**MATHEMATICS ES1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 3 | STRAND: Number and Algebra | **SUB-STRAND:** Fractions and Decimals | **WORKING MATHEMATICALLY:** MAE-7NA MAE-1WM  |
| OUTCOMES: Mae-3WM | **Uses concrete materials and/or pictorial representations to support conclusions** |
| **CONTENT:**  | **Establish the concept of one –half*** Recognise when two parts are not halves of one whole
* Explain why two parts of one whole are not halves, e.g. ‘the two parts are not halves because they are not the same’ (Communicating, Reasoning)
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Practical: Students dollop bright coloured paint onto large A3 white paper. Students fold paper in half. Once dry students to cut along the line of symmetry. Students discuss with teacher if their painting is now in two equal parts, are both sides exactly the same size.
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| WARM UP / DRILL | * IWB: I want my half: Select different students to complete the interactive activity within the session. .
* IWB: Count us in Beach Game
* Read book ‘Give me half’ by Stuart Murphy. (Siblings fight over pizza and eventually decide to split it into half)
* Rainforest maths
* www.coolmath-games.com
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| 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 | Paint, paint brushes/, scissors, glue, A4 coloured paper/cardboard, IWB, fruit, playdough, 2D shapes (circles, squares), pencils, counter, Book: Give me half (Stuart Murphy), plastic cups / containers, sand or water/rice, A3 paper, shape proforma for assessment task. |

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| TEACHING AND LEARNING EXPERIENCESWHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Explicitly communicate lesson outcomes and work quality.* Teach and review the concept of whole and half.
* Define and reinforce metalanguage used in unit- e.g.: whole, halves are two equal parts.
* The teacher demonstrates cutting a piece of fruit into two equal pieces.
* Provide students with a variety of pictures & shapes to fold in half, students then cut along the fold of symmetry.
* IWB activities
 | LEARNING SEQUENCERemediationES1  | * Review / revise concept of whole and halves.
* Reinforce through **discussion** and drawings those parts of a fraction, like halves are the same as each other (equal). Emphasise this in terms that the students can understand: “It wouldn’t be fair if one half was bigger than the other half”. Also emphasise that when you split something in half, you make a fraction by taking a **whole and** turning it into two equal parts.
* Emphasise the language of ‘two equal parts’ when describing half. In everyday usage the term ‘half’ is sometimes used to mean one of two parts and not necessarily two equal parts, e.g. “I’ll have the biggest half”.
* Students investigate and identify a variety of objects/ concrete materials that are whole and can then be divided into two equal parts.
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| LEARNING SEQUENCES1 | **Modelled and small group activities.*** The teacher cuts shapes into two equal halves for students to match in order to recreate the shape. The students discuss the number of parts needed to create each shape and use the term halves. These shapes can then be pasted in workbook, or A4 paper.
* The teacher cuts coloured paper shapes such as circles, squares triangles and rectangles in unequal parts. Students explain why the parts are not equal Discuss where the cut should have been made in order to have two equal parts. Discuss their observations.
* Investigation: Children are handed shapes that have been cut in half. Paste the shapes in a book and the children must draw the other half of the shape attached to it.
* IWB: teacher to draw a selection of shapes/ or groups of objects, students have an opportunity to divide in equal halves. Discuss outcomes; Were parts equal, why, why not?

Assessment: On a proforma showing a selection of shapes, students are to colour half of the shape. Students communicate / justify their reasons for colouring their specific chosen shapes.  |
| LEARNING SEQUENCEExtension Early S2 | * **Extension:** Provide a scenario e.g. I have 14 smarties to share. How many will each child get if I share them equally with 2 children, and then 4 children. Draw your answers.
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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.