



## Maths Knowledge Organiser Spring Term - Nursery



### Knowledge - What do I already know Autumn Term

Talk about and identify the patterns around them.

Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').

Recite numbers past 5.

Subitise up to 2 objects "*Don't count, say the amount*" [recognise quickly how many are there without counting].

Link numerals to amounts for 0, 1 & 2.

Experiment with mark making the numerals 0, 1 & 2.

Make collections for children to *sort and compare*, which include objects that are different kinds or sizes. Compare using language: 'more than', 'fewer than'.

Talk about and explore 2D and 3D shapes.

Understand position through words alone.

### How can you help at home?



#### Useful Websites:

#### White Rose 1 minute maths app

<https://whiteroseeducation.com/1-minute-maths>



#### Topmarks

<https://www.topmarks.co.uk/Search.aspx?Subject=16&AgeGroup=1>

#### Cbeebies numeracy

<https://www.bbc.co.uk/cbeebies/topics/numeracy>

#### Numberblocks

<https://www.bbc.co.uk/iplayer/episodes/b08bzfnh/numberblocks>

Numberblocks is a fantastic way for your child to gain a deep understanding of how numbers work in a fun animated way.



### Vocabulary:

#### Cardinality and counting

The cardinal value of a number refers to the quantity of things it represents, e.g. 'howmanyness'.

When children understand the cardinality of numbers, they know what the numbers mean in terms of knowing how many things they refer to.

#### Counting

Counting is one way of establishing how many things are in a group, because the last number you say tells you how many there are.

#### Subitising

Subitising is another way of recognising how many there are [recognise quickly how many there are, without counting].

#### Comparison

Comparing numbers involves knowing which number has more or less than each other. Children will begin to use 'more' or 'fewer' to compare quantities.

#### Composition

Understanding that 1 number can be made up of 2 or more smaller numbers. Children will begin to use 'add' and 'subtract' find 'how many there are altogether'.

#### Pattern

Developing an awareness of pattern helps young children to notice and understand mathematical relationships. Patterns can be made with objects like coloured cubes, small toys, buttons, and keys, and with outdoor materials like pine cones, leaves or large blocks.

#### Shape and space

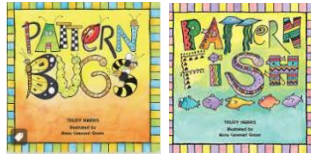
Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking.

## Knowledge - What I will learn – Spring Term

### Examples of activities

#### Pattern

Read stories about different patterns.



Continue alternate patterns:

- Size pattern – big, small, big, small

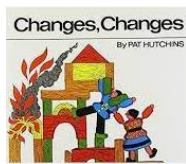


- Length pattern – tall, short, tall, short

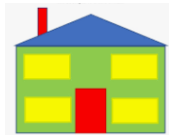


#### Shapes

Read stories about shapes all around.

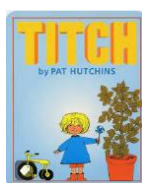
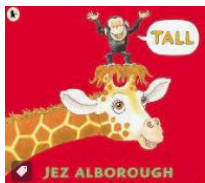


Use 2D shapes to make pictures.



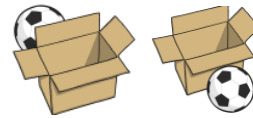
#### Measures

Read stories about different heights.



#### Position and Directions

Discuss locations, using words like 'in front of' and 'behind'.



#### Comparison

Make comparisons between objects relating to size, length, weight and capacity.



Read stories comparing sizes and weights.



#### Composition

Make 5 by using 2 smaller numbers.



Explore the composition of numbers up to 5.

For example: Using a hoop and 2 bean bags, see how many you can get into the hoop? How many landed outside the hoop?



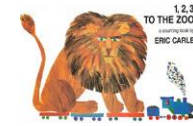
#### Cardinality and counting

Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').

Recognise numerals 0-5



Read number stories.



Jump on the numbers.



Go on a number hunt in the environment.



Subitise up to 3 objects "Don't count, say the amount" [recognise quickly how many are there without counting]. Playing games using dice really help to develop this skill



Show 'finger numbers' up to 5.



Experiment with their own symbols and marks as well as numerals.

