

## Home Learning Year 6 Maths activities

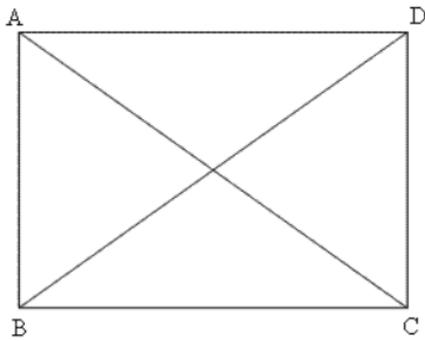
Please complete at least one activity per day

	Maths activities (Use the knowledge organiser to help define the key vocabulary e.g. prime number, factor etc.)	Complete ✓
1.	<b>Number activity:</b> Practice counting in multiples of 7, 8, 9 and powers of 10 (e.g. 1000; 10,000; 100,000 and 1,000,000) forwards and backwards.	
2.	<b>Number and place value activity:</b> Research the populations of 10 countries. Order the populations from largest to smallest. Find the difference between the populations. Round the populations to the nearest 100 000, 1 000 000 and 10 000 000 Can you construct a table to record your results.	
3.	<b>Number and addition activity:</b> Roll a dice to create a 5-digit add a 5-digit addition question. Work out the calculation using formal addition. Repeat 6 times.	
4.	<b>Number and subtraction activity:</b> Roll a dice to create a 5-digit subtract a 5-digit subtraction question. Work out the calculation using formal subtraction. Repeat 6 times.	
5.	<b>Number and multiplication activity:</b> Roll a dice to create a 4-digit number multiplied by 2-digit multiplication question. Work out the calculation using long multiplication. Repeat 6 times.	
6.	<b>Number- special numbers:</b> Roll a dice to make a 2-digit number. What are the factors of your number? Are any of the factors prime numbers? What is the 10th multiple of your number? What is the 100th multiple of your number? Now make a three-digit number. What are the	

	factors of your new number?	
7.	<p><b>Number- special numbers:</b> Investigate Can you make all square numbers up to 10 squared (e.g. 1, 4, 9, 16, 25, 36, 49, 64, 81 and 100) by adding two prime numbers together? Where is a good place to start?</p>	
8.	<p><b>Measure- time:</b> How long does it take you to do 25 star jumps? Do you think you could do more star jumps in 2000 seconds or 200 minutes? How many star jumps can you do in 200 seconds? (You will need to measure this) How many could you do in 400 seconds? (Do you need to measure this or can you estimate?) If you jump at the same rate would you do more star jumps in 10000 minutes or in 4 days?</p>	
9.	<p><b>Measures- converting measures:</b> Roll a dice 4 times to make a four-digit number in grams. Convert the number into kg. Make another four-digit number in metres. Convert the number into km. Make another four-digit number in ml. Convert the number into litres. Have you spotted a pattern? Can you make a poster showing how to convert the different measures?</p>	
10.	<p><b>Measures- area:</b> Can you work out the area of each downstairs room in your house by multiplying the length by the width? Do you think the area of upstairs will be the same as downstairs? Now choose one room. Can you work out the cost to redecorate the room? How much carpet will you need? What size curtains will you need?</p>	

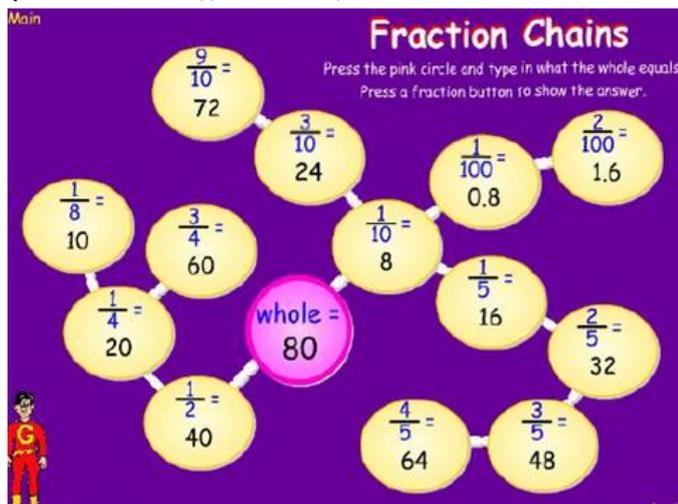
	How much paint will you need?	
11.	<p><b>Measures- volume:</b> Find 5 different cuboids in your home. Without measuring, order the boxes from the largest volume to the smallest volume.</p> <p>Now calculate the volume of each box (length x width x height). Was your order correct?</p>	
12.	<p><b>Measures- Time:</b> keep a time diary for 5 different activities you do throughout the day, e.g. eat breakfast, read a book etc. Read the time off the clock and draw a clock face in your books with the activity and time written underneath.</p>	
13.	<p><b>Ratio and proportion:</b> Select a recipe for 4 people and write down the amounts of each ingredient required. Adjust the recipe to make enough for 8 people.</p> <p>Adjust the recipe to make enough for 24 people.</p> <p>Use the internet to find out the price for each ingredient. What will be the price per head (person)?</p>	
14.	<p><b>Shape activity:</b> Look at the boxes you have in your house.</p> <p>Disassemble a selection of boxes and look at the net of the box. What do you notice about the nets? What is the same and what's different about the nets? Is there a relationship between the rectangular faces and the face at the end of cuboid?</p>	
15.	<p><b>Shape activity:</b> can you draw the net of a triangular prism (Toblerone box) using just 2d shapes and label them?</p>	
16.	<p><b>Shape activity:</b> draw a rectangle and divide it into quarters diagonally. Cut the shape up into 4 triangles. Rearrange the triangles to make other shapes. How many different shapes can you make?</p>	

Can you classify them? Can you describe them?



17. **Shape- properties of triangles:** Can you work out which triangles are described below?  
Who am I?  
I have one right angle and no equal sides. Who am I?  
I have a pair of equal sides and two angles of 45 degrees. Who am I?  
I have one angle of 80 degrees, one of 40 degrees. Who am I?  
Can you make your own 'Who am I' clues about a selection of quadrilaterals for your friends to solve?

18. **Fractions of an amount:** If you know the whole is 90. What other facts can you find? Make a fraction chain similar to the one below that has been done for the number 80.



If 0.2 of the whole is 16 Can you make another fraction chain using this fact?  
Can you include decimals in your chain?

19.	<b>Fractions- percentages:</b> Using your 100 square answer the following questions. What percentage (amount per hundred) of numbers are even? What percentages of numbers are both multiples of 3 and 6? What percentage of numbers are prime numbers? What percentage of numbers are factors of 72? Can you create a number fact that is 25% of the 100 squares?	
20.	<b>Statistics- the mean:</b> Who is the tallest person in your family? Who is the shortest? What is the average height of the people in your family? What is the average age of your family?	