

## Home Learning: Year Five Maths

We have set out each week's learning as a series of suggested daily activities. However, the time may look very different for each family. Building in time to look after each other, be physical, creative and relax is as important as completing the set activities. You need to decide what works for you and your family. You could do more of the activities on one day and fewer on another, or you may find it helpful to have a more structured approach. It may help to give clear times for doing activities and clear times for breaks. You will also notice that some of the science, history and DT activities are the same and therefore can be done as a family.

Year 5	Day 1	Day 2	Day 3	Day 4	Day 5
<b>Factual Fluency</b>	Practise perimeter <a href="#">here</a>	Practise your 12 times table <a href="#">here</a>	Find the missing side lengths <a href="#">here</a>	Choose figures with a given area <a href="#">here</a>	Practise area <a href="#">here</a>
<b>Four Days of Reasoning (Monday-Thursday)</b>	<p>Summer Term Week 9 (w/c June 22nd)  <a href="https://whiterosemaths.com/homelearning/year-5/">https://whiterosemaths.com/homelearning/year-5/</a>  <b>Scroll down to find resources for pupils who normally work with Ms T or for those who have finished the daily task and would like a challenge.</b></p>	<p>Click onto the link each day. There is a video to watch for each day and then activities to complete. White Rose is an excellent resource and one often used by teachers in our schools. As you support your child, you will see that it presents concepts clearly and incrementally. The lessons will start very simply – however, we do not recommend that you race ahead; spend time on the straightforward before moving onto more complex, abstract ideas.</p> <p><i>If you feel your child needs greater challenge click onto this link, they could work on the learning set for Y6.</i></p> <p><i>If your child struggles with maths, they could work on the learning set for year groups lower down the school.</i></p> <p style="text-align: center;"><b>SEE BELOW FOR MATHS WORK SHEETS (answers included at the bottom of this week's learning resources)</b></p>			
<b>Friday</b>	<p>Revise any aspects of this week's learning that you have been unsure of. You can simply repeat the lesson. If you want to challenge yourself further, you could click on some of the Y6 lessons. Remember to practise your multiplication and division facts. You could also spend some time on <a href="https://www.bbc.co.uk/bitesize/subjects/z826n39">https://www.bbc.co.uk/bitesize/subjects/z826n39</a> Guardians: Defenders of Mathematica (start with the Addition and Subtraction section).</p>				

## Home Learning: Year 5 English

Year five	Day 1	Day 2	Day 3	Day 4 & Day 5
<b>Reading</b>	<p>Make sure you have some quiet time for daily reading of your own book. Record your reading in your Reading Record as you normally do. Check out <a href="https://www.ccht.rbkc.sch.uk/learning-at-home/story-time/">https://www.ccht.rbkc.sch.uk/learning-at-home/story-time/</a> for some on-line stories and some good book recommendations.</p>			
<b>Writing &amp; thinking</b>	<p><b>LO: to respond to performance poetry</b>            Watch the poet Karl Nova perform his poem '<a href="#">Poetry?</a>'            Think about the following questions: Why do you think he has chosen to punctuate the title in this way?            Do <b>you</b> think this is an example of poetry? Do you think everyone would see this as poetry? Why or why not?</p> <p><b>Task</b>            Read the poem <b>Poetry?</b> (see below) and answer the reading for writing questions.            Look at the resources below. It is Karl Nova's <b>Rhythm and Poetry</b> front cover. He was awarded the CLPE (<b>Centre for Literacy in Primary Education</b>) poetry prize.</p>	<p><b>LO: perform a poem</b>            Watch <a href="#">Karl Nova</a> explain why he thinks poetry is important.            Watch Karl Nova perform his poetry <a href="#">Change</a> for National Poetry Day 2018.            Read <b>Change</b> in Resources.            Think about the following questions: which words are the most important? Which words does Karl Nova emphasise/slow down/speed up?</p> <p><b>Thinking</b>            Answer the reading for writing questions on <b>Change</b> in Resource 2B.</p> <p><b>Performance</b>            Read <b>Change</b> aloud, considering your tone,</p>	<p><b>LO: to compose a poem</b>            Read <b>Change</b> in from previous day. You will be writing your own version of this poem. The poem repeats the first three lines and then describes four main changes:</p> <ul style="list-style-type: none"> <li>• <i>Writing from notebooks to his mobile phone because times have changed</i></li> <li>• <i>The Earth moving and our lives growing</i></li> <li>• <i>The seasons changing</i></li> </ul> <p>• <i>Change being quick and difficult to describe</i> Make a mind map about 4-6 changes in your life, e.g. moving to secondary school. Write your own poem about change using the beginning of Karl Nova's poem. The</p>	<p><b>LO: to plan, write and edit a poem</b>            Watch Karl Nova perform his poem <a href="#">Four Seasons</a>.            Read <b>Four Seasons</b> in Resource 4A.            What does Karl Nova mean by 'covering the ground like a shawl'?            Write down/highlight examples of poetic devices. Think about <b>rhyming, syllables, simile, personification and the structure and order of the stanzas (verses)</b>.            Write a plan for your version of <b>Four Seasons</b>.            Think about personification, similes and other poetic devices Karl Nova uses to describe each season.            Write your version of the poem <b>Four Seasons</b>.            Edit your poem using ARMS and CUPS in resources below.            Can you think of a more powerful simile?            Has your poem followed the same rhythm as Karl Nova's poem?            Publish your poem. Choose one of these <a href="#">publishing sheets</a> or create your own publishing sheet by creating a border showing all four seasons.</p>

	<p>Think about the following questions:          What is rhythm?          Why do you think Karl Nova has chosen this title for the collection? What do you expect from the rest of the poems in the collection?          Read an extract from an interview with Karl Nova by <b><i>Books for Keeps</i></b> (see below) to learn more about his earlier life and influences.</p>	<p>facial expression, volume and actions.</p>	<p>resource below will help you organise your ideas.          Read your poem aloud, thinking about how Karl Nova read his poem <b><i>Change</i></b>.</p>	<p>Read your poem aloud, thinking about how Karl Nova read his poem <b><i>Four Seasons</i></b></p> <p><b><i>Remember that if you are still learning at home you can upload your work (and performances) to ClassDojo</i></b></p> <hr/> <p><b>Spelling Test</b>  <b>LO: Learn spellings</b>          Ask someone to test you on the spellings you have been learning.</p> <p>How did you do? Ask the adult to help you mark your spellings. If you made any mistakes, practise writing these spellings out three or four times like you would at school.</p>
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## Home Learning: Year 5 Curriculum

Day 1	Day 2	Day 3	Day 4	Day 5
Geography	Science	History	RE	DT/Spanish
<p><b>LO: Investigate sustainability</b> How can we reduce the use of the Earth's natural resources?</p> <ul style="list-style-type: none"> <li>• What does the Consumption of Natural Resources chart tell you about the world's use of natural resources? (see chart below)</li> <li>• Listen to this short <a href="#">Podcast</a> and read the website</li> <li>• Create a news report about reducing waste of natural resources, presenting it in any way you choose.</li> </ul>	<p><b>LO: Investigate the human aging process</b> How do humans change as they get older?</p> <ul style="list-style-type: none"> <li>• Explore this <a href="#">website</a> to learn more about the changes humans experience as they age.</li> <li>• Draw the life cycle of a human.</li> <li>• Interview at least one adult, or someone who is older than you, asking what changes have happened as they have gotten older. Record in a way of your own choosing what you found out.</li> </ul>	<p><b>LO: Research Stonehenge</b> Check this <a href="#">site</a> and find out key facts about Stonehenge.</p> <ul style="list-style-type: none"> <li>• Create a visitor's guide to Stonehenge to persuade someone in your house to visit it</li> </ul>	<p><b>LO: What do the Miracles of Jesus teach us?</b> Read the Bible story below and watch the video about the Miracle of the Feeding of the 5,000. <a href="https://www.youtube.com/watch?v=uupg0V-17NU">https://www.youtube.com/watch?v=uupg0V-17NU</a></p> <p>Now answer the questions in your books.</p>	<p><b>Spanish</b> Let's remember what it was like to be at school with this video! <a href="https://rockalingua.com/videos/school-supplies-and-subjects">https://rockalingua.com/videos/school-supplies-and-subjects</a> After watching the video do the worksheet you'll find below (maybe you need to watch it a few times).</p> <p><b>DT Sculptural Birds</b> <i>You will need: Corrugated cardboard/ Foamboard Paper Mark making materials- your choice Wire, Scissors Glue/Sellotape</i> Sculptural Birds - One of the positive aspects of the lockdown is that we have seen a return of many birds into our gardens and open spaces. Here's how to make your own (see instruction sheet below).</p> <ul style="list-style-type: none"> <li>• Cut an egg/oval shape from a piece of firm cardboard corrugated works well – look for packaging materials</li> <li>• Next, you need to make and attach wire legs –you may need to play around with this for a while so that your bird stands up.</li> <li>• Using as many mark-making materials as you like to draw a series of feathers onto plain paper – make sure you vary the size, shapes and colours. When you have finished, either tear around or cut out your feathers ready to collage onto your bird and make it come to life!</li> </ul>
<b>Everything is Interesting – Are you ready for a challenge?</b>				

Subtracting decimals with the same number of decimal places



1 Use a place value chart and counters to help you complete the subtractions.

Tens	Ones	Tenths	Hundredths
10	1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01

a)  $14.83 - 12.12 = \square$       c)  $14.83 - 12.92 = \square$

b)  $14.83 - 12.14 = \square$       d)  $14.83 - 12.94 = \square$

- e) Which calculation was easier? Talk about it with a partner.  
 f) What happens when you don't have enough counters in a column to take away?

\_\_\_\_\_

\_\_\_\_\_

2 Complete the sentences.

1 ten can be exchanged for  ones.

1 one can be exchanged for  tenths.

1 tenth can be exchanged for 10 \_\_\_\_\_



3 Annie is calculating  $2.42 - 1.17$  using the column method. She uses a place value chart to help her.

Ones	Tenths	Hundredths
1 1	0.1 0.1 0.1 0.1	0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01

	2	<del>4</del>	2		
-	1	1	7		
	1	2	5		

How does the place value chart support the column method?  
 Talk about it with a partner.

4 Complete the column subtractions.

a)

	5	6	4	
-	3	1	2	

c)

	8	0	9	
-	3	8	1	

b)

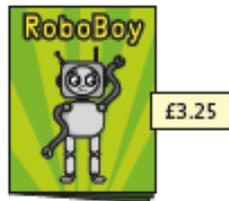
	5	6	4	
-	3	1	5	

d)

	1	2	0	2
-	1	1	3	8



- 5 Whitney has £8.52  
She buys this comic.  
How much money does she have left?



£

- 6 Here are some items for sale in a shop.



- a) How much more does a scarf cost than a bag of marbles?

£

- b) Esther has £15.31

She buys a pair of headphones and a bag of marbles.  
How much money does she have left?

£

- c) Tom has £7.01

He buys one item and has £5.92 left.  
What did he buy?

Tom bought \_\_\_\_\_

- 7 Ron and Dora are doing a sponsored walk.  
Ron walks 3.12 miles.  
Dora walks 5.49 miles.  
How much further does Dora walk than Ron?  
Dora walks  miles further than Ron.

- 8 Tommy has three pieces of string.
- The first piece is 0.78 m long.
  - The second piece is 0.24 m shorter than the first piece.
  - The third piece is 0.07 m shorter than the second piece.

What is the total length of all three pieces of string?

Give your answer in metres and centimetres.

m and  cm

- 9 A, B and C are points on a number line.



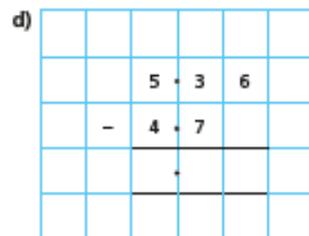
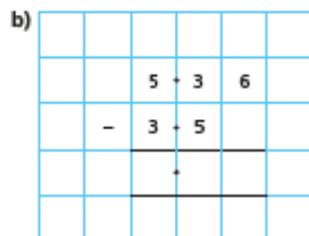
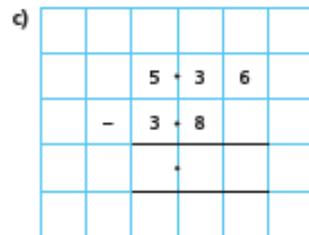
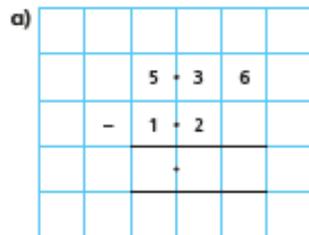
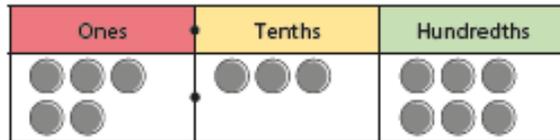
How much greater is the difference between A and C than the difference between B and C?

Compare methods with a partner.

## Subtracting decimals with a different number of decimal places



1 Use the place value chart to help you work out the subtractions.



2 Alex is using counters to help her work out  $4.7 - 1.35$



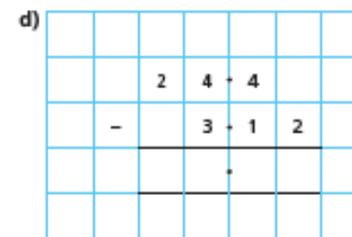
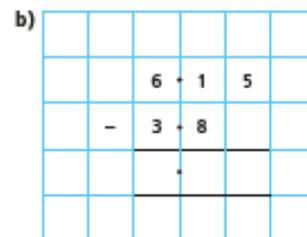
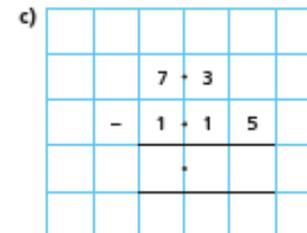
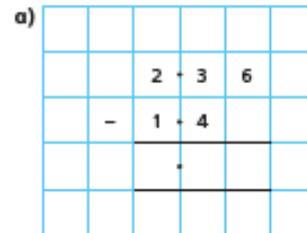
I can't do this as I don't have any hundredths counters.

Do you agree with Alex? \_\_\_\_\_

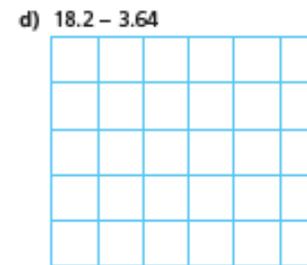
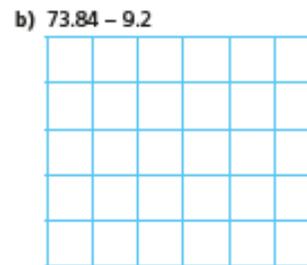
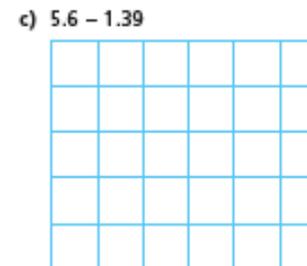
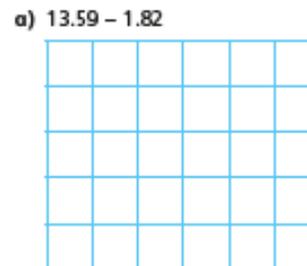
Talk about it with a partner.



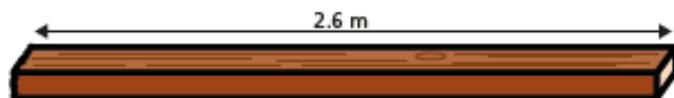
3 Complete the subtractions.



4 Use the column method to work out the subtractions.



- 5 A plank of wood measures 2.6 m.  
A carpenter cuts a piece of wood from the plank that is 0.52 m long.



- a) What is the length of the remaining plank?

m

- b) The carpenter cuts a second piece of wood from the plank.  
She now has 0.3 m of the plank remaining.  
What is the length of the second piece of wood that she cut?

m

- 6 The mass of a bag of marbles is 54.3 g.  
These two marbles are removed from the bag.



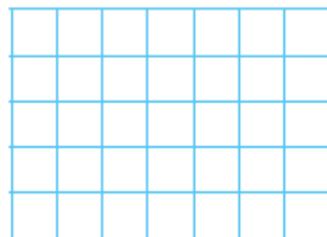
What is the mass of the bag of marbles now?

g

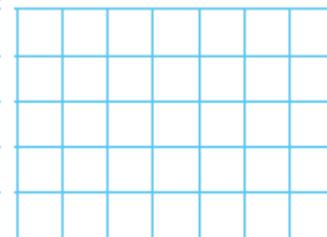
- 7 Work out the missing digits.  
 $\_ \_ 3.4 - 2.5 \_ = 10.81$

- 8 Use the column method to work out the subtractions.

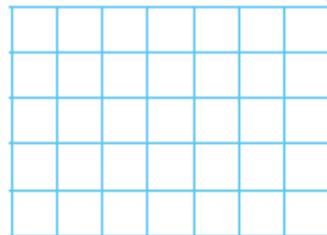
a)  $14 - 2.7$



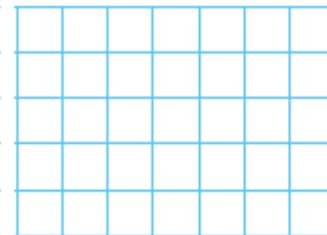
d)  $26 - 3.91$



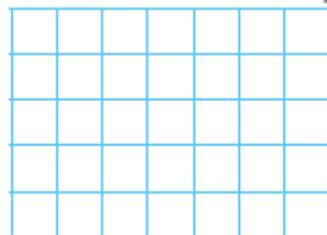
b)  $8 - 3.65$



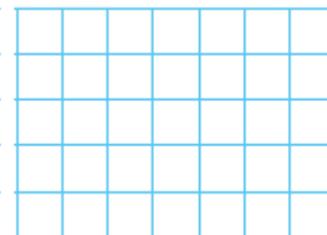
e)  $25 - 3.842$



c)  $20 - 2.85$



f)  $90 - 0.821$



## Multiplying decimals by 10, 100 and 1,000



1 Complete the multiplications.

H	T	○	Tths	Hths
		3	7	

 $3.7 \times 10 = \square$

H	T	○	Tths	Hths
	1	4	5	

 $14.5 \times 10 = \square$

H	T	○	Tths	Hths
		1	5	8

 $1.58 \times 10 = \square$

H	T	○	Tths	Hths
	1	3	0	6

 $13.06 \times 10 = \square$

What do you notice when you multiply a number by 10?

2 Complete the multiplications.

a)  $1.7 \times 10 = \square$       d)  $13.4 \times 10 = \square$

b)  $1.75 \times 10 = \square$       e)  $10 \times 13.04 = \square$

c)  $1.73 \times 10 = \square$       f)  $130.4 \times 10 = \square$

3 Complete the multiplications.

H	T	○	Tths	Hths
		4	1	

 $4.1 \times 100 = \square$

H	T	○	Tths	Hths
		4	1	5

 $4.15 \times 100 = \square$

H	T	○	Tths	Hths
	1	4	5	

 $14.5 \times 100 = \square$

H	T	○	Tths	Hths
		4	0	5

 $4.05 \times 100 = \square$

What do you notice when you multiply a number by 100?

4 Complete the calculations.

a)  $7.2 \times 100 = \square$       d)  $1.89 \times 100 = \square$

b)  $3.4 \times 100 = \square$       e)  $73.57 \times 100 = \square$

c)  $19.5 \times 100 = \square$       f)  $1.317 \times 100 = \square$

- 5 Amir has multiplied 3.8 by 1,000



The answer is 3.8000

- a) What mistake has Amir made?

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- b) Work out the correct answer.

$3.8 \times 1,000 = \boxed{\phantom{0000}}$

- 6 Complete the multiplications.

a) $4.7 \times 10 = \boxed{\phantom{00}}$	c) $5.84 \times 10 = \boxed{\phantom{000}}$
$4.7 \times 100 = \boxed{\phantom{000}}$	$5.84 \times 100 = \boxed{\phantom{0000}}$
$4.7 \times 1,000 = \boxed{\phantom{0000}}$	$5.84 \times 1,000 = \boxed{\phantom{00000}}$
b) $19.3 \times 10 = \boxed{\phantom{000}}$	d) $18.06 \times 10 = \boxed{\phantom{000}}$
$19.3 \times 100 = \boxed{\phantom{0000}}$	$100 \times 18.06 = \boxed{\phantom{00000}}$
$1,000 \times 19.3 = \boxed{\phantom{00000}}$	$18.06 \times 1,000 = \boxed{\phantom{000000}}$

How did you work out the answers? Talk to a partner.



- 7 Complete the calculations.

a) $7.7 \times \boxed{\phantom{00}} = 770$	e) $8.032 \times \boxed{\phantom{000}} = 80.32$
b) $\boxed{\phantom{000}} \times 10 = 1,950$	f) $\boxed{\phantom{000}} \times 18.3 = 1,830$
c) $11.5 \times \boxed{\phantom{000}} = 115$	g) $195.32 \times \boxed{\phantom{000}} = 1,953.2$
d) $\boxed{\phantom{000}} \times 11.5 = 11,500$	h) $\boxed{\phantom{000}} \times 1,000 = 7,200$

- 8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

- a) How tall is the tree?

 m

- b) How much taller is the building than the tree?

 m

- 9 Match the multiplications to the descriptions.

$\times 10 \times 10$	multiply by 10
$\times 10 \times 10 \times 10$	
$\times 100 \times 10$	multiply by 100
$\times 10 \times 100$	
$\times 10 \times 1$	multiply by 1,000



## Dividing decimals by 10, 100 and 1,000

1 Complete the divisions.

a) 

H	T	O	Tths	Hths
		5	.	

 $5 \div 10 = \square$

b) 

H	T	O	Tths	Hths
	1	5	.	

 $15 \div 10 = \square$

c) 

H	T	O	Tths	Hths
		3	.	8

 $3.8 \div 10 = \square$

d) 

H	T	O	Tths	Hths
	1	3	.	8

 $13.8 \div 10 = \square$

What do you notice when you divide a number by 10?

2 Complete the calculations.

a)  $7 \div 10 = \square$       d)  $16 \div 10 = \square$

b)  $7.8 \div 10 = \square$       e)  $16.4 \div 10 = \square$

c)  $7.86 \div 10 = \square$       f)  $16.48 \div 10 = \square$

3 Complete the divisions.

a) 

H	T	O	Tths	Hths	Thths
	1	7	.		

 $17 \div 100 = \square$

b) 

H	T	O	Tths	Hths	Thths
		9	.	4	

 $9.4 \div 100 = \square$

c) 

H	T	O	Tths	Hths	Thths
2	7	6	.		

 $276 \div 100 = \square$

d) 

H	T	O	Tths	Hths	Thths
	3	2	.	5	

 $32.5 \div 100 = \square$

What do you notice when you divide a number by 100?

4 Complete the divisions.

a)  $7 \div 100 = \square$       b)  $109 \div 100 = \square$

$7.2 \div 100 = \square$        $10.9 \div 100 = \square$

$7.25 \div 100 = \square$        $10.95 \div 100 = \square$

- 5 Use a place value chart to work out  $136 \div 1,000$

H	T	O	Tths	Hths	Thths
1	3	6			

Complete the calculation.

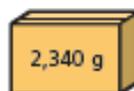
$$136 \div 1,000 = \square$$

Talk to a partner about your method.

- 6 Use your knowledge of measure to work out the answers.

- a) What is the mass of the box in kilograms?

$$\square \div \square = \square$$



- b) What is the height of the sunflower in metres?

$$\square \div \square = \square$$

235 cm



- c) What is the amount of juice in litres?

$$\square \div \square = \square$$



- 7 Complete the calculations.

a)  $147 \div 10 = \square$

c)  $3,200 \div 10 = \square$

$147 \div 100 = \square$

$3,200 \div 100 = \square$

$147 \div 1,000 = \square$

$3,200 \div 1,000 = \square$

b)  $21 \div 10 = \square$

d)  $5,006 \div 10 = \square$

$21 \div 100 = \square$

$5,006 \div 100 = \square$

$21 \div 1,000 = \square$

$5,006 \div 1,000 = \square$

- 8 Complete the divisions.

a)  $83 \div \square = 0.83$

e)  $1,799 \div \square = 17.99$

b)  $\square \div 10 = 0.95$

f)  $\square \div 100 = 11.8$

c)  $\square \div 10 = 3.9$

g)  $178 \div \square = 17.8$

d)  $68 \div \square = 0.068$

h)  $3.18 \div \square = 0.318$

# Maths Answers - Day 1

## Subtracting decimals with the same number of decimal places



1 Use a place value chart and counters to help you complete the subtractions.

Tens	Ones	Tenths	Hundredths
10	1 1 1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01

a)  $14.83 - 12.12 = 2.71$       c)  $14.83 - 12.92 = 1.91$

b)  $14.83 - 12.14 = 2.69$       d)  $14.83 - 12.94 = 1.89$

- e) Which calculation was easier? Talk about it with a partner.  
 f) What happens when you don't have enough counters in a column to take away?

You need to make an exchange.

2 Complete the sentences.

1 ten can be exchanged for 10 ones.

1 one can be exchanged for 10 tenths.

1 tenth can be exchanged for 10 hundredths



3 Annie is calculating  $2.42 - 1.17$  using the column method.

She uses a place value chart to help her.

Ones	Tenths	Hundredths
1 1	0.1 0.1 0.1	0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01

			2	.	4
			1	.	1
			1	.	2
					5

How does the place value chart support the column method?  
 Talk about it with a partner.

4 Complete the column subtractions.

a)

		5	.	6
		3	.	1
		2	.	5
				2

c)

		8	.	0
		3	.	8
		4	.	2
				8

b)

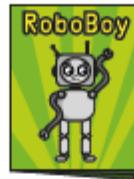
		5	.	4
		3	.	1
		2	.	4
				9

d)

		1	.	2
		1	.	1
		0	.	0
				6
				4



- 5 Whitney has £8.52  
She buys this comic.  
How much money does she have left?



£3.25

£ 5.27

- 6 Here are some items for sale in a shop.



£2.27



£9.10



£4.91



£1.09

- a) How much more does a scarf cost than a bag of marbles?

£ 2.64

- b) Esther has £15.31

She buys a pair of headphones and a bag of marbles.  
How much money does she have left?

£ 3.94

- c) Tom has £7.01

He buys one item and has £5.92 left.  
What did he buy?

Tom bought a keyring.

- 7 Ron and Dora are doing a sponsored walk.  
Ron walks 3.12 miles.  
Dora walks 5.49 miles.  
How much further does Dora walk than Ron?  
Dora walks 2.37 miles further than Ron.

- 8 Tommy has three pieces of string.

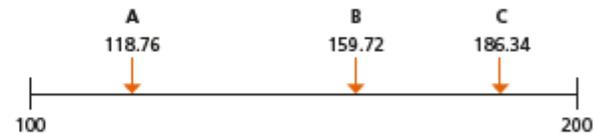
- The first piece is 0.78 m long.
- The second piece is 0.24 m shorter than the first piece.
- The third piece is 0.07 m shorter than the second piece.

What is the total length of all three pieces of string?

Give your answer in metres and centimetres.

1 m and 79 cm

- 9 A, B and C are points on a number line.



How much greater is the difference between A and C than the difference between B and C?

40.96

Compare methods with a partner.



# Day 3

## Multiplying decimals by 10, 100 and 1,000



1 Complete the multiplications.

a) 

H	T	○	Tths	Hths
		3	7	

 $3.7 \times 10 =$  37

b) 

H	T	○	Tths	Hths
	1	4	5	

 $14.5 \times 10 =$  145

c) 

H	T	○	Tths	Hths
		1	5	8

 $1.58 \times 10 =$  15.8

d) 

H	T	○	Tths	Hths
	1	3	0	6

 $13.06 \times 10 =$  130.6

What do you notice when you multiply a number by 10?



2 Complete the multiplications.

a)  $1.7 \times 10 =$  17      d)  $13.4 \times 10 =$  134

b)  $1.75 \times 10 =$  17.5      e)  $10 \times 13.04 =$  130.4

c)  $1.73 \times 10 =$  17.3      f)  $130.4 \times 10 =$  1,304

3 Complete the multiplications.

a) 

H	T	○	Tths	Hths
		4	1	

 $4.1 \times 100 =$  410

b) 

H	T	○	Tths	Hths
		4	1	5

 $4.15 \times 100 =$  415

c) 

H	T	○	Tths	Hths
	1	4	5	

 $14.5 \times 100 =$  1,450

d) 

H	T	○	Tths	Hths
		4	0	5

 $4.05 \times 100 =$  405

What do you notice when you multiply a number by 100?



4 Complete the calculations.

a)  $7.2 \times 100 =$  720      d)  $1.89 \times 100 =$  189

b)  $3.4 \times 100 =$  340      e)  $73.57 \times 100 =$  7,357

c)  $19.5 \times 100 =$  1,950      f)  $1.317 \times 100 =$  131.7

- 5 Amir has multiplied 3.8 by 1,000



The answer is 3.8000

- a) What mistake has Amir made?

He has just added zeros.

- b) Work out the correct answer.

$$3.8 \times 1,000 = 3,800$$

- 6 Complete the multiplications.

a)  $4.7 \times 10 = 47$

c)  $5.84 \times 10 = 58.4$

$4.7 \times 100 = 470$

$5.84 \times 100 = 584$

$4.7 \times 1,000 = 4,700$

$5.84 \times 1,000 = 5,840$

b)  $19.3 \times 10 = 193$

d)  $18.06 \times 10 = 180.6$

$19.3 \times 100 = 1,930$

$100 \times 18.06 = 1,806$

$1,000 \times 19.3 = 19,300$

$18.06 \times 1,000 = 18,060$

How did you work out the answers? Talk to a partner.



- 7 Complete the calculations.

a)  $7.7 \times 100 = 770$

e)  $8.032 \times 10 = 80.32$

b)  $195 \times 10 = 1,950$

f)  $100 \times 18.3 = 1,830$

c)  $11.5 \times 10 = 115$

g)  $195.32 \times 10 = 1,953.2$

d)  $1,000 \times 11.5 = 11,500$

h)  $7.2 \times 1,000 = 7,200$

- 8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

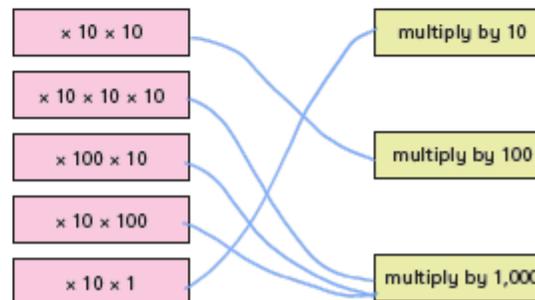
- a) How tall is the tree?

$14$  m

- b) How much taller is the building than the tree?

$126$  m

- 9 Match the multiplications to the descriptions.



Dividing decimals by 10, 100 and 1,000



1 Complete the divisions.

a) 

H	T	O	Tths	Hths
		5		

 $5 \div 10 = 0.5$

b) 

H	T	O	Tths	Hths
	1	5		

 $15 \div 10 = 1.5$

c) 

H	T	O	Tths	Hths
		3	8	

 $3.8 \div 10 = 0.38$

d) 

H	T	O	Tths	Hths
	1	3	8	

 $13.8 \div 10 = 1.38$

What do you notice when you divide a number by 10?

2 Complete the calculations.

a)  $7 \div 10 = 0.7$       d)  $16 \div 10 = 1.6$

b)  $7.8 \div 10 = 0.78$       e)  $16.4 \div 10 = 1.64$

c)  $7.86 \div 10 = 0.786$       f)  $16.48 \div 10 = 1.648$

3 Complete the divisions.

a) 

H	T	O	Tths	Hths	Thths
	1	7			

 $17 \div 100 = 0.17$

b) 

H	T	O	Tths	Hths	Thths
		9	4		

 $9.4 \div 100 = 0.094$

c) 

H	T	O	Tths	Hths	Thths
2	7	6			

 $276 \div 100 = 2.76$

d) 

H	T	O	Tths	Hths	Thths
	3	2	5		

 $32.5 \div 100 = 0.325$

What do you notice when you divide a number by 100?

4 Complete the divisions.

a)  $7 \div 100 = 0.07$       b)  $109 \div 100 = 1.09$

$7.2 \div 100 = 0.072$        $10.9 \div 100 = 0.109$

$7.25 \div 100 = 0.0725$        $10.95 \div 100 = 0.1095$

- 5 Use a place value chart to work out  $136 \div 1,000$

H	T	O	Tths	Hths	Thths
1	3	6			

Complete the calculation.

$$136 \div 1,000 = 0.136$$

Talk to a partner about your method.

- 6 Use your knowledge of measure to work out the answers.

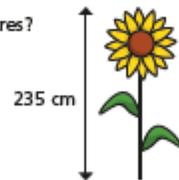
- a) What is the mass of the box in kilograms?

$$2,340 \div 1,000 = 2.34$$



- b) What is the height of the sunflower in metres?

$$235 \div 100 = 2.35$$



- c) What is the amount of juice in litres?

$$380 \div 1,000 = 0.38$$



- 7 Complete the calculations.

a)  $147 \div 10 = 14.7$

c)  $3,200 \div 10 = 320$

$147 \div 100 = 1.47$

$3,200 \div 100 = 32$

$147 \div 1,000 = 0.147$

$3,200 \div 1,000 = 3.2$

b)  $21 \div 10 = 2.1$

d)  $5,006 \div 10 = 500.6$

$21 \div 100 = 0.21$

$5,006 \div 100 = 50.06$

$21 \div 1,000 = 0.021$

$5,006 \div 1,000 = 5.006$

- 8 Complete the divisions.

a)  $83 \div 100 = 0.83$

e)  $1,799 \div 100 = 17.99$

b)  $9.5 \div 10 = 0.95$

f)  $1180 \div 100 = 11.8$

c)  $39 \div 10 = 3.9$

g)  $178 \div 10 = 17.8$

d)  $68 \div 1,000 = 0.068$

h)  $3.18 \div 10 = 0.318$

## English Day One

### Poetry? by Karl Nova

When I was a kid  
poetry seemed boring  
complex words on a page  
that almost left me snoring  
I felt no connection  
that language seemed foreign  
if it fought for my attention  
it was pointless warring  
I was introduced to texts  
held in high esteem  
I did recognise the genius  
but they meant nothing to me  
all that changed  
when I heard an M.C  
speak a poetic language that really hit deep  
it's like I woke up  
from being fast asleep  
everything seemed to slow down  
I felt my soul leap  
I was amazed  
how his words transformed him  
from being a skinny geek  
into someone enormous  
He gained energy  
as he kept performing  
Something awakened in me  
that was dormant  
it deeply moved me

---

I dug deeper  
struck oil and found gold  
now I share all these riches  
that I've found  
communicating feelings and thoughts  
through sound  
now that's poetry I'm glad  
that I've found  
the kind that speaks to me  
right here and right now.

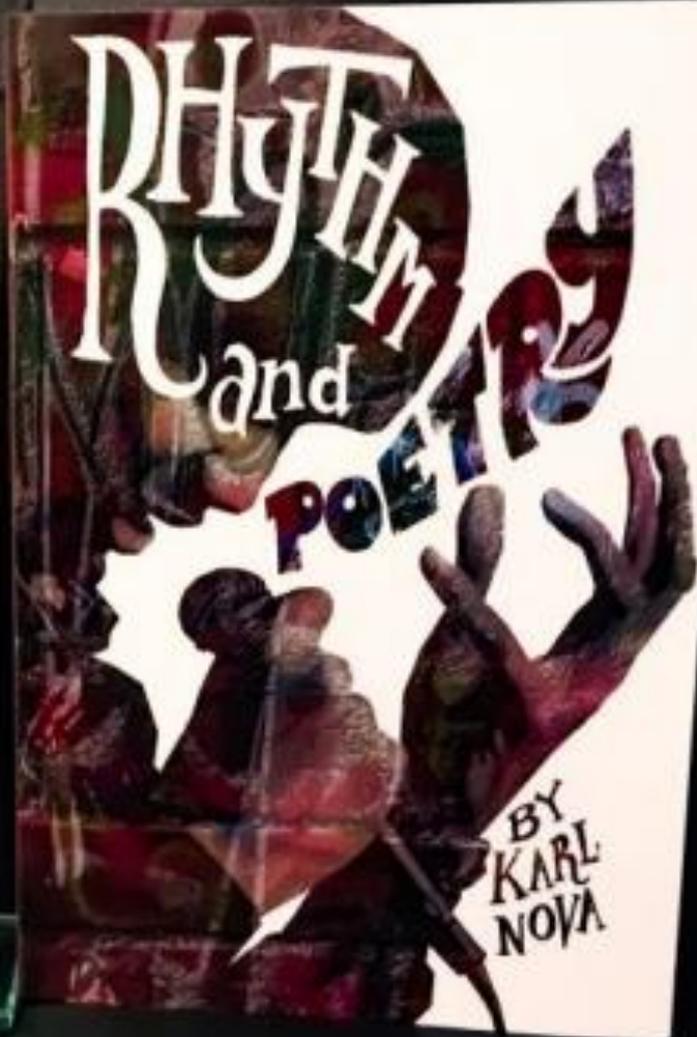
Reading for Writing questions:

1. What was the main influence in Karl Nova's life which made him become a poet?
2. Explain the change of view Karl Nova has about poetry.
3. What does Karl Nova mean by 'I dug deeper struck oil and found gold'?
4. Write down two positives to writing poetry Karl Nova gives in the poem.
5. How does this poem make you feel about poetry?
6. How does Karl Nova create rhythm in his poetry?
7. Find a word which is a synonym for unknown.
8. *I was introduced to texts / held in high esteem / I did recognise the genius / but they meant nothing to me*  
What does Karl Nova mean in these four lines?
9. Highlight the rhyming words. Is there a pattern? What effect does this have?
10. In your own words, summarise what this poem is telling the reader about Karl Nova's life.

  
**CLPE**

CENTRE FOR LITERACY  
IN PRIMARY EDUCATION

Winner  
CLIPPA 2018  
Karl Nova  
Rhythm and Poetry



## English Day One - Interview Extract

### **When did you become a writer of poetry? What helped you develop into the award-winning poet you are today?**

I started writing poetry at the suggestion of my younger sister. I was going through a lot in my teens and she noticed that I'd always written a lot of little raps and things and told me I should write more. So I started writing for myself; I wasn't going to show it to anyone. I had stacks of notebooks, but I would hide them under my bed. Then I got into music and started making songs and performing rap, all the time still writing poetry, but doing it for my own recreation. What really took it to the next level was when I started doing workshops with schools and I realised I needed more material to bridge the gap between myself and the students. Working with them reminded me of everything I went through in my teens and as a child, and that's where poems like *Peer Pressure* came from.

### **How has your background as a hip hop artist contributed to the way you write poetry? How is it different to writing your music?**

This is a really interesting question. Being a hip-hop artist feeds into my work as a poet, I don't really separate them in my mind, but when they come out on paper I know which will be a song and which will be a poem for a book or a recital. When I started writing raps, I wanted to write so well that if someone looked at my lyrics on paper and read them, they knew they were as good as if they were hearing me perform them or if they were hearing them over music. I wanted it to be like standard poetry. I was also inspired by people like Saul Williams, who is an amazing spoken word artist, and by watching Def Jam poetry DVDs; this was a real turning point for me. They would perform the most incredible poetry, which inspired me to want to be as good as these artists were. When I was writing the book, I wanted to be an authentic voice and for that voice to be heard clearly. I started thinking of poets I like, like Maya Angelou, who has a very unique voice in her performance and also in her writing and that's what I aspired to do.

### **How do you see the impact of your poetry on the children you visit?**

I have a philosophy that poetry is written to be spoken. I wanted to make sure that I am a fresh voice that the reader can identify with and that the poetry in the book was as alive on the page as if I was standing in front of them performing it. I've seen the effect my performances have on children when I visit schools. I really want to show that rap is a valid form of literature; when I perform, I can really see their minds opening to the idea that rap is poetry and that poetry is wider than they thought it could be. I'm taking all the literary devices they are learning about, simile, metaphor, onomatopoeia, hyperbole and I'm feeding it back to them through rap. It both validates their own experience and affirms what they are learning in school. Then, when I throw the writing challenge back at them, what they produce is amazing. They understand the themes in my poems and it inspires them to write about what's important to them in their own authentic voice; I've seen them write about mental health, the impact of social media, real and important things they are going through. One day I'd like to be able to capture the poems the children write themselves and put them into a book, they really are that good.

Interview can be found at:

<http://booksforkeeps.co.uk/issue/231/childrens-books/articles/rhythm-and-poetry-karl-nova-clippa-winner-2018>

## English Day Two

### Change

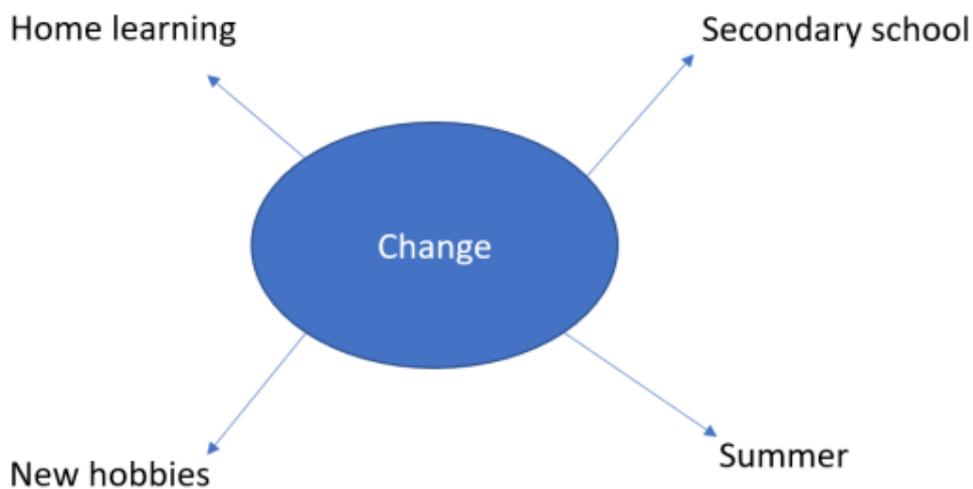
Change is always happening  
It's a fact my friend, it's like fads and trends  
It's like I used to write poems with pads and pens  
Now I type 'em in my phone  
I've got stacks of them  
Them being notebooks I once wrote in  
My head in the clouds daydreaming and floating  
Even when sitting still, we're in motion  
As the Earth rotates, change isn't slowing  
Growth brings change and as we are growing  
Life makes me wonder with eyes wide open  
The seasons run their annual relay  
Spring passes the baton to summer  
Whose quick pace and speed runs its lap,  
hands over to Autumn  
Autumn is cool but not cooler than Winter  
I'm talking about change  
Even when things seem the same  
It has a mysterious way about it that seems strange  
Like it seems to happen suddenly  
It's hard to explain  
Even change changes  
I mean, that's its name  
Change is always happening  
It's a fact my friend, it's like fads and trends  
It's like I used to write poems with pads and pens  
Now I type 'em in my phone  
And I'm rapping them

Change.

## Reading for Writing Questions

1. Why is change like fads and trends?
2. Name two changes the poet describes.
3. What line shows the poet is curious about change?
4. Find an example of personification in the poem. Why do you think Karl Nova has used this poetic device?
5. What message do you think Karl Nova is sending?
6. What is your opinion of the poem?

## English Day Three



Change is always happening

It's a fact my friend, it's like fads and trends

It's like I used to go to a primary school

Now I'm at secondary

Secondary being such great fun

Fun being my new friends I've made

My head in new books, new subjects, new knowledge

## English Day Four and Five

Summer is the best time  
so let me start right here  
It's my favourite season  
I wish it could last all year  
The sun feels real near  
and it can get so hot  
which funnily leads to  
some people complaining a lot

After that comes Autumn  
some call it the fall  
because the leaves change colour  
and fall, covering the ground like a shawl  
The temperature is cooler  
Most times you'll need a light jacket  
The holiday is over and back to school  
go the students to their classes

Winter sneaks up on you  
you start to feel the chill  
the festive season approaches  
anticipation builds  
The Christmas lights come on  
The big day arrives  
We countdown to the new year  
The nights are cold like ice

Spring appears on the horizon  
after short dark days and long nights  
Jack Frost loses his icy grip  
The flowers come out, a beautiful sight  
Holiday ends, students back in school again

The excitement of the new year fades  
as the months go on it gets warmer  
summer returns again with heat waves

## English Day Four and Five

### REVISING

The 'content' checking

**A.R.M.S.**

#### **Add**

Add interesting or precise sentences and words

#### **Remove**

Remove sentences you don't need

#### **Move**

Move words or sentences to a more suitable place

#### **Substitute**

Change words and sentences for new ones to avoid repetition or use of boring words

### EDITING

The SPAG checking

**C.U.P.S.**

#### **Capitalise**

First word in a sentence and proper nouns: names, places, titles, days, months

#### **Usage**

Inflection of nouns and verbs

E.g. we was were / one dogs

#### **Punctuation**

. ! ? , - ; '

#### **Spelling**

Check words you are not sure how to spell, including homophones

## Geography - Support

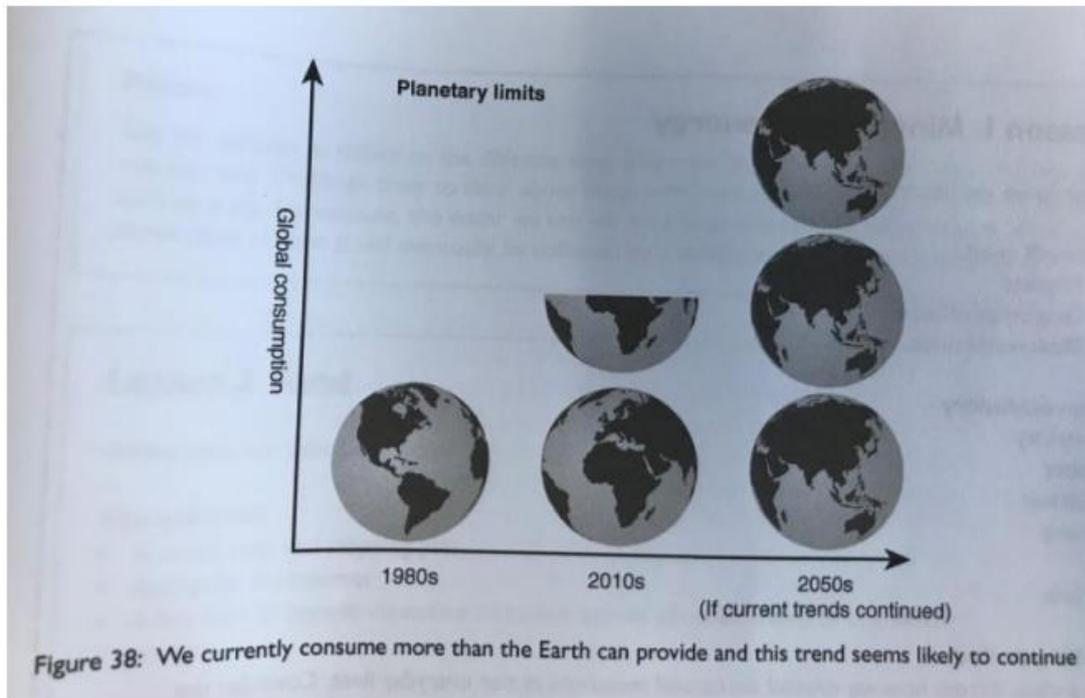


Figure 38: We currently consume more than the Earth can provide and this trend seems likely to continue

## Design Technology – Sculptural birds

Old cardboard or foam board packing materials would work well for this. Think about the size of the bird. If it's too small it will be difficult to cut out and stick all the feathers onto it, however, if it's too big it will take you a long time to cover it all! A bird about the size of hand would be a good size to work towards.

For the legs, you could use pipe cleaners. Lengths of wire, wire wrap around tags or even an uncurled paper clip. Take care if you are using any type of wire as the ends maybe sharp. Ask an adult to bend the ends in if this is the case. If you can't find any wire, you could try using small twigs, used matchsticks (ask an adult to help with these) or other small pieces of wood.

To attach the legs, you can try pushing them into the cardboard or alternately, use Sellotape or glue.



Use as many or as few colours for the feathers as you'd like – look at pictures online or in books to help you colour the feathers accurately. You could try mixing up the materials you use – wax crayons with colouring pencils perhaps, or chalk with felt tips. Try to make your drawing create the texture of feathers through the way in which you colour them.



When you are ready to collage your drawings onto your bird, experiment with sticking them on to create a 3D form and shape.



# Spanish

1. ¿What do you use these things for? Match!

 silla	leer	 mochila
 libro	escribir	 cuaderno
 tijeras	entrar y salir	
 mesa	cortar cosas	
	llevar cosas	
	poner cosas	
	sentarse	
	 lápiz	 puerta

2. Look at the examples and answer the questions.

¿Para qué se usa el lápiz?



El lápiz se usa para escribir

¿Para qué se usan las tijeras?



Las tijeras se usan para cortar

¿Para qué se usa el libro?



¿Para qué se usa la puerta?



¿Para qué se usa la mochila?



¿Para qué se usa la silla?



¿Para qué se usa la mesa?



**RE: Read the Miracle of the Feeding of the 5,000 and then answer the questions below.**

## **Jesus Feeds the Five Thousand** (John 6:1-15)

**6** Some time after this, Jesus crossed to the far shore of the Sea of Galilee (that is, the Sea of Tiberias), <sup>2</sup>and a great crowd of people followed him because they saw the signs he had performed by healing the sick. <sup>3</sup>Then Jesus went up on a mountainside and sat down with his disciples. <sup>4</sup>The Jewish Passover Festival was near.

<sup>5</sup>When Jesus looked up and saw a great crowd coming toward him, he said to Philip, "Where shall we buy bread for these people to eat?" <sup>6</sup>He asked this only to test him, for he already had in mind what he was going to do.

<sup>7</sup>Philip answered him, "It would take more than half a year's wages<sup>[a]</sup> to buy enough bread for each one to have a bite!"

<sup>8</sup>Another of his disciples, Andrew, Simon Peter's brother, spoke up, <sup>9</sup>"Here is a boy with five small barley loaves and two small fish, but how far will they go among so many?"

<sup>10</sup>Jesus said, "Have the people sit down." There was plenty of grass in that place, and they sat down (about five thousand men were there). <sup>11</sup>Jesus then took the loaves, gave thanks, and distributed to those who were seated as much as they wanted. He did the same with the fish.

<sup>12</sup>When they had all had enough to eat, he said to his disciples, "Gather the pieces that are left over. Let nothing be wasted." <sup>13</sup>So they gathered them and filled twelve baskets with the pieces of the five barley loaves left over by those who had eaten.

<sup>14</sup>After the people saw the sign Jesus performed, they began to say, "Surely this is the Prophet who is to come into the world." <sup>15</sup>Jesus, knowing that they intended to come and make him king by force, withdrew again to a mountain by himself.

LO: What do the Miracles of Jesus teach us?



The Miracle of the Feeding of the 5,000 is the only miracle that appears in all the four gospels of Matthew, Mark, Luke and John.

- ✚ What does this miracle tell us about Jesus?
- ✚ What did the disciples feel before and after the miracle?
- ✚ How do you think the young boy felt who gave his loaves and fish?
- ✚ What do you think Christians can learn from this miracle about how they should live?

## Spellings

### Year 3 and 4 National Curriculum Spelling Words

accident	group	remember
accidentally	guard	sentence
actual	heard	separate
actually	heart	special
address	height	strange
answer	history	strength
appear	imagine	suppose
arrive	increase	surprise
believe	important	therefore
bicycle	interest	though
breath	island	although
breathe	knowledge	thought
build	learn	through
busy	length	various
caught	library	weight
centre	material	woman
century	medicine	women
certain	minute	
circle	natural	
complete	naughty	
consider	notice	
continue	occasion	
decide	occasionally	
describe	often	
different	opposite	
difficult	ordinary	
disappear	particular	
early	peculiar	
earth	perhaps	
eighth	popular	
enough	position	
exercise	possible	
experience	potatoes	
experiment	pressure	
extreme	probably	
famous	promise	
favourite	purpose	
February	quarter	
forward	question	
forwards	recent	
fruit	regular	
grammar	reign	

## Year 5 and 6 National Curriculum Spelling Words

accommodate	dictionary	muscle	thorough
accompany	disastrous	necessary	twelfth
according	embarrass	neighbour	variety
achieve	environment	nuisance	vegetable
aggressive	equip	occupy	vehicle
amateur	equipped	occur	yacht
ancient	equipment	opportunity	parliament
apparent	especially	persuade	
appreciate	exaggerate	physical	
attached	excellent	prejudice	
available	existence	privilege	
average	explanation	profession	
awkward	familiar	programme	
bargain	foreign	pronunciation	
bruise	forty	queue	
category	frequently	recognise	
cemetery	government	recommend	
committee	guarantee	relevant	
communicate	harass	restaurant	
community	hindrance	rhyme	
competition	identity	rhythm	
conscience	immediate	sacrifice	
conscious	immediately	secretary	
controversy	individual	shoulder	
convenience	interfere	signature	
correspond	interrupt	sincere	
criticise	language	sincerely	
curiosity	leisure	soldier	
definite	lightning	stomach	
desperate	marvellous	sufficient	
determined	mischievous	suggest	
develop		symbol	
		system	
		temperature	

## Mrs T'S Maths

Find the average of each of these sets of numbers

- a**
- |                            |   |
|----------------------------|---|
| 1) 8,6,9,5                 | 6) 18.55, 16.37                         |
| 2) 36,43,38                | 7) 374,389,363,328,388,350,391          |
| 3) 7,9,8,4,0,9,7,3,5,8     | 8) 2.08, 1.73, 0, 3.4, 1.09             |
| 4) 117,123,121,113,131,127 | 9) 9,7,4,1,1,3,8,7                      |
| 5) 5.3, 6.8, 7.1, 6.4, 5.9 | 10) 1276, 1253, 1315, 1292, 1308, 1254. |

Find the average of each of these sets of numbers

- b**
- |                                  |  |
|----------------------------------|--|
| 1) £6,£12,£9,£13,£15,£4,£11      | 6) 0,14,22,0,16,2,23,11  |
| 2) 80,78,56,92,67,74             | 7) 1.9km, 3.4km, 2.3km, 3.2km  |
| 3) 5.3kg,3.6kg,6.1kg,4.8kg,7.7kg | 8) 5,8,9,13,12,6,10,4,7,11,14  |
| 4) 41,48,42,38,45,42,50,37,44    | 9) £2.84, £3.18, £1.45   |
| 5) 82cm, 85cm, 89cm, 94cm        | 10) $\frac{1}{6}, \frac{2}{3}, \frac{3}{4}, \frac{7}{12}, \frac{1}{3}$ |

Find the values of A, B, C, D and E

- c**
- 1) The average of 10, 5, 12, 6, A and 14 is 9
  - 2) The mean of 128, B, 145 and 138 is 132
  - 3) The average of 7, 0, 27, 5, C, 18 and 11 is 13
  - 4) The average of 48, D, 61 and 52 is 53
  - 5) The mean of 6.46, 6.55 and E is 6.66

- d**
- 1) The heights of five boys were 147cm, 142cm, 137cm, 123cm, and 116cm. What was their average height?
  - 2) Sarah bought 2 cakes at 16p each and 4 cakes at 13p each. What was the average price of a cake?
  - 3) The hours of sunshine (to the nearest half hour) for each day in a certain week were Sunday  $6\frac{1}{2}$  h, Monday 3 h, Tuesday 0 h, Wednesday  $9\frac{1}{2}$  h, Thursday  $7\frac{1}{2}$  h, Friday 5 h, Saturday  $10\frac{1}{2}$  h. What was the daily average of hours of sunshine?
  - 4) The heights above sea level of three hilltops are 693m, 724m and 737m. Find their mean height.
  - 5) The average thickness of nine books is 14mm. The thicknesses of eight of the books are 8mm, 9mm, 10mm, 12mm, 16mm, 16mm, 19mm and 21mm. Find the thickness of the other book.

BOOK 4. PAGE 3  
**BOOK FOUR**

Page 3

- a. 1) 7                      4) 122                      7) 369                      10) 1283  
2) 39                      5) 6.3                      8) 1.66  
3) 6                      6) 17.46                      9) 5
- 

- b. 1) £10                      4) 43                      7) 2.7 km                      10)  $\frac{1}{2}$   
2) 74.5                      5)  $87\frac{1}{2}$  cm                      8) 9  
3) 5.5 kg                      6) 11                      9) £2.49
- 

- c. 1) A = 7                      3) C = 23                      5) E = 6.97  
2) B = 117                      4) D = 51
- 

- d. 1) 133 cm                      3) 6 hours                      5) 15 mm  
2) 14 p                      4) 718 m
-

## A HOURS, MINUTES, SECONDS

### Fractions of an hour

$$1 \text{ minute} = \frac{1}{60} \text{ hour}$$

$$2 \text{ minutes} = \frac{2}{60} = \frac{1}{30} \text{ hour, etc.}$$

To convert minutes into fractions of an hour

e.g. Express 35 minutes as a fraction of 1 hour

\*1) Divide by 60  $\frac{35}{60}$

\*2) Cancel to lowest terms  $\frac{35}{60} = \frac{7}{12} \text{ hour}$

e.g. (2) Express 4 hours 40 minutes as a number of hours

$$4\frac{40}{60} = 4\frac{40^2}{60^3} = 4\frac{2}{3} \text{ hours}$$

### B To convert fractions of an hour into minutes

e.g. Convert  $\frac{5}{6}$  hour into minutes

\*1) Multiply by 60  $\frac{5}{6} \times \frac{60}{1}$

\*2) Cancel as far as you can  $\frac{5}{\cancel{6}^1} \times \frac{\cancel{60}^{10}}{1} = 50 \text{ minutes}$

e.g. (2) What is  $2\frac{4}{5}$  hours in hours and minutes?

$$2\frac{4}{5} \text{ hours} = 2 \text{ hours} \quad , \quad \frac{4}{5} \times \frac{60^{12}}{1} \text{ minutes}$$

$$= 2 \text{ hours } 48 \text{ minutes}$$

### C

$$60 \text{ minutes} = 1 \text{ hour}$$

$$60 \text{ min} = 1 \text{ h}$$

$$60 \text{ seconds} = 1 \text{ minute}$$

$$60 \text{ s} = 1 \text{ min}$$

$$3600 \text{ seconds} = 1 \text{ hour}$$

$$3600 \text{ s} = 1 \text{ h}$$

#### Conversion

hours to minutes	$\times 60$
minutes to hours	$\div 60$
minutes to seconds	$\times 60$
seconds to minutes	$\div 60$
hours to seconds	$\times 3600$
seconds to hours	$\div 3600$

e.g. Express 11 minutes in seconds  $11 \times 60 = 660 \text{ seconds}$

**a** Express each of these as a fraction of 1 hour in its lowest terms

- |               |                |                |
|---------------|----------------|----------------|
| 1) 12 minutes | 6) 25 minutes  | 11) 13 minutes |
| 2) 55 minutes | 7) 3 minutes   | 12) 40 minutes |
| 3) 30 minutes | 8) 24 minutes  | 13) 15 minutes |
| 4) 8 minutes  | 9) 45 minutes  | 14) 10 minutes |
| 5) 20 minutes | 10) 33 minutes | 15) 54 minutes |

**b** Express each of these in **hours and fractions of an hour**

- |             |              |               |
|-------------|--------------|---------------|
| 1) 3h 50min | 6) 10h 35min | 11) 5h 30min  |
| 2) 1h 16min | 7) 1h 20min  | 12) 8h 6min   |
| 3) 5h 42min | 8) 7h 48min  | 13) 9h 44min  |
| 4) 6h 4min  | 9) 2h 5min   | 14) 12h 40min |
| 5) 2h 45min | 10) 3h 40min | 15) 4h 32min  |

**c** Express each of these in minutes

- |                        |                         |                          |
|------------------------|-------------------------|--------------------------|
| 1) $\frac{1}{4}$ hour  | 6) $\frac{4}{60}$ hour  | 11) $\frac{9}{10}$ hour  |
| 2) $\frac{7}{12}$ hour | 7) $\frac{2}{3}$ hour   | 12) $\frac{1}{2}$ hour   |
| 3) $\frac{4}{5}$ hour  | 8) $\frac{1}{6}$ hour   | 13) $\frac{17}{20}$ hour |
| 4) $\frac{3}{10}$ hour | 9) $\frac{11}{12}$ hour | 14) $\frac{7}{60}$ hour  |
| 5) $\frac{1}{2}$ hour  | 10) $\frac{1}{3}$ hour  | 15) $\frac{13}{15}$ hour |

**d** Express each of these in **hours and minutes**

e.g.  $5\frac{1}{4}$  hours = 5 hours 15 minutes

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| 1) $3\frac{3}{4}$ hours   | 6) $5\frac{5}{6}$ hours   | 11) $10\frac{2}{3}$ hours |
| 2) $2\frac{1}{3}$ hours   | 7) $2\frac{7}{10}$ hours  | 12) $8\frac{1}{2}$ hours  |
| 3) $6\frac{7}{12}$ hours  | 8) $7\frac{3}{5}$ hours   | 13) $3\frac{1}{6}$ hours  |
| 4) $4\frac{1}{4}$ hours   | 9) $4\frac{11}{20}$ hours | 14) $5\frac{4}{15}$ hours |
| 5) $1\frac{31}{60}$ hours | 10) $1\frac{7}{15}$ hours | 15) $1\frac{4}{5}$ hours  |

**e** 1) Express as a number of minutes

- (a) 4 hours (b) 9 hours (c)  $2\frac{1}{4}$  hours (d)  $3\frac{3}{10}$  hours  
(e)  $1\frac{3}{5}$  hours

2) Express as a number of seconds

- (a) 7 minutes (b) 3 minutes (c)  $1\frac{1}{2}$  minutes  
(d)  $5\frac{1}{3}$  minutes (e)  $\frac{3}{4}$  hour

3) Express as a number of minutes

- (a) 120 seconds (b) 200 seconds (c)  $4\frac{5}{6}$  hours  
(d) 65 seconds (e) 395 seconds

4) Express as a number of hours

- (a) 480 minutes (b) 210 minutes (c) 340 minutes  
(d) 4200 seconds (e) 175 minutes

- |                       |                     |                       |                      |
|-----------------------|---------------------|-----------------------|----------------------|
| a. 1) $\frac{1}{5} h$ | 5) $\frac{1}{3} h$  | 9) $\frac{3}{4} h$    | 13) $\frac{1}{4} h$  |
| 2) $\frac{1}{2} h$    | 6) $\frac{5}{12} h$ | 10) $\frac{1}{20} h$  | 14) $\frac{1}{6} h$  |
| 3) $\frac{1}{2} h$    | 7) $\frac{1}{20} h$ | 11) $\frac{13}{60} h$ | 15) $\frac{9}{10} h$ |
| 4) $\frac{2}{15} h$   | 8) $\frac{2}{5} h$  | 12) $\frac{2}{3} h$   |                      |

- |                        |                       |                       |                       |
|------------------------|-----------------------|-----------------------|-----------------------|
| b. 1) $3\frac{5}{6} h$ | 5) $2\frac{3}{4} h$   | 9) $2\frac{1}{2} h$   | 13) $9\frac{1}{15} h$ |
| 2) $1\frac{4}{15} h$   | 6) $10\frac{7}{12} h$ | 10) $3\frac{2}{3} h$  | 14) $12\frac{2}{3} h$ |
| 3) $5\frac{7}{10} h$   | 7) $1\frac{1}{3} h$   | 11) $5\frac{1}{2} h$  | 15) $4\frac{8}{15} h$ |
| 4) $6\frac{1}{15} h$   | 8) $7\frac{4}{5} h$   | 12) $8\frac{1}{10} h$ |                       |

- |              |           |            |            |
|--------------|-----------|------------|------------|
| c. 1) 15 min | 5) 30 min | 9) 55 min  | 13) 51 min |
| 2) 35 min    | 6) 41 min | 10) 20 min | 14) 7 min  |
| 3) 48 min    | 7) 40 min | 11) 54 min | 15) 52 min |
| 4) 18 min    | 8) 10 min | 12) 5 min  |            |

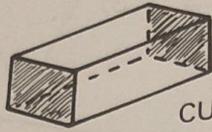
- |                |              |               |
|----------------|--------------|---------------|
| d. 1) 3h 45min | 6) 5h 50min  | 11) 10h 40min |
| 2) 2h 20min    | 7) 2h 42min  | 12) 8h 30min  |
| 3) 6h 35min    | 8) 7h 36min  | 13) 3h 10min  |
| 4) 4h 15min    | 9) 4h 33min  | 14) 5h 16min  |
| 5) 1h 31min    | 10) 1h 28min | 15) 1h 48min  |

- |                        |                        |                         |
|------------------------|------------------------|-------------------------|
| e. 1) (a) 240 min      | (c) 135 min            | (e) 96 min              |
| (b) 540 min            | (d) 198 min            |                         |
| 2) (a) 420 s           | (c) 90 s               | (e) 2700 s              |
| (b) 180 s              | (d) 320 s              |                         |
| 3) (a) 2 min           | (c) 290 min            | (e) $6\frac{7}{12} min$ |
| (b) $3\frac{1}{3} min$ | (d) $1\frac{1}{2} min$ |                         |
| 4) (a) 8 h             | (c) $5\frac{2}{3} h$   | (e) $2\frac{1}{12} h$   |
| (b) $3\frac{1}{2} h$   | (d) $1\frac{1}{6} h$   |                         |

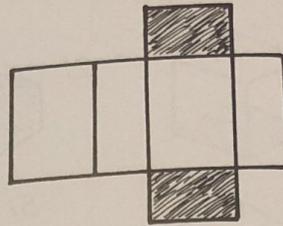
**A****NETS of SOLIDS**

A net is an opened-out version of a solid, showing all its faces.

e.g. Draw a net of a cuboid

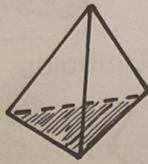


CUBOID

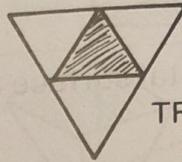


NET OF CUBOID

e.g. Draw a net of a triangular pyramid



TRIANGULAR PYRAMID



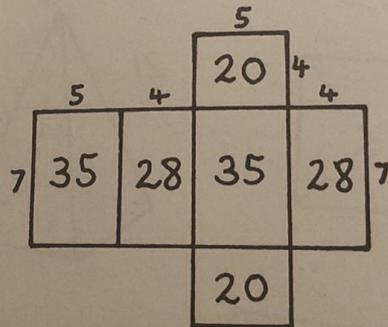
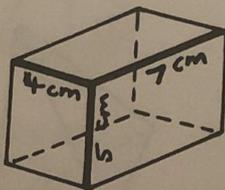
NET OF TRIANGULAR PYRAMID

**B****SURFACE AREA of CUBOID**

Total surface area of any solid figure is the SUM of the areas of all its faces.

**Total surface area of a CUBOID** is the sum of the areas of all six faces.

e.g. What is the total surface area of a cuboid 7 cm long, 4 cm wide and 5 cm high?



$$7 \times 4 = 28$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

$$7 \times 5 = 35$$

$$4 \times 5 = 20$$

$$4 \times 5 = 20 +$$

$$\underline{166 \text{ cm}^2}$$

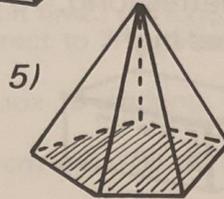
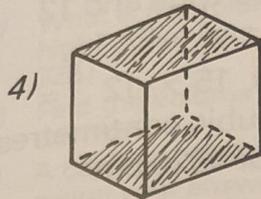
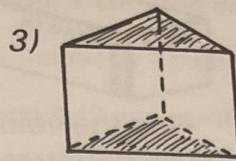
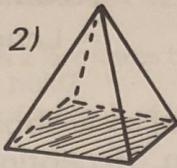
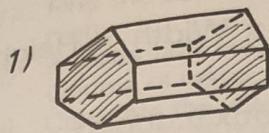
Total surface area of a **CUBE** is 6 times the area of one face.

e.g. Find the total surface area of a cube 9 cm long

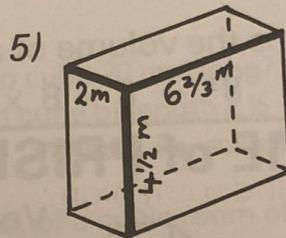
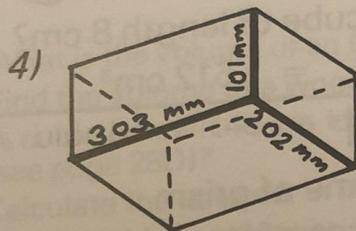
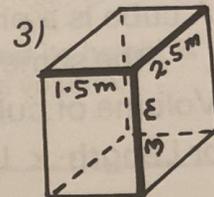
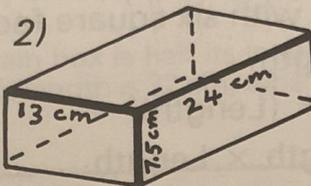
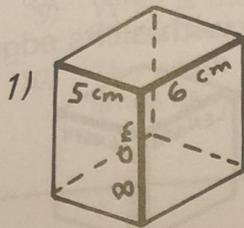
$$\text{Area of one face} = 9 \times 9 = 81 \text{ cm}^2$$

$$\text{Total surface area} = 81 \times \underline{6} = 486 \text{ cm}^2$$

**a** Draw a net of each of these solids

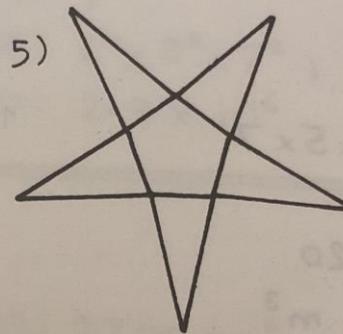
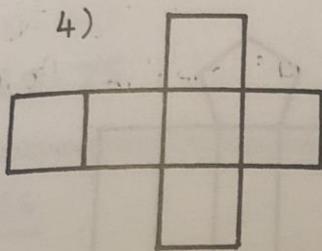
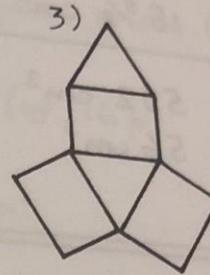
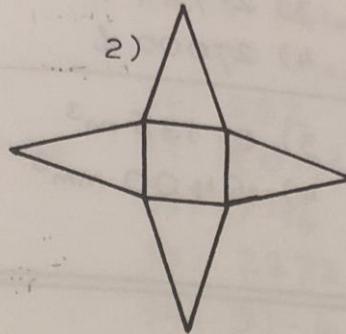
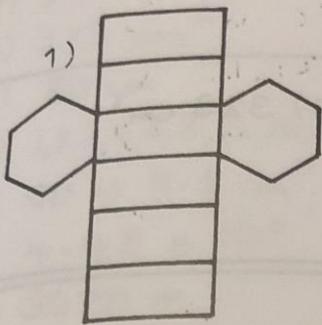


**b** Find the total surface area of each of these cuboids.



- c**
- 1) Find the total surface area of a cuboid 34 cm long, 22 cm wide and 60 cm high. Give your answer in square metres (see page 28C).
  - 2) What is the total surface area of a cube of length 15 cm?
  - 3) A box in the shape of a cuboid has a length of 5.2 cm, a width of 3.8 cm and a height of 4.5 cm. Find its total surface area.
  - 4) Calculate the total surface area of a cubic container  $\frac{5}{6}$  m long.
  - 5) A cuboid is 750 mm long, 600 mm wide and 400 mm high. Calculate its total surface area, giving your answer in square metres (see page 28C).

a.



These are suggestions. There are several other ways of drawing them.

b.1)  $236 \text{ cm}^2$

3)  $31.5 \text{ m}^2$

5)  $104 \frac{2}{3} \text{ m}$

2)  $1179 \text{ cm}^2$

4)  $224422 \text{ mm}^2$

c.1)  $0.8216 \text{ m}^2$

3)  $120.52 \text{ cm}^2$

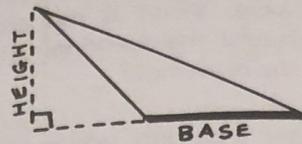
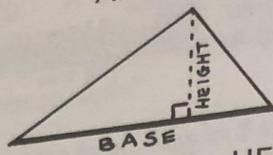
5)  $1.98 \text{ m}^2$

2)  $1350 \text{ cm}^2$

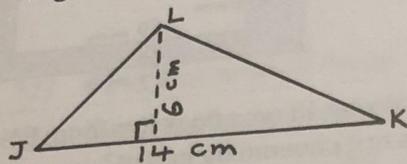
4)  $4 \frac{1}{6} \text{ m}^2$

**A****AREA of TRIANGLE**

$$\text{Area of triangle} = \frac{1}{2} \times \text{BASE} \times \text{HEIGHT}$$



REMEMBER. The HEIGHT must always be PERPENDICULAR (at right angles) to the base.  
e.g. Find the area of triangle JKL.



$$\text{Area} = \frac{1}{2} \times 14 \times 6 = 42 \text{ cm}^2$$

e.g. What is the area of a triangle with base  $3\frac{1}{2}$  m and height 5 m?

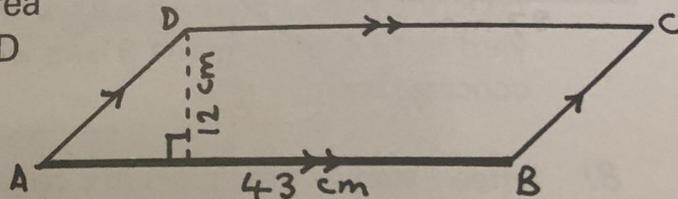
$$\begin{aligned} \text{Area} &= \frac{1}{2} \times 3\frac{1}{2} \times 5 \\ &= \frac{1}{2} \times \frac{7}{2} \times \frac{5}{1} = \frac{35}{4} = 8\frac{3}{4} \text{ m}^2 \end{aligned}$$

**B****AREA of PARALLELOGRAM**

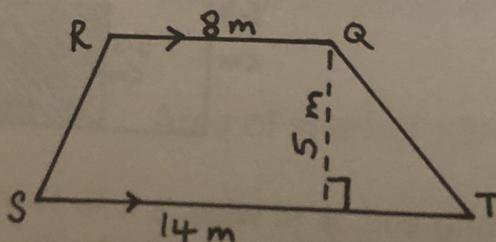
$$\text{Area of parallelogram} = \text{BASE} \times \text{PERPENDICULAR HEIGHT}$$

e.g. Calculate the area of parallelogram ABCD

$$\begin{aligned} \text{Area} &= 43 \times 12 \\ &= 516 \text{ cm}^2 \end{aligned}$$

**C****AREA of TRAPEZIUM**

$$\text{Area of trapezium} = \frac{1}{2} \times (\text{BASE} + \text{TOP}) \times \text{PERPENDICULAR HEIGHT}$$

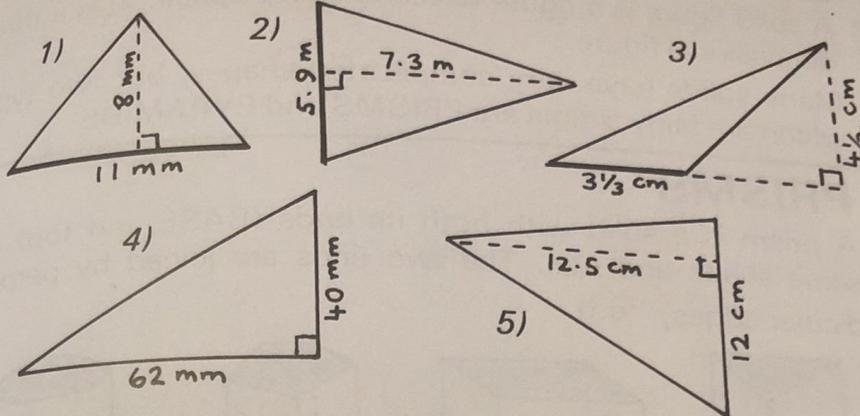


e.g. Find the area of trapezium QRST

$$\begin{aligned} \text{Area} &= \frac{1}{2} \times (14 + 8) \times 5 \\ &= \frac{1}{2} \times 22 \times 5 \\ &= 55 \text{ m}^2 \end{aligned}$$

Find the area of each of these triangles (not drawn to scale)

**a**

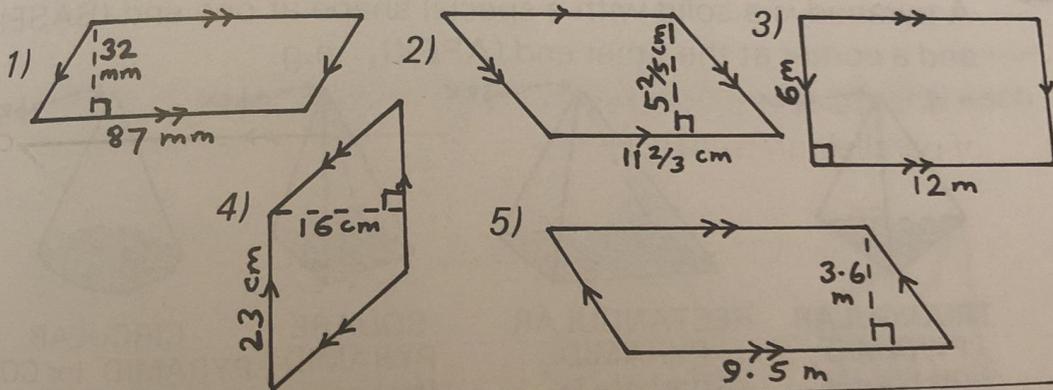


**b**

- 1) What is the area of a triangle with base 13 cm and height 7 cm?
- 2) Find the area of a triangle with base  $\frac{1}{2}$  km and height  $\frac{1}{4}$  km.
- 3) Calculate the area of a triangle whose height is 20.5 cm and whose base length is 24 cm.
- 4) A triangle has a base of length 3.7 m and a perpendicular height of 6m. What is its area?
- 5) Find the area of a triangle which is 106 mm high and has a base 106 mm long.

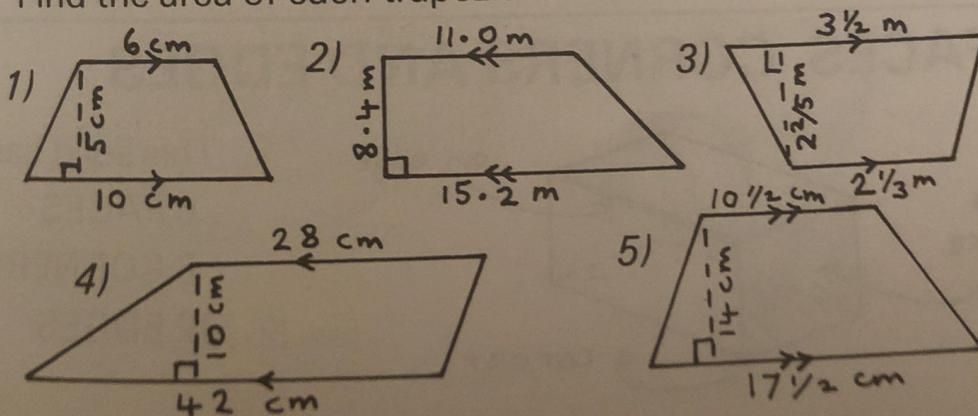
**c**

Find the area of each parallelogram



**d**

Find the area of each trapezium



BOOK 2. PAGES 55 TO 57

Page 55 (continued)

- b. 1)  $45.5 \text{ cm}^2$       3)  $246 \text{ cm}^2$       5)  $5618 \text{ mm}^2$   
2)  $\frac{1}{16} \text{ km}^2$       4)  $11.1 \text{ m}^2$
- 

- c. 1)  $2784 \text{ mm}^2$       3)  $72 \text{ m}^2$       5)  $34.2 \text{ m}^2$   
2)  $63 \text{ cm}^2$       4)  $368 \text{ cm}^2$
- 

- d. 1)  $40 \text{ cm}^2$       3)  $7 \text{ m}^2$       5)  $196 \text{ cm}^2$   
2)  $110.04 \text{ m}^2$       4)  $350 \text{ cm}^2$
- 
-

