



TSS Primary Computing MTP 2022-2023

Year 1 Block 2 – Step by Step – Computational thinking & Programming

| Week | Key Targets and Learning Objectives | Key Activities | Key Vocabulary |
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| 1 | <ul style="list-style-type: none"> Know that an algorithm is a set of instructions to complete a task or to solve a problem. Follow the steps in algorithms for everyday tasks. | <ul style="list-style-type: none"> <i>What is an instruction?</i> Discuss their answers in pairs before sharing with the rest of the class. Elicit that instructions: <ul style="list-style-type: none"> tell us what to do, help us to do something, help us to solve a problem Run through some examples in the class of a short sequence of instruction. Show the video - Happy Maps #1 Course A (2022) - Code.org and complete the paper activity Introduce how to log in to Code.org | <ul style="list-style-type: none"> instruction algorithm left right forwards backwards |
| 2 | <ul style="list-style-type: none"> Know that the order of instructions is important when creating an algorithm. Follow the steps in algorithms for everyday tasks. | <ul style="list-style-type: none"> Review the idea of instructions and algorithms. Display a set of instructions and discuss the importance of doing them in order. Introduce Lesson 4 on Sequencing Code.org Sequencing with Scrat #1 Course A (2022) - Code.org | <ul style="list-style-type: none"> As lesson 1 but also North South East West sequence |
| 3 | <ul style="list-style-type: none"> Know that the order of instructions is important when creating an algorithm. Suggest ways that an algorithm could be changed to affect the outcome. | <ul style="list-style-type: none"> Read a familiar story in a random order. What's wrong with this? Reinforce that the order of an algorithm is important. Give children scrap paper and give them instructions to draw a picture you have drawn. Compare and discuss how the instructions, algorithm could be changed to make their drawings more accurate. Children in pairs to do similar, taking turns to give and receive instructions. | <ul style="list-style-type: none"> as lesson 1 plus accurate |
| 4 | <ul style="list-style-type: none"> Know that the order of instructions is important when creating an algorithm. Identify single errors in algorithms that represent everyday events or tasks. Suggest ways that an algorithm could be changed to affect the outcome. | <ul style="list-style-type: none"> Review the idea of sequencing in the right order and giving accurate instructions. Introduce lesson 5 for Code.org Programming with Scrat #2 Course A (2022) - Code.org Complete 2-5 | <ul style="list-style-type: none"> As lesson 3 |



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| 5 | <ul style="list-style-type: none">• Know that the order of instructions is important when creating an algorithm.• Identify single errors in algorithms that represent everyday events or tasks.• Suggest ways that an algorithm could be changed to affect the outcome. | <ul style="list-style-type: none">• Review ideas of sequencing and changing the algorithm.• Discuss the idea of making mistakes and that it is ok to do so.• https://youtu.be/S0GjA2v8iLY• Give the children simple spot the difference pictures and get them to identify the correct instructions/algorithm for each picture.• Differentiation more able could write the algorithm for the wrong picture.• Review which were the correct instructions. | <ul style="list-style-type: none">• as lesson 3 plus• error/mistake |
| 6 | <ul style="list-style-type: none">• Know that an algorithm is a set of instructions to complete a task or to solve a problem.• Suggest a set of ordered instructions to complete a simple task, such as drawing a picture of a particular object or building a brick tower.• Identify single errors in algorithms that represent everyday events or tasks. | <ul style="list-style-type: none">• Review the learning from last lesson.• Introduce the Beebots and how we can apply what we have learnt to this device.• Introduce the Beebot app• Working with groups of 6, cycle through children working with real Beebots in 2-3s and children working on the iPad Beebot app.• What have we learnt? | <ul style="list-style-type: none">• as lesson 5 plus• Beebot• turn |
| 7 | <ul style="list-style-type: none">• Know that an algorithm is a set of instructions to complete a task or to solve a problem.• Suggest a set of ordered instructions to complete a simple task, such as drawing a picture of a particular object or building a brick tower.• Identify single errors in algorithms that represent everyday events or tasks. | <ul style="list-style-type: none">• Review vocabulary in this block along with the key concepts.• Use the debugging video from Code.org Programming with Scrat #6 Course A (2022) - Code.org• Children to complete lesson 5 (7-12)• Review any misconceptions | <ul style="list-style-type: none">• as lesson 1 plus• bug• debug |