# Ready to Progress Criteria & Number Fun Quick Links
Year 5

Here is a Quick Link reference guide to help you link 2020 DfE ready-to-progress criteria* for Year 5 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.
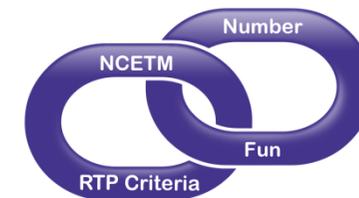
For access to Dave's online training to support the concepts covered in the Ready to Progress Criteria strands, please check out our training portal: **https://teach.numberfun.com**

KEY:
SV = Song Video
SHOP: Additional Downloadable PDF Resources
TCV: Additional Concept Video

	Year 4 ready-to-progress criteria	Key Song Videos	Additional Links	Year 5 ready-to-progress criteria	Key Song Videos	Additional Links
Number and Place Value	**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.	**One Thousand** (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.)	SV: Papa Titioning's Log Compound SHOP: Base 10 Playing Cards SHOP: Place Value Counter Playing Cards	**5NPV–1** Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	**Papa Titioning's Log Compound** (Papa Titioning is a lumberjack who organises his logs in Base 10. The imagery here connects a splinter (1/1000th of a log) through to a compound (1,000,000 logs). A powerful tool for exploring place value.	SV: One Tenth SHOP: Place Value Counter Playing Cards SHOP: Papa Titioning's Log Playing Cards
	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.	**One Thousand** (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.)	SV: Papa Titioning's Log Compound SHOP: Base 10 Playing Cards SHOP: Place Value Counter Playing Cards SHOP: Papa Titioning's Log Playing Cards	**5NPV–2** Recognise the place value of each digit in numbers with up to 2 decimal places and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	**One Tenth** (This video uses the imagery of Papa Titioning's logs and the relationship between a whole, tenths, hundredths, and thousandths.)	SV: Papa Titioning's Log Compound SV: Digit Zero SHOP: Gattegno Grids SHOP: Papa Titioning's Log Gattegno Charts

Number and Place Value	**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.	**One Thousand** *(Utilise the visualisations in this video and record them on Number Line Strips.)*	*SHOP: Number Line Strips* **TCV: One Thousand**	**5NPV–3** Reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	**Rock Anthem** *(This counting song explores counting in decimal places on a number line. It is a simple song to adapt and use alongside the backing track recording.)*	*SHOP: Number Line Strips*
	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.	**Measurement Conversion Song** *(This song converts units of length, mass and volume. A metre and a kilometre are measured into 2, 4, 5 and 10 equal parts.)*	*SHOP: Number Line Strips*	**5NPV–4** Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	**Measurement Conversion Song** *(This song converts units of length, mass and volume. A metre and a kilometre are measured into 2, 4, 5 and 10 equal parts.)*	*SHOP: Number Line Strips*
				5NPV–5 Convert between units of measure, including using common decimals and fractions.	**Measurement Conversion Song** *(This song converts units of length, mass, and volume. A metre and a kilometre are measured into 2, 4, 5 and 10 equal parts.)*	*SHOP: Number Line Strips*
Number Facts	**4NF–1** Recall multiplication and division facts up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number.	**Table Troopers** *(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.)*	*SV: Tables Recall Accelerator Challenge* *SHOP: Array Cards* *SHOP: Multiplication Posters* *SHOP: Times Tables Challenge Grids* *SHOP: Multiplication Triangles*	**5NF–1** Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	**Table Troopers** *(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.)*	*SV: Tables Recall Accelerator Challenge (Mega Toughies)* *SHOP: Array Cards* *SHOP: Multiplication Posters* *SHOP: Times Tables Challenge Grids* *SHOP: Multiplication Triangles*
	4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.	**GAR GAR Dance** *(The GAR GAR Dance explores quotative division (i.e. grouping). Children are challenged to divide into groups of different sizes.)*	*SV: Celebrating in the Barn* *SV: Chunking* *SHOP: Times Table Story Cards*			
	4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100).	**Running Around the Perimeter** *(This video calculates the perimeter of a field in metres. Use number fact knowledge to work out the perimeter in centimetres.)*	*SHOP: Base 10 Playing Cards* *SHOP: Place Value Counter Playing Cards*	**5NF–2** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	**Multiplication Manipulation Iso-Mega-Micro Machine** *(This function machine takes a table fact (e.g. 7 x 4 = 28) and creates an Iso fact (e.g. 0.7 x 40 = 28), a mega fact (e.g. 70 x 4 = 280) and a micro fact (e.g. 0.7 x 4 = 2.8)*	*SHOP: Place Value Counter Playing Cards* *SHOP: Papa Titioning's Log Playing Cards*

Multiplication and Division

Code & Objective	Video	Resource	Code & Objective	Video	Resource
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.	**Jump** *(The first two sections of this video explore multiplying and dividing by 10 and 100 – the digit's jump!)*	*SHOP: Gattegno Grids* *SHOP: Papa Titioning's Log Gattegno Charts*	**5MD–1** Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	**Jump** *(The first two sections of this video explore multiplying and dividing by 10 and 100 – the digit's jump!)*	*SV: Papa Titioning's Log Compound* *SHOP: Gattegno Grids*
4MD–2 Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.	**Commutativity** *(The first half of this video explores how commutativity relates to addition and subtraction.)*	**Calculation** *(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.)*	**5MD–2** Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	**Factors and Multiples** *(This video gives clear definitions for factors and multiples alongside worked examples.)*	*SV: Prime Number Baubles* *SHOP: Number Fun Zoo – Factors*
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 x 4 = 5 x 4 + 2 x 4)*	*SHOP: Array Cards* *(A great resource for exploring the distributive law)*	**5MD–3** Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	**Papa Titioning's Multiplication Song** *(This is column multiplication in a story context. There are 3 versions of this video - the link here is the hardest version.)*	*SV: Calculation* *(This video helps children learn the key vocabulary for calculation and the structures behind each operation.)*
			5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method and interpret remainders appropriately for the context.	**Papa Titioning's Division Song** *(This is short division in a story context. There are 3 versions of this video - the link here is the hardest version. The video provides clear conceptual understanding.)*	*SV: Calculation* *(This video helps children learn the key vocabulary for calculation and the structures behind each operation.)*

Fractions

Code & Objective	Video	Resource	Code & Objective	Video	Resource
			5F–1 Find non-unit fractions of quantities.	**Working out a Discount** *(Honest Joe is working out discounts on some of the items in his Discount Store)*	*SHOP: Here's the Model, What's the Question* *(Open-ended Bar Model resources.)*
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* *TCV: Counting in Fractions*			
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*	**5F–2** Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	**Fraction House Rock** *(This is a classic Number Fun song that explores equivalent fractions)*	*SHOP: Number Line Strips* *SHOP: Fraction Blocks* *Visual Fractions Policy* *(Check out this policy for a wide range of posters to help children master Fractions)*

Fractions	**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*	**5F–3** Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and for multiples of these proper fractions.	*Decimal Fractions Parrot* *(A memory song for decimal fraction equivalents)*	*SHOP: FDP Triangles* *SV: Fraction Recall Accelerator Challenge* *(For fluent recall)*
Geometry	**4G–1** Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	*Worm Hole Neutraliser* *(This video introduces children to the concept of the first quadrant and translation as one of the transformations. Use screenshots as tools for reasoning.)*		**5G–1** Compare angles, estimate, and measure angles in degrees (°) and draw angles of a given size.	*Polygon Properties Picture Prize* *(This video provides a context for estimating and measuring angles. It provides a context for challenging children to draw angles too.)*	*SV: 360 Degrees* *SHOP: Polygon Property Pictures*
	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.	*Triangle Brothers* *(This song introduces children to the properties of all three types of triangle. See Running Around the Perimeter for the exploration of perimeter.)*	*SV: Running Around the Perimeter*	**5G–2** Compare areas and calculate the area of rectangles (including squares) using standard units.	*Colin Fritter, Carpet Fitter* *(Colin Fritter fits carpets in rectangular rooms. The unit used in this video is square metres.)*	*SHOP: Polygon Property Pictures* *(Explore the areas of the pictures found in this adaptable resource by asking, 'what if' type challenges.)*
	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.	*Mirror Mirror* *(This provides a fun-filled and active vehicle for exploring mirror symmetry)*	*SV: Triangle Brothers* *SHOP: Polygon Property Pictures*			

*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