**<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 cents  2. Reading and writing money in decimal notation  3. 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 money  2.  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:bit    This allows the micro:bit to keep track of the coin bank by acting as a coin counter |  | micro:bit  Makecode 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 dollars  E.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](mailto:digital_maker@imda.gov.sg).

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