**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.
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| 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
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| 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
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| 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.
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| LEARNING SEQUENCEExtension Late 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** |