**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: 1 | WEEK: 14 | STRAND: Number and Algebra | **SUB-STRAND:** Whole Numbers 2 | **WORKING MATHEMATICALLY:** MA1-3WM & MA12WM |
| OUTCOMES:  | * MA1-1WM describes mathematical situations and methods using every day and some mathematical language, actions, materials, diagrams and symbols
* MA1-2WM uses objects, diagrams and technology to explore mathematical problems
* MA1-3WM supports conclusions by explaining or demonstrating how answers were obtained
* MA1-4NA applies place value, informally, to count, order, read and represent two- and three-digit numbers
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| **CONTENT:**  | The following unit is incomplete. If you have taught or have any units that match this content please email to lauren.dawson16@det.nsw.edu.au (Glenmore Park Learning Alliance).**Count and order small collections of Australian coins and notes according to their value (ACMNA034)*** use the face value of coins and notes to sort, order and count money
* compare Australian coins and notes with those from other countries, eg from students' cultural backgrounds (Communicating)
* determine whether there is enough money to buy a particular item (Problem Solving, Reasoning)
* recognise that there are 100 cents in $1, 200 cents in $2, …
* identify equivalent values in collections of coins and in collections of notes, eg four $5 notes have the same value as one $20 note
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) |  |
| WARM UP / DRILL |  |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  |  |
| QUALITY TEACHING ELEMENTS | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Deep knowledge
* Deep understanding
* **Problematic knowledge**
* Higher-order thinking
* **Metalanguage**
* Substantive communication
 | * Explicit quality criteria
* **Engagement**
* High expectations
* Social support
* **Students’ self-regulation**
* Student direction
 | * Background knowledge
* Cultural knowledge
* **Knowledge integration**
* Inclusivity
* Connectedness
* Narrative
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| RESOURCES | Two large dice, numeral cards, hundreds chart, hundreds chart with missing values, before and after chart, three digit numeral cards.  |

**TEACHING AND LEARNING EXPERIENCE**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| **Explicit Teaching****Part A** Students are given a collection of coins. They demonstrate different ways to make 10c, 20c and 50c (and then $1 and 2) using the coins. Students record their findings. Possible questions include: ❚ how many different ways can you represent 50c? ❚ what counting strategy did you use to determine the amount of money you had? **Part B** The teacher creates shopping situations where one student is given an amount of money to spend. They purchase a list of items. The shopkeeper totals the items and calculates the change. Students discuss  | LEARNING SEQUENCERemediationES1LEARNING SEQUENCES1  | **Money Match** The student takes the envelope of money cards and an answer sheet and then matches the three cards that represent the same amount of money (two cards with money displayed and one card with money amount) **Handful of Money** **Part A** Students are given a bucket of 5c coins. They take a handful of coins from the bucket and are asked to use skip counting to determine the total. The teacher models recording the activity using repeated addition eg 5c + 5c + 5c + 5c + 5c + 5c = 30c. Students are encouraged to record their actions in a similar way. **Part B** Students are asked to remove the coins one at a time and count backwards by fives. Students are then asked to record their actions using repeated subtraction eg 30c – 5c – 5c – 5c – 5c – 5c – 5c = 0. *Variation:* The activity can be repeated using a bucket of 10c coins.  |
| LEARNING SEQUENCEExtension Early S2 | **Money Machines** The student takes one money amount card and writes it at the top of of a Money Machine sheet. The student writes the value of the money card in the first row. Using addition or multiplication the student finds the value of two money cards and writes that amount in the second row. The student continues filling in each row to show how much money is in the machine.  |
| EVALUATION & REFLECTION | Student engagement: Achievement of outcomes:Resources: Follow up: |
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