

## Strand: Measures

### Strand unit: Time

#### First and Second Class

<b>Mathematics Curriculum Objectives</b>	<ul style="list-style-type: none"><li>• Use the vocabulary of time to sequence events.</li><li>• Read and record time using simple devices</li><li>• Read the time in hours and half hours on 12-hour analogue clock.<ul style="list-style-type: none"><li>* Read the time in quarter hours on 12 –hour analogue clock</li><li>*Read time in hours and half-hours on digital clock</li></ul></li><li>• Read day, date and months using the calendar<ul style="list-style-type: none"><li>*Identify the season</li></ul></li></ul> <p><b>* Second Class</b></p>
<b>Language</b>	Morning /evening, night /day, lunchtime, bedtime, early, late, days of week, schooldays, weekends, months of year, seasons, calendar, yesterday, today, tomorrow, soon, not yet, birthday, before, after, later, ‘o clock’, hour, minutes, past, to.
<b>Resources</b>	Classroom analogue clock, *digital clock, large teaching clock, egg timers or home made sand clock, candle, flash cards showing times, teaching clocks for children, clock stamp, calendar.
<b>Creating a Maths Rich Environment in the classroom.</b>	<ul style="list-style-type: none"><li>• Have a ‘real clock’ on display and bring children’s attention to the time incidentally throughout the day. For 2<sup>nd</sup> class display ‘to’ and ‘past’ alongside the clock.</li><li>• Have a calendar on display at the children’s eye level – highlight interesting days with stickers or marker.</li><li>• For one week set up a ‘Time’ display on the ‘Maths Table’- include egg timers, make a sand clock, a candle clock, collect old clocks and watches, display library books with a ‘Time’ theme.</li></ul>
<b>Using the School Environment.</b>	<ul style="list-style-type: none"><li>• List all the places we see clocks, talk about why each one is needed.</li><li>• Look out for regular visitors to the school- what time does the postman call? At what time do their parents collect the infants? On what day does the Gaelic coach come to the school?</li><li>• If you were in town and you had no watch how would you find out the time?</li><li>• Discuss messages we see telling us about time e.g. closing time at the shop, a bus timetable at the station.</li></ul>

## Ideas for Teaching Time

<p><b>Curriculum Objectives:</b></p> <p>Use the vocabulary of time to sequence events.</p> <p>Read and record time using simple devices.</p>	<ul style="list-style-type: none"> <li>• Discuss sequence of events in school day-first we say our prayers, then we write our news...when we go to the supermarket-first you get a trolley, then you get your shopping, after that you get queue at the cash register...</li> <li>• Retell stories from library books relating events in correct sequence and using the vocabulary of time</li> <li>• Make a class timetable –the children draw the various school activities and these are arranged in sequence by time and day to make a wall display</li> <li>• Use children’s drawings to make a time line of the school day, later add captions e.g. ‘We go out to play at 11 o clock.’</li> <li>• Explore idea of time passing-what can you do while the sand is passing through the egg timer-could you tie your shoe? Could you walk to the end of the classroom and back...walk to the school gate and back?</li> </ul>
<p>Read the time in hours and half hours on the analogue clock.</p> <p><i>Hour</i></p> <p><i>Half hour</i></p> <p>Quarter hour. [2<sup>nd</sup> class]</p>	<ul style="list-style-type: none"> <li>• Discuss times of the day when well known events happen, model on teaching clock –the children model time on their clocks-focus on the position of the hands [initially limit to ‘the big hand shows the hour’- later ‘and the small hand shows the minutes’]</li> <li>• Brainstorm on things that take about an hour...a swimming lesson...a favourite TV programme...Sunday Mass... Record on blackboard or language experience chart... ‘Things that take more than an hour, about an hour and less than an hour</li> <li>• Pose time problems-children show answers on teaching clocks or answer orally.</li> <li>• Recall earlier work on fractions using pi charts and paper folding of circles to show a half.</li> <li>• Brainstorm on things that take about a half an hour- lunchtime, P.E., Model on teaching clock ‘The Simpsons begins at 5 o clock, the programme is on for half an hour, it finishes at half past five.</li> <li>• Focus on the position of the clock hands-‘The small hand shows the hour, the big hand shows it is half past the hour’</li> <li>• Ask the children to think of events during the day that begin at ‘half past the hour’ and to model these on the teaching clock.</li> <li>• Pose problems involving hours and half hours.</li> <li>• Adapt the ideas used to teach the hour and half hour to teach the quarter hour.</li> </ul>

<p><i>Digital Time.</i></p> <p>Read the time in hours and half hours on digital clock.</p>	<ul style="list-style-type: none"> <li>• Examine a digital clock with the children and count the minutes in each hour. Explain that there are sixty minutes in an hour. Establish that the first number on the digital clock shows the hour and the second number shows how many minutes after the hour have passed.</li> <li>• Challenge the children by asking them how they think times of well known events in the school day are shown on the digital clock- 'Break time is at 11 o'clock.' 'Home time is at 3 o'clock.'</li> <li>• Practice reading digital time from flash cards.</li> <li>• Add digital time to the time line display or class timetable.</li> <li>• Play mixed time games-one child holds up a card from the digital cards set and partner or group show the time on analogue clocks. [Limit to times involving hours at this stage]</li> <li>• Recall with children what they know about how to get a half of something .Use pi chart and paper folding to show half. Practice showing half hour on analogue clock.</li> <li>• Establish that there are sixty minutes in an hour .Use Dienes rods to show that half of sixty is thirty.</li> <li>• Minutes in an hour and so there are thirty minutes in a half Hour. Remind the children that the first number on a digital clock shows the hour and the second number shows how many minutes after the hour have passed. Challenge them by asking How they think the digital clock would show familiar times e.g. 'Lunchtime- half past twelve'</li> <li>• Practice reading digital time involving hours and half hours from flash cards.</li> <li>• Play mixed time games involving hours and half hours where one child shows the time on the analogue clock and his partner, group or the whole class show or say aloud the digital time.</li> <li>• Pose digital time problems involving hours and half hours.</li> </ul>
<p>Read the day, date and month using the calendar</p>	<ul style="list-style-type: none"> <li>• Make a class timetable showing the activities for each day of the week.</li> <li>• Make a weather chart recording weather conditions-illustrate each day and make a wall strip for the month.</li> <li>• Make a class calendar each month with the space for each day large enough to add drawings or to record important events e.g. 'Happy birthday Tom.'</li> </ul>

<p>* Identify the season.</p>	<ul style="list-style-type: none"> <li>• Make a pictogram or block graph children's birthdays.</li> <li>• Have a date hunt – collect packages with date stamps, look at stamps on letters, magazines and newspapers, passports, appointment cards...Discuss why we need to put the date on things.</li> <li>• Establish that the months can be grouped into 4 seasons- this may be explored in detail during S.E.S.E.</li> </ul>
<p><b>Linkage.</b></p> <p>Fractions. 2D Shapes. Data.</p>	<ul style="list-style-type: none"> <li>• Revise half and quarter using pi-fraction chart and paper folding.</li> <li>• Focus children's attention on the position of the long hand at half past and talk about why this is so. With second class talk about how we half numbers. Work out with the children that 30 is half of 60 and relate this to digital time.</li> <li>• Look at 2D shapes of circle and semicircle and how these relate to the clock face.</li> <li>• Make a birthday chart – pictogram or block graph.</li> <li>• Display a class timetable.</li> </ul>
<p><b>Integration.</b></p> <p>English.</p> <p>S.E.S.E.</p> <p>Visual Arts.</p>	<ul style="list-style-type: none"> <li>• Collect poems and rhymes about time to read and say together</li> <li>• Keep individual or a class diary over a period of time e.g. two weeks.</li> <li>• Write "Days of the week stories" [On Wednesday something funny happened... On Saturday...]</li> <li>• Practise reading words relating to time .[Maths sight vocabulary]</li> <li>• Make entries in Maths Dictionaries or Journals.</li> <li>• Keep a weather chart over a period of time. Analyse data-how many days with rain last week? How many sunny days were there in May?</li> <li>• Make individual time lines from 'My life from 0-8 years' indicating the year of significant events e.g. I learned to walk 6 years ago when I was one'</li> <li>• Include illustrations in diaries, timelines and calendars.</li> <li>• Design and make cards to celebrate significant events.</li> <li>• Construct clocks with card-use plasticine to make the hands.</li> </ul>
<p><b>Assessment.</b></p>	<ul style="list-style-type: none"> <li>• Informal teacher observation.</li> <li>• Teacher designed tasks – Orally-'tell me...' 'Show me' Performance at written activities.</li> <li>• Questions on time included in formal assessment</li> </ul>

Some of the ideas suggested above are from:

New Zealand Mathematics Website: [www.nzmaths.co.nz](http://www.nzmaths.co.nz)

Maths on Display. Belair Publications Ltd. ISBN: 0 047882 09 X

Lines of Development in Primary Mathematics. Deboys and Pitt.Blackstaff Press.

ISBN:0 85640 194 3

