



Year 4 Maths and English Home Learning Menu Spring A 2021

MATHS * MATHS * MATHS * MATHS * MATHS * MATHS * MATHS * MATHS * MATHS * MATHS *																
<p>Explore (1) Read & Learn facts from 'Multiplication & Division Knowledge organiser'</p> <p>Make your own poster/Posters to teach someone else about Multiplication & Division</p> <p>Maths 'Activity sheet 1/Paper</p> <p><i>*Use the information from the knowledge organiser but present it in your own way.</i></p>	<p>Explore 2 Use the vocabulary from the knowledge Organiser to write different multiplication number sentences</p> <p>Example: multiply 3 by 4 = 12 Maths 'Activity sheet 1/Paper</p> <p><i>*Challenge: Draw a bar model for each number sentence</i></p> <table><tr><td colspan="4">12</td></tr><tr><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>4</td><td>4</td><td>4</td><td></td></tr></table>	12				3	3	3	3	4	4	4		<p>Factor Pairs Use the 'Factor Pairs & Commutativity' section from the knowledge Organiser to write the factors of 8, 12,16, 21, 24,30, 36, 40</p> <p>Example: Factors of 6 = 1,2,3 and 6</p> <p>Maths 'Activity sheet 1/Paper</p> <p><i>*Challenge: record the factor pairs</i></p>	<p>Column Multiplication</p> <p>Maths 'Activity sheet 2</p> <p>Complete the multiplications</p> <p><i>*Challenge ~ Create your own column multiplications</i></p>	<p>Standard Division</p> <p>Maths 'Activity sheet 3</p> <p>Complete the Divisions</p> <p><i>*Challenge ~ Create your own divisions</i></p>
12																
3	3	3	3													
4	4	4														
<p>Explore (1) Learn how to find area by counting or multiplying</p> <p>Make your own poster/Posters to teach someone else about finding area</p> <p>Maths 'Activity sheet 4/Paper</p> <p><i>*Use the information from the table but present it in your own way.</i></p>	<p>Explore (2) Learn how to find area by counting or multiplying</p> <p>Find the area of the shapes</p> <p>Maths 'Activity sheet 4/Paper</p> <p><i>*find the areas by counting squared or multiplying</i></p>	<p>Area Find area by counting Squares</p> <p>Find the area of the shapes</p> <p>Maths 'Activity sheet 5</p> <p><i>*find the areas by counting squared or multiplying</i></p>	<p>Area Find area by multiplying</p> <p>Find the area of the shapes</p> <p>Maths 'Activity sheet 6</p> <p><i>*find the areas by counting squared or multiplying</i></p>	<p>Area Find squares and rectangles in your house.</p> <p>Find the area of the shapes</p> <p>Paper</p> <p><i>*find the areas by counting squared or multiplying</i></p>												

**** A third row of maths learning has been added 11.1.21 to enhance the work provided for the first two weeks of Lockdown****

Explore

Learn how to make rectangles

Draw a triangle on a piece of paper, and cut it out.

Can you find a way to cut your triangle into no more than four pieces, and reassemble the pieces to make a rectangle?

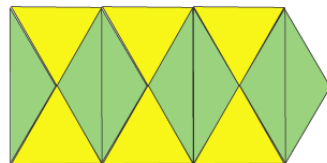
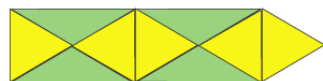
Challenge 1~ Is it always possible, no matter what triangle you start with?

Challenge 2 ~ Calculate the area of your new rectangle

Explore



If you have some triangles like this, can you make the repeating patterns below



Challenge 1 ~ Make your own

Challenge 2~ calculate the area of your pattern

Magic Vs



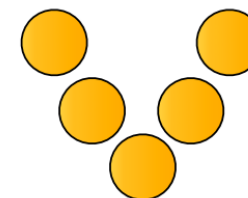
Place each of the numbers 1 to 5 in the V shape so that the two arms of the V have the same total.

How many different possibilities are there?

Can you convince someone that you have all the solutions?

What happens if we use the numbers from 2 to 6? From 12 to 16? From 37 to 41? From 103 to 107?

Investigate the same problem with a V that has arms of length 4.



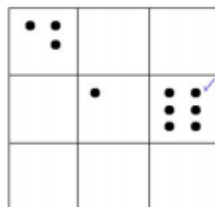
nrich.maths.org

Dotty Six

Here's a game to play with a friend, a 3 by 3 grid and a six sided dice.

Take turns to throw a dice, then draw that many dots in one of the boxes on the grid. You can't split them up and a box can't have more than six dots in.

The person who completes a line of three sixes wins!



Thousands more problems can be found on the NRICH maths website:

<http://nrich.maths.org>

I added three house numbers together as I walked past: $7 + 9 + 11 = 27$

Further down the road, I passed some bigger numbers. I added another set of three neighbouring house numbers: $15 + 17 + 19 = 51$

Can you find some other totals I could make, by adding together the house numbers of three (odd) next-door-neighbours?

Once you've found a few totals, here are some questions you might like to explore:

Is there anything special about all the totals?

Is there a quick way to work out the total?




Can you predict what would happen if I walked down the other side of the street instead (where all the houses have even numbers)?

Are there any patterns if I add together four house numbers instead of just three?

Or five house numbers?

Or...

Can you explain and justify the patterns you have noticed?

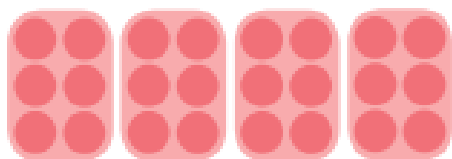
Multiplication and Division													Knowledge Organiser																																																																
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factor	Factor pairs and Commutativity												Multiply Using Formal Written Methods																																																																
multiple	<div></div> <div>$5 \times 4 = 20$ $4 \times 5 = 20$</div> <div>The factors of 20 are 1, 2, 4, 5, 10 and 20.</div> <div>The factor pairs are:</div> <div>1 and 20 2 and 10 4 and 5</div>												<div><table><tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>5</td><td>4</td><td>3</td></tr><tr><td>x</td><td></td><td></td><td>4</td></tr><tr><td></td><td></td><td>1</td><td>2</td></tr><tr><td></td><td>1</td><td>6</td><td>0</td></tr><tr><td>2</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2</td><td>1</td><td>7</td><td>2</td></tr></table><div>(4×3) (4×40) (4×500)</div></div> <div><table><tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>5</td><td>4</td><td>3</td></tr><tr><td>x</td><td></td><td></td><td>4</td></tr><tr><td></td><td></td><td></td><td>4</td></tr><tr><td>2</td><td>1</td><td>7</td><td>2</td></tr><tr><td></td><td>1</td><td>1</td><td></td></tr></table></div>													Th	H	T	O		5	4	3	x			4			1	2		1	6	0	2	0	0	0	2	1	7	2	Th	H	T	O		5	4	3	x			4				4	2	1	7	2		1	1	
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Multiplication and Division

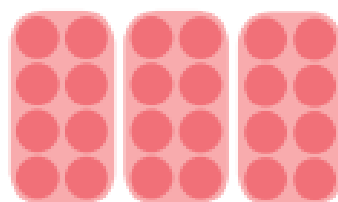
Knowledge Organiser

Mental Calculations for Solving Problems

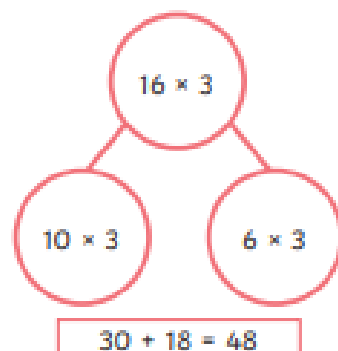
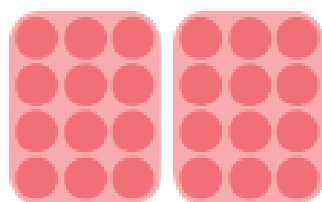
$$(2 \times 3) \times 4 = 24$$



$$(2 \times 4) \times 3 = 24$$

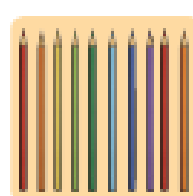


$$(3 \times 4) \times 2 = 24$$

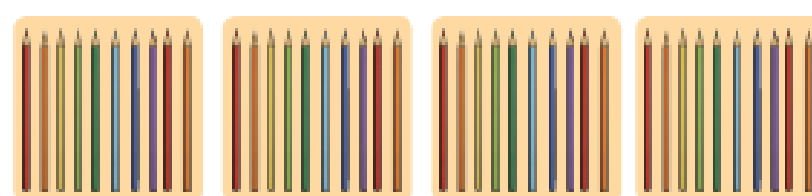


Integer Scaling Problems

10 pencils



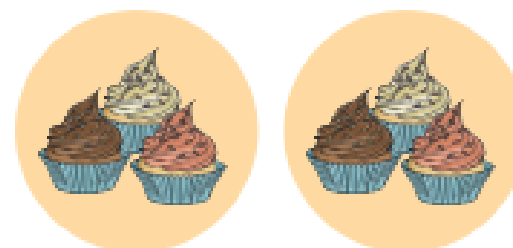
$10 \times 4 = 40$ pencils



75g



$75\text{g} \times 2 = 150\text{g}$



Short Division with Exact Answers

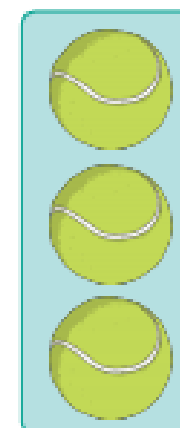
There are 69 tennis balls packed in tubes of 3.

There are 23 tubes altogether.

$$69 \div 3 = 23$$

$$\begin{array}{r} 23 \\ 3 \overline{) 69} \end{array}$$

69		
23	23	23



Multiplying Two-Digit Numbers by One-Digit Numbers Answers

1.
$$\begin{array}{r} 24 \\ \times 4 \\ \hline \\ \hline \end{array}$$

2.
$$\begin{array}{r} 22 \\ \times 5 \\ \hline \\ \hline \end{array}$$

3.
$$\begin{array}{r} 18 \\ \times 5 \\ \hline \\ \hline \end{array}$$

4.
$$\begin{array}{r} 26 \\ \times 3 \\ \hline \\ \hline \end{array}$$

5.
$$\begin{array}{r} 12 \\ \times 5 \\ \hline \\ \hline \end{array}$$

6.
$$\begin{array}{r} 48 \\ \times 2 \\ \hline \\ \hline \end{array}$$

7.
$$\begin{array}{r} 41 \\ \times 9 \\ \hline \\ \hline \end{array}$$

8.
$$\begin{array}{r} 31 \\ \times 7 \\ \hline \\ \hline \end{array}$$

9.
$$\begin{array}{r} 44 \\ \times 7 \\ \hline \\ \hline \end{array}$$

10.
$$\begin{array}{r} 32 \\ \times 7 \\ \hline \\ \hline \end{array}$$

11.
$$\begin{array}{r} 62 \\ \times 3 \\ \hline \\ \hline \end{array}$$

12.
$$\begin{array}{r} 66 \\ \times 4 \\ \hline \\ \hline \end{array}$$

13.
$$\begin{array}{r} 82 \\ \times 4 \\ \hline \\ \hline \end{array}$$

14.
$$\begin{array}{r} 87 \\ \times 8 \\ \hline \\ \hline \end{array}$$

15.
$$\begin{array}{r} 94 \\ \times 8 \\ \hline \\ \hline \end{array}$$

16.
$$\begin{array}{r} 53 \\ \times 8 \\ \hline \\ \hline \end{array}$$

17.
$$\begin{array}{r} 85 \\ \times 4 \\ \hline \\ \hline \end{array}$$

18.
$$\begin{array}{r} 75 \\ \times 3 \\ \hline \\ \hline \end{array}$$

19.
$$\begin{array}{r} 68 \\ \times 6 \\ \hline \\ \hline \end{array}$$

20.
$$\begin{array}{r} 78 \\ \times 7 \\ \hline \\ \hline \end{array}$$

Short Division Without Remainders

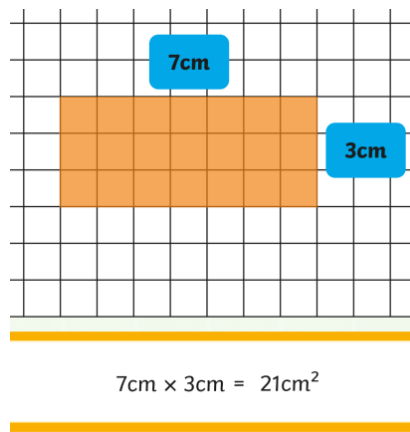
Complete the calculations below.

1. 7 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	2. 7 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	3. 4 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	
4. 7 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	5. 7 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	6. 3 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	

1. 3 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	2. 4 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 40px; height: 20px;"></div>	3. 6 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	
4. 4 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	5. 8 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	6. 7 <div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; display: inline-block; width: 60px; height: 20px;"></div>	

Vocabulary

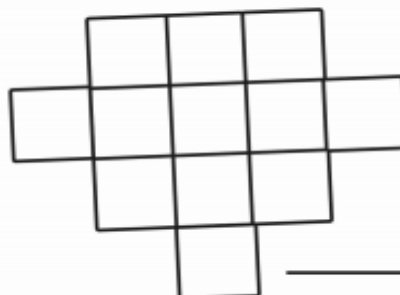
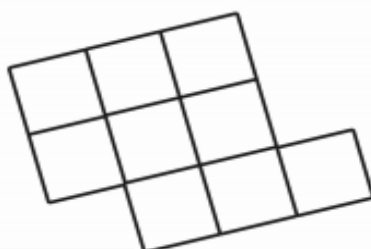
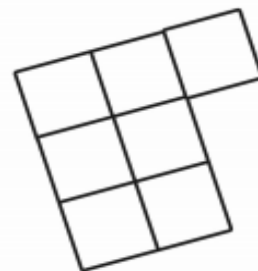
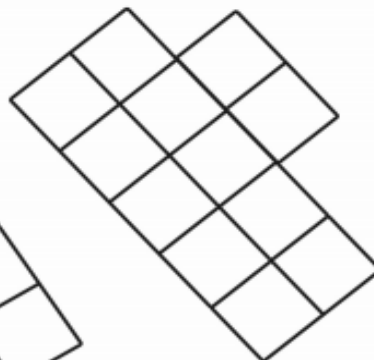
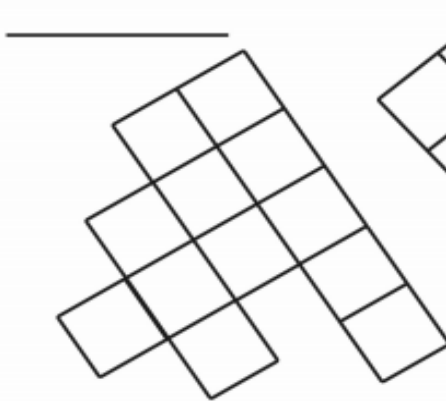
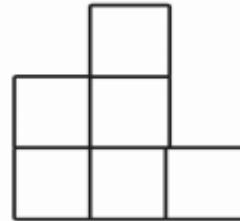
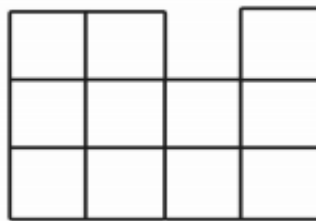
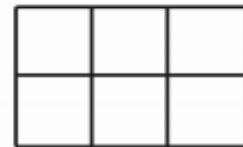
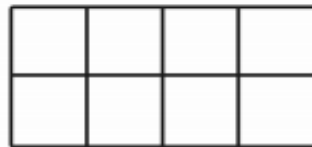
Area
Inside shape
squares
Length
Width
Multiply



To calculate the area of a shape:

- Count the squares inside the shape
- Multiply the Length X the Width

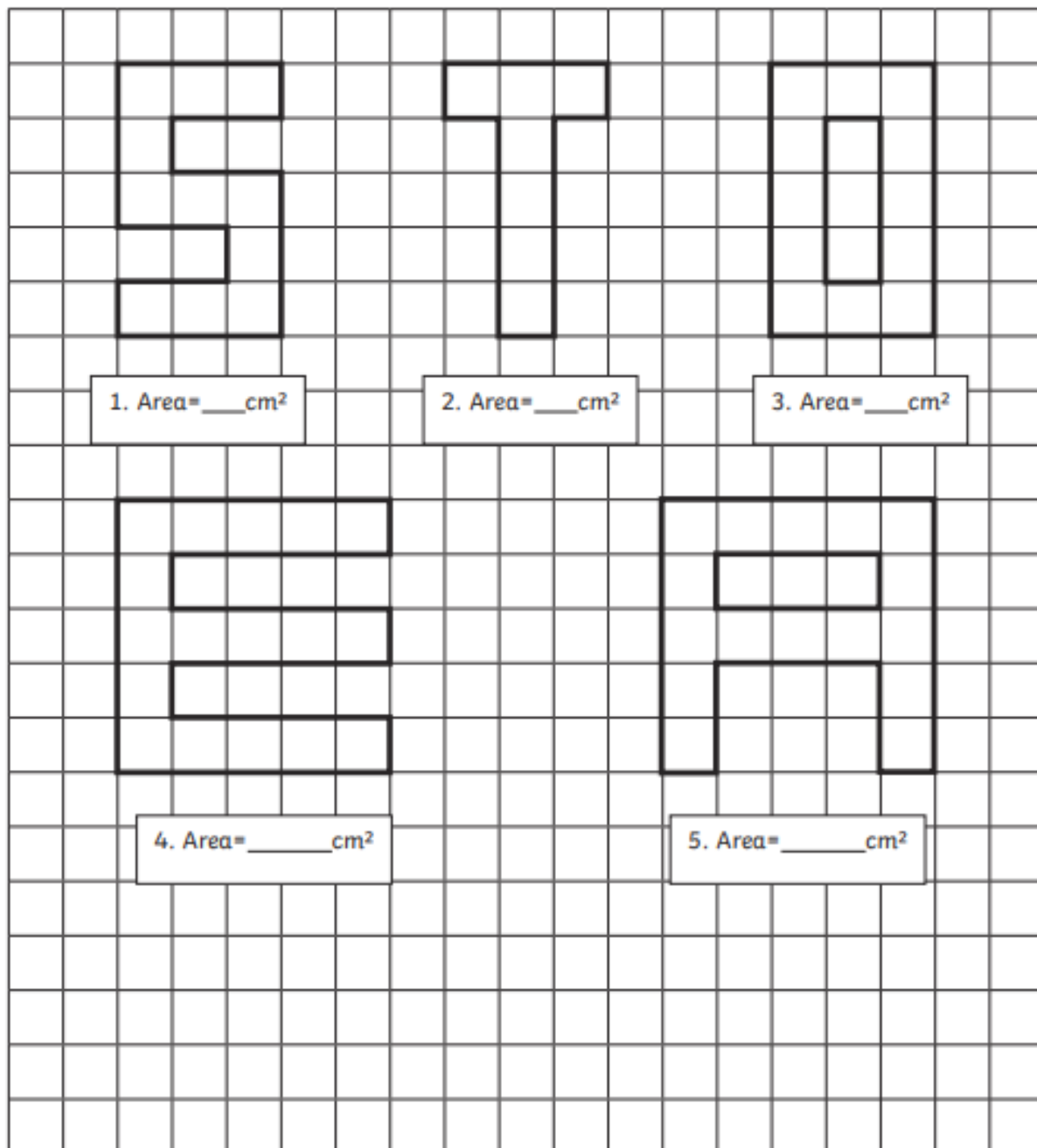
Calculate the Area



Calculating the Area of Shapes by Counting Squares

Count the squares to find the area of the letter shapes.

Top tip – make a mark in each square you have counted to save you counting it twice.



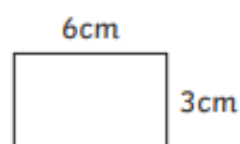
Calculate and Compare the Area of Rectangles

Aim: I can calculate the area of rectangles.

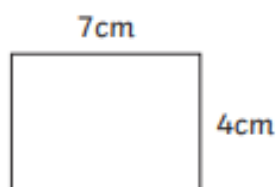
Calculate the area of the following rectangles.

The shapes are not to scale.

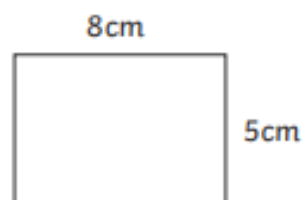
1.



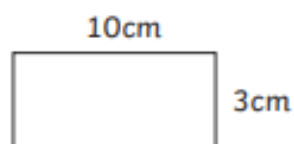
2.



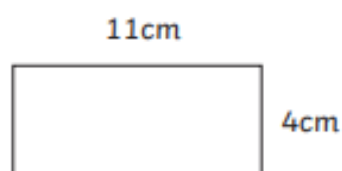
3.



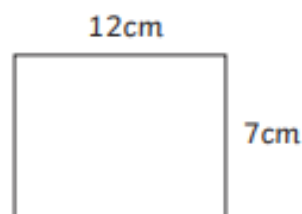
4.



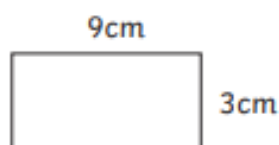
5.



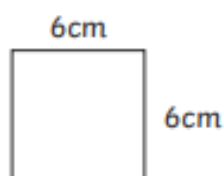
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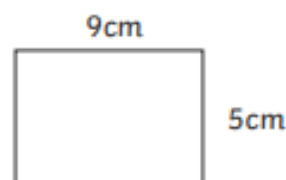
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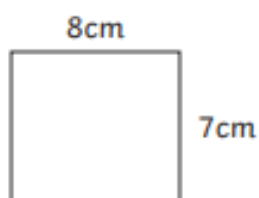
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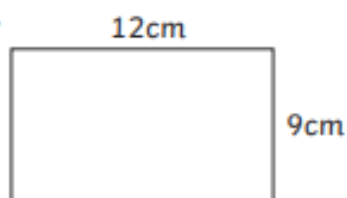
9.



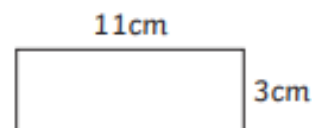
10.



11.



12.



ENGLISH * ENGLISH * ENGLISH * ENGLISH * ENGLISH * ENGLISH * ENGLISH * ENGLISH * ENGLISH			
<p><u>READING (1)</u> Read 'European Landmarks' text English 'Activity sheet 1</p> <p>Answer the questions attached to that.</p> <p><i>*Read the text on screen & write the answers in your home learning book</i></p>	<p><u>CREATIVE (1)</u> Draw a comic strip English 'Activity sheet 2</p> <p>Show someone travelling through Europe looking at some landmarks</p> <p><i>*Think about the reading comprehension text and reflect what has been written.</i></p>	<p><u>SPELLING (1)</u> Pick five key spellings that fit the information mentioned in "European Landmarks"</p> <p>English Activity sheet 3</p> <p><i>*Learn the spellings Write them in sentences about European Landmarks</i></p>	<p><u>Writing (1)</u> Write an information text.</p> <p>Write an introduction and paragraphs about a landmark.</p> <p><i>*Remember questions and a command in your introduction</i></p>
<p><u>READING (2)</u> Read 'Europe Natural features' text English 'Activity sheet 4</p> <p>Answer the questions attached to that.</p> <p><i>*Read the text on screen & write the answers in your home learning book</i></p>	<p><u>CREATIVE (2)</u> Draw a poster</p> <p>Advertise tours to natural features</p> <p><i>*Think about the reading comprehension text and reflect what has been written.</i></p>	<p><u>SPELLING (2)</u> Pick five key spellings that fit the information mentioned in The Natural Features text</p> <p>English Activity sheet 3</p> <p><i>*Learn the spelling Write them in sentences about the 'natural features of Europe</i></p>	<p><u>Writing (2)</u> Write newspaper about a visit to a landmark Start with when, where, who what</p> <p>Explain why people visit the landmark. Explain what they do.</p> <p><i>*Remember to use quotes from a visitor.</i></p>

****A third row of English learning has been added 11.1.21 to enhance the work provided for the first two weeks of Lockdown****

<p><u>READING (3)</u> Read 'Rivers' text English 'Activity sheet 5</p> <p>→</p> <p>Answer the questions attached to that.</p> <p><i>*Read the text on screen & write the answers in your home learning book</i></p>	<p><u>CREATIVE (2)</u> Create fact files on each river</p> <p>Include as many facts as possible →</p> <p><i>*Think about the reading comprehension text and include the facts that have been written</i> <i>*Research more facts if you want to/if you can.</i></p>	<p><u>SPELLING (2)</u> Pick five key spellings that fit the information mentioned in The Rivers text</p> <p>Back to English Activity sheet 3</p> <p><i>*Learn the spelling</i> <i>Write them in sentences about the 'natural features of Europe</i></p>	<p><u>Writing (2)</u> Write a diary entry or a story about someone travelling down one of the rivers.</p> <p>Think about fronted adverbials and time connectives.</p> <p><i>*Try to use adjectives to describe the views.</i></p>
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European Landmarks

Europe is one of the seven continents. The other six are North America, South America, Africa, Asia, Australasia and Antarctica. Some of the countries in Europe are the United Kingdom, France, Holland and Greece. Throughout Europe, you can find a variety of famous landmarks that bring millions of tourists to the continent every year. Here are three famous human landmarks.

Terrific Tower

The Eiffel Tower can be found in Paris, France, and was completed on 31st March 1889. It took just over two years to build. Until 1930, it was the tallest building in the world, being 324 metres tall. This is the same as an 81-storey building! Seven million tourists visit every year, making it the most-visited paid monument in the world. There is even a smaller copy of the tower in Las Vegas, USA.



Mysterious Stones

The mysterious Stonehenge can be found in the English countryside in Wiltshire. People believe that the stones were erected around 5,000 years ago, but nobody is certain why. It is also a mystery of how the enormous stones got there, with many believing that the stones were brought to Wiltshire from over 200 miles away. How was this achieved without trucks or cars? The mystery of the stones brings almost a million visitors every year, with its busiest day on 21st June for the Summer Solstice.

Colourful Cathedral

St. Basil's Cathedral can be found in Moscow, Russia and is shaped like flames, though many of the towers look like colourful ice cream cones. St. Basil's is the only cathedral of its kind; no others before or after have looked like that, which is why so many people flock to the famous landmark every year. It was built from 1555-61. This cathedral's cool design and colours are often mistaken for the Kremlin, the home of the Russian president.



Glossary

Monument - A statue or building to remember an important person or time.

Landmark - An object that is well known and easily remembered.

Continent - A group of countries.

Storey - A level in a building, such as ground floor, first floor, etc.

Erect - To put something together or build.

European Landmarks Questions

1. Which of the following is not a continent? Tick **one**.

☐ Antarctica

☐ Asia

☐ Africa

☐ Albania

2. When was the Eiffel Tower completed?

3. How tall is the Eiffel Tower? Tick **two**.

☐ 81 storeys

☐ 324 miles

☐ 324 metres

☐ 81 metres

4. When is Stonehenge the busiest?

☐ 12th July

☐ 21st June

☐ 21st July

☐ 12th June

5. Tick the boxes to say whether the sentences are true or false.

Sentence	True	False
The Eiffel tower is the tallest building in the world.		
No one knows for sure why Stonehenge was built.		
Another name for St Basil's Cathedral is the 'Kremlin'		
St Basil's Cathedral can be found in Russia.		

6. How many people go to Stonehenge every year?

7. Explain in your own words why Stonehenge is considered to be 'mysterious'.

English activity 2 ~ Comic Strip

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Year 3 and 4 Statutory Spellings

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

Europe Natural Features

Europe is one of the seven continents. The other six are North America, South America, Africa, Asia, Australia and Antarctica. A continent is a group of countries in the same area of the planet. Countries in Europe include the United Kingdom, France, Holland and Greece. All over Europe there are plenty of examples of human and physical landmarks. Some of the most famous physical landmarks are mentioned below.



Mighty Mountains

In Greek mythology, Mount Olympus was the home of the gods and the throne of Zeus, the head god. It is the highest mountain in Greece, reaching 9,570 feet (2,917 metres) tall. You can usually see the mountain covered in snow for seven months every year between November and

May, the wettest season. The rain is caused by a thick blanket of clouds that cover part of the mountain.

Violent Volcano

Mount Vesuvius is an active volcano found in Italy, only nine miles from the city of Naples. It has erupted many times, most recently in 1944. The most violent eruption recorded happened in 79AD killing thousands of people and completely burying the nearby cities of Pompeii and Herculaneum.



Raging Rhine

The Rhine is one of the longest and most important rivers in Europe. It is over 1,232 kilometres (766 miles) long. Its source is in Switzerland and continues to flow through six countries in total before exiting into the North Sea. The river has been used for trade for many years, even as far back as the Roman era over

2,000 years ago. The river is still used for transporting goods today, and many towns have been built along the river to support the many businesses.

Questions

Read the information sheet and answer these questions in full sentences.

1. What is a continent?
2. Is this sheet about humanly-constructed or natural features?
3. In which month would you see snow on Mount Olympus?
4. What is an 'active' volcano?
5. In which year did thousands of people get killed by Mount Vesuvius?
6. What has the River Rhine been used for?
7. Who lived up Mount Olympus?
8. Why do you think the Romans used rivers to transport goods?
9. Which feature do you think is most dangerous and why?
10. Which of the three natural features would you like to visit and why?

European Rivers

The Rhine

The Rhine mainly flows through Germany, but starts as a small stream in the Swiss Alps. It is 1233km in length and flows into the North Sea. Its waterways have been used to transport food and other goods since Roman times and there are many castles located on the banks, such as Maus (mouse) Castle. Years ago, Rhine was seen to be one of the most polluted rivers in Europe. Since then, a great deal of effort has been put in place to clean it up.

The Volga

This river runs through Russia and is the longest river in Europe at 3692km in length. In places, the Volga is so wide that you can't see the other side! The Volga flows into the Caspian Sea. Huge sturgeon fish can be found living in the water, however the river is quite polluted due to factories dumping waste there. It is used for transporting goods all over Russia but freezes up during very cold weather spells. One of the biggest battles of World War II was fought on the banks of the river, The Battle of Stalingrad.

The Danube

This is the second largest river in Europe, after the Volga. It is 2680km in length, beginning in the Black Forest Mountains in Germany and flowing into the Black Sea. This river flows through, or along, the border of several different countries including Austria, Hungary, Croatia, Bulgaria, and Romania to name a few. It also flows through the capital cities of Belgrade, Budapest, Vienna and Bratislava. The river has inspired artists and composers through time. One of the most famous pieces written about the special landmark is called 'The Blue Danube' by Johann Strauss. Today, tourists can enjoy cruising on the River Danube.



Questions

1. Which of these rivers is the longest?

2. How have waterways of the Rhine been used for many years?

3. Name one of the major capital cities through which the Danube flows. In which country can this city be found?

4. Who did the River Danube inspire? What did this person create?

5. Which famous historical event took place on the banks of the Volga River?

6. Where is the source of the Rhine?

7. Which of these rivers might you most like to visit? Give reasons for your answer.

What might happen if the Volga River becomes increasingly polluted?
