

Medium Term Plan – Computing – Programming A – Sequencing sounds



Lesson	National Curriculum links	Objective	Substantive knowledge	Disciplinary knowledge	Specific Vocabulary	Activities and resources
4/1	To sequence, selection, and repetition in programs; work with variables and various forms of input and output	To explore a new programming environment	Sprites, backdrop Recognise commands as blocks	Be able to navigate a new programme	Scratch, sprites, backdrop, attributes, blocks	Introduction to scratch Recap on previous programming Make a backdrop for the sprites Add moving sprites
8/1	To sequence, selection, and repetition in programs; work with variables and various forms of input and output	To identify that commands have an outcome	Design and implement own code, replicate a code and experiment with movement blocks	How to implement a code	Programming, direction, glide, motion, turn	Programming sprites Create motion for one sprite and record, create motion for more than one sprite
15/1	To sequence, selection, and repetition in programs; work with variables and various forms of input and output	To explain that a programme has a start	Create sequenced commands Explain how objects will respond to commands	How to use event blocks to start programmes in different ways	Sequence, event, design, code, run the code	Sequencing Real life sequences Introduce event blocks Move sprites
22/1	To sequence, selection, and repetition in programs; work with variables and various forms of input and output	To recognise that a sequence of events has an order	Explain a sequence Combine sound commands Note sequence	Understand how sequences are implemented	Sequence, order, note, chord	Ordering commands Note when sounds occur Add own sound to movement
29/1	To sequence, selection, and repetition in programs; work with variables and various forms of input and output	To change the appearance of my project	Build a sequence of commands Decide actions Design artwork	How to add artwork to a programme to enhance the appearance	Multiple backgrounds commands	Looking Good Use costumes to improve the appearance of a sprite
5/2	To sequence, selection, and repetition in programs; work with variables and	To create a project from a task description	Identify and name the objects I will need for a project. relate a task	Understand that code can be copied	Copied, tested perform	Making an instrument Create a musical instrument

	various forms of input and output		description to a design implement my algorithm as code	from one sprite to another		
12/2	HALF TERM					
19/2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	To create questions with yes/no answers	investigate questions with yes/no	make up a yes/no question about a collection of objects	Attribute, value, questions, table, objects	investigate questions with yes/no create two groups of objects separated by one attribute
26/2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	To identify the attributes needed to collect data about an object	select an attribute to separate objects into groups create a group of objects within an existing group	arrange objects into a tree structure	tree structure	Develop understanding of using questions with yes/no answers to group objects more than once. Learn how to arrange objects into a tree structure.
4/3	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	To create a branching database	select objects to arrange in a branching database group objects using my own yes/no questions	test my branching database to see if it works	tree structure branching database testing	Develop understanding of ordering objects/images in a branching database structure. Learn how to use an online database tool to arrange objects into a branching database, and create own questions with yes/no answers. Learners will show that their branching database works through testing.
11/3	Design, write and debug programs that accomplish	To explain why it is helpful for a	create yes/no questions using given attributes	explain that questions need to be	specific order efficiency	Use attributes to create questions with

	specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	database to be well structured	compare two branching database structures	ordered carefully to split objects into similarly sized groups		yes/no answers, and apply these to given objects. Compare the efficiency of different branching databases, and will be able to explain why questions need to be in a specific order.
18/3	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	To plan the structure of a branching database	Independently create questions to use in a branching database	Create questions that will enable objects to be uniquely identified	physical representation	Independently plan a branching database by creating a physical representation of one that will identify different types of dinosaur. Think about the attributes of objects to write questions with yes/no answers, which will enable them to separate a group of objects effectively. Learners will then arrange the questions and objects into a tree structure, before testing the structure.
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	To independently create an identification tool	create a branching database that reflects my plan work with a partner to test my identification tool	Suggest real-world uses for branching databases	real-world applications	Indently create a branching database to identify different types of dinosaur, based on the paper-based version that they created in Lesson 5. work with a partner to test that their

						database works, before considering real-world applications for branching databases.
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