A Number Fun Quick Link Guide for:

White Rose Maths

Year: 6

Number: Algebra

Spring Term 2022:

Block: 3 Weeks: 5 & 6

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

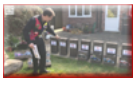
This document contains hyperlinks to:
Key Number Fun Song Video – the ideal video to help children begin to explore this small step.
Additional Number Fun Links – additional resources to support and extend the learning within this small step.

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 explores the formula for the area of parallelograms, triangles and trapeziums. It also explores the formula for the area and circumference of a circle.

Papa Titioning's Log Compound provides a story context for understanding our Base 10 number system. In what way might y = 10x be an expression of our Base 10 system?

Small Steps

1: Find a rule - one step

The first, second and fourth verse in this video explore one step rules that are followed by the Robotic Functioning Machine. Play and Pause. What would the output be if...? What was the input if the output was ...? Roll a die to decide an input.

In this alternative version of the Robotic Functioning Machine, the function is not revealed. Children are challenged to identify the function from the inputs and ouputs they see. Pause and reason as appropriate.

2: Find a rule - two step

The third verse in this video explores a two-step rule. Play and Pause. What would the output be if...? What was the input if the output was ...? Deal a digit card or roll a 12 sided dice to create an input. What could the output be?

In this alternative version of the Robotic Functioning Machine, the function is not revealed. Children are challenged to identify the function from the inputs and ouputs they see. Pause and reason as appropriate. The third and fourth verses need two step rules.

3: Forming expressions

The Guardian of the Rule knows what the rule is. She is representing the rule using number shapes. Can your children interpret the imagery and form an expression that represents the rule? (where n represents the number of holes)

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4: Substitution

Refer back to this version of Robotic Functioning Machine. The function is given. Can children form an expression for each function and then substitute values as required in this small step?

5: Formula

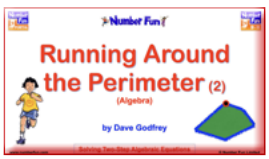
This video explores the formula for the area of parallelograms and triangles. It also explores the formula for the area and circumference of a circle. Use these as reference points to explore formulae.

6: Forming equations

7: Solve simple one-step equations

In this version of the Running Around the Perimeter video, children are given the perimeter of each field and the length of each side is expressed as a multiple of x (or y). Children have to calculate the value of x (or y)!

8: Solve two-step equations



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9: Find pairs of values

Refer back to this video. Check out verse 1, in which the function is 'subtract from 10'. This can be expressed as 10 - a = b. Challenge children to find all possible solutions. Is this possible? Are negative numbers or decimals allowed?

10: Enumerate possibilities

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