**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK: 2 | STRAND:Number and Algebra | **SUB-STRAND:**  Addition and Subtraction 2 | **WORKING MATHEMATICALLY:**  MA1-1WM and MA1-3WM |
| OUTCOMES: | | **MA1-5NA** uses a range of strategies and informal recording methods for addition and subtraction involving one- and two- digit numbers. | | |
| **CONTENT:** | | **Solve simple addition and subtraction problems using a range of efficient mental and written strategies (ACMNA030)**   * use and record a range of mental strategies to solve addition and subtraction problems involving two-digit numbers, including: CCT   + the jump strategy on an empty [number line](http://syllabus.bos.nsw.edu.au/glossary/mat/number-line/?ajax)   + the split strategy, eg record how the answer to 37 + 45 was obtained using the split strategy  30+40=70 7+5=12 so 70+12=82   + an inverse strategy to change a subtraction into an addition, eg 54 – 38: start at 38, adding 2 makes 40, then adding 10 makes 50, then adding 4 makes 54, and so the answer is 2 + 10 + 4 = 16 | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | TEN Assessment – See attached  PLAN data for Early Arithmetical Strategies | | |
| WARM UP / DRILL | | Flash card tens frames. 2 at a time. Explicitly model how to visualise and count on or back from the largest. | | |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION | | This program forms the basis of the TENs activities for the week | | |
| 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 | | Dotted tens frames, Double sided counters, whiteboards, markers, blank tens frames | | |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | |
| ***Kindergarten:*** Hold up dotted tens frames and ask students to count what they can see. Model counting the top row and then the bottom.  ***Year 1:*** Flash card tens frames. Explicitly demonstrate visualising what was seen as it is only a quick flash.  ***Year 2***: Flash card tens frames. 2 at a time. Explicitly model how to visualise and count on or back from the largest. | LEARNING SEQUENCERemediationES1 | *Perceptual/Figurative*  Shake rattle and drop 10 counters. Place counters on a ten frame. Discuss: How many red counters? How many yellow counters? How many altogether?  **Teaching point**  Counting groups and use the word ALTOGETHER  e.g There are 3 red counters and 7 yellow counters . There are 10 altogether. |
| LEARNING SEQUENCES1 | *Counting On and Back*  One partner shakes rattles and drops 10 counters whilst the other closes their eyes. He/she then covers one colour. Student opens eyes and “counts on” to find missing addend.  Record missing addend on whiteboard.  **Teaching Point**  Count on from a number to find missing addend. |
| LEARNING SEQUENCEExtensionEarly S2 | *Facile*  One partner shakes rattles and drops 20 counters whilst the other closes their eyes. He/she then covers one colour. Student opens eyes and uses knowledge of friends of 20 to find missing addend.  Record missing addend on whiteboard.  **Teaching Point**  Using combinations to 20 |
| **EVALUATION & REFLECTION** |  |

* All assessment tasks should be written in **red** and planning should be based around developing the skills to complete that task.
* Assessment rubrics or marking scale should be considered.