



TSS Primary Computing MTP 2023-2024

Year 4 Block 2 – Repetition with Dash & Dot

Week	Key Targets and Learning Objectives	Key Activities	Key Vocabulary
1	<ul style="list-style-type: none">➤ 2CT.01 Follow and understand linear algorithms.➤ 2CT.03 Know that an algorithm is a precise set of instructions.➤ 2P.01 Understand that programs instruct computers how to run algorithms.➤ 2P.02 Know how to recreate algorithms as programs.• Understand what problems are best solved with sequencing.• Use sequencing to revise code and complete coding challenges in an iterative process.	<p>Level A, Lesson 2: Students will be introduced to coding using Blockly and Dash the robot, and will explore sequencing with Dash.</p> <ul style="list-style-type: none">• https://portal.makewonder.com/#/curriculum/lights-sounds-and-animations-with-dash	<ul style="list-style-type: none">• Algorithm, program, sequence, lights (LED), animation, sound
2	<ul style="list-style-type: none">➤ 2CT.02 Identify and correct a single error in algorithms that represent everyday events or tasks.➤ 2CT.03 Know that an algorithm is a precise set of instructions.➤ 2P.01 Understand that programs instruct computers how to run algorithms.➤ 2P.02 Know how to recreate algorithms as programs.• Understand what problems are best solved with sequencing.• Use sequencing to revise code and complete coding challenges in an iterative process.	<p>Level A, Lesson 4: Students will review their previous programming of sequencing with lights, sounds, and animation blocks and further explore using sequencing with Dash. They will use Blockly preset programs and Challenge Cards to practice their new skills.</p> <ul style="list-style-type: none">• https://portal.makewonder.com/#/curriculum/movements	<ul style="list-style-type: none">• Algorithm, program, sequence, move (forward, back, left, right)
3	<ul style="list-style-type: none">➤ 4CT.02 Follow, understand, edit and correct algorithms that use iteration, including count-controlled loops.• Use loops to revise code and complete coding challenges in an iterative process.	<p>Level B, Lesson 4: Students will explore using the Repeat block to define a specific number of loops. They will use Blockly preset programs and Challenge Cards to practice their new skills.</p> <ul style="list-style-type: none">• https://portal.makewonder.com/#/curriculum/repeat-x-with-dash	<ul style="list-style-type: none">• Algorithm, program, repeat, loop, count controlled



TSS Primary Computing MTP 2023-2024

Year 4 Block 2 – Repetition with Dash & Dot

4	<p>➤ 4CT.02 Follow, understand, edit and correct algorithms that use iteration, including count-controlled loops.</p> <ul style="list-style-type: none"> • Understand how and when to use multiple loops. • Use multiple loops to revise code and complete coding challenges in an iterative process. 	<p>Level C, Lesson 5: Students will use multiple loops in a program. They will use Blockly preset programs and Challenge Cards to practice their new skills.</p> <ul style="list-style-type: none"> • https://portal.makewonder.com/#/curriculum/multiple-loops 	<ul style="list-style-type: none"> • Algorithm, program, repeat, loop, count controlled, multiple
5	<p>➤ 4CT.02 Follow, understand, edit and correct algorithms that use iteration, including count-controlled loops.</p> <p>➤ 4CT.05 Predict the outcome of algorithms that contain repetition</p> <ul style="list-style-type: none"> • Use nested loops to revise code and complete coding challenges in an iterative process. • Understand the definition of a nested loop. • Distinguish between when a nested loop should be used instead of a simple or regular loop. 	<p>Level D, Lesson 1: Students will learn how and why to use Nested Loops. They will use Blockly preset programs, puzzles and Challenge Cards to practice their new skills.</p> <ul style="list-style-type: none"> • https://portal.makewonder.com/#/curriculum/nested-loops 	<ul style="list-style-type: none"> • Algorithm, program, repeat, loop, count controlled, nested
6		<p>Owing to this being the first time Dash & Dot floor robots are introduced into the Computing curriculum only 5 lessons have been planned for this 7 week unit.</p> <p>It is quite possible that the first introductory lesson will need to be split over 2 weeks and all timings are approximate. National Day has also been factored in here.</p>	
7		<p>Should there be remaining time then students will be assigned Challenge Cards through Class Connect. These will be differentiated to either extend or reinforce concepts as necessary.</p>	