**MATHEMATICS STAGE 2**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK: 1 | STRAND: Number and Algebra | **SUB-STRAND:** Multiplication and Division 1 | **WORKING MATHEMATICALLY:**  WA2-1WM MA2-2WM MA2-3WM |
| OUTCOMES: | | **Uses mental and informal written strategies for multiplication and division** | | |
| **CONTENT:** | | Recall multiplication facts of two, three, five and ten and related division facts  • Count by 2’s, 3’s, 5’s, and 10’s by skip counting.  • Repeated Addition  • Link multiplication and division facts using groups or arrays. | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | WORKSHEET - Mathletics YR3, page 1. Repeated addition | | |
| WARM UP / DRILL | | * Oral skip counting by 2’s, 5’s, 10’s and introduce 3’s. * Game - BANG! using 2’s, 5’s and 10’s. | | |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION | | Tony is paid for washing cars. He gets paid $3 per car. If he washed 5 cars, how much money would he be paid? | | |
| 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 |
| RESOURCES | | IWB materials on arrays, hundreds chart to show 2’s, 5’s, 10’s and 3’s, worksheets on arrays and repeated addition, concrete materials such as counters, Mathletics, Studdyladder | | |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | |
| Explicit TeachingExplicitly teach and review skip counting. Revise skip counting by 2’s, 5’s, and 10’s. Introduce and discuss groups of 3 and skip counting by 3’s.  * Explicitly teach and discuss repeated addition and its relation to multiplication.   **Define and Reinforce**   * Discuss and define the metalanguage used in the unit: array, multiply, multiplied by, groups, rows, equals, repeated.   **IWB**   * Using IWB resources, introduce and demonstrate activities on the board that relate to and involve skip counting, arrays. These include matching games and memory games. | LEARNING SEQUENCERemediationS1 or Early S2 | * Revise skip counting aloud 2’s, 5’s and 10’s * Game - Buzz Off |
| LEARNING SEQUENCES2 | * Skip counting activities on the hundreds chart. Worksheet for students to colour number patterns and fill in the blanks i.e. 2, 4, \_, 8 etc * Model repeated addition and explain the concept to the class. * Activities involving repeated addition using concrete materials in groups and/or pairs.   **Investigation: How Many Fingers**   * As a whole class pose a question for the class to investigate about how many fingers/hands are in the class - by counting by 2’s, 5’s and 10’s. This involves getting the class to hold up their hands. * Model arrays and reinforce language. Link with multiplication eg 2 rows of 8 = 2 x 8. * Use concrete materials to make arrays, match to labels, make own. * ASSESSMENT - Observation of students making arrays and repeated addition using concrete materials and worksheet. |
| LEARNING SEQUENCEExtensionLate S2 or Early S3 | * EXT Link repeated addition directly to multiplication using signs x = .   - Link in division using arrays. |
| **EVALUATION & REFLECTION** | **Student Engagement Achievement of Outcomes**  **Resources Follow up** |