**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 3 | STRAND: Measurement and Geometry | **SUB-STRAND: Time 1** | **WORKING MATHEMATICALLY: MA1-1WM, MA1-2WM** |
| OUTCOMES: MA1-13MG | **Describes, compares and orders durations of events, and reads half- and quarter-hour time** |
| **CONTENT:**  | **Tell time to the half hour*** Describe the position of the hands on a clock for the half hour.
* Explain why the hour hand on a clock is halfway between the two hour markers when the minute hand shows the half hour.
* Describe everyday events with particular hour and half-hour times, e.g. We start school at 9 o’clock.
* Record hour and half-hour time on analog and digital clocks.
* Read analog and digital clocks to the half-hour using the terms ‘o’clock’ and ‘half past’.
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Students record half-past times on an analog clock using the Interactive Whiteboard (IWB)
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| WARM UP / DRILL | * Use ‘half-past’ flashcards to drill students.
* Sit in a circle and play ‘half-past’ dominoes where students match words with analog clocks.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | Mr Clickety Cane lost his watch. He had to be at work at 7o’clock in the morning. He didn’t know if 7 o’clock in the morning was just after he woke up or just after he had his dinner. Can you help him? |
| 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 | Large skipping rope and/or extension lead, Numeral cards 1-12, half past and o’clock flash cards and dominoes, paper plates, split pins, model of a clock, relevant worksheets, pictures of everyday events |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Review and Teach – As a class, students construct a large clock face using a large skipping rope or extension lead. Using no. cards 1-12, place the numerals on the clock face, discussing their positions as you go. NB – *Define the ‘12’ as ‘o’clock’ and the ‘6’ as ‘half-past’ the hour, pointing out how the position of the ‘6’ is ‘half’ of the clock face.** Pair children into ‘tall’ (minute hand) and ‘short’ (hour hand) and get them to lay on the ground in ‘o’clock’ and ‘half-past’ positions, until all pairs have had a turn.
* Refer to the following link –

<http://www.educationworld.com/a_tsl/archives/02-1/lesson009.shtml>At the end of the activity, review with the students the information learned.* **Explain placement of hour hand and minute hand for ‘half-hour’ times** - Using a model of an analog clock, the teacher demonstrates how and where the hands move on a clock when we are showing ‘half-past’ time. Explain that the ‘minute’ hand needs to be ‘halfway’ round the clock and that the ‘hour’ hand also needs to be ‘halfway’ past the hour mentioned.

Introduce a ‘digital’ clock and demonstrate how to record ‘o’clock’ and ‘half-past’ time.* **Everyday events** – Show students pictures of different events e.g. cleaning teeth, playing sport, going to bed.
* Discuss what times of the day these events may occur. Have students hold the cards and get into a timeline at the front of the room.
 | LEARNING SEQUENCERemediationES1  | * Individually make their own analogue clock, placing the numerals 1-12 in the correct positions. Place the minute and hour hands onto the clocks using split pins. Come back together as a class and use the clocks to make given ‘o’clock’ times with the teacher.
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| LEARNING SEQUENCES1 | * Individually make their own analogue clock, placing the numerals 1-12 in the correct positions. Place the minute and hour hands onto the clocks using split pins. Come back together as a class and use the clocks to make given ‘o’clock’ and ‘half-past’ times with the teacher.
* Students individually complete a worksheet relating to ‘half past’ time on analog and digital clocks.
* As a class, play ‘Musical Clocks’. Sit in a circle and pass a small analog, and/or digital clock around to music. When the music stops, the student with the clock turns over a flash card and makes that time on their clock face.
	+ **NB** – *Have a selection of ‘o’clock’ and ‘half past’ times to choose from on both analog and digital clock*
	+ *faces.*
* In pairs, students cut and paste a selection of events into a time line and discuss ‘why’ they have placed them in this order.
* **Investigation:** Survey a family member about what they do in a typical day. Record.
* **Assessment** – Observe students during activities and record whether or not they can position the hands of a clock correctly for ‘half past’ time.
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| LEARNING SEQUENCEExtension Early S2 | * Order analog and digital clocks showing o’clock and half past times.
* Make a digital clock and record ‘half past’ times.
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| **EVALUATION & REFLECTION** | * Can students position the hands on the clock for ‘half hour’ time?
* Can they record ‘half hour’ and ‘hour’ times on analog and digital clocks?
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* 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.