Construct a set of statements to be acted out to accomplish a simple task. CPP.LI:6-05. Construct a program as a set of step-by-step instructions to be acted out. CT.LI:3-03. Understand how to arrange information into useful order without using a computer. CT.LI:6-01. Understand and use the basic steps in algorithmic problem-solving. CT.LI:6-02. Develop a simple understanding of an algorithm using computer-free exercises. CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. 3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	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. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.



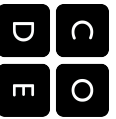
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
2. Real-life Algorithms - Paper Airplanes (Unplugged)	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.b - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>2.d - Contribute to project teams to produce original works or solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p>
CSTA	<p>CT.L1:3-03. Understand how to arrange information into useful order without using a computer.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercise.</p> <p>CT.L1:6-05. Make a list of sub-problems to consider while addressing a larger problem.</p> <p>CPP.L1:3-04. Construct a set of statements to be acted out to accomplish a simple task.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out (e.g., make a peanut butter and jelly sandwich activity).</p> <p>CT.L2-03. Define an algorithm as a sequence of instructions that can be processed by a computer.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p>



K-5 Curriculum Course 2

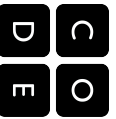
Standards Alignment

NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	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 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 1.G.1 - Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes. 2.G.3 - Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i> , <i>thirds</i> , <i>half of</i> , <i>a third of</i> , etc., and describe the whole as two halves, three thirds, four fourths. CC ELA SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media. L.1.6 - 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. SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe. SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.



3. Maze - Sequence

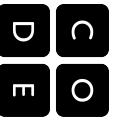
ISTE	1a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
CSTA	CD.LI:3-01. Use standard input and output devices to successfully operate computer and related technologies. CT.LI:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CL.LI:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CPP.LI:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.LI:6-06. Implement problem solutions using a block-based visual programming language. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Use appropriate tools strategically. 4. Attend to precision. 5. Look for and make use of structure. 6. Look for and express regularity in repeated reasoning. 1.OA.1 - 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. 2.OA.1 - 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. ¹



K-5 Curriculum Course 2

Standards Alignment

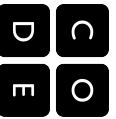
	<p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
CC ELA	
4. Artist - Sequence	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
CSTA	<p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to</p>



K–5 Curriculum Course 2

Standards Alignment

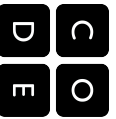
	meet the criteria and constraints of the problem.
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.5. Use appropriate tools strategically.6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning. <p>1.OA.1 - 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.</p> <p>1.G.A.1 - 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.</p> <p>1.G.A.2 - 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.</p> <p>2.OA.1 - 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.</p> <p>2.G.A.1 - Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.</p> <p>3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.5 - Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.</p>



K-5 Curriculum Course 2

Standards Alignment

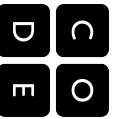
	<p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
5. Getting Loopy (Unplugged)	
ISTE	<p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p>
CSTA	<p>CT.LI:3-03. Understand how to arrange information into useful order without using a computer</p> <p>CT.LI:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.LI:6-02. Develop a simple understanding of an algorithm using computer-free exercise.</p> <p>CT.LI:6-05. Make a list of sub-problems to consider while addressing a larger problem.</p> <p>CPP.LI.3-04. Construct a set of statements to be acted out to accomplish a simple task.</p> <p>CPP.LI:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CT.L2-03. Define an algorithm as a sequence of instructions that can be processed by a computer.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning. <p>1.MD.4 - 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</p>



K-5 Curriculum Course 2

Standards Alignment

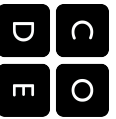
	another.
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
6. Maze - Loops	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
CSTA	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>



K-5 Curriculum Course 2

Standards Alignment

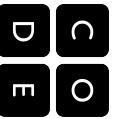
	CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
NGGS	<p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.5. Use appropriate tools strategically6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning. <p>1.OA.1 - 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.</p> <p>2.OA.1 - 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.</p> <p>3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with</p>



K-5 Curriculum Course 2

Standards Alignment

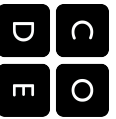
	diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. L.3-6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.
7. Artist - Loops	
ISTE	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.b - Create original works as a means of personal or group processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
CSTA	CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CT. L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics 5. Use appropriate tools strategically 6. Attend to precision. 7. Look for and make use of structure.



K-5 Curriculum Course 2

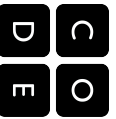
Standards Alignment

	<p>8. Look for and express regularity in repeated reasoning.</p> <p>1.OA.1 - 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.</p> <p>1.G.A.1 - 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.</p> <p>1.G.A.2 - 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.</p> <p>2.OA.1 - 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.</p> <p>2.G.A.1 - Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.</p> <p>3.OA.A.3 - 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.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>

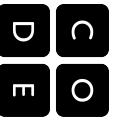


8. Bee - Loops

ISTE	1a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
CSTA	CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06 .Describe and analyze a sequence of instructions being followed. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CS Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 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. 1.OA.1 - 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.



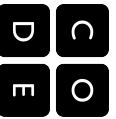
	<p>2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems 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.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>
CS ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
9. Relay Programming (Unplugged)	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p>
CSTA	<p>CT.L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:3-03. Understand how to arrange information into useful order without using a computer.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercise.</p> <p>CT.L1:6-05. Make a list of sub-problems to consider while addressing a larger problem.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p>



K-5 Curriculum Course 2

Standards Alignment

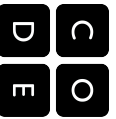
	<p>CT.L2-03. Define an algorithm as a sequence of instructions that can be processed by a computer.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CPP.L1.3-04. Construct a set of statements to be acted out to accomplish a simple task.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.3. Construct viable arguments and critique the reasoning of others6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning. <p>2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p>



K-5 Curriculum Course 2

Standards Alignment

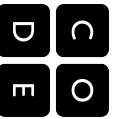
	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
10. Bee - Debugging	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
CSTA	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.5. Use appropriate tools strategically.



K-5 Curriculum Course 2

Standards Alignment

	<p>6. Attend to precision.</p> <p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>1.OA.A.1 - 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.</p> <p>2.OA.1 - 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.</p> <p>3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
11. Artist - Debugging	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project--- the tasks of this lesson are to "develop a solution.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p>



K-5 Curriculum Course 2

Standards Alignment

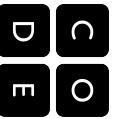
	6.d - Transfer current knowledge to learning of new technologies.
CSTA	CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06 .Describe and analyze a sequence of instructions being followed. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. 3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 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. 1.OA.1 - 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. 1.G.A.1 - 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. 1.G.A.2 - 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.



K-5 Curriculum Course 2

Standards Alignment

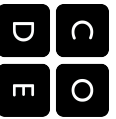
	<p>2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions,</p> <p>2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p> <p>2.G.A.1 - Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <p>2.MD.5 - 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.</p> <p>3.OA.3 - 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.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
12. Conditionals (Unplugged)	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p>
CSTA	CT.LI:3-03. Understand how to arrange information into useful order without using a computer



K-5 Curriculum Course 2

Standards Alignment

	<p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercise.</p> <p>CT.L1:6-05. Make a list of sub-problems to consider while addressing a larger problem.</p> <p>CPP.L1.3-04. Construct a set of statements to be acted out to accomplish a simple task.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CT.L2-03. Define an algorithm as a sequence of instructions that can be processed by a computer.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
NGSS	<p>3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning.
CC ELA	<p>1.MD.4. - 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.</p> <p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with</p>



K-5 Curriculum Course 2

Standards Alignment

	diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.
--	--

13. Bee - Conditionals

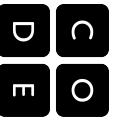
ISTE	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 4.d - Use multiple processes and diverse perspectives to explore alternative solutions. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
CSTA	CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions. CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
NGSS	K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics.



K-5 Curriculum Course 2

Standards Alignment

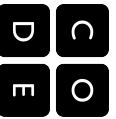
	<p>5. Use appropriate tools strategically.</p> <p>6. Attend to precision.</p> <p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>1.OA.1 - Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations.</p> <p>2.OA.1 - 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.</p> <p>2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p> <p>2.MD.5 - 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.</p> <p>2.NBT.A.4 - Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>



K-5 Curriculum Course 2

Standards Alignment

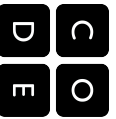
14. Binary Bracelets (Unplugged)	
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
CSTA	<p>CT.L1:3-03. Understand how to arrange information into useful order without using a computer.</p> <p>CT.L1:6-03. Demonstrate how a string of bits can be used to represent alphanumeric information.</p> <p>CT.L1:3-05. Demonstrate how 0s and 1s can be used to represent information.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.4. Model with mathematics.6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning.
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts,</p>



K-5 Curriculum Course 2

Standards Alignment

	including using adjectives and adverbs to describe. SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.
15. The Big Event (Unplugged)	
ISTE	1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems .
CSTA	CPP.LI:3-04. Construct a set of statements to be acted out to accomplish a simple task. CT.LI:6-02. Develop a simple understanding of an algorithm using computer-free exercises. CT.LI:6-05 Make a list of sub-problems to consider while addressing a larger problem. CT.LI:6-01. Understand and use the basic steps in algorithmic problem-solving. CT.LI2-06. Describe and analyze a sequence of instructions being followed.
NGSS	K-2-ETS1-1 - Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.
CC ELA	SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media. L.1.6 - 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. SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.



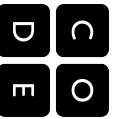
K-5 Curriculum Course 2

Standards Alignment

	<p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
--	--

16. Flappy

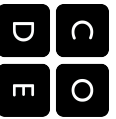
ISTE	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.b - Create original works as a means of personal or group expression.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
CSTA	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CL.L1:6-01. Use productivity technology tools for individual and collaborative writing, communication, and publishing activities.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L1:3-02. Use writing tools, digital cameras and drawing tools to illustrate thoughts, ideas, and stories in a step by step manner.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>



K-5 Curriculum Course 2

Standards Alignment

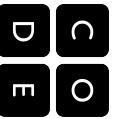
CC Math	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.
CC ELA	SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. L.1.6 - 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. W.1.6 - With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe. W.2.6 - With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. W.3.6 - 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.
17. Play Lab - Create a Story	
ISTE	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.b - Create original works as a means of personal or group expression. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.



K-5 Curriculum Course 2

Standards Alignment

CSTA	<p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:3-02. Use writing tools, digital cameras and drawing tools to illustrate thoughts, ideas, and stories in a step by step manner.</p> <p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CL.L1:6-01. Use productivity technology tools for individual and collaborative writing, communication, and publishing activities.</p> <p>CPP.L1:3-03. Create developmentally appropriate multimedia products with support from teachers, family, or student partners.</p> <p>CPP.L1:6-03. Use technology tools for individual and collaborative writing, communication and publishing activities.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>
NGSS	<p>K-2-PS3-2. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
CC Math	<p>Mathematical Practices</p> <ol style="list-style-type: none">1. Make sense of problems and persevere in solving them.2. Reason abstractly and quantitatively.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. <p>1.OA.A.1 - 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.</p> <p>2.OA.A.1 - 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</p>



K-5 Curriculum Course 2

Standards Alignment

	<p>using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.MD.5 - 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.</p>
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.5 - Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.</p> <p>L.1.6 - 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.</p> <p>W.1.6 - With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.5 - Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>W.2.6 - With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>W.3.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.3.6 - 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.</p>
18. Your Digital Footprint (Unplugged)	
ISTE	<p>5.a - Advocate and practice safe, legal, and responsible use of information and technology.</p> <p>5.b - Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</p> <p>6.a - Understand and use technology systems.</p>
CSTA	<p>C.II.L1:3-01. Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and</p>



K-5 Curriculum Course 2

Standards Alignment

	software. CPP.L2-06. Demonstrate good practices in personal information security: using passwords, encryption, secure transactions
NGSS	NA
CC Math	NA
CC ELA	<p>SL.1.1 - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>L.1.6 - 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.</p> <p>SL.2.1 - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.2 - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p>L.2.6 - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>