

Computer Science Fundamentals

KENTUCKY ACADEMIC STANDARDS (KAS) FOR COMPUTER SCIENCE

This document aligns the Code.org Computer Science Fundamentals (CSF) courses with the KAS for Computer Science. At least one KAS for Computer Science standard is aligned with each CSF lesson. The structure is as follows:

- **Standard Identifier** (Identifier1, Identifier2, Identifier 3) reflects consistent coding for the identification of a standard representing the grade (or grade band), the concept area and the numerated standard number per concept.

- **Example**

Grade Band	Concept	Standard (number)
H	-NI-	03
E = Grades K-5 ES	Algorithms & Programming (AP)	Standard Number per Concept
M = Grades 6-8 MS	Computing Systems (CS)	
H = Grades 9-12 HS	Data & Analysis (DA)	
	Impacts of Computing (IC)	
	Networks & the Internet (NI)	

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- **Standard** (Standard1, Standard2, Standard3) outlines what students are expected to know and be able to do.

For more information about Kentucky Academic Standards, visit <https://kystandards.org/>.

STANDARDS ALIGNMENT

Course A

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Going Places Safely</i>	E-IC-02	Discover how computing devices have affected the way people communicate.	E-IC-04	Understand the importance of proper use of data and information in a computing society.		
<i>02: Learn to Drag and Drop</i>	E-CS-02	Identify, select and operate appropriate software and hardware to perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.	E-AP-04	Decompose precise steps needed to solve a problem.	E-IC-02	Discover how computing devices have affected the way people communicate.
<i>03: Happy Maps</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.
<i>04: Sequencing with Scrat</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>05: Programming with Scrat</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>06: Programming with Rey and BB-8</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>07: Happy Loops</i>	E-AP-02	Explore and use variables in a program.	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an	E-AP-08	Identify and correct errors in an algorithm.

<i>Lesson</i>	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
				artifact, individually and collaboratively.		
<i>08: Loops with Scrat</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>09: Loops with Laurel</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>10: Ocean Scene with Loops</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>11: The Big Event Jr.</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>12: On the Move with Events</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		

Course B

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Learn Your Digital Footprint</i>	E-NI-01	Understand the basic components of how networks operate to protect physical and digital information.	E-IC-02	Discover how computing devices have affected the way people communicate.	E-IC-04	Understand the importance of proper use of data and information in a computing society.
<i>02: Move It, Move It</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-05	Use a process when creating programs or computational artifacts.
<i>03: Sequencing with Angry Birds</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>04: Programming with Angry Birds</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>05: Programming with Harvester</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>06: Getting Loopy</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>07: Loops with Harvester</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>08: Loops with Laurel</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>09: Drawing Gardens with Loops</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>10: The Right App</i>	E-CS-01	Identify, select and operate appropriate software and hardware to perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.	E-IC-01	Discuss how computing has impacted society.		
<i>11: The Big Event Jr.</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>12: A Royal Battle with Events</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		

Course C

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Screen Out the Mean</i>	E-IC-02	Discover how computing devices have affected the way people communicate.				
<i>02: Powerful Passwords</i>	E-IC-02	Discover how computing devices have affected the way people communicate.	E-IC-04	Understand the importance of proper use of data and information in a computing society.	E-NI-01	Understand the basic components of how networks operate to protect physical and digital information.
<i>03: My Robotic Friends Jr.</i>	E-AP-02	Explore and use variables in a program.				
<i>04: Programming with Angry Birds</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>05: Debugging in Maze</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>06: Collecting Treasure with Laurel</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>07: Creating Art with Code</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>08: Binary Bracelets</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>09: My Loopy Robotic Friends Jr.</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.

<i>Lesson</i>	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
		artifact, individually and collaboratively.				
<i>10: Loops with Rey and BB-8</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>11: Harvesting Crops with Loops</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>12: Looking Ahead with Minecraft</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.				
<i>13: Sticker Art with Loops</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>14: The Big Event</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>15: Build a Flappy Game</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>16: Chase Game with Events</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>17: Picturing Data</i>	E-DA-01	Appropriately store and modify digital files.	E-DA-02	Collect and visually display data using appropriate applications.	E-DA-3	Analyze data for trends and relationships
<i>18: End of Course Project</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-05	Use a process when creating programs or computational artifacts.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.

Course D

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Graph Paper Programming</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>02: Introduction to Online Puzzles</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>03: Relay Programming</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-AP-08	Identify and correct errors in an algorithm.
<i>04: Debugging with Laurel</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-CS-01	Identify, select and operate appropriate software and hardware to	E-CS-02	Identify and describe the function of common physical components of

<i>Lesson</i>	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
				perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.		computing systems (hardware) using appropriate terminology.
<i>05: Events in Bounce</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-CS-02	Identify and describe the function of common physical components of computing systems (hardware) using appropriate terminology.		
<i>06: Build a Star Wars Game</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>07: Loops in Ice Age</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>08: Drawing Shapes with Loops</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
<i>09: Nested Loops in Maze</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-AP-08	Identify and correct errors in an algorithm.
<i>10: Conditionals with Cards</i>	E-AP-04	Decompose precise steps needed to solve a problem.				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>11: If/Else with Bee</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>12: While Loops in Farmer</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>13: Until Loops in Maze</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>14: Harvesting with Conditionals</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>15: Binary Images</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>16: Binary Images with Artist</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-AP-08	Identify and correct errors in an algorithm.
<i>17: Digital Citizenship</i>	E-NI-01	Understand the basic components of how networks operate to protect physical and digital information.				
<i>18: Dance Party</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.

Course E

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Sequencing in the Maze</i>	E-AP-08	Identify and correct errors in an algorithm.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>02: Drawing with Loops</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>03: Conditionals in Minecraft: Voyage Aquatic</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.				
<i>04: Conditionals with the Farmer</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>05: Simon Says</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>06: Swimming Fish with Sprite Lab</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>07: Alien Dance Party with Sprite Lab</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>08: Private and Personal Information</i>	E-NI-01	Understand the basic components of how networks operate to				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
		protect physical and digital information.				
<i>09: About Me with Sprite Lab</i>	E-IC-03	Evaluate the relevance and appropriateness of electronic information sources and digital media.	E-NI-01	Understand the basic components of how networks operate to protect physical and digital information.		
<i>10: Designing for Accessibility</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-CS-03	Describe basic hardware and software problems using accurate terminology.	E-IC-02	Discover how computing devices have affected the way people communicate.
<i>11: Nested Loops in Maze</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>12: Fancy Shapes with Nested Loops</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>13: Nested Loops with Frozen</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-05	Use a process when creating programs or computational artifacts.		
<i>14: Songwriting</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>15: Functions in Minecraft</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>16: Functions with Harvester</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>17: Functions with Artist</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		

<i>Lesson</i>	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>18: End of Course Project</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-IC-04	Understand the importance of proper use of data and information in a computing society.

Course F

<i>Lesson</i>	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>01: Functions in Minecraft</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>02: Swimming Fish with Sprite Lab</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>03: Alien Dance Party with Sprite Lab</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>04: Drawing with Loops</i>	E-AP-04	Decompose precise steps needed to solve a problem.				
<i>05: Nested Loops in Maze</i>	E-AP-04	Decompose precise steps needed to solve a problem.				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>06: Envelope Variables</i>	E-AP-02	Explore and use variables in a program.				
<i>07: Variables with Artist</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>08: Changing Variables with Bee</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>09: Changing Variables with Artist</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>10: Simulating Experiments</i>	E-DA-02	Collect and visually display data using appropriate applications.	E-DA-3	Analyze data for trends and relationships	E-IC-02	Discover how computing devices have affected the way people communicate.
<i>11: For Loop Fun</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>12: For Loops with Bee</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>13: For Loops with Artist</i>	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
<i>14: The Internet</i>	E-NI-02	Model how information is broken down into smaller pieces (data packets), transmitted over various paths (physical and/or wireless), and reassembled at the destination				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
<i>15: Behaviors in Sprite Lab</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.		
<i>16: Virtual Pet with Sprite Lab</i>	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.		
<i>17: The Power of Words</i>	E-NI-01	Understand the basic components of how networks operate to protect physical and digital information.				
<i>18: Crowdsourcing</i>	E-AP-04	Decompose precise steps needed to solve a problem.	E-IC-01	Discuss how computing has impacted society.	E-IC-02	Discover how computing devices have affected the way people communicate.
<i>19: Digital Sharing</i>	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
<i>20: End of Course Project</i>	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-07	Document, share and reflect when creating programs using correct terminology.	E-AP-05	Use a process when creating programs or computational artifacts.

Pre-Express

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
01: Learn to Drag and Drop	E-AP-04	Decompose precise steps needed to solve a problem.	E-CS-01	Identify, select and operate appropriate software and hardware to perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.		
02: Sequencing with Scrat	E-AP-04	Decompose precise steps needed to solve a problem.			E-IC-02	Discover how computing devices have affected the way people communicate.
03: Programming with Scrat	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
04: Programming with Rey and BB-8	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
05: Programming with Harvester	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
06: Spelling Bee	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
07: Loops with Scrat	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.

Pre-Express

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
08: Loops with Laurel	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
09: Ocean Scene with Loops	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
10: Drawing Gardens with Loops	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
11: On the Move with Events	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-05	Use a process when creating programs or computational artifacts.
12: A Royal Battle with Events	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-05	Use a process when creating programs or computational artifacts.

Express

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
01: Dance Party	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
		artifact, individually and collaboratively.				
02: Programming with Angry Birds	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
03: Debugging with Scrat	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
04: Collecting Treasure with Laurel	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
05: Creating Art with Code	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
06: Loops with Rey and BB-8	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
07: Sticker Art with Loops	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-08	Identify and correct errors in an algorithm.
08: Nested Loops in Maze	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.	E-AP-08	Identify and correct errors in an algorithm.
09: Snowflakes with Anna and Elsa	E-AP-04	Decompose precise steps needed to solve a problem.	E-AP-05	Use a process when creating programs or computational artifacts.		
10: Looking Ahead with Minecraft	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
11: If/Else with Bee	E-AP-04	Decompose precise steps needed to solve a problem.				
12: While Loops with the Farmer	E-AP-04	Decompose precise steps needed to solve a problem.				
13: Conditionals in Minecraft: Voyage Aquatic	E-AP-01	Create, follow, compare and refine algorithms for a task.				
14: Until Loops in Maze	E-AP-04	Decompose precise steps needed to solve a problem.				
15: Harvesting with Conditionals	E-AP-04	Decompose precise steps needed to solve a problem.				
16: Functions in Minecraft	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
17: Functions with Harvester	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
18: Functions with Artist	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-04	Decompose precise steps needed to solve a problem.		
19: Variables with Artist	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
20: Changing Variables with Bee	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
21: Changing Variables with Artist	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
22: For Loops with Bee	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
23: For Loops with Artist	E-AP-02	Explore and use variables in a program.	E-AP-04	Decompose precise steps needed to solve a problem.		
24: Swimming Fish in Sprite Lab	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				

Lesson	Identifier1	Standard1	Identifier2	Standard2	Identifier3	Standard3
25: Alien Dance Party	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.				
26: Behaviors in Sprite Lab	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.		
27: Virtual Pet with Sprite Lab	E-AP-03	Routinely create programs using a variety of tools to express ideas, address a problem or create an artifact, individually and collaboratively.	E-AP-06	Modify, remix or reuse part of an existing program to create a new program, giving attribution to others.		
28: End of Course Project	E-AP-01	Create, follow, compare and refine algorithms for a task.	E-AP-07	Document, share, and reflect when creating programs using correct terminology	E-AP-05	Use a process when creating programs or computational artifacts.