

A Number Fun Quick Link Guide for:



White Rose Maths



Year:



Number: Multiplication & Division

Summer Term 2022:

Block:



Weeks: 2 to 4



Here is a quick reference guide to help you link the White Rose Planning with the Number Fun Resources.

This document contains hyperlinks to:

Key Number Fun Song Video – the ideal video to help children begin to explore this small step.

Additional Number Fun Links – additional resources to support and extend the learning within this small step.

Check out our [Guide to using Number Fun Videos and Portal effectively](#). Many Number Fun videos are accompanied by Teacher Ideas Packs, designed to provide creative games and activities to support the teaching of each objective.

For information about all the Number Fun Training, Consultancy and Resources visit: www.numberfun.com.

Hyperlinks:



Click the Video Thumbnail

The hyperlink will take you to this song's page on the Number Fun Portal

(Note: You will need to log into the Number Fun Portal to access each song's resources.)



Click the Icon Thumbnail to hyperlink to this resource in the Number Fun online Shop



Click the Concept Teaching Video Thumbnail to hyperlink directly to the video

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Top Warm-Up Suggestions



Mick the Mechanic is partitioning the animals on Farmer Pete's farm into two groups. Sometimes these groups are equal, and sometimes they are not!

Conceptual Understanding

'Lots of' & 'Multiplied by'

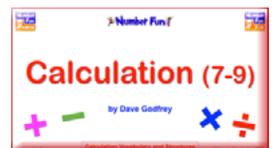
Here is a bit of horizon understanding for you!  Is the picture represented here showing $3 \times 4 = 12$ or $4 \times 3 = 12$? When I was a child, I was taught to read 3×4 as 3 'lots of' 4. This is the convention used in many White Rose small steps. You could reason that this image is better understood as $4 \times 3 = 12$. This is certainly true when using the mathematical phrase 'multiplied by'. The image shows repeated addition: $4 + 4 + 4 = 12$. 4 is being 'multiplied' 3 times, i.e. $4 \times 3 = 12$. 4 is the 'multiplicand' (the number to be multiplied) and 3 is the 'multiplier' (the number by which 4 is being multiplied). Multiplying 4 by 3 gives you the 'product' of 12. This convention has been recommended by NCETM for the last 2 decades and is used in the Number Fun videos. The 'multiplied by' image is also preferable when considering the Scaling structure of multiplication, (see the videos linked here to explore this structure). Lastly, when we think about 135×3 , is it best understood as '135 lots of 3' or 135 multiplied 3 times? Surely the latter is preferable... Thank goodness multiplication is commutative!

Top Shop Suggestion



Duck Group Cards

This extensive array of cards features bags with 0, 1, 2, 3, 4 & 5 ducks inside, images of rubber ducks and the characters from the Duck Wars video (5x table). A great resource for exploring and creating equal groups and related game play.

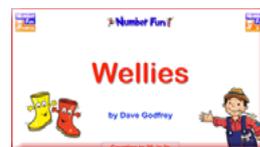


Small Steps

1: Count in 2s



Mr. Noah is counting kangaroos in the first verse of this video. Very conveniently they are appearing in twos!



Farmer Pete is counting wellies! They are splashing in the rain and playing a puddle game! This video counts up to 20 in 2s.

2: Count in 5s



Mr. Noah is counting bees from the hive in the second verse of this video. Very conveniently they are appearing in fives!



Accompanied by visualisation, this video counts in 5s and 10s. Use the first part of the video to explore the counting in 5s, before returning to the full video to count in 10s.



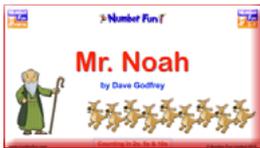
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3: Count in 10s

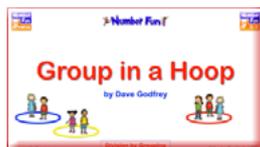


Mr. Noah is counting kangaroos again in the third verse of this video. Very conveniently they are appearing in tens!



This Multiple Battle links counting in 5s with counting in 10s. Split the class into two teams. Each team is responsible for their own count!

4: Make equal groups



This video models a making group activity that you can try as a class. There are 20 children who get into equal groups of 2, 5 and 4. Watch out for the sneaky remainder in the final verse!



Equal Groups & Arrays

This PDF has been specifically created to support the exploration of equal groups and arrays.

5: Add equal groups



Duck Wars is a story about multiples of 5. Bath Evader, Luke Walmwater's dog, is subtracting and adding bags of 5 rubber ducks from the bath side. Choose a suitable section to watch, then pause and reason.



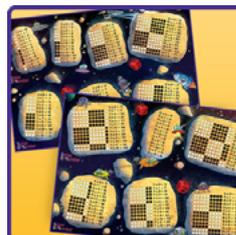
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6: Make arrays



The Table Trooper 5x video includes the visualisation of arrays to support the learning of the multiples of 5 and the facts in the 5x table. Use the imagery found in the first verse which explores the multiples of 5.



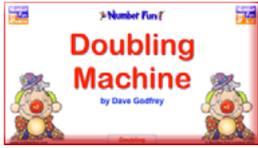
Multiplication Masteroid Posters

This set of Multiplication 'Masteroid' Times-Table Posters helps children reason and master their times-tables. (Pack includes 3 of each poster, 6 in total).
Note: Physical Product. These arrays can be cut up to explore a host of different arrays.

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7: Make doubles



Doubling Machine has been one of the most popular Number Fun songs over the last 20 years. This video features visualisations of concrete resources. Use the backing track to create your own ideas. Why not create your own doubling machine?

8: Make equal groups - grouping



This video challenges us to put 12 dinosaurs into groups of 2, 3, 4 and 6. Provide your children with 'dinosaurs' (could be counters etc.) and encourage them to mimic the representations. This is a great one for acting out!



Dinosaur Display Characters

This Dinosaur Display Characters PDF pack contains large and small images of the Number Fun Dinosaur characters for use in display and in play (e.g. in making equal groups).

9: Make equal groups - sharing



The children in this presentation have 12 toys to share fairly between different numbers of children (2, 3, 4 & 6). Provide your children with 12 'toys' to see if they can share fairly into equal groups.