**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 3 | 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 attachedPLAN data for Early Arithmetical Strategies |
| WARM UP / DRILL | Practice counting forwards and backwards from any number in the range of 100 on the IWB hundreds chart. Can also play circle champion on the whiteboard with dice with a larger number range. |
| 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 | Large and small dot and numeral Dice, whiteboards, markers, IWB hundreds chart |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| ***Kindergarten:*** Practice counting forwards and backwards to 20 on the IWB hundreds chart. Can also play circle champion on the whiteboard with 2 dot dice.***Year 1:*** Practice counting forwards and backwards from any number to 30 on the IWB hundreds chart. Can also play circle champion on the whiteboard with one dot and one numeral dice.***Year 2***: Practice counting forwards and backwards from any number in the range of 100 on the IWB hundreds chart. Can also play circle champion on the whiteboard with dice with a larger number range. | LEARNING SEQUENCERemediationES1  | *Perceptual/Figurative*Roll a dot die and look closely at pattern. Look in the air to visualise and copy pattern in the air. Cover die with hand and make pattern on hand- partner cover die then make pattern on whiteboard and write numeral. Later in week use 2 dice and cover one add togetherMore capable cover both dice**Teaching Point**Teaching Visualisation |
| LEARNING SEQUENCES1 | *Counting On and Back*Roll 4 numeral dice- Write 4 numbers down and look for friends of 10 and doubles Record on whiteboard showing working out on how friends of 10 or doubles matchAdd 2 larger numbers together and discuss strategies.**Teaching Point** Finding Friends of 10/20 , doubles (using non count by 1’s strategies) |
| LEARNING SEQUENCEExtension Early S2 | *Facile*Roll 4 numeral dice- 3 six sided and 1 20 sidedWrite 4 numbers down and look for efficient strategies to add the numbers Record on whiteboard showing working out. Check with partner to see if same strategies were used. Discuss most efficient way to solve.**Teaching Point** Using known facts to complete addition |
| **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.