**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 4 | 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)Uses concrete materials to model half of a collection.Describes two equal parts of a collection, e.g. I have halves because the two parts have the same number of seedlings. |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Using a stick of centre cubes, linking blocks or similar break the stick into halves (making sure that there are an equal number of blocks in the stick).
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| WARM UP / DRILL | * Race game in 2 or more teams, 1st child in each team either identifies the number, the number after or the number before that is being shown by the teacher. Children remain in the game if first with the correct answer until 1 child remains.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | 10 birds are on the fence. Half fly away. How many are left?  |
| 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 | Interlocking blocks, teddies/ dinosaurs/ cars, hoops, plates.IWB activities, iPad applications.Books - FRACTIONS - Pikelets and Lamingtons - Signpost Maths Assessment Lower Primary.  |

**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 and half of objects.
* Using objects, such as teddies, counters, dinosaurs etc. Children have to count out a nominated amount in pairs. Then using 2 plates they share them out to determine what half of that amount would be. Repeat with a range of even numbers 2-10.
* Worksheet – Maths Plus 1 page 15.

The children repeat the above activity using the worksheet as an example for the number they are halving. 1a on the worksheet has 2 children. Using 2 objects halve them onto the plates. How many on 1 plate? Colour that amount on the worksheet. Repeat for other questions. * **Metalanguage** whole, part,equal parts, half, halves, less, more, equal number.
 | LEARNING SEQUENCERemediation ES1 | * Use 2 hoops on the floor to count out and share the number of objects equally.
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| LEARNING SEQUENCES1 | **Whole Class Instruction and Modelled Activities*** Studyladder – View halving groups as a class. Discuss results.
* iPads – Using drawing pad draw the number of objects nominated and circle half in pairs.
	+ Go to other applications such as -Fractions, Decimals and Percentages Skill Builders
		- * + -Pizza Fractions 1
				+ -Fractions by Braining Camp
* Review class lesson on halving objects into 2 groups.
* Studyladder – 10 questions on number of objects.
* Assessment – Worksheet – Representing lessons previously taught to reflect the children’s knowledge on the topic of halves and half of objects. E.g. Signpost Maths Assessment Lower Primary page 59. Shows half of an object, half of a shape, half of a group and understanding of half, less or more.
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| LEARNING SEQUENCEExtension S2 | * To introduce bigger number of objects to half – Year2.
* To introduce to equally share objects into thirds, fifths, eighths –Year 3.
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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.