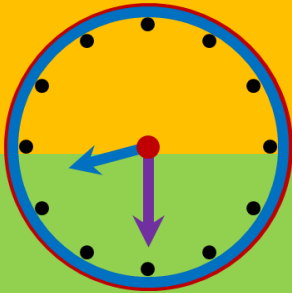
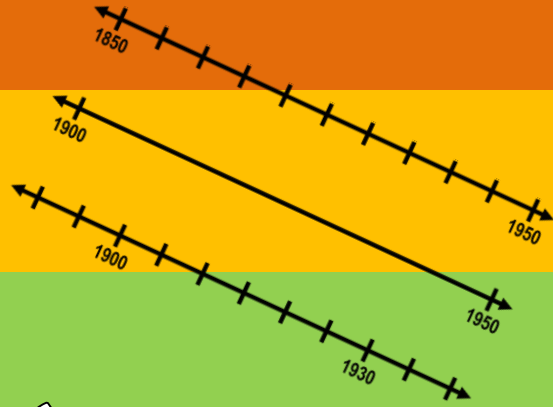


EFFECTIVE MATHS

SUGGESTIONS FOR GREATER DEPTH



Time



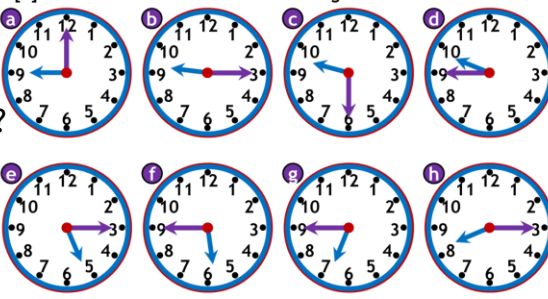
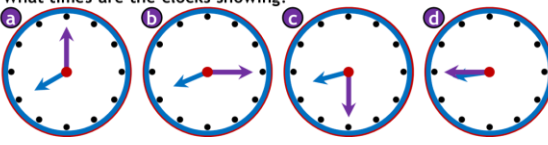
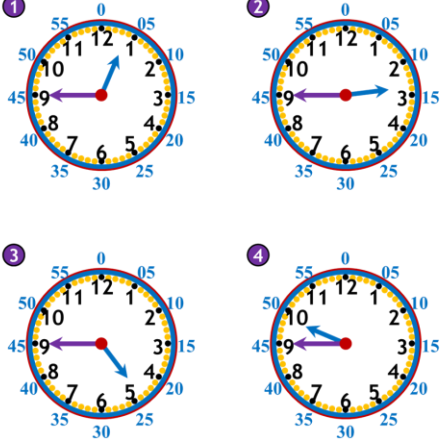
YEARS 2 - 6

This booklet contains suggestions about activities for greater depth. The activities are directly linked to the content of specific lessons, making them a relevant, logical way to develop children's understanding.

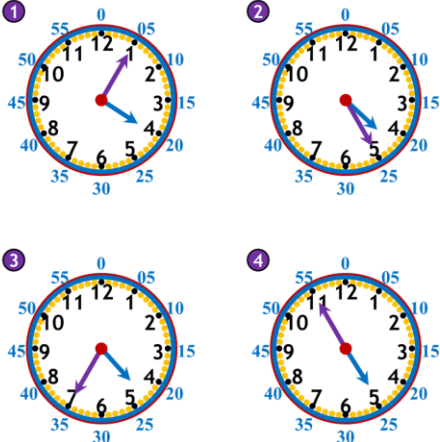

The overwhelming majority of greater depth tasks appear on the independent task worksheet under the heading 'Challenge'. Where possible, other activities have been written so that they do not require the teacher to make another worksheet/sticker that needs to be printed and stuck in. The teacher's notes on the independent task slide also contains the suggestions for greater depth.

The activities here are *suggested* activities that will likely work well for many of the children who complete the independent task successfully. Clearly the class teacher will have specific knowledge of the needs of the children within the class and may determine different challenges are appropriate.

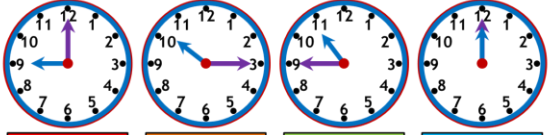


Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth										
3	<p>Quarter past and quarter to</p>	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>What times are the clocks showing? (On clocks with no numbers to indicate the hours.)</p> <p>O'clock, half past, quarter past and quarter to [1] What times are the clocks showing?</p>  <p>[2] Draw hands on the clock faces to show the times. quarter past 4 quarter to 5 quarter to 6 quarter past 7</p> <p>CHALLENGE What times are the clocks showing?</p> 										
4	<p>Different ways of saying the time: quarter past 3 = 3:15</p>	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Children need to draw lines to match times. (No pictorial representation.)</p> <p>Telling the time in different ways Write the times shown in two different ways.</p>  <p>CHALLENGE Draw lines to match the times.</p> <table border="0" data-bbox="978 1632 1263 1806"> <tr> <td>quarter to 7</td> <td>7:45</td> </tr> <tr> <td>quarter past 7</td> <td>8:45</td> </tr> <tr> <td>quarter to 8</td> <td>6:45</td> </tr> <tr> <td>quarter past 8</td> <td>7:15</td> </tr> <tr> <td>quarter to 9</td> <td>8:15</td> </tr> </table>	quarter to 7	7:45	quarter past 7	8:45	quarter to 8	6:45	quarter past 8	7:15	quarter to 9	8:15
quarter to 7	7:45											
quarter past 7	8:45											
quarter to 8	6:45											
quarter past 8	7:15											
quarter to 9	8:15											





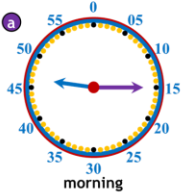
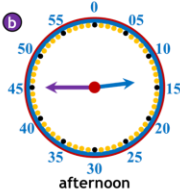



Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth																																																																																																						
5	5 minutes past and different ways of saying times	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Lucas says that he is playing basketball at 5:65 this afternoon. Explain why Lucas cannot be correct. What do you think he meant to say?</p> <div style="text-align: right;"> <p>Telling the time to 5 minutes Write the times shown in two different ways.</p>  <p>CHALLENGE Explain why Lucas cannot be correct. What do you think he meant to say?</p>  </div>																																																																																																						
6	Minutes, hours and days	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Children first need to sequence the times shown - ideally using the problem solving strategy of making everything the same. (ie Convert each time to a common unit: hours or minutes.) After they have done this, add in two times of their own: the first in minutes and the second in hours.</p> <div style="text-align: right;"> <p>The number of minutes in an hour and the number of hours in a day</p> <p>[1] Find the total times shown in minutes and then in hours.</p> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">a</td> <td style="padding: 2px;">30 m</td> <td style="padding: 2px;">30 m</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">minutes</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">hour</td> <td></td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">b</td> <td style="padding: 2px;">15 m</td> <td style="padding: 2px;">15 m</td> <td style="padding: 2px;">15 m</td> <td style="padding: 2px;">15 m</td> </tr> <tr> <td></td> <td colspan="4" style="text-align: center; padding: 2px;">minutes</td> </tr> <tr> <td></td> <td colspan="4" style="text-align: center; padding: 2px;">hour</td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">c</td> <td style="padding: 2px;">60 m</td> <td style="padding: 2px;">15 m</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">minutes</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">hours</td> <td></td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">d</td> <td style="padding: 2px;">60 m</td> <td style="padding: 2px;">30 m</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">minutes</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">hours</td> <td></td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">e</td> <td style="padding: 2px;">60 m</td> <td style="padding: 2px;">45 m</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">minutes</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">hours</td> <td></td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">f</td> <td style="padding: 2px;">60 m</td> <td style="padding: 2px;">60 m</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">minutes</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center; padding: 2px;">hours</td> <td></td> </tr> </table> <p>CHALLENGE Arrange the times in order starting with the shortest.</p> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="padding: 2px;">27 hours</td> <td style="padding: 2px;">120 mins</td> <td style="padding: 2px;">12 hours</td> <td style="padding: 2px;">1 day</td> <td style="padding: 2px;">1 ½ hours</td> <td style="padding: 2px;">30 mins</td> </tr> </table> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p style="margin-left: 10px;">shortest</p> <table border="1" style="margin-bottom: 10px;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p style="margin-left: 10px;">mins hours</p> <p style="margin-left: 10px;">Add two times of your own.</p> </div>	a	30 m	30 m			minutes				hour			b	15 m	15 m	15 m	15 m		minutes					hour				c	60 m	15 m			minutes				hours			d	60 m	30 m			minutes				hours			e	60 m	45 m			minutes				hours			f	60 m	60 m			minutes				hours			27 hours	120 mins	12 hours	1 day	1 ½ hours	30 mins																					
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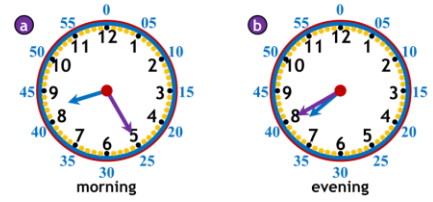


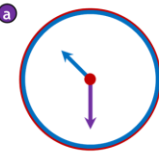
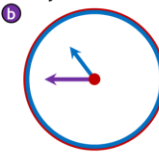



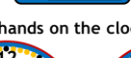



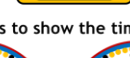
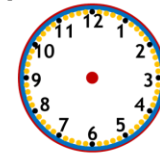
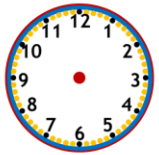
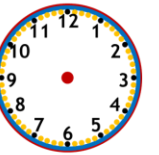
Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth												
7	Finding durations of events	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>For question [2] the task is to write the durations using hours and minutes. Can they write the times using hours? Eg 1 h 15 min = 1 $\frac{1}{4}$ h</p> <div style="text-align: right;"> <p>Finding durations</p> <p>[1] Find the start and end time for each of the activities.</p>  <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #ff0000; color: white;">Swimming</td> <td style="background-color: #ffa500;">Café</td> <td style="background-color: #90ee90;">Shopping</td> <td style="background-color: #0000ff; color: white;">Home</td> </tr> <tr> <td>Start: <input type="text"/></td> <td>Start: <input type="text"/></td> <td>Start: <input type="text"/></td> <td>Start: <input type="text"/></td> </tr> <tr> <td>End: <input type="text"/></td> <td>End: <input type="text"/></td> <td>End: <input type="text"/></td> <td>End: <input type="text"/></td> </tr> </table> <p style="text-align: center;"><i>morning</i></p> <p>[2] Add the duration of each activity to the time number line. Use hours and minutes. CHALLENGE: Can you use hours?</p>  <p>[3] Add the lessons you are doing at school today to the time number line. Use hours and minutes.</p>  </div>	Swimming	Café	Shopping	Home	Start: <input type="text"/>	Start: <input type="text"/>	Start: <input type="text"/>	Start: <input type="text"/>	End: <input type="text"/>	End: <input type="text"/>	End: <input type="text"/>	End: <input type="text"/>
Swimming	Café	Shopping	Home											
Start: <input type="text"/>	Start: <input type="text"/>	Start: <input type="text"/>	Start: <input type="text"/>											
End: <input type="text"/>	End: <input type="text"/>	End: <input type="text"/>	End: <input type="text"/>											

Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth						
1	Time to the nearest 5 minutes	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Write the times shown. (On clocks with no numbers to indicate the hours.)</p> <p style="text-align: center;"><u>am and pm</u></p> <p>[1] Write the times shown and then the times that are one hour later.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>morning</p> </div> <div style="text-align: center;">  <p>morning</p> </div> </div> <p>[2] Write the times shown and then the times that are one hour earlier.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>evening</p> </div> <div style="text-align: center;">  <p>afternoon</p> </div> </div> <p>CHALLENGE Write the times shown.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>morning</p> </div> <div style="text-align: center;">  <p>afternoon</p> </div> </div>						
2	Time to the nearest 1 minute	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>The sequence below is incorrect. Explain the mistake. Can you correct the sequence?</p> <p style="text-align: center;"><u>Times to one minute</u></p> <p>[1] Write the times shown and then the times that are one hour later.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>morning</p> </div> <div style="text-align: center;">  <p>evening</p> </div> </div> <p>[2] Find the missing times.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Time =</td> <td></td> </tr> <tr> <td>+ 5 mins =</td> <td></td> </tr> <tr> <td>+ 10 mins =</td> <td></td> </tr> </table> <div style="text-align: right; margin-right: 50px;">  </div> <p>[3] Find the missing times.</p> <p>[a] 10:44 AM 10:49 AM 10:54 AM 10:59 AM <input type="text"/> <input type="text"/></p> <p>[b] 1:37 PM 1:43 PM 1:49 PM 1:55 PM <input type="text"/> <input type="text"/></p> <p>[c] 10:46 AM 11:06 AM 11:26 AM 11:46 AM <input type="text"/> <input type="text"/></p> <p>[d] 11:45 PM 11:49 PM 11:53 PM 11:57 PM <input type="text"/> <input type="text"/></p> <p>CHALLENGE The sequence below is incorrect. Explain the mistake. Can you correct the sequence?</p> <p style="text-align: center;">11:32 PM 11:40 PM 11:48 PM 11:56 PM 11:64 PM 11:72 PM</p>	Time =		+ 5 mins =		+ 10 mins =	
Time =								
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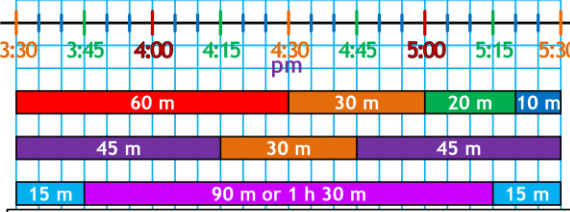
Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth
3	Different ways of expressing time	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Write the times shown in three different ways. (On clocks with no markings.)</p> <div style="text-align: center;"> <p>Different ways of expressing times Write the times shown in two different ways.</p>  <p>(c)  (d) </p> </div> <p>CHALLENGE Write the times shown in three different ways.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(a)  evening</p> </div> <div style="text-align: center;"> <p>(b)  morning</p> </div> </div>
4	24-hour clock times	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Decide whether 24-hour clock times are possible or not possible. Variation Top row: minutes always correct Bottom row: hours always correct</p> <div style="text-align: center;"> <p>24-hour clock times</p> <p>[1] Match the times.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">     </div> <div style="text-align: center;">     </div> </div> <p>[2] Draw hands on the clock faces to show the times below.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  17:15 </div> <div style="text-align: center;">  19:30 </div> <div style="text-align: center;">  21:45 </div> </div> <p>[3] Arrange the following from earliest to latest.</p> <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px;"> 00:15 12:00 pm 12:00 am 12:45 12:15 </div> <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px; margin-top: 5px;"> </div> <p style="text-align: center;">earliest</p> <p>CHALLENGE Decide whether the 24-hour clock times below are <i>possible</i> or <i>not possible</i>. Tick the times that are possible.</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid red; padding: 2px; margin: 2px;">10:09</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">19:19</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">20:43</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">24:49</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">26:59</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">13:49</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">19:91</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">20:22</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">00:59</div> <div style="border: 1px solid red; padding: 2px; margin: 2px;">00:60</div> </div> </div>


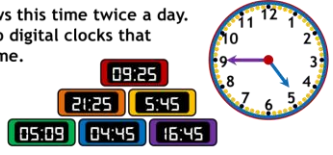
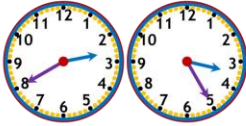
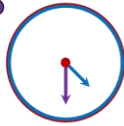
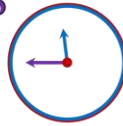

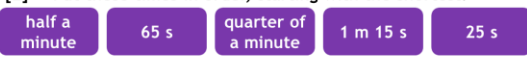
Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth																																																																																																																																																																																																												
5	The number of seconds in a minute	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Children first need to sequence the times shown - ideally using the problem solving strategy of making everything the same. (ie Convert each time to a common unit: hours or minutes.) After they have done this, add in two times of their own: the first in seconds and the second in minutes.</p> <p style="text-align: right;"><u>The number of seconds in a minute</u></p> <p>[1] Find the total times shown in seconds and then in minutes.</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;"> <p>a 30 s 30 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minute</p> </div> <div style="border: 1px solid black; padding: 2px;"> <p>b 15 s 15 s 15 s 15 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minute</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px;"> <p>c 60 s 15 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minutes</p> </div> <div style="border: 1px solid black; padding: 2px;"> <p>d 60 s 30 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minutes</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px;"> <p>e 60 s 45 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minutes</p> </div> <div style="border: 1px solid black; padding: 2px;"> <p>f 60 s 60 s</p> <p style="text-align: center;">seconds</p> <p style="text-align: center;">minutes</p> </div> </div> <p>CHALLENGE Arrange the times in order starting with the shortest.</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">1</td> <td style="border: 1px solid black; padding: 2px;">40</td> <td style="border: 1px solid black; padding: 2px;">$\frac{3}{4}$</td> <td style="border: 1px solid black; padding: 2px;">55</td> <td style="border: 1px solid black; padding: 2px;">$\frac{1}{2}$</td> <td style="border: 1px solid black; padding: 2px;">15</td> </tr> <tr> <td style="text-align: center; font-size: 8px;">minute</td> <td style="text-align: center; font-size: 8px;">seconds</td> <td style="text-align: center; font-size: 8px;">minute</td> <td style="text-align: center; font-size: 8px;">seconds</td> <td style="text-align: center; font-size: 8px;">minute</td> <td style="text-align: center; font-size: 8px;">seconds</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin: 2px;"></div> </div> <p style="text-align: center; font-size: 8px;">shortest seconds minutes</p> <p style="text-align: right; font-size: 8px;">Add two times of your own.</p>	1	40	$\frac{3}{4}$	55	$\frac{1}{2}$	15	minute	seconds	minute	seconds	minute	seconds																																																																																																																																																																																																
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6	The number of days in each month, year and leap year	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Complete table. (Rows 2 and 3 involve working backwards.)</p> <p style="text-align: right;"><u>The number of days in each month, year and leap year</u></p> <p>[1] Complete the table.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 20%;">Number of days</th> <th>Months</th> </tr> </thead> <tbody> <tr> <td>31</td> <td></td> </tr> <tr> <td>30</td> <td></td> </tr> <tr> <td>28/29</td> <td></td> </tr> </tbody> </table> <p>[2] Find the pairs that match.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; padding: 2px;">1 week</td> <td style="border: 1px solid black; padding: 2px;">24 hours</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">1 hour</td> <td style="border: 1px solid black; padding: 2px;">365/366 days</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">1 day</td> <td style="border: 1px solid black; padding: 2px;">60 minutes</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">1 minute</td> <td style="border: 1px solid black; padding: 2px;">7 days</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">1 season</td> <td style="border: 1px solid black; padding: 2px;">3 months</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">1 year</td> <td style="border: 1px solid black; padding: 2px;">60 seconds</td> </tr> </table> <p>[3] Children broke up for half-term on 11 February. Children returned to school on 22 February. [a] What day of the week did they break up? [b] What day of the week did they go back? [c] How many days off school did they have in total? (Include the weekends.)</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th colspan="7" style="background-color: #0070c0; color: white;">February 2022</th> </tr> <tr> <th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th><th>S</th> </tr> </thead> <tbody> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td></td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td></td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td></td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td></td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td></td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>CHALLENGE</p> <p>Complete the table.</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th colspan="7" style="background-color: #ffc107;">October 2020</th> <th colspan="7" style="background-color: #ffc107;">November 2020</th> </tr> <tr> <th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th><th>S</th> <th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th><th>S</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="background-color: #ffc107;">Event</th> <th style="background-color: #ffc107;">Start</th> <th style="background-color: #ffc107;">End</th> <th style="background-color: #ffc107;">Number of days</th> </tr> </thead> <tbody> <tr> <td>Book fair</td> <td>5 October</td> <td>8 October</td> <td></td> </tr> <tr> <td>School journey</td> <td>9 November</td> <td></td> <td>5 days</td> </tr> <tr> <td>Navratri festival</td> <td></td> <td>25 October</td> <td>9 days</td> </tr> </tbody> </table>	Number of days	Months	31		30		28/29		1 week	24 hours	1 hour	365/366 days	1 day	60 minutes	1 minute	7 days	1 season	3 months	1 year	60 seconds	February 2022							M	T	W	T	F	S	S		1	2	3	4	5	6		7	8	9	10	11	12		13	14	15	16	17	18		19	20	21	22	23	24		25	26	27	28	29	30		31						October 2020							November 2020							M	T	W	T	F	S	S	M	T	W	T	F	S	S				1	2	3	4							1	5	6	7	8	9	10	11	2	3	4	5	6	7	8	12	13	14	15	16	17	18	9	10	11	12	13	14	15	19	20	21	22	23	24	25	16	17	18	19	20	21	22	26	27	28	29	30	31		23	24	25	26	27	28	29								30							Event	Start	End	Number of days	Book fair	5 October	8 October		School journey	9 November		5 days	Navratri festival		25 October	9 days
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Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth
7	Finding and comparing durations of events	<p>The independent task is on the slide (see right) - not on a worksheet.</p> <p>Children find different ways to combine minutes and hours and minutes to make 2 hours. Encourage multiple possibilities.</p> <p>For greater depth, ask children to use the fractions half, quarter, three-quarters, one-third and two-thirds to make 2 hours. As with the initial task, encourage children to find different ways of doing this.</p> <p>NB Remember that children have not yet encountered fractions other than those listed so do not introduce fifths, sixths etc.</p> <div data-bbox="835 280 1399 705" style="border: 1px solid black; padding: 5px;"> <p>Independent task</p> <p>Turn your maths book so it is landscape. Construct a 2 hour number line that has divisions worth 5 minutes. Create bars underneath the number line. Label the durations.</p>  <p>CHALLENGE: Use the following fractions of 1 hour to make 2 hours. ● $\frac{1}{2}$ hour ● $\frac{1}{4}$ hour ● $\frac{3}{4}$ hour ● $\frac{1}{3}$ hour ● $\frac{2}{3}$ hour ●</p> </div>

Suggestions for greater depth




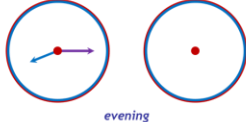
Lesson	Focus	Suggestions for greater depth
1	24-hour clock times	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Write the times shown in three different ways. Start with the 24-hour clock.</p> <p>Converting times to the 24-hour clock</p> <p>[1] Liam finishes school at twenty-five to four in the afternoon. Which 24-hour clock time shows twenty-five to four in the afternoon? </p> <p>[2] A clock shows this time twice a day. Find the two digital clocks that show this time. </p> <p>[3] Jackson is catching the afternoon train from London to Stanstead Airport. The clocks show the times the train is due to leave and arrive. Write these times using the 24-hour clock. </p> <p>CHALLENGE Write the times shown in three different ways. Start with the 24-hour clock.</p> <p>a  afternoon</p> <p>b  evening</p>
2	Convert between minutes and seconds	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Tom finished a race ahead of Kim and Dom. Kim took twenty seconds longer than Tom. Dom took ten seconds longer than Kim and took $1\frac{1}{4}$ minutes overall. How many seconds did Tom take to run the race? (Children need to work backwards: the start is unknown.)</p> <p>Converting from <i>minutes and seconds</i> to <i>seconds</i></p> <p>[1] How many seconds does each stopwatch show? </p> <p>[2] Put these times in order, starting with the shortest. </p> <p>[3] Seb finished a race in one quarter of a minute. Jo took ten seconds longer than Seb. Liam took twenty seconds longer than Seb. How many seconds did Jo take to run the race? How many seconds did Liam take to run the race?</p> <p>CHALLENGE Tom finished a race ahead of Kim and Dom. Kim took 20 seconds longer than Tom. Dom took 10 seconds longer than Kim and took $1\frac{1}{4}$ minutes overall. How many seconds did Tom take to run the race?</p>

Suggestions for greater depth






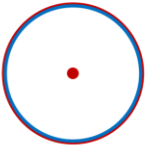

Lesson	Focus	Suggestions for greater depth																																																								
3	Convert between hours and minutes	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Children to find missing times. Make sure they understand the time in minutes are partitioned into multiples of 60 mins and what's left. Eg 100 mins is partitioned into 60 m and then the 40 m that is left. For question [d] they need to look for the pattern generated by [a] - [c].</p> <p style="text-align: right;"><u>Converting between hours and minutes</u></p> <p>[1] Put these times in order, starting with the longest.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">361 m <input type="text"/></div> <div style="border: 1px solid black; padding: 5px; text-align: center;">6 h <input type="text"/></div> <div style="border: 1px solid black; padding: 5px; text-align: center;">half a day <input type="text"/></div> <div style="border: 1px solid black; padding: 5px; text-align: center;">359 m <input type="text"/></div> <div style="border: 1px solid black; padding: 5px; text-align: center;">10 h <input type="text"/></div> </div> <p>[2] How many minutes does each timer show?</p> <div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p>[3] Tom finished a race in three quarters of an hour. Kim took twenty minutes longer than Tom. Dom took ten minutes longer than Kim. How many minutes did Kim take to run the race? How many minutes did Dom take to run the race?</p> <p>CHALLENGE Find the missing times. [a] has been done for you as an example.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> a 100 m 60 m 40 m 1 h 40 m 1 h 40 m </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> b 130 m m m h m h m </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> c 160 m m m h m h m </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> d m m m h m h m </div> </div>																																																								
4	Years, months, weeks and days	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>In 2017, Jackson's birthday was on 27/07/17. What day of the week was his birthday on?</p> <p style="text-align: right;"><u>Converting between years, months and days</u></p> <p>[1] Complete the table.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #FFD700;"> <th style="width: 50%;">MONTHS</th> <th style="width: 50%;">YEARS AND MONTHS</th> </tr> </thead> <tbody> <tr> <td>13 months</td> <td>= 1 year and 1 month</td> </tr> <tr> <td>25 months</td> <td>=</td> </tr> <tr> <td>37 months</td> <td>=</td> </tr> <tr> <td>14 months</td> <td>=</td> </tr> <tr> <td>26 months</td> <td>=</td> </tr> <tr> <td>38 months</td> <td>=</td> </tr> </tbody> </table> <p>[2] Calculate how many months old each person is.</p> <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="text-align: center;">  <p>3 17 years old</p> </div> <div style="text-align: center;">  <p>14 years old</p> </div> <div style="text-align: center;">  <p>28 years old</p> </div> <div style="text-align: center;">  <p>84 years old</p> </div> </div> <p>[3] Match the items on the left to the items on the right.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">January and March</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">60 days</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">June and September</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">61 days</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">February and April</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">62 days</div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">October and November</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">58 days</div> </div> <p>CHALLENGE</p> <p>In 2017, Jackson's birthday was on 27/07/17. What day of the week was his birthday on?</p> <div style="text-align: right;"> <p>August 2017</p> <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Sun</th> <th>Mon</th> <th>Tues</th> <th>Wed</th> <th>Thurs</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td> </tr> <tr> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> <td>19</td> </tr> <tr> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> <td>26</td> </tr> <tr> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td>31</td> <td></td> <td></td> </tr> </tbody> </table> </div>	MONTHS	YEARS AND MONTHS	13 months	= 1 year and 1 month	25 months	=	37 months	=	14 months	=	26 months	=	38 months	=	Sun	Mon	Tues	Wed	Thurs	Fri	Sat			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
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YEAR 5 • TIME

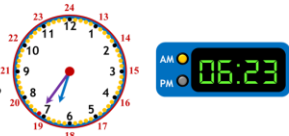
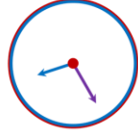
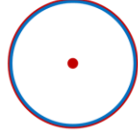
Suggestions for greater depth

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1	Solving problems about time [a]	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>Draw hands on the second clock face to show the time that is $1\frac{1}{2}$ hours later than the time on the first clock face. (Clock face has no numerals or divisions.)</p> <p style="text-align: right;"><u>Solving problems about time</u></p> <p>[1] The clock is 8 minutes fast. What is the correct time?</p>  <p>[2] The clock shows the current time. Amy has to be on the bus in 35 minutes time. What time does she need to be on the bus?</p>  <p>[3] The clocks show the times a TV programme starts and ends. How long does the programme last for?</p>  <p>[4] An aeroplane takes off at 22:38 on Wednesday. It lands at 07:19 on Thursday. How long is the flight?</p> <p><u>CHALLENGE</u> Draw hands on the second clock face to show the time that is $1\frac{1}{2}$ hours later than the time on the first clock face.</p> 																																																																																																						
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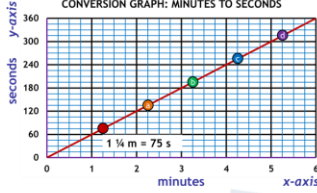

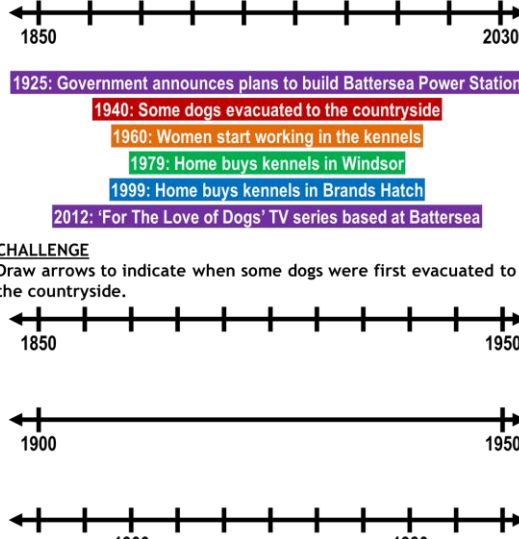
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[b]	5	[]	=	35	[]																																																																																																			
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[d]	5	[]	=	300	[]																																																																																																			
[e]	5	[]	=	300	[]																																																																																																			

Suggestions for greater depth

Lesson	Focus	Suggestions for greater depth
3	<p>Solving problems about time [b]</p>	<p>The greater depth task is located at the bottom of the independent task (see right).</p> <p>The greater depth task is a different type of problem from those encountered in the main lesson. The problems encountered in the main lesson present key information at the start and require children to work forwards.</p> <p>The challenge problem requires children to work backwards.</p> <p><i>In a race, Rachael took half the time that Liam did.</i> <i>Liam took 10 seconds more than Ahmed.</i> <i>Ahmed took 1 minute and 10 seconds.</i> <i>Find the times for Rachael and Liam.</i></p> <div style="float: right; width: 40%;"> <p>Solving problems about time</p> <p>[1] Write the equivalent times for each of the markers.</p>  <p>[2] How many minutes will it take to cook a 6.5 kg chicken?</p>  <p>[3] Liam, Rachael, Ahmed and Kate run a 200 m race. Liam's time is 54 seconds. Rachael finishes 7 seconds after Liam. Ahmed finishes 5 seconds before Rachael. Kate finishes 3 seconds before Ahmed. Find the finishing times for each of the children.</p> <p>[4] Liam, Rachael and Ahmed played computer games at the weekend. Liam played for 1 hour and 40 minutes. Rachael played for double the time that Liam did. Ahmed played for a quarter of the amount of time that Rachael did. How long did Rachael play for? How long did Ahmed play for?</p> <p>[5] Liam, Rachael and Ahmed spent a total of 4 hours and 45 minutes doing homework at the weekend. Liam spent 1 h 30 m on his homework. Rachael spent 5 minutes longer on her homework than Liam. How long did Ahmed spend on his homework? Answer in hours and minutes.</p> <p>CHALLENGE In a race, Rachael took half the time that Liam did. Liam took 10 seconds more than Ahmed. Ahmed took 1 minute and 10 seconds. Find the times for Rachael and Liam.</p> </div>
4	<p>Solving problems about time [c]</p>	<p>The greater depth task is located at the bottom of the second independent task (see right).</p> <p>Draw arrows to indicate when some dogs were first evacuated to the countryside on a range of time lines.</p> <div style="float: right; width: 40%;"> <p>Timelines Events in the history of Battersea Dogs and Cats Home Draw arrows to indicate the position of each event on the time line.</p> <ul style="list-style-type: none"> 1860: Home opens 1871: Moves to Battersea 1883: Starts to take cats 1906: Home buys land under 5 railway arches for kennels 1925: Government announces plans to build Battersea Power Station 1940: Some dogs evacuated to the countryside 1960: Women start working in the kennels 1979: Home buys kennels in Windsor 1999: Home buys kennels in Brands Hatch 2012: 'For The Love of Dogs' TV series based at Battersea <p>CHALLENGE Draw arrows to indicate when some dogs were first evacuated to the countryside.</p>  </div>