



Ready to Progress Criteria & Number Fun Quick Links

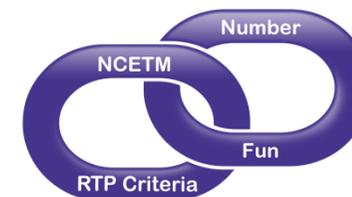
Year 4

Here is a Quick Link reference guide to help you link 2020 DfE ready-to-progress criteria* for Year 4 with the Number Fun resources.

This document contains:

- **Key Number Fun Song Video** – the ideal video to help children begin to explore this RTP Criteria.
- **Additional Number Fun Links** – additional material to support and extend the learning in this RTP Criteria.

Many song videos are accompanied by Teacher Ideas Packs, designed to provide creative games and activities to support the teaching of each objective.



For access to Dave's online training to support the concepts covered in the Ready to Progress Criteria strands, please check out our training portal: <https://teach.numberfun.com>

KEY:

SV = Song Video

SHOP: Additional Downloadable PDF Resources

TCV: Additional Concept Video

	Year 3 ready-to-progress criteria	Key Song Videos	Additional Links	Year 4 ready-to-progress criteria	Key Song Videos	Additional Links
Number and Place Value	3NPV–1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	<u>One Hundred</u> <i>(This visualisation explores how one 100 is ten 10s and a hundred 1s. It clearly demonstrates how many 1s and 10s there are in 3-digit numbers using Base 10 imagery.)</i>	<u>SV: Papa Titioning's Log Compound</u> <u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u>	4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	<u>One Thousand</u> <i>(This visualisation explores how one 1000 is ten 100s, a hundred 10s and a thousand 1s. Amongst other concepts, it clearly demonstrates how many 100s there are in 4-digit numbers using Base 10 imagery.)</i>	<u>SV: Papa Titioning's Log Compound</u> <u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u>
	3NPV–2 Recognise the place value of each digit in three-digit numbers and compose and decompose three-digit numbers using standard and non-standard partitioning.	<u>One Hundred</u> <i>(This visualisation explores how one 100 is ten 10s and a hundred 1s. It also decomposes 3-digit numbers using standard partitioning.)</i>	<u>SV: Papa Titioning (7-9)</u> <u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u>	4NPV–2 Recognise the place value of each digit in four-digit numbers and compose and decompose four-digit numbers using standard and non-standard partitioning.	<u>One Thousand</u> <i>(This visualisation explores how one 1000 is ten 100s, a hundred 10s and a thousand 1s. Amongst other concepts, it clearly demonstrates how many 100s there are in 4-digit numbers using Base 10 imagery.)</i>	<u>SV: Papa Titioning's Log Compound</u> <u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u> <u>SHOP: Papa Titioning's Log Playing Cards</u>



Number and Place Value	<p>3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p>	<p><u>One Hundred</u> (Utilise the visualisations in this video and record them on Number Line Strips.)</p>	<p><u>SHOP: Number Line Strips</u></p>	<p>4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.</p>	<p><u>One Thousand</u> (Utilise the visualisations in this video and record them on Number Line Strips.)</p>	<p><u>SHOP: Number Line Strips</u> <u>TCV: One Thousand</u></p>
	<p>3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.</p>	<p><u>Measurement Conversion Song</u> (This song converts units of length, mass and volume. A metre (100 cm) and a kilometre are measured in 2, 4, 5 and 10 equal parts.)</p>	<p><u>SHOP: Number Line Strips</u></p>	<p>4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.</p>	<p><u>Measurement Conversion Song</u> (This song converts units of length, mass and volume. A metre and a kilometre are measured into 2, 4, 5 and 10 equal parts.)</p>	<p><u>SHOP: Number Line Strips</u></p>
Number Facts	<p>3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.</p>	<p><u>Bond Recall Accelerator Challenge</u> (This video challenges children to recall the bond facts to 20. Utilise the alternative version at the bottom of the web page)</p>	<p><u>SV: Difference Recall Accelerator Challenge</u> <u>SHOP: Addition Challenge Grids</u> <u>SHOP: Difference Challenge Grids</u></p>			
	<p>3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.</p>	<p><u>Table Troopers</u> (Check out Page 12 of the Resources Search Tool and click on the Table Trooper icon for the multiplication table you would like to access.)</p>	<p><u>SV: Tables Recall Accelerator Challenge</u> <u>SHOP: Array Cards</u> <u>SHOP: Multiplication Posters</u> <u>SHOP: Times Tables Challenge Grids</u> <u>SHOP: Multiplication Triangles</u></p>	<p>4NF-1 Recall multiplication and division facts up to 12×12 and recognise products in multiplication tables as multiples of the corresponding number.</p>	<p><u>Table Troopers</u> (Check out Page 12 of the Resources Search Tool and click on the Table Trooper icon for the multiplication table you would like to access.)</p>	<p><u>SV: Tables Recall Accelerator Challenge</u> <u>SHOP: Array Cards</u> <u>SHOP: Multiplication Posters</u> <u>SHOP: Times Tables Challenge Grids</u> <u>SHOP: Multiplication Triangles</u></p>
				<p>4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.</p>	<p><u>GAR GAR Dance</u> (The GAR GAR Dance explores quotative division (i.e. grouping). Children are challenged to divide into groups of different sizes.)</p>	<p><u>SV: Celebrating in the Barn</u> <u>SV: Chunking</u> <u>SHOP: Times Table Story Cards</u></p>
	<p>3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</p>	<p><u>Super Scaling Ladder</u> (This song introduces children to the concept of scaling a number as an alternative structure to multiplication.)</p>	<p><u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u></p>	<p>4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).</p>	<p><u>Running Around the Perimeter</u> (This video calculates the perimeter of a field in metres. Use number fact knowledge to work out the perimeter in centimetres.)</p>	<p><u>SHOP: Base 10 Playing Cards</u> <u>SHOP: Place Value Counter Playing Cards</u></p>



Addition and Subtraction	<p>3AS-1 Calculate complements to 100.</p>	<p><u>Abacus Zoo</u> (100 monkeys are in the Abacus Zoo. Children are told how many are sleeping and they calculate how many are not!)</p>	<p><u>SV: Complements Recall Accelerator Challenge</u> <u>SV: Honest Joe</u></p>			
	<p>3AS-2 Add and subtract up to three-digit numbers using columnar methods.</p>	<p><u>Papa Titoning's Addition Song</u> (This is column addition in a story context. There are 3 versions of this video - the link here is the hardest version.)</p>	<p><u>SV: Papa Titoning's Subtraction Song</u> (There are 3 versions of this video - the link here is the hardest version. See attached Teaching video) <u>TCV: Column Subtraction</u></p>			
	<p>3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition and understand the related property for subtraction.</p>	<p><u>Calculation</u> (The first half of this video introduces children to the language and structures in addition and subtraction. Pause the video and use the imagery to explore inverse operations.)</p>	<p><u>SV: Commutativity</u> (The first half of this video explores how commutativity relates to addition and subtraction.)</p>			
Multiplication and Division	<p>3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.</p>	<p><u>GAR GAR Dance</u> (The GAR GAR Dance explores quotative division (i.e. grouping). Children are challenged to divide into groups of different sizes.)</p>	<p><u>SV: Celebrating in the Barn</u> <u>SHOP: Times Table Story Cards</u></p>	<p>4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.</p>	<p><u>Jump</u> (The first two sections of this video explore multiplying and dividing by 10 and 100 – the digit's jump!)</p>	<p><u>SHOP: Gattegno Grids</u> <u>SHOP: Papa Titoning's Log Gattegno Charts</u></p>
				<p>4MD-2 Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.</p>	<p><u>Commutativity</u> (The first half of this video explores how commutativity relates to addition and subtraction.)</p>	<p><u>Calculation</u> (The second half of this video reminds children of the language and structures of multiplication and division. Pause the video and use the imagery to explore inverse operations.)</p>



Multiplication and Division				4MD-3 Understand and apply the distributive property of multiplication.	Table Troopers (Each Table Trooper video includes the imagery from a Slavonic Abacus. This is a perfect image for the distributive law. Pause the video and reason together. E.g. $7 \times 4 = 5 \times 4 + 2 \times 4$)	SHOP: Array Cards (A great resource for exploring the distributive law)
	Fractions	3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.	Fraction Name Rock (This song helps children visualise, understand and read proper fractions.)	SHOP: Fraction Circles SHOP: Fraction Blocks		
3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency).		Doubling and Halving (This song explores how halving and then halving again enables you to find a quarter of a quantity.)				
3F-3 Reason about the location of any fraction within 1 in the linear number system.		The Counts of Fractions (This song helps children count in fractions. The fractions can be represented on a Number Line strip.)	SHOP: Fraction Count Cards SHOP: Number Line Strips TCV: Counting in Fractions	4F-1 Reason about the location of mixed numbers in the linear number system.	The Counts of Fractions (This song helps children count in both proper fractions and mixed numbers. The fractions can be represented on a Number Line strip.)	SHOP: Fraction Count Cards SHOP: Number Line Strips
				4F-2 Convert mixed numbers to improper fractions and vice versa.	Yodelling Fractions (This song explicitly explores this RTP Criteria, with visualisations.)	SHOP: Fraction Count Cards Visual Fractions Policy (Check out this policy for a wide range of posters to help children master Fractions)
3F-4 Add and subtract fractions with the same denominator, within 1.		See Fraction Circles Resource	SHOP: Fraction Circles SHOP: Fraction Blocks	4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	See Fraction Resource Links	SHOP: Fraction Circles SHOP: Fraction Blocks



Geometry	<p>3G–1 Recognise right angles as a property of shape or a description of a turn and identify right angles in 2D shapes presented in different orientations.</p>	<p><u>Mini Adventure</u> (A spider takes a journey through turns and movement around it's web in order to catch the fly!)</p>	<p><u>SV: The Angle Detective</u> <u>SV: Compass Rock</u> <u>SHOP: Polygon Property Pictures</u></p>				
	<p>3G–2 Draw polygons by joining marked points and identify parallel and perpendicular sides.</p>	<p><u>Where's Polygon?</u> (Pirates create polygons in the sand at the behest of a parrot!)</p>	<p><u>SHOP: Polygon Property Pictures</u></p>	<p>4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</p>	<p><u>Worm Hole Neutraliser</u> (This video introduces children to the concept of the first quadrant and translation as one of the transformations. Use screenshots as tools for reasoning.)</p>		
				<p>4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal, and the angles are equal. Find the perimeter of regular and irregular polygons.</p>	<p><u>Triangle Brothers</u> (This song introduces children to the properties of all three types of triangle. See <i>Running Around the Perimeter</i> for the exploration of perimeter.)</p>	<p><u>SV: Running Around the Perimeter</u></p>	
				<p>4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</p>	<p><u>Mirror Mirror</u> (This provides a fun-filled and active vehicle for exploring mirror symmetry)</p>	<p><u>SV: Triangle Brothers</u> <u>SHOP: Polygon Property Pictures</u></p>	

***DFE Guidance:** 'Teaching mathematics in primary schools June 2020', can be downloaded in full, or per year group, from this page: www.gov.uk/government/publications/teaching-mathematics-in-primary-schools Summary tables on pages 9-15 (of the full, Years 1-6 document) track criteria across year groups. Within the year group documents, the 'Making connections' blue boxes, detail connections across criteria.

Number Fun Resources Search Tool – this is a full hyperlinked listing of all the 320+ Number Fun Song Videos that are categorised according to mathematical domain and sub-domain. This tool is found on the homepage on numberfunportal.com or can be downloaded here: <https://resources.numberfunportal.com/Teacher+Portal/planning-tool.pdf>

Number Fun song videos are designed to be powerful tools for communicating conceptual understanding and stimulating reasoning through story, song, visualisation, animation and humour.

<https://numberfun.com> – For access to all the Number Fun Resources: teaching portals, online training website, visual policies and the Number Fun Shop