**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: 1 | WEEK: 3 | STRAND: NUMBER AND ALGEBRA | **SUB-STRAND:** FRACTIONS AND DECIMALS | **WORKING MATHEMATICALLY:** MAe-1WM MAe-3WM MA1-1WM |
| OUTCOMES: MA1-7NA | **Represents and models halves, quarters and eighths.** |
| **CONTENT:**  | **Recognise and describe one-half as one of two equal parts of a whole (**ACMNA016)\* Record two equal parts of whole objects and shapes, and the relationship of the parts to the whole, using pictures and the fraction notation for half. |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Observation of decorating a cake (on paper) deciding less than a half, a half, more than a half.
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| WARM UP / DRILL | * Using a bucket and blocks children count on or back from a given number as a few more blocks are added or taken out.
 |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  |  |
| 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 | Worksheets – Half a shape and object, half/more/less to identify, writing the notation ½ in the appropriate shapes and objects, paper and pictures to glue into their book or on an A4 piece of paper to show ½. iPads – Drawing Pad.  |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Explicitly communicate lesson outcomes and work quality.* **Teach and review** the concept and continuing background knowledge of a half.
* Worksheet – To show very good knowledge of the concept.
* Some examples can be found in:-
* Maths Plus 1 pages 3 and 31.
* NSW Maths Assessment pages 43, 45 and 47.
* The worksheets are covering half of a shape and object, more/ less/ of a shape or object.
* Introduce the notation ½ to be included.
* **Metalanguage** whole, part,equal parts, half, halves, less, more.
 | LEARNING SEQUENCERemediation ES1 | * Review terms and language of half.
* Identify 2D shapes and pictures cut in half.
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| LEARNING SEQUENCES1 | * **Whole Class Instruction and Modelled Activities**
* Assessment – Worksheet – Representing lessons previously taught to reflect the children’s knowledge on the topic of halves.
* Studyladder – Worksheet available on half and matching halves.
* iPads – Drawing Pad – Drawing pictures and colouring half and recording the notation ½ on correct components.
* Creating half on paper shapes and objects, writing the notation ½ and gluing them into their book or on a piece of A4 paper.
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| LEARNING SEQUENCEExtension S2 | * To introduce or develop the concept of a quarter (1/4) – Year 2 extension.
* To introduce or develop the concept of a third (1/3), a fifth (1/5), an eighth (1/8) or 2 or more parts of the fraction – Year 3 extension.
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| **EVALUATION & REFLECTION** | **Student Engagement: Achievement of Outcomes:****Resources: Follow Up:** |

* 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.