**<Computational Thinking in P3 Mathematics>**

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| **Subject:** | Mathematics | **Level:** | Primary 3 |
| **Unit:** | 9 |  |  |
| **Topic:** | Money |  |  |

**Summary**

Lesson 1: Intro, coding and computational thinking

Lesson 2: Whole Numbers – Multiplication algorithm and mental calculation involving multiplication

Lesson 3: Whole Numbers – Place value in thousands, hundreds, tens and ones

Lesson 4: Whole Numbers - Mental calculation involving addition and subtraction with 2 digit numbers

Lesson 5: Fractions – Visualising equivalent fractions

Lesson 6: Fractions - Expressing fractions in its simplest form

Lesson 7: Geometry – Perpendicular and Parallel Lines

Lesson 8: Geometry – Concepts of angles, right angles, angles greater/smaller than right angles

Lesson 9: Money – Adding and subtracting money in decimal notation.

Lesson 10: Area and Perimeter - Art and Craft work to make a rectangle/square digital wallet with specified dimensions.

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| **Prior Knowledge:** | Students should already know:1. Counting amount of money in dollars and cents2. Reading and writing money in decimal notation3. Converting an amount of money in decimal notation to cents only and vice versa. |
| **Learning Objectives:** | By the end of the lesson, students should be able to:1. add and subtract money2.3. |

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| **Time** | **Teacher Activities** | **Purpose** | **Resources Needed** |
| **Introduction/Pre-activity** |
| 5 min | Discuss the value of $1000 (e.g. things that can be bought with a $1000 note)Use the micro:bit to solve problems in real-world situation, e.g. saving and budgeting. |  |  |
| **Lesson development/Main activities** |
| **Lesson Development****[ 90 minutes]** | Code the programme in micro:bitThis allows the micro:bit to keep track of the coin bank by acting as a coin counter |  | micro:bitMakecode coding platform |
|  | Build the digital coin bank using straws, connectors and recycled materials. E.g. |  | Straws, connectors and recycled materials |
| **Lesson Activity****[20 minutes]** | Use the built digital coin bank to work out the following activities. Show the conversion from amount in cents to amount in dollarsE.g. |  |  |
| **Closure and consolidation/Post-activity** |
| **Conclusion****[5 minutes]** | Discuss real-world situation, e.g. saving and budgeting. |  |  |

Please send this template, together with any additional resources, e.g. Powerpoint slides, worksheets and .hex file, to: digital\_maker@imda.gov.sg.

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| **Contributed by:**Name of School: Horizon Primary SchoolName of Teacher (Optional):Date: 5 February 2018 |