**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK:  | STRAND: NUMBER AND ALGEBRA | **SUB-STRAND:** **ADDITION AND SUBTRACTION** | **WORKING MATHEMATICALLY:** **MAe-1WM; MAe-2WM; MAe-3WM** |
| OUTCOMES: MAe-5NA | **Combines, separates and compares collections of objects, describes using everyday language, and records using informal methods**  |
| **CONTENT:**  | Students: * Use concrete materials or fingers to model and solve simple addition and subtraction problems
* Use visual representations of numbers to assist with addition and subtraction, eg ten frames
* Count forwards by ones to add, and backwards by ones to subtract
* Record addition and subtraction informally using drawings, words and numerals
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Students individually count forwards to 10, 20, 32 (as part of Best Start Assessment), and backwards from 10, 20
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| WARM UP / DRILL | * Buzz Off circle game using a variety of number ranges (Eg 0-10, 8-15, 10-0) and direction (forwards and backwards).
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | TENS activity covered as part of guided and independent activities as EAS is being addressed in this strand. |
| 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 |  Playing cards, counters, white boards, markers, IWB |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Students will be given real life opportunities to add two numbers together to make the whole.* **Similarly real life subtraction opportunities will also be part of class routines.**
* **Students are shown how to represent these examples on the IWB using pictures, words and numbers.**
* “Friends of ten” concept is explicitly taught and modelled using playing cards. Students each get a card and have to search through the others in the class to find a “friend of ten”
* “Cards and Counters” game and variants are modelled and explicitly taught in whole class setting.
 | LEARNING SEQUENCEPre Foundation Skills | * **Emergent:**
* Students recognise numerals to 10 and make the connection between these numerals and graphic representations on playing cards, starting with counting the icons on each cards until they are confidently recognising the numerals.
* Students practise ordering the numbers 1-10, and backwards from 10-1 using playing cards
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| LEARNING SEQUENCEES1 | * **Perceptual:**

Investigation:* Students recognise the numbers on each card as a count by playing a card and counter game: Working in pairs each student draws a card. The student with the higher number wins a counter. The game’s winner is the student with the most counters when the cards have all been drawn.
* Addition facts can be revised and practised by each student drawing two cards and the student who correctly adds the numbers first wins the counter.
* Subtraction facts are revised by placing a 10 card down to start, and drawing a second card. Each student counts back to determine the result of 10 minus the given number.
* To consolidate number facts to ten students match “friends of ten” cards, racing each other to complete as many pairs as they can.
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| LEARNING SEQUENCEExtension S1 | * **Figurative:**
* Addition facts can be revised and practised by each student drawing two cards and the student who correctly adds all four numbers first wins the counter.
* Students use numbers, words and pictures to represent their working.
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| **EVALUATION & REFLECTION** |  |

* All assessment tasks should be written in **red** and planning should be based around developing the skills to complete that task.