

A Number Fun Quick Link Guide for:



White Rose Maths



Year: 

Number: Fractions

Autumn Term 2021:

Block: 

Weeks:  to 

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

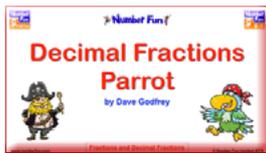


Click the Concept Teaching Video Thumbnail to hyperlink directly to the video

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Top Number Fun Warm-Up Suggestions



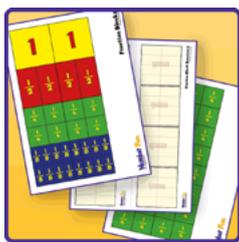
This video helps children learn, remember and recall the decimal fraction equivalences. Split the class in half and have one half pretending to be Pirate Captain Hugh and half being the Decimal Fractions Parrot.



In this video children are given a decimal fraction and challenged to convert it to a proper fraction with increasing speed. Great for quick recall and for children to identify which decimal fraction equivalences they don't yet know.

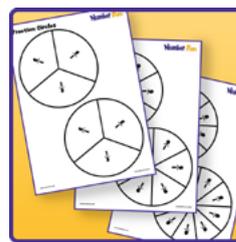
Top Number Fun Shop Suggestions

All shop suggestions are downloads unless highlighted otherwise.



Fraction Blocks

This is an amazingly powerful tool for helping understand how to children calculate with fractions (halves, quarters and eighths). Help children understand how working with the lowest common multiple works with these fractions.



Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths.

This resource has proved to be a powerful tool for helping children visualise, manipulate, count, order, compare and calculate with fractions.

Small Steps

1: Equivalent fractions



This Fraction House Rock video provides an engaging way of exploring equivalent fractions. Children sing through the mathematics whilst visualising the fractions. Great for adapting using the backing track and downloadable PowerPoint presentation..



Equivalent Fraction Cards

This is an extensive set of cards that show 5 equivalences for halves, thirds, quarters, fifths, sixths, eighths and tenths. Great for trading and other reasoning challenges.

2: Simplify fractions



Use this Fraction House Rock video again. Pause at different points to reason. For example, in the chorus, $\frac{6}{12}$ ths is simplified to $\frac{2}{4}$. Is this the fraction in its simplest form? What are the common factors of 6 and 12? Pause at 3:22 and reason about $\frac{60}{100}$ ths.



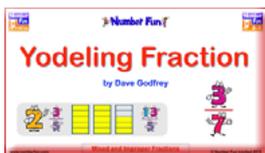
Equivalent Fraction Cards

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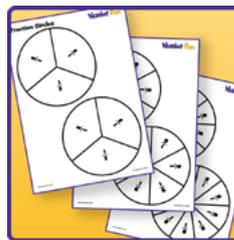
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3: Improper fractions to mixed number



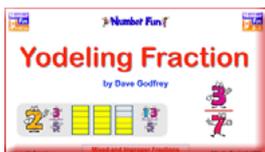
In this video the Yodeling Fraction converts improper fractions to mixed numbers (mixed fractions). Each conversion is accompanied by a visualisation of the conversion. Focus on the conversion from improper fractions to mixed numbers.



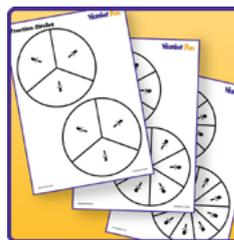
Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths. This versatile set of fraction circles can be printed (different coloured paper for each fraction), laminated and then utilised for a host of fraction concepts.

4: Mixed numbers to improper fractions



In this video the Yodeling Fraction converts improper fractions to mixed numbers (mixed fractions). Each conversion is accompanied by a visualisation of the conversion. Focus on the conversion from mixed numbers to improper fractions.



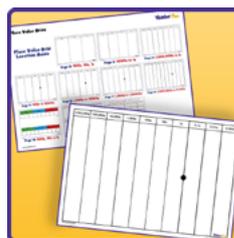
Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths. A powerful tool for visualising the conversions in this and the previous small step.

5: Fractions on a number line



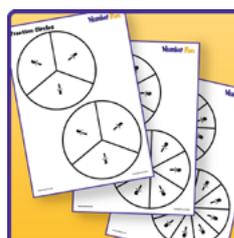
This rock video contains four counts with all counts represented on a number line. Two of the four counts are in fractions. This is a very easy song to adapt using the backing track and the downloadable PowerPoint presentation.



Number Line Strips

This extensive set of number lines includes number lines for use with fractions.

6: Compare and order (denominator)

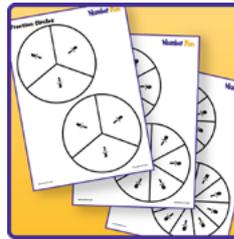


Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths. Cut some circles up to be explored for this step. E.g. Have $1/2$, $2/4$, $3/4$, $4/8$ ths, $6/8$ ths & $5/8$ ths etc. prepared. These will help the children visualise, compare and order the fractions.

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7: Compare and order (numerator)



Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths. A powerful tool for comparing and ordering fractions.

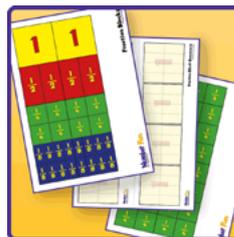
8: Add and subtract fractions (1)



Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). Help children understand how working with the lowest common multiple works with these fractions.

9: Add and subtract fractions (2)



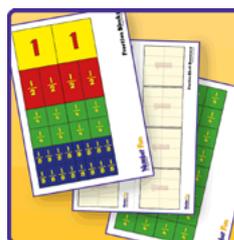
Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). Help children understand how working with the lowest common multiple works with these fractions. Now apply to other combinations of fractions.

10: Add mixed numbers



Play and then pause the video at 0:44. Imagine the Yodeling Fraction wanted to add up the first two mixed numbers. How might he go about it? Does the visualisation help reveal the total? What strategies might he use to help him? Try working through some other pairs of numbers.



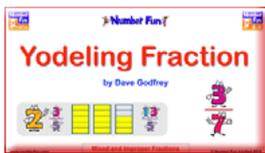
Fraction Blocks

This is an amazingly powerful tool for helping children understand how to calculate with fractions (halves, quarters and eighths). Use simple examples like 1 and $\frac{3}{8}$ ths add 1 and $\frac{3}{4}$ s to model how the partitioning approach is helpful here.

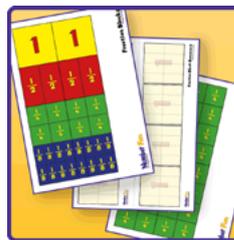
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11: Add fractions



Continue to explore different combinations of fractions. Take screen grabs of the fractions in each verse and encourage the children to add different combinations of fractions.



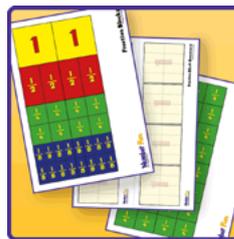
Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). If children still require a concrete resource to understand the principles of adding fractions, they should play again with this resource.

12: Subtract mixed numbers



Play and then pause the video at 0:44. This time, imagine the Yodeling Fraction wanted to subtract the smaller fraction from the largest fraction - how might he go about this? What strategies might he use? Does the imagery help?



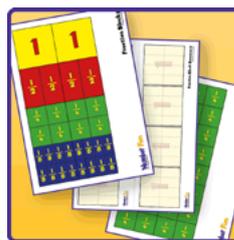
Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). Use this resource to model, e.g. 3 and 1/4 subtract 1 and 5/8ths. What processes are needed to calculate efficiently?

13: Subtract fractions



As recommended for addition, continue to explore the difference between combinations of fractions. Take screen grabs of the fractions in each verse and encourage the children to find the difference between combinations of fractions. Which differences are easier to find than others? Why?



Fraction Blocks

Again, use this is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). Use this concrete resource to help children can efficiently subtract fractions.

14: Mixed addition and subtraction



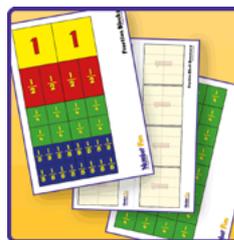
Number Fun Zoo

Use this powerful image to explore addition and subtraction of fractions. There are 100 animals in the zoo, each within a dedicated area. Great for exploring fractions, percentages, ratio etc.

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15: Multiply fractions by integers



Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). Use this resource to model, e.g. $\frac{3}{4} \times 3$ or $1 \text{ and } \frac{3}{5} \times 2$

16: Multiply fractions by fractions



Pirate Captain Hugh and Pirate Captain Bert are finding a fraction of a fraction! The video includes bar model style imagery to help the children reason what the product is in each case.



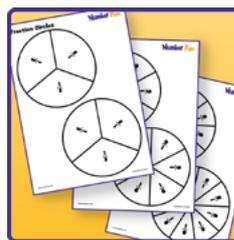
Chocolate Bar Fractions

This download contains 6 different worksheets that contain chocolate bars with of 12, 16, 20, 24, 40 and 48 chunks respectively. These bars can be utilised to help children represent multiplication of a fraction by a fraction.

17: Divide fractions by integers (1)



This video helps children learn, remember and recall the decimal fraction equivalences. Pause the video at the end of a verse and then reason using the imagery. E.g. Pause at 0:40 and discuss which fractions would be easy to divide by 2. Why?



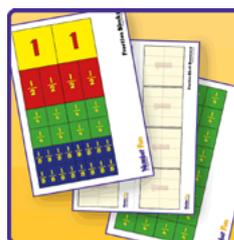
Fraction Circles

A set of fraction circles from wholes, halves, thirds etc. through to tenths and twelfths. Use the imagery to model, e.g. $\frac{3}{5}$ divided by 3, or $\frac{9}{12}$ s divided by 3

18: Divide fractions by integers (2)



Continue the reasoning from the previous small step. E.g. For the fractions at 0:40 that are not easy to divide by 2, what strategy can we use to make it easy for ourselves? E.g. $\frac{3}{8}$ ths could be visualised (draw a line using pen tool on your whiteboard) as $\frac{6}{16}$ ths, so half of $\frac{6}{16}$ ths would be $\frac{3}{16}$ ths.

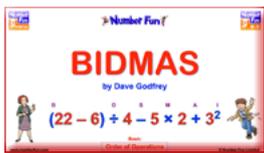


Fraction Blocks

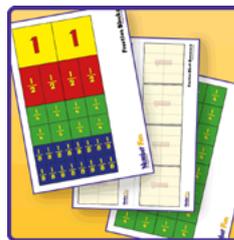
This is an amazingly powerful tool for helping children understand how to calculate with fractions (halves, quarters and eighths). This resource can easily be used to show '1 and a quarter divided by 2' or '1 and $\frac{7}{8}$ ths divided by 3'.

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19: Four rules with fractions



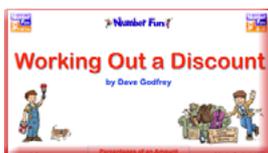
The small step notes include the opportunity to recap on the order of operations. If you use the BIDMAS or BODMAS acronyms you'll find two versions (basic and extreme) videos for each acronym.



Fraction Blocks

This is an amazingly powerful tool for helping children calculate with fractions (halves, quarters and eighths). For modelling with this concrete resource, select calculations that will work with the fractions available in this set.

20: Fraction of an amount



Honest Joe is offering some decent discounts on the goods in his store! In this video he demonstrates to Declan the Dodgy Decorator the different ways of working out the fraction of an amount. Which option do the children like best and why?



Chocolate Bar Fractions

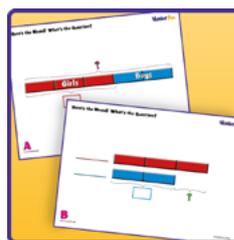
This download contains 6 different worksheets that contain chocolate bars with of 12, 16, 20, 24, 40 and 48 chunks respectively. These bars can be utilised to help children explore and represent fractions of a quantity.

21: Fraction of an amount - find the whole



Return to Honest Joe's video. Recap on his strategies for finding a fraction of an amount. The ask some 'What if?' questions. For example, pause the video at 1:07. Then ask the following, 'What if £24 wasn't the cost of the original item, but it was the size of the discount instead. What would the original cost then be?'
$$\frac{2}{3} \times \text{£ } \underline{\hspace{1cm}} = \text{£}24$$

Might the imagery help you?



Here's the Model, What's the Question? - Equal Parts

This download helps children understand the flexibility and power of bar models for addition and subtraction. Ideal for problem solving challenges including those with fractions.