

Alexa (Secondary)

Overview & Mapping – Programme of Study (Computing)

Lesson	Lesson Objectives	Programme of Study for Computing statements
1	<ul style="list-style-type: none"> Explain the basics of how voice AI works. Program an Alexa skill that provides a random fact about space. Program an Alexa skill that can recite random space facts which are more targeted. Explain how Alexa uses AI to determine what users really mean by their commands (or utterances). 	3.1, 3.3, 3.7, 3.8
2	<ul style="list-style-type: none"> Give a definition for artificial intelligence Explain how a voice assistant understands a command Use a helpful thinking tool to solve a computational problem 	3.1,3.2, 3.5, 3.6, 3.7, 3.8
3	<ul style="list-style-type: none"> Recall how Alexa interprets your intention when you ask Alexa to open a skill List some amazing ideas to use an Alexa skill to make the world a better place Use a visual development environment to program an Alexa skill 	3.2, 3.3, 3.4, 3.6, 3.7, 3.9

Overview & Mapping – Teach Computing Curriculum Year 9 Programming Unit

Label	Teach Computing Curriculum Statement	Covered in Alexa	Alexa Specific
PS	Use an IDE to write and execute a (Python) program.	Lesson 1, Lesson 3	
PS	Locate and correct common syntax errors.	Lesson 1, Lesson 3	
CS	Call functions and use the results they return in expressions.	Lesson 1, Lesson 3	
PS	Use variables to keep track of information.	Lesson 1, Lesson 3	

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PS	Trace through branches and loops and sketch state.	Lesson 1, Lesson 3	
CS	Use selection (if) to control the flow of program execution.	Lesson 3	
DTAS	Create lists and access individual elements	Lesson 1, Lesson 3	
PS	Trace through programs that manipulate lists.	Lesson 1, Lesson 3	
DTAS	Perform common operations on lists.	Lesson 1, Lesson 3	
DTAS	Access individual string elements (characters).	N/A	
CS	Use iteration (while) to control the flow of program execution.	Lesson 1, Lesson 3	
DTAS	Perform common operations on strings.	N/A	
PS	Use variables to keep track of counts.	N/A	
PS	Trace through programs that iterate over sequences using for.	N/A	
CS	Use iteration (for) to iterate over lists.	N/A	
PS	Use variables to keep track of sums.	N/A	
PS	Combine features to develop solutions to meaningful problems.	Lesson 1, Lesson 3	
CS	Use iteration (for) to iterate over strings.	N/A	
	N/A	Lesson 1, Lesson 3	Program a physical device to respond to inputs.
	N/A	Lesson 1, Lesson 3	Make a device produce output as a result of user input.
	N/A	Lesson 1, Lesson 3	Create a program to make an AI tool interact with users.
	N/A	Lesson 1.	Modify existing code to improve functionality.

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	N/A	Lesson 2, Lesson 3	Use Computational thinking to decompose a problem.
	N/A	Lesson 2, Lesson 3	Use Abstraction while decomposing a problem.
	N/A	Lesson 2, Lesson 3	Create an Algorithm to solve a problem.
	N/A	Lesson 2, Lesson 3	Identify Patterns and repetitions in a system.

PS = Programming Skills

CS = Control Structures

DTAS = Data Types and Structures