

Introduction to Coding Using MakeCode Learning Objectives

Learning Objectives	Learning Outcome	CSTA K-12 CS Standards
<p>P1.1) Develop a set of rules for using an online collaborative platform</p>	<p>Learners will understand the importance of being a responsible digital citizen, through using a shared online platform</p>	<p>1B-IC-19 Brainstorm ways to improve the accessibility and usability of technology products for the diverse needs and wants of users.</p> <p>1B-IC-20 Seek diverse perspectives for the purpose of improving computational artefacts.</p> <p>1B-AP-14 Observe intellectual property rights and give appropriate attribution when creating or remixing programs.</p>
<p>P1.2) Develop an understanding of coding language.</p>	<p>Learners will have an understanding of how they can use code to build in Minecraft and develop a relationship with 'Agent.'</p>	<p>1B-AP-10 Create programs that include sequences, events, loops, and conditionals.</p> <p>1B-AP-09 Create programs that use variables to store and modify data.</p>
<p>P1.3) Create a program for a given task using sequential steps</p>	<p>Learners will be able to solve problems within the Minecraft map through creating algorithms; and to use loops to refine/shorten their algorithms.</p>	<p>1B-AP-10 Create programs that include sequences, events, loops, and conditionals.</p> <p>1B-AP-11 Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.</p>

CODING IN MINECRAFT



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<p>P1.4) Modify an existing program to solve errors and predict if a program will fail</p>	<p>Learners will be able to debug code and understand how changing a part of the code will affect the overall process.</p>	<p>1B-AP-13 Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences.</p> <p>1B-AP-15 Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.</p> <p>1B-AP-12 Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.</p> <p>1B-AP-08 Compare and refine multiple algorithms for the same task and determine which is the most appropriate.</p>
<p>P1.5) Reflect on the debugging process in an age-appropriate way</p>	<p>Learners will collaborate within a shared platform to solve problems and share information.</p>	<p>1B-AP-16 Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.</p> <p>1B-AP-17 Describe choices made during program development using code comments, presentations, and demonstrations.</p>
<p>P1.6) Undertake a collaborative activity including allocating tasks, defining a timeline and refining a solution by providing and acting on feedback</p>	<p>Undertake a collaborative build in a team with various roles & responsibilities</p> <p>Review and feedback on other students work when working collaboratively</p> <p>Adjust your work based on feedback from others</p>	<p>2-AP-15 Seek and incorporate feedback from team members and users to refine a solution that meets user needs.</p> <p>2-AP-18 Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts.</p>