**MATHEMATICS STAGE 2**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 3 | STRAND: Measurement and Geometry | **SUB-STRAND:** Time 1 | **WORKING MATHEMATICALLY:** MA2-1WM |
| OUTCOMES: MA2-13MG | **Reads and records time in one-minute intervals and converts between hours, minutes and seconds**  |
| **CONTENT:**  | **Tell time to the minute and investigate the relationship between units of time (ACMMG062)**\* Read analog and digital clocks to the minute, including using the terms 'past' and 'to', e.g. 7:35 is read as 'seven thirty-five' or 'twenty-five to eight' |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Quick drill with digital and analog clock. Children say the time the teacher has set on clock.
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| WARM UP / DRILL | * Counting by 5’s.
* Clock games from previous lessons.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | The time on my digital clock says 7:35. How many minutes past seven o’clock is this? How many minutes to eight o’clock is this? |
| 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 | Teacher clock, Smart board or computer for all children to see, Digital time cards, analog clocks -one per pair. |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| <http://primaryhomeworkhelp.co.uk/maths/measures.htm#Time>* Using above resource use game ‘Bang on Time’. This shows the time in words underneath and the analog clock has to be stopped at the correct time to earn points. Demonstrate how the game works and have teams to compete. Students can complete the activity during independent activities.
* Demonstrate on a teacher clock that some times can be the same but can be said differently e.g. 6:45 – six forty five , quarter to seven, 15 minutes to seven. Discuss why we use ¼ to and ¼ past.
* Revise the minutes on the clock face and compare them to the digital clock. Do we say the times differently? Why?
* As a class match digital times on cards to word cards and clock face cards.
 | LEARNING SEQUENCERemediationS1 or Early S2 | * Use ‘quarter-past’, ‘half-past’ and ‘quarter-to’ flashcards to drill students.
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| LEARNING SEQUENCES2 | * Barrier Game: In pairs 1 student is provided with a series of digital times recorded on cards. Other student has an analog clock. 1st student selects a card and explains to 2nd student where to position their hands on the clock to make a matching time.
* **Investigation**
* Students work in pairs with clocks setting times. Partner says what the time is focusing on terms such as ‘past’ and ‘to’. Each child gets a point for correct time. Double points for reading 7:35 as ‘seven thirty five’ or ‘twenty-five to eight’.
* Assessment: Give students a sheet with two blank clock faces on it. Students label clock placing numbers in correct places. Draw hands to show 27 minutes past 2 on one clock and record in digital beneath and 8 minutes past nine on the second clock, recording in digital time beneath,.
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| LEARNING SEQUENCEExtension Late S2 or Early S3 | * Collect a variety of TV guides or timetables from magazines. Compare and discuss how they are similar and different.
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| **EVALUATION & REFLECTION** |  |

* 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.