

HIAS MOODLE+ RESOURCE

# Year 4 Unit Plan 4.5

**Addition and Subtraction**

**Measurement**

**Autumn Term**

HIAS Maths Team  
September 2026  
Final version

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# Overview

## This document contains...

Year 4 Unit Plans linked to the Hampshire Medium Term Overview

## Points to consider when using this resource:

These unit plans provide an example of how medium-term planning could be developed into units of work. These unit plans will need to be adapted to meet the needs of pupils. The unit plan provides an outline of a possible learning journey with suggestions of types of tasks that could be used. They also identify required prior learning, some common misconceptions and an indication of key skills pupils need to secure competency. It is assumed that teachers will make use of appropriate mathematical representations (manipulatives, visuals and symbolic) to support conceptual understanding for pupils alongside procedural fluency.

## National Curriculum Links:

### Addition and Subtraction

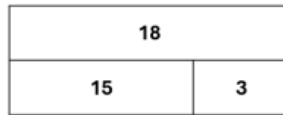
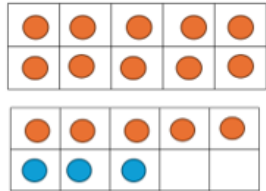
- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

## Measurement

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence
- read, write and convert time between analogue and digital 12- and 24-hour clocks
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

<p>In this unit, pupils develop fluency and accuracy in addition and subtraction, using formal written methods up to four digits, alongside selecting efficient strategies and using inverse operations to check answers. They apply these skills to one- and two-step problems in context, explaining and justifying their methods. Building on prior learning, pupils also deepen their understanding of measurement, converting between units of length, mass and capacity, and applying this knowledge to problem solving. The unit further extends pupils' understanding of time, including reading analogue and digital clocks, converting between units (e.g. hours, minutes, seconds), and solving problems by recognising time as grouped units, all supported by strong links to place value, multiplication and division.</p>	<p><b>Notional Time:</b> <b>15 sessions</b></p>	
<p><b>Check and Refresh</b> - <i>skills and knowledge that pupils need to know</i></p>	<p><b>Verbal coding</b>- <i>precise mathematical language to model during worked examples</i></p>	<p><b>Mastering Key Facts in Key Stage 2</b> – developing fluency and automaticity</p>
<p>Column addition and subtraction with two- and three-digit numbers (without regrouping and exchanging).</p> <p>Use bar models to represent part-whole relationships.</p> <p>Understand fact families and the concept of inverse operations.</p>	<p>___ is ___ thousands, ___ hundreds, ___ tens and ___ ones.</p> <p>___ ones plus ___ ones is equal to ___ ones, ___ ten plus ___ tens is equal to ___ tens and ___ hundreds plus ___ hundreds is ___ hundreds</p> <p>___ ones subtract ___ ones is ___ ones, ___ tens subtract ___ tens is ___ ten and ___ hundreds subtract ___ hundred is ___ hundreds</p> <p>If ___ is shared into ___ equal parts, then each part is worth ___ g/ml</p>	<p>Recall multiples of 6 up to <math>12 \times 6</math> in any order, including missing numbers and related division facts with growing fluency.</p> <p>Number bonds and deriving number bond up to 1000</p> <p>Number bonds and related number bond up to 10,000</p>
<p><b>Mathematical Concepts</b>- <i>important pieces of information learners should take away from the unit</i></p>	<p><b>Watch out for</b></p>	<p><b>DfE Ready -to- progress criteria</b></p>
<p>Understanding the relationship between addition and subtraction.</p> <p>Fluency with formal written methods, procedural accuracy and confidence with regrouping and exchanging.</p> <p>Identifying when to use mental methods over formal written methods.</p> <p>Applying strategies to one-step and two-step word problems, explaining choices and justifying methods.</p>	<p>Pupils who start adding or subtracting from the left instead of the ones column.</p> <p>Pupils who are confused about when to regroup or exchange.</p> <p>Pupils who revert to counting in ones or using fingers rather than using number bonds to quickly calculate (for example, 5 ones + 3 ones).</p> <p>Pupils who do not recognise the relationship between addition and subtraction.</p> <p>Pupils who revert to formal written methods for calculations that could be solved mentally.</p>	<p><b>3NPV-2      4NPV-2      4-NF3</b></p> <p><b>3NPV-3      4NPV-3      4MD-1</b></p> <p><b>Formative assessment questions - key questions to support pupil reasoning and teacher assessment</b></p> <ul style="list-style-type: none"> <li>• What is the same and what is different?</li> <li>• What if I change...?</li> <li>• Can you give me an example of... and another...and another?</li> <li>• Which is harder and which is easier...?</li> <li>• If I know this, then what else do I know?</li> </ul>

## Visual coding: key representations



$15 + 3 = 18$

$18 - 3 = 15$

$3 + 15 = 18$

$18 - 15 = 3$

Example of expanded column method up to three-digits:

$$\begin{array}{r}
 400 \quad + \quad 10 \quad + \quad 8 \\
 + \quad 300 \quad + \quad 40 \quad + \quad 4 \\
 \hline
 700 \quad + \quad 60 \quad + \quad 2 \\
 \hline
 10
 \end{array}$$

$$\begin{array}{r}
 600 \quad + \quad 40_{50} \quad + \quad 10_3 \\
 - \quad 200 \quad + \quad 10 \quad + \quad 4 \\
 \hline
 400 \quad + \quad 30 \quad + \quad 9
 \end{array}$$

National Curriculum: Mathematics Appendix 1

789 + 642 becomes

$$\begin{array}{r}
 7 \quad 8 \quad 9 \\
 + \quad 6 \quad 4 \quad 2 \\
 \hline
 1 \quad 4 \quad 3 \quad 1 \\
 \hline
 1 \quad 1
 \end{array}$$

Answer: 1431

874 - 523 becomes

$$\begin{array}{r}
 8 \quad 7 \quad 4 \\
 - \quad 5 \quad 2 \quad 3 \\
 \hline
 3 \quad 5 \quad 1
 \end{array}$$

Answer: 351

932 - 457 becomes

$$\begin{array}{r}
 8 \quad 12 \quad 1 \\
 9 \quad 3 \quad 2 \\
 - \quad 4 \quad 5 \quad 7 \\
 \hline
 4 \quad 7 \quad 5
 \end{array}$$

Answer: 475

932 - 457 becomes

$$\begin{array}{r}
 1 \quad 1 \\
 9 \quad 3 \quad 2 \\
 - \quad 4 \quad 5 \quad 7 \\
 \hline
 5 \quad 6 \\
 \hline
 4 \quad 7 \quad 5
 \end{array}$$

Answer: 475

156cm = 1.56m

Ones			-ths	
100s	10s	1s	$\frac{1}{10s}$	$\frac{1}{100s}$
1	5	6		
		1	5	6

1kg = 1000g				

1kg = 1000g				

1kg = 1000g				

1kg = 1000g				

If 1000g is shared into \_\_\_ equal parts, then each part is worth \_\_\_ g

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Reference: DFE-00180-2013

<b>Learning Journey – Addition and Subtraction</b>			
<b>Autumn unit 4.1 (1 week)</b>	<b>Autumn unit 4.5 (1 week)</b>	<b>Spring unit 4.7 (2 weeks)</b>	<b>Spring unit 4.13 (1 week)</b>
<p>I can add and subtract mentally a three-digit number and ones.</p> <p>I can add and subtract mentally a four-digit number and ones.</p> <p>I can add and subtract mentally a three-digit number and tens.</p> <p>I can add and subtract mentally a four-digit number and tens.</p> <p>I can add and subtract mentally a three-digit number and hundreds.</p> <p>I can add and subtract mentally a four-digit number and hundreds.</p> <p>I can solve problems using number facts (complements to 100).</p> <p>I can solve problems using number facts (complements to 1000).</p>	<p>I can use inverse operations to check answers.</p> <p>I can add and subtract numbers with up to three-digits using formal written methods.</p> <p>I can add and subtract numbers with up to four-digits using formal written methods.</p> <p>I can solve addition and subtraction one-step problems in context, deciding which operations and methods to use and why.</p> <p>I can solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why.</p>	<p>I can estimate the answer to a calculation and use inverse operations to check answers.</p> <p>I can add and subtract mentally a four-digit number and ones.</p> <p>I can add and subtract mentally a four-digit number and tens.</p> <p>I can add and subtract mentally a four-digit number and hundreds.</p> <p>I can solve problems using number facts (complements to 1000).</p> <p>I can add and subtract numbers with up to four-digits using formal written methods.</p> <p>I can solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why</p>	<p><i>Repeats in measurement learning journey</i></p> <p>I can add and subtract amounts to money to give change,</p> <p>I can add and subtract lengths.</p> <p>I can add and subtract mass.</p> <p>I can add and subtract volume.</p>
			<b>Summer unit 4.15 (2 weeks)</b>
			<p>I can estimate and use inverse operations to check answers to a calculation.</p> <p>I can add and subtract with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</p> <p>I can solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</p>

## Learning Journey – Measurement

Autumn unit 4.2 (2 weeks)	Autumn unit 4.5 (2 weeks)	Spring unit 4.8 (1 week)	Summer unit 4.13 (1 week)
<p>I can add and subtract amounts of money to give change.</p> <p>I can measure and compare lengths.</p> <p>I can add and subtract lengths.</p> <p>I can measure and compare mass.</p> <p>I can add and subtract mass.</p> <p>I can measure and compare volume and capacity.</p> <p>I can add and subtract volume and capacity.</p> <p>I can tell and write the time to the nearest minute on an analogue clock.</p> <p>I can use vocabulary a.m and p.m.</p> <p>I can read the time on a digital clock.</p>	<p>I can convert between different units of measure (length).</p> <p>I can convert between different units of measure (mass).</p> <p>I can convert between different units of measure (volume and capacity).</p> <p>I can read and write the time on an analogue and a digital clock (12-hour).</p> <p>I can read and write the time on an analogue and a digital clock (24- hour).</p> <p>I can convert time between analogue and digital 12- and 24- hour clocks.</p> <p>I can solve problems involving converting from hours to minutes.</p> <p>I can solve problems involving converting minutes to seconds.</p> <p>I can solve problems involving converting years to months.</p> <p>I can solve problems involving converting weeks to days.</p>	<p>I can measure the perimeter of simple 2-D shapes.</p> <p>I can measure the perimeter of a rectilinear figure in centimetres and metres.</p> <p>I can calculate the perimeter of a rectilinear figure in centimetres and metres.</p> <p>I can find the area of rectilinear shapes by counting squares.</p>	<p><i>Repeats in addition and subtraction learning journey</i></p> <p>I can add and subtract amounts to money to give change.</p> <p>I can add and subtract lengths.</p> <p>I can add and subtract mass.</p> <p>I can add and subtract volume.</p>
			Summer unit 4.16 (1 week)
			<p>I can convert between different units of measure.</p> <p>I can estimate, compare and calculate different measures including money in pounds and pence.</p> <p>I can calculate the perimeter of a rectilinear figure in centimetres and metres.</p> <p>I can find the area of rectilinear shapes by counting squares.</p> <p>I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p>

**Proposed lesson sequence to support development of mathematical concepts**

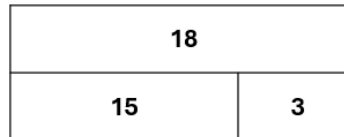
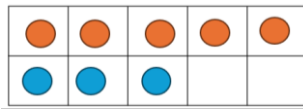
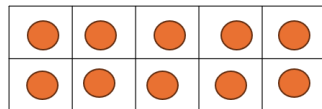
**Developing fluency and automaticity – ongoing daily practice**

<b>Mastering Key Facts in Key Stage 2</b>	<b>Autumn 2 Ongoing Mental Fluency Practice</b> <ul style="list-style-type: none"> <li>Recall multiples of 6 up to 12 x 6 in any order, including missing numbers and related division facts with growing fluency.</li> <li>Number bonds and deriving number bonds up to 1000</li> <li>Number bonds and related number bond up to 10,000</li> </ul>
<b>Counting Fluency</b>	<ul style="list-style-type: none"> <li>I can count in multiples of 100.</li> <li>I can count in multiples of 1000.</li> <li>I can count in multiples of 6.</li> <li><a href="#">Moodle: Primary Daily Count Resource</a></li> </ul>
<b>I can...</b>	<b>Mathematical Concepts, Key Skills and Suggested Tasks</b>

**5 sessions – Addition & Subtraction**

I can use inverse operations to check answers.

To use inverse operations effectively for checking answers, pupils first need a secure understanding of fact families, which are sets of related number sentences using the same numbers. Using a bar model helps pupils visualise these relationships, with the whole shown at the top and the parts below. Concrete representations, such as multilink or tens frames with smaller numbers, support conceptual understanding before moving to abstract strategies.



$$15 + 3 = 18 \qquad 18 - 3 = 15$$

$$3 + 15 = 18 \qquad 18 - 15 = 3$$

The purpose of this step is to encourage pupils to use the inverse as a self-checking tool, providing immediate feedback on accuracy while strengthening their understanding of part-whole relationships and calculation procedures. As pupils consolidate formal written methods later in the unit, focus here on numbers suited to mental strategies, as taught in unit 4.1.

**Suggested task:**

- Mike and Sam decide to check the answer to the following calculation using the inverse operation:  $5327 + 1052 = 6379$   
 Mike checks by calculating  $6379 - 5327$   
 Sam checks by calculation  $6379 - 1052$   
 Who has used the inverse operation? Explain your thinking.

<p>I can add and subtract numbers with up to three-digits using formal written methods.</p>	<p>This step may need to be broken down into smaller steps according to the starting points of the cohort. Assess pupil confidence with the following:</p> <ul style="list-style-type: none"> <li>• Adding with no regroup</li> <li>• Subtracting with no exchange</li> <li>• Adding with 1 regroup / Adding with 2 regroup</li> <li>• Subtracting with 1 exchange / Subtracting with 2 exchanges</li> </ul> <p>There may be some pupils who benefit from seeing this as the expanded column method alongside concrete resources such a dienes or place value counters. Pupils who are secure with place value can progress onto the compact method.</p> <ul style="list-style-type: none"> <li>• Further detail around progression of skills can be found in unit 3.10</li> </ul> <p>Ensure pupils are adding or subtracting starting from the ones column and using the language of “3 ones plus 5 ones is equal to 8 ones, 1 ten plus 8 tens is equal to 9 tens and 5 hundreds plus 2 hundreds is hundreds” and “8 ones subtract 2 ones is 6 ones, 4 tens subtract 3 tens is 1 ten and 7 hundreds subtract 1 hundred is 6 hundreds”.</p> <p>Provide reasoning opportunities by asking pupils to explain why regrouping is necessary and to identify which place value needs to be adjusted. It is important that pupils learn to recognise when a calculation can be solved more efficiently using a mental strategy, such as partitioning, particularly when no regrouping or exchanging is required. Encourage pupils to explain their choice of method and justify why it is efficient, supporting the development of flexible and strategic thinking.</p> <p>Reinforce the relationship between addition and subtraction throughout and encourage pupils to check their answers using the inverse operation.</p>
<p>I can add and subtract numbers with up to four-digits using formal written methods.</p>	<p>Use assessment outcomes from the prior step to guide the lesson sequence for this step. Identify areas where pupils may need more time to practice and embed, such as regrouping or exchanging and adapt planning to secure understanding.</p> <p>Continue to encourage pupils to use the inverse operation to verify accuracy and support self-marking. Missing number problems, such as the three-digit example shown to the right, can be used to deepen understanding for those pupils who are secure.</p> <div data-bbox="1532 1046 2047 1070" style="background-color: #e6f2ff; padding: 2px; border-radius: 5px; text-align: center;">       Write the missing digits to make this subtraction correct.     </div> <div data-bbox="1711 1107 1890 1310" style="text-align: right; margin-top: 10px;"> <math display="block">  \begin{array}{r}  57\ \square \\  - 3\ \square 5 \\  \hline  \square 68  \end{array}  </math> </div> <p>Contains material developed by the Standards and Testing Agency for 2016 national curriculum assessments and licensed under Open Government Licence v3.0' <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/">http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/</a></p>

<p>I can solve addition and subtraction one-step problems in context, deciding which operations and methods to use and why.</p>	<p>Model a worked example using a problem-solving approach, such as Polya’s four-step method. As you work through the example, think aloud to demonstrate the process, for example:</p> <ul style="list-style-type: none"> <li>• Understand the problem – identify what is being asked and highlight key information.</li> <li>• Devise a plan – choose an appropriate strategy and explain why.</li> <li>• Carry out the plan – represent thinking using jottings, diagrams, or bar models to make reasoning visible.</li> <li>• Review the solution – check the answer and reflect on whether the method was efficient.</li> </ul> <p>Ensure pupils have opportunities to practise this approach with problems in a similar context, so they can apply the steps independently and develop confidence in structured problem-solving.</p> <p><b>Example one-step problems:</b></p> <ul style="list-style-type: none"> <li>• 8546 people attended a football match. 3982 supported the blue team. The rest supported the red team. How many people were supporting the red team?</li> <li>• 5500 children and 4017 adults visited the theme park on Saturday. How many visitors were there altogether?</li> </ul>													
<p>I can solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why.</p>	<p>Similarly to the previous step, model a worked example using the same problem-solving approach and think aloud throughout to make reasoning explicit. Encourage metacognition by asking purposeful questions such as:</p> <ul style="list-style-type: none"> <li>• How will you represent the problem?</li> <li>• What will you do first, and why?</li> <li>• Which strategy will you use—mental calculation or a formal written method?</li> <li>• What will you do next, and why?</li> <li>• How do you know your answer makes sense in the context of the question?</li> </ul> <p>This approach helps pupils articulate their thinking, justify their choices, and develop confidence in selecting efficient strategies.</p>													
	<p><b>Routine problem:</b></p> <p>At the start of the year, there were <b>2397</b> toy dinosaurs in the shop. During the year,</p> <ul style="list-style-type: none"> <li>• <b>1000</b> more toy dinosaurs were delivered.</li> <li>• <b>2981</b> toy dinosaurs were sold.</li> </ul> <p>How many toy dinosaurs were left in the shop at the end of the year?</p>	<p><b>Non-routine problem:</b></p> <p>Complete the diagram so that the numbers in each row and column add up to 1000.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">550</td> <td style="text-align: center;">○</td> <td style="text-align: center;">300</td> <td style="text-align: center;">○</td> </tr> <tr> <td style="text-align: center;">○</td> <td></td> <td></td> <td style="text-align: center;">700</td> </tr> <tr> <td style="text-align: center;">400</td> <td style="text-align: center;">150</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> </table> <p>Is there more than one possible solution?</p>	550	○	300	○	○			700	400	150	○	○
550	○	300	○											
○			700											
400	150	○	○											

## 10 sessions – Measurement

I can convert between different units of measure (length).

Pupils build on from learning in unit 4.2, and recent decimal work in unit 4.4 to convert between different units of length.

Start with using a familiar form of recording measure, for example 1m56cm.

- How many centimetres is this altogether?
- Model 1m = 100cm
- so 100cm + 56cm = 156cm

This can also be written as 1.56m.

When I convert centimetres to metres, I divide by 100 because 100cm = 1m.

The digits move two places to the right because the value becomes 100 times smaller.

### Sentence Stems:

\_\_\_ cm is \_\_\_ hundredths of a metre  
(e.g. 71cm is 71 hundredths of a metre)

\_\_\_ m \_\_\_ cm = \_\_\_ . \_\_\_ m  
(e.g. 71cm = 0.71m or 1m 56cm = 1.56m)




### Suggested Tasks:

- Give pupils mixed units, e.g. 2m 4cm, 5m 60cm, 2m 81cm. Record as centimetres and then as metres.
- Missing number problems, e.g. \_\_\_ cm = 2.34m, 4m \_\_\_ cm = 4.08m, 305cm = \_\_\_ . 05m
- True or false: 1.6m = 106cm, 2.05m = 205cm, 0.5m = 5cm

156cm = 1.56m

Ones			-ths	
100s	10s	1s	$\frac{1}{10}$ s	$\frac{1}{100}$ s
1	5	6		
		1	5	6

1 m 56 cm = 1.56m

Ones			-ths	
100s	10s	1s	$\frac{1}{10}$ s	$\frac{1}{100}$ s
				
		1	5	6

I can convert between different units of measure (mass).

Converting mass using the same approach as length would involve three decimal places (thousandths), which is beyond Year 4 expectations. Instead, pupils should consolidate converting mixed units into a single unit, for example changing 3 kg 500 g into 3500 g, reinforcing the key fact that 1000 g = 1 kg and maintaining a strong focus on place value within whole numbers.

This step also enable opportunity to reinforce key facts linked to 1 kg = 1000 g, such as:

- $\frac{1}{2}$  kg = 500g,  $\frac{1}{4}$  kg = 250g,  $\frac{3}{4}$ kg = 750g,  $\frac{1}{5}$  kg = 200g and  $\frac{1}{10}$  kg = 100g.
- What is the value of each part if 1000g is divided into 2, 4, 5 and 10 equal parts?

*See next page for further detail:*

1kg = 1000g	

1kg = 1000g			

1kg = 1000g				

1kg = 1000g									

If 1000g is shared into \_\_\_ equal parts, then each part is worth \_\_\_ g

$1\frac{1}{2} \text{ kg} = \boxed{\phantom{000}} \text{ g}$

$2\frac{1}{2} \text{ kg} = \boxed{\phantom{000}} \text{ g}$

$2\frac{1}{4} \text{ kg} = \boxed{\phantom{000}} \text{ g}$

$4\frac{1}{4} \text{ kg} = \boxed{\phantom{000}} \text{ g}$

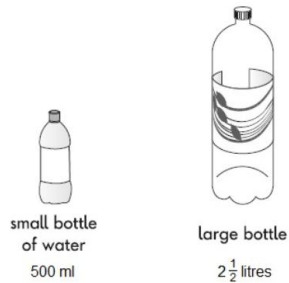
I can convert between different units of measure (volume and capacity).

Similarly to the previous step, pupils should consolidate converting mixed units into a single unit, for example changing 3l 500ml into 3500 ml, reinforcing the key fact that 1000 ml = 1 l and maintaining a strong focus on place value within whole numbers.

This step also provides an opportunity to reinforce key facts linked to 1 l = 1000 ml, such as:

- $\frac{1}{2} \text{ l} = 500\text{ml}$ ,  $\frac{1}{4} \text{ l} = 250\text{ml}$ ,  $\frac{3}{4} \text{ l} = 750\text{ml}$ ,  $\frac{1}{5} \text{ l} = 200\text{ml}$  and  $\frac{1}{10} \text{ l} = 100\text{ml}$ .

**Application example:**



How many small bottles of water will fill the large bottle?

small bottles
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I can read and write the time on an analogue and a digital clock (12-hour).

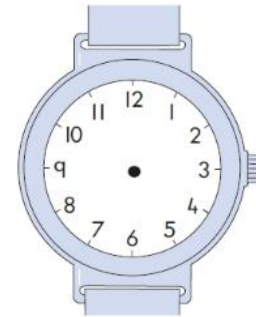
Use assessment from Unit 4.2 to determine whether pupils require further consolidation or are ready to progress to more complex application tasks.

Sita's watch shows this time.



Harry's watch shows the same time.

Draw the hands on his watch.



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I can read and write the time on an analogue and a digital clock (24-hour).

Use assessment from Unit 4.2 to determine whether pupils require further consolidation or are ready to progress to more complex application tasks. Continue to support pupils by demonstrating how afternoon and evening times can be found by adding 12 to the hour. Highlight patterns (e.g. 13 = 1 pm, 14 = 2 pm, 15 = 3 pm) to build confidence and reduce reliance on memorisation. For example, 3:00 pm in the 12-hour clock is written as 15:00 in the 24-hour clock ( $3 + 12 = 15$ ).

**Times**

(a) Complete the missing times.

The first one is done for you.

10 o'clock in the morning → 10:00

Quarter to 7 in the morning →

Quarter past 7 in the evening →

(b) Complete the missing time.

→ 21:00

Tick the clock that shows the time:

Twenty past three **in the afternoon**

13:20

20:03

15:20

3:20

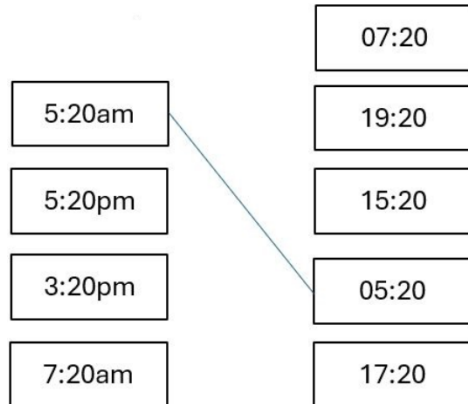
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I can convert time between analogue and digital 12- and 24- hour clocks.

As with Unit 4.2, strengthen connections between analogue, 12-hour digital and 24-hour digital time, supporting pupils to move flexibly between representations and explain how they know.

Join the 12-hour-clock times to the correct 24-hour-clock times.

One has been done for you.



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I can solve problems involving converting from hours to minutes.

This step is about helping pupils to understand that hours are groups of 60 minutes, and that converting between them is an application of multiplication and division.

To convert hours to minutes, they must multiply by 60.

- 2 hours = 2 groups of 60.
- $2 \times 60 = 120$  minutes

To convert minutes to hours, they must divide by 60.

- 180 minutes = how many groups of 60?
- $180 \div 60 =$
- If I know  $18 \div 6$  is 3, then I know that  $180 \div 60 = 3$
- $180 \div 60 = 3$  hours

If pupils are confident with the 6 times table, they can use this to identify patterns in the 60 times table, recognising that each value is ten times greater. Pupils can then use this understanding to convert efficiently, for example recognising that 90 minutes = 1 hour (60 minutes) with 30 minutes remaining, supporting flexible conversion between minutes and hours.

<p>I can solve problems involving converting minutes to seconds.</p>	<p>As with converting from hours to minutes, converting between minutes and seconds involves grouping and counting in 60s, building on known multiplication and division facts.</p> <p>To convert minutes to seconds, they must multiply by 60.</p> <ul style="list-style-type: none"> <li>• 5 minutes = 5 groups of 60.</li> <li>• <math>5 \times 60 = 300</math> seconds.</li> </ul> <p>To convert minutes to hours, they must divide by 60.</p> <ul style="list-style-type: none"> <li>• 540 seconds = how many groups of 60?</li> <li>• <math>540 \div 60 =</math></li> <li>• If I know <math>54 \div 6</math> is 9, then I know that <math>540 \div 60 = 9</math></li> <li>• <math>540 \div 60 = 9</math> minutes</li> </ul> <p>If pupils are confident with the 6 times table, they can use this to identify patterns in the 60 times table, recognising that each value is ten times greater. Pupils can then use this understanding to convert efficiently, for example recognising that 250 seconds = 4 minutes (240 seconds) with 10 seconds remaining, supporting flexible conversion between minutes and seconds.</p>
<p>I can solve problems involving converting years to months.</p>	<p>If pupils are confident with the 12 times table, they can use this to identify patterns in the number of months in a year, recognising that years are groups of 12 months.</p> <p>To convert years to month, they must multiply by 12.</p> <ul style="list-style-type: none"> <li>• 4 years = 4 groups of 12</li> <li>• <math>4 \times 12 = 48</math> months</li> </ul> <p>To convert years to months, they must divide by 12.</p> <ul style="list-style-type: none"> <li>• 36 months = how many groups of 12?</li> <li>• <math>36 \div 12 = 3</math> years</li> </ul> <p>If pupils are confident with the 12 times table, they can then use this understanding to convert efficiently, for example recognising that 70 months = 5 years (60 months) with 10 months remaining, supporting flexible conversion between years and months.</p>

<p>I can solve problems involving converting weeks to days.</p>	<p>If pupils are confident with the 7 times table, they can use this to identify patterns in the number of days in a week, recognising that weeks are groups of 7 days.</p> <p>To convert weeks to days, they must multiply by 7.</p> <ul style="list-style-type: none"> <li>• 6 weeks = 6 groups of 7</li> <li>• <math>6 \times 7 = 42</math> days</li> </ul> <p>To convert days to weeks, they must divide by 7.</p> <ul style="list-style-type: none"> <li>• 77 days = how many groups of 7?</li> <li>• <math>77 \div 7 = 11</math> weeks</li> </ul> <p>If pupils are confident with the 7 times table, they can then use this understanding to convert efficiently, for example recognising that 50 days = 7 weeks (49 days) with 1 day remaining, supporting flexible conversion between weeks and day.</p>
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- HIAS Resources to support:**
- Reasoning and Intelligent Practice Tasks: [Reasoning and Intelligent Practice Tasks](#)
  - Faded Scaffolds and Intelligent Practice: [Faded Scaffolds and Intelligent Practice](#)
  - Paired Examples: [Paired Examples](#)
  - Entry and Exit tickets: [Entry and Exit Tickets](#)
  - Interleaving, Recall and Retrieval: [Interleaving, Recall and Retrieval \(hants.gov.uk\)](#)
  - Connect4Maths: [Connect4Maths - Primary](#)
  - Moderation Documents: [Moderation Documents](#)
  - KS1 Key Facts: [Key Stage 1 Key Facts Document](#)
  - Mastering Times Tables: [Mastering Times Tables](#)

- NCETM Resources to support:**
- Exemplification of ready -to -progress criteria (RTPS): [Exemplification of ready-to-progress criteria | NCETM](#)
  - NCETM Professional Development materials spine 1: [Number, Addition and Subtraction | NCETM](#) ;
  - The NCETM Mastery Task booklets can be used as a source of tasks to support end of year teacher assessment for both EXS and GDS [Teaching for Mastery Booklets Yr1-6](#)

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