



Year 7 Maths Curriculum & Video Lessons to Support Learning from Home

	Topic	Video lessons to support learning from home:
Autumn 1	<u>Sequencing</u>	<u>Sequencing</u>
	1. Describing sequence	https://vimeo.com/452511896
	2. Recognising linear and non linear sequences	https://vimeo.com/452511472
	3. Continuing linear and non linear sequences	https://vimeo.com/452511256
	4. Explain term to term rules	https://vimeo.com/455213178
	5. Find missing terms in a sequence	https://vimeo.com/455213393
	<u>Algebraic Thinking</u>	<u>Algebraic Thinking</u>
	1. Use function machines to find the input and output	https://vimeo.com/457723009
	2. Use function machines to write an expression	https://vimeo.com/457728945
	3. Substitute into an expression	https://vimeo.com/458573490
4. Generate sequences given an algebraic rule	https://vimeo.com/463004032	
5. Represent one and two step functions graphically	https://vimeo.com/463005804	
	https://vimeo.com/463007502	
<u>Equality and Equivalence</u>	<u>Equality and Equivalence</u>	
1. Understand the meaning of equality	https://vimeo.com/463818524	
2. Solve one step linear equations using four operations	https://vimeo.com/463819610	
3. Collecting like and unlike terms	https://vimeo.com/463820701	
	https://vimeo.com/465781557	



**Place Value
and ordering integers and decimals**

1. Write and understand place value to one billion
2. Position integers and decimals on a number line
3. Compare two numbers using = < >
4. Order a list of numbers including decimals
5. Find the median and range of a set of numbers
6. Round to one significant figure
7. Write a number in standard form (higher only)

Fraction, decimal and percentages

1. Represent a fraction as a diagram
2. Represent and compare fractions on a number line
3. Equivalent fractions
4. Convert fractions, decimals and percentages

Place Value and ordering integers and decimals

<https://vimeo.com/469025929>

<https://vimeo.com/469026473>

<https://vimeo.com/469026619>

<https://vimeo.com/471730234>

<https://vimeo.com/476238232>

<https://vimeo.com/476238351>

<https://vimeo.com/478518362>

<https://vimeo.com/478520361>

Fraction, decimal and percentages

<https://vimeo.com/481601101>

<https://vimeo.com/481601148>

<https://vimeo.com/484047978>

<https://vimeo.com/484048947>

<https://vimeo.com/485570821>

<https://vimeo.com/485571767>



	Topic Application of number	<i>Video lessons to support learning from home:</i>
Spring 1	<p><i>Solving problems with addition and subtraction</i></p> <ol style="list-style-type: none"> 1. Mental strategies of addition and subtraction 2. Formal methods of addition and subtraction including decimals 3. Problem solving with perimeter 4. Problem solving financial maths 5. Problem solving with frequency trees 6. Add and subtract numbers given in standard form (H) 	<p><i>Solving problems with addition and subtraction</i></p> <p>https://vimeo.com/490892938</p> <p>https://vimeo.com/490894649</p> <p>https://vimeo.com/491672240</p> <p>https://vimeo.com/491672317</p> <p>https://vimeo.com/491672453</p> <p>https://vimeo.com/491672502</p>
	<p><i>Solving problems with multiplication and division</i></p> <ol style="list-style-type: none"> 1. Understand and use factors and multiples 2. Use formal methods of multiplication and division including decimals 3. Convert metric units 4. Find area of rectangles, triangles and parallelograms 5. Find area of trapezium 6. Solve problems using the mean 	<p><i>Solving problems with multiplication and division</i></p> <p>https://vimeo.com/499606698</p> <p>https://vimeo.com/499609059</p> <p>https://vimeo.com/500778599</p> <p>https://vimeo.com/499608079</p> <p>https://vimeo.com/503502978</p> <p>https://vimeo.com/503507122</p> <p>https://vimeo.com/503509017</p>
	<p><i>Fractions, Decimals & Percentages</i></p> <ol style="list-style-type: none"> 1. Find fraction of an amount 2. Find the percentage of an amount 3. Problem solving using fractions greater than 1 and percentages greater than 100% 	<p><i>Fractions, Decimals & Percentages</i></p> <p>https://vimeo.com/505242774</p> <p>https://vimeo.com/505244871</p> <p>https://vimeo.com/505248135</p>



Spring 2	<p><i>Directed Numbers</i></p> <ol style="list-style-type: none"> 1. Order directed numbers on a number line 2. Use the four operations with directed numbers 3. Solve two step equations 4. Use order of operation with directed numbers 	<p><i>Directed Numbers</i></p> <p>https://vimeo.com/510352210</p> <p>https://vimeo.com/510353138 https://vimeo.com/516391970</p> <p>https://vimeo.com/upgrade</p> <p>https://vimeo.com/518994953</p>
	<p><i>Addition and subtraction of fractions</i></p> <ol style="list-style-type: none"> 1. Covert between mixed numbers and improper fractions 2. Add and subtract fractions with the same denominator 3. Add and subtract fractions with any denominator 4. Add and subtract mixed numbers 5. Use fractions in algebraic context 	<p><i>Addition and subtraction of fractions</i></p> <p>https://vimeo.com/519458046</p> <p>https://vimeo.com/519458698</p> <p>https://vimeo.com/523798787</p> <p>https://vimeo.com/523798826</p> <p>https://vimeo.com/523798863</p>



	Topic Application of number	<i>Video lessons to support learning from home:</i>
Summer 1	<p><i>Construction, measuring and using geometric notation</i></p> <ol style="list-style-type: none"> 1. Recognise and draw acute, obtuse and reflex angles 2. Recognise types of triangles and quadrilaterals 3. Identify polygons upto a decagon 4. Construct triangles using SSS, SAS and ASA 5. Interpret and draw a pie chart <p><i>Develop geometric reasoning</i></p> <ol style="list-style-type: none"> 1. Understand and use angles on a straight line and angles at a point 2. Know and apply angle facts for triangles and quadrilaterals 3. Find and use the angle sum of any polygon 4. Understand and use parallel line angle rules 	<p><i>Construction, measuring and using geometric notation</i></p> <p>https://vimeo.com/533528945</p> <p>https://vimeo.com/533532001</p> <p>https://vimeo.com/533526575</p> <p>https://vimeo.com/533527191</p> <p>https://vimeo.com/536237082</p> <p><i>Develop geometric reasoning</i></p> <p>https://vimeo.com/541563921 https://vimeo.com/541563965</p> <p>https://vimeo.com/542561112 https://vimeo.com/542585433</p> <p>https://vimeo.com/544930098</p> <p>https://vimeo.com/544931429</p>



Developing Number sense

1. Use factors to simplify calculations
2. Use estimation as a method of checking mental calculations
3. Use known number facts to derive other number facts
4. Use algebraic facts to derive new fact

Sets and probability

1. Interpret and create Venn diagrams
2. Understand and use the union and intersection sets
3. Generate sample spaces for single events
4. Understand and use the probability scale

Prime numbers and proof

1. Recognise and identify prime numbers
2. Recognise and identify prime, square and triangular numbers
3. Find the HCF and LCM
4. Write a number as a product of its prime factors
5. Use Venn diagram to find the HCF and LCM (H)
6. Make and test conjectures

Developing Number sense

<https://vimeo.com/549355838>

<https://vimeo.com/549366621>

<https://vimeo.com/549380677>

<https://vimeo.com/552302912>

Sets and probability

<https://vimeo.com/560341984>

<https://vimeo.com/560342194>

<https://vimeo.com/562764178>

<https://vimeo.com/562769033>

Prime numbers and proof

<https://vimeo.com/565630634>

<https://vimeo.com/565631096>

<https://vimeo.com/565631650>

<https://vimeo.com/565631650>

<https://vimeo.com/566094932>

<https://vimeo.com/566095046>

<https://vimeo.com/566474409>

