**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TERM: | WEEK: 5 | 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)**   \* Record two equal parts of a collection, and the relationship of the parts to the whole, using pictures and fraction notation for half | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | * Show a selection of 4 shapes that have been divided into two parts. Ask the students to identify the shape/shapes that are divided into equal parts or halves. | | |
| WARM UP / DRILL | | * **Heads / Shoulders Game:** Show students pictures of objects that have been divided into two parts. Objects that have been divided equally the students place their hands on their head. Unequal parts the students place hands on their shoulders. Vary game with collections of objects. | | |
| 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.41-42, Sample Units of Work (Mathematics K-6),  Multi-attribute blocks, Dominoes (doubles), Labels with *½ ,* half, equal share, unequal share | | |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |  |  |
| --- | --- | --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | | |
| Explicitly communicate lesson outcomes and work quality.  * **Teach and review** two equal parts of a collection, and the relationship of the parts to the whole, using pictures and fraction notation for half. * Make a **fraction book** about half. eg There were 20 fish and half swam away. How many fish were left? Students illustrate caption and turn the page or fold the page to see the answer. * **Define and Reinforce metalanguage used in the unit** eg whole, part, equal parts, half, halves, about a half, more than a half,less than a half. * **IWB** - Rainforest Maths Identifying objects that have been divided in half | LEARNING SEQUENCERemediationES1 or Early S1 | * Matching labels of equal or unequal groups to pictures divided into 2 parts. * Identifying pictures of collections that are equally divided in halves. | |
| LEARNING SEQUENCES1 | Investigations:   * **Sharing a collection.** Put out even numbers of multi-attribute blocks. Have two children share the shapes equally. Label the collections with '*half*' , ' *½*'. * **Find Half of a Collection - Game:** Students are given a die with faces numbered 2,4,6,8,10,12. In small groups or pairs, students take turns to roll the die. They collect the counters to match half the amount rolled and record their roll and the counters taken eg 10 is rolled and the student collects 5 counters. Students have a predetermined number of rolls. The winner is the student who has the most counters. * Draw pictures to solve problems. eg There are 8 cakes. Half are on the blue plate, and the other half are on a yellow plate. * Match the picture of a collection that has been divided with an appropriate label. eg equal share, half, *½ etc;* | |
| LEARNING SEQUENCEExtensionS2 | * Naming what part of the shape has been shaded. * Divide a collection into halves, quarters, eighths. | |
| **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.