**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 7 | STRAND: Number | **SUB-STRAND:** Fractions & Decimals | **WORKING MATHEMATICALLY:** 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)**

\* Create quarters by halving one-half, eg 'I halved my paper then halved it again and now I have quarters' (Communicating, Prob Solv) |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Matching labels correctly with objects using half, quarter, ½, 1/4.
 |
| WARM UP / DRILL | * IWB - Targeting Maths 2 Lab Fractions.
 |
| 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
 |
| RESOURCES | Rainforest Maths, Targeting Maths Lab 2, Pikelets and Lamingtons p.41, |

**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** creating quarters by halving one-half. Discuss how one-quarter can be created. Check how they would be the same size. Students cut a variety of paper shapes into halves and quarters.
* Teacher holds up a large strip of paper and then folds it in half. Students determine what each of the parts are and label it. The teacher then folds one-half of the half. Students determine what the new parts are called. Label the part.
* **Define and Reinforce metalanguage used in the unit** eg whole, part, equal parts, one-half, halves, one-quarter, one-eighth, 1/2, 1/4, 1/8.
* **IWB** - Targeting Maths Lab Fractions
 | LEARNING SEQUENCERemediationES1 or Early S1 | * Match labels to items that are divided equally into two or four parts.
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| LEARNING SEQUENCES1 | **Investigations:*** The students follow the same procedure using two shapes the same size (circles, squares, rectangles etc) and cut one into halves and the other into quarters. Determine which are the largest pieces - halves or quarters. Label each piece.
* Throw a Fraction - game. Play in pairs or groups of four. Using a die that has been marked with ½, 1/4 on its faces, some counters and cards that have 4 circles divided into quarters for each player. Take turns to throw the die and cover the fraction thrown with counters. First to cover all of their shapes is the winner
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| LEARNING SEQUENCEExtension S2 | * Using three circles cutting first shape into halves, the second shape into quarters, and the third shape into eighths. Label them using ½, 1/4 or1/8
* Throw a Fraction - game. As above but including divisions on the circle (Or alternative shape) Die would include 1/8.
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| **EVALUATION & REFLECTION** | **Student Engagement:** | **Resources:** |
| **Achievement of Outcomes:** | **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.