**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TERM:  | WEEK: 10 | STRAND: Measurement and Geometry | **SUB-STRAND:** **Time 2** | **WORKING MATHEMATICALLY:** **MA1-1WM, MA1-2WM, MA1-3WM** |
| OUTCOMES: MA1-13MG | **Describes, compares and orders durations of events, and reads half- and quarter-hour time** |
| **CONTENT:**  | **Tell time to the quarter-hour using the language of ‘past’ and ‘to’*** Identify which hour has just passed when the hour hand is not pointing to a numeral
* Record quarter-past and quarter-to time on analog and digital clocks
 |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Get students to record ‘quarter-past’,’ half-past’ and ‘quarter-to’ times on an analog clock using the Interactive Whiteboard (IWB)
* Can students recognise other times given by the teacher? Can they identify the ‘hour’ just passed?
 |
| WARM UP / DRILL | * Use ‘quarter-past’, ‘half-past’ and ‘quarter-to’ flashcards to drill students.
* Sit in a circle and play ‘quarter-past’, ‘half-past’ and ‘quarter-to ‘dominoes where students match words with analog clocks.
 |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | It is now 4:30. My mum told me to be home at 4 o’clock. Am I late or am I early? |
| 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 | ‘Quarter-past’, ‘half-past’ and ‘quarter-to’ flashcards, ‘quarter-past’, ‘half-past’ and ‘quarter-to ‘dominoes, time snap cards, digital and analog clock flash cards, paper plates, split pins, card, scissors, CD player |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |
| --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Review and Teach – Musical Time – Pass a number of clock faces around a circle. When the music stops a student reads a digital time flashcard out loud. The students with the clocks make the time. Alternatively they could make the time ‘one hour’ before or after.* **Time Snap** – The teacher provides a set of cards with times in both analog and digital notation. Students sit in a circle and play snap. They need to match the correct analog card with the digital card.
* **Ordering Time** – Choose a group of four students to come out the front. Give each student a time card (ensure there is a mixture of analog and digital examples) and ask them to stand in the correct ‘time’ order e.g. 3:00, 3:15, 3:30, 3:45 *How do we know which hour we have passed?*
 | LEARNING SEQUENCERemediationES1  | * Read analog and digital clocks to the hour using the term ‘o’clock’.
* Describe the position of the hands on an analog clock when reading ‘hour’ time.
 |
| LEARNING SEQUENCES1 | * In pairs students play ‘time snap’.
* Students order given times.
* **Investigation:** Research different types of clocks on the internet and construct a class poster.
* **Assessment** – Students need to construct a clock face from a paper plate. (Ensure there are no clock faces around the room to look at). Each student is given a different time on a card, which they need to make on their clock.
* *Which hour has just passed on your clock?*
* Afterwards refer to a real analog clock so students can make any adjustments.
 |
| LEARNING SEQUENCEExtension Early S2 | * Describes times given using ‘am’ and ‘pm’ notation in relation to ‘midday’ (or ‘noon’) and ‘midnight e.g. ‘3:15pm is three and a quarter hours after midday’.
* Relate analog notation to digital notation for time e.g. Ten to nine in the morning is the same time as 8:50am.
 |
| **EVALUATION & REFLECTION** | * Can students recognise the hour that has just passed?
* Can students correctly construct an analog clock face?
* Can students record the time given on their clock?
 |

* 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.