## EYFS - Mathematics

Reception Spr Reception Sum

ELG
Checkpoint

Count beyond 10.
Compare numbers.
Understand the 'one more than/one less than' relationship between consecutive numbers.
Explore the composition of numbers to 10 .
Automatically recall number bonds for numbers $0-5$ and some to 10
Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
Continue, copy and create repeating patterns.
Compare length, weight and capacity.

Develop the key skills of counting objects including saying the numbers in order and matching one number name to each item (to 5).
Say how many there are after counting - for example, "3, 4 5. There are 5 balls" - to help children appreciate that the last number of the count indicates the total number of the group. This is the cardinal counting principle.
Say how many there might be before you count to give a purpose to counting: "I think there are about 4. Shall we count to see?"
Count out a smaller number from a larger group (to 5) Sing counting songs and number rhymes and read stories that involve counting.
Play games which involve counting.
Subitise to 5 for familiar patterns (for example, dice) and random arrangements.
Put objects into five frames.
Prompt children to subitise first when enumerating groups of up to 4 or 5 objects: "I don't think we need to count those. They are in a square shape so there must be 4." Count to check
Encourage children to show a number of fingers 'all at once', without counting.
Match numerals to pictorial representations (to 5) Focus on composition of 2,3,4 and 5
Match and sort pictures and objects and explore sorting techniques and rules eg colour, shape, type Identify circles, triangles and 4 sided shapes.
Compare size, mass and capacity eg bigger, smaller, heavier, lighter, more, less
Copy, continue and create simple $A B A B$ patterns

Discuss the different ways children might record quantities (for example, scores in games), such as tallies, dots and using numeral cards.

## Count verbally to 20

Develop skills and concepts introduced in Autumn term with numbers to 10 (including 0 ).
Provide images such as number tracks and calendars showing 2 digit numbers.
Compare amounts, starting with a very different number of things. Include groups where the number of items is the same.
Use vocabulary: 'more than', 'less than', 'fewer', 'the same as', 'equal to'.
Make predictions about what the outcome will be in stories, rhymes and songs to explore ' 1 more' and ' 1 less' than a number to 10.
Provide 'staircase' patterns which show that the next counting number includes the previous number plus one. Model conceptual subitising: "Well, there are three here and three here, so there must be six."
Plan games which involve partitioning and recombining sets. For example, throw 5 beanbags, aiming for a hoop. How many go in and how many don't
Compare mass uses a balance.
Explore capacity using key vocabulary eg full, empty, nearly full, nearly empty.
Explore and compare length and height
Order familiar events from their daily routines eg breakfast time, bedtime etc
Recognise and name 3D shapes - identify 2D shape in the faces of 3D shapes

## Develop number skills and concepts to 20

 Help children to learn number bonds through lots of handson experiences of partitioning and combining numbers in different contexts, and seeing subitising patterns. Explore addition and subtraction through a range of activities.Play hiding games with a number of objects in a box, under a cloth, in a tent, in a cave, etc.: " 6 went in the tent and 3 came out. I wonder how many are still in there?"
Intentionally give children the wrong number of things. For example: ask each child to plant 4 seeds then give them 1, 2 or 3. "I've only got 1 seed, I need 3 more."
Spot and use opportunities for children to apply number bonds:
"There are 5 of us but only 2 clipboards. How many more do we need?"
Place objects into a ten frame and talk about how many spaces are filled and unfilled.
Explore sharing using the vocabulary fair, equal, same Tell a story about a character distributing snacks unfairly and invite children to make sure everyone has the same Introduce doubling and halving through games and songs. Model and give the children opportunities to use 2D and 3D shapes in practical situations eg to make a shape picture or a model, giving reasons for their choice of shape. Can I use a cylinder in my model? Which face should I put on the ground?
Use positional language to describe and follow instructions for building/placing objects
Create maps for familiar settings
Create own patterns and explain their rule

Have a deep understanding of number to 10, including the composition of each number.
Subitise (recognise quantities without counting) up to 5
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts.

Verbally count beyond 20 , recognising the pattern of the counting system
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Explore and represent patterns within numbers up to 10 , including evens and odds, double facts and how quantities can be distributed equally.

## White Rose Units to be covered

Getting to know you (2 weeks - baseline)

- Estabish maths through routines (tens frame buses, 100 days in school, calendar activities)


## Match, Sort \& Compare (2 weeks)

- Match objects
- Match pictures and objects
- Identify a set
- Sort objects to a type
- Explore sorting techniques
- Create sorting rules


## Talk about measure and patterns (2 weeks)

- Compare size
- Compare mass
- Compare capacity
- Explore simple patterns
- Copy and continue simple patterns
- Create simple patterns

It's Me 1, 2, 3 (2 weeks)

- Find 1,2 and 3
- Subitise 1,2 and 3
- Represent 1,2 and 3
- 1 more
- 1 less
- Composition of 1,2 and 3


## Circles and triangles (1 week)

- Identify and name circles and triangles
- Compare circles and triangles
- Shapes in the environment
- Describe position

1, 2, 3, 4, 5 ( 2 weeks)

- Find 4 and 5
- Subitise 4 and 5
- Represent 4 and 5
- 1 more
- 1 less
- Composition of 4 and 5
- Composition of 1-5


## White Rose Units to be covered

## Alive in 5 ( $\mathbf{2}$ weeks)

- Introduce zero
- Find 0 to 5
- Subitise 0 to 5
- Represent 0 to 5
- 1 more
- 1 less
- Conceptual subitising to 5


## Mass and Capacity (1 week)

- Compare mass
- Find a balance
- Explore capacity


## Growing 6, 7, 8 (2 weeks)

- Find 6, 7 and 8
- Represent 6, 7 , and 8
- 1 more
- $\quad 1$ less
- Make pairs-odd and even
- Double to 8 (find a double)
- Double to 8 (make a double)
- Combine 2 groups
- Conceptual subitising


## Length, Height and Time (1 week)

- Explore length
- Compare length
- Explore height
- Compare height
- Talk about time
- Order and sequence time


## Building 9 and 10 ( 3 weeks)

- Find 9 and 10
- Compare numbers to 10
- $\quad$ Represent 9 and 10
- Conceptual subitising to 10
- 1 more
- 1 less
- Composition to 10
- Bonds to 10 (2 parts)
- Make arrangements of 10
- Bonds to 10 (3 parts)
- Doubles to 10 (find a double)


## White Rose Units to be covered

## To 20 and beyond (2 weeks)

- Build numbers beyond 10 (10-13)
- Continue patterns beyond 10 (10-13)
- Build numbers beyond 10 (14-20)
- Continue patterns beyond 10 (14-20)
- Verbal counting beyond 20
- Verbal counting patterns

How many now? (1 week)

- Add more
- How many did I add?
- Take away
- How many did I take away?


## Manipulate, compose and decompose ( 2 weeks)

- Select shapes for a purpose
- Rotate shapes
- Manipulate shapes
- Explain shape arrangements
- Compose shapes
- Decompose shapes
- Copy 2D shape pictures
- Find 2D shapes within 3D shapes


## Sharing and grouping ( 2 weeks)

- Explore sharing
- Sharing
- Explore grouping
- Grouping
- Even and odd sharing
- Play with and build doubles


## Visualise, build and map ( 3 weeks)

- Identify units of repeating patterns
- Create own pattern rules
- Explore own pattern rules
- Replicate and build scenes and constructions
- Visualise from different positions
- Describe positions
- Give instructions to build
- Explore mapping
- Represent maps with models
- Create own maps from familiar places
- Create own maps and plans from story situations

| Shapes with 4 sides ( 1 week) <br> - Identify and name shapes with 4 sides <br> - Combine shapes with 4 sides <br> - Shapes in the environment <br> - My day and night | - Doubles to 10 (make a double) <br> - Explore even and odd <br> Explore 3D shapes (2 weeks) <br> - Recognise and name 3D shapes <br> - Find 2D shapes within 3D shapes <br> - Use 3D shapes for tasks <br> - 3D shapes in the environment <br> - Identify more complex patterns <br> - Copy and continue patterns Patterns in the environment | Make connections (1 week) <br> - Deepen understanding <br> - Patterns and relationships |
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