



Priestley Primary School

EYFS Calculation At

Priestley

Autumn 2020



Curriculum Intent Statement

Our aim is to provide our children with an engaging, exciting and empowering curriculum that equips them for today and tomorrow. At Priestley Primary School, the curriculum is designed to: recognise children's prior learning, provide first-hand learning experiences, allow the children to develop interpersonal skills, build resilience and become aspirational, creative, critical thinkers. Every child is recognised as a unique individual. We celebrate and welcome differences within our school community. The ability to learn is underpinned by the teaching of basic skills, knowledge, concepts and values with a vision to prepare them for life beyond primary school. We constantly provide enrichment opportunities to engage learning. We believe that childhood should be a happy, investigative and enquiring time in our lives, where there are no limits to curiosity and there is a thirst for new experiences and knowledge. We use our Priestley Values in order to learn like Spikey (Respect for All, Give it a Go, Cooperate, Take Responsibility, Share Great Ideas, Stay Focused, Think Things Through) to promote positive attitudes to learning which reflect the values and skills needed to promote responsibility for learning and future success. Children leave Priestley with a sense of belonging to a community where they have the skills to make decisions, self-evaluate, make connections and become lifelong learners with the confidence to explore life in modern Britain.

Mission Statement

Placing learning at the heart of all we do by working in partnership with children, parents, staff, governors and the wider community to provide a safe, happy, stimulating and purposeful learning environment. High expectations are set so that all children are challenged to achieve both socially and academically.

Vision

At Priestley Primary School we strive to provide a rich and varied learning community where all children reach their potential.

Teaching & Learning

Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces, and measures (Statutory Framework for the Early Years Foundation Stage, DfE: 2012).

Concrete

Concrete is the "doing" stage, using concrete objects to model problems.

Pictorial

Pictorial is the "seeing" stage, using representations of the objects to model problems.

Abstract

Abstract is the "symbolic" stage, where children are able to use abstract symbols to model problems.

This approach develops children's understanding at a deeper level and helps children learn new ideas and build on their existing knowledge by introducing abstract concepts in a more familiar and tangible way.

We use the Developing Matters in the Early Years Foundation Stage (EYFS) to plan our maths lessons. By the end of the reception year children are expected to reach the Early Learning Goal (ELG) outlined below:

Early Learning Goal for Number

- Children can count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number.
- Using quantities and objects, they add and subtract 2 single-digit numbers and count on or back to find the answer.

- They solve problems, including doubling, halving and sharing. Children must be exposed to different representations of mathematical concepts in order to embed conceptual understanding.
- One of the aims under the Characteristics of Effective Learning is 'creating and thinking critically.' Children are encouraged to make links, find new ways to do things, solve problems, change strategies as needed, make predictions and develop ideas of grouping, sequencing, cause and effect.

Addition

Maths for young children should be meaningful. Where possible, concepts should be taught in the context of real life.

GUIDANCE/MODELS AND IMAGES

Children begin to combine groups of objects or pictures using concrete apparatus.

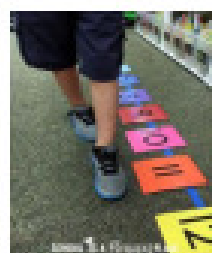
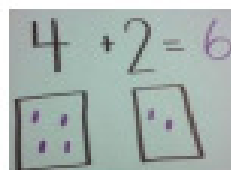
Solve simple problems using fingers.

Construct number sentences verbally or using cards to go with practical activities.
Children are encouraged to read number sentences aloud in different ways e.g. "Three add two equals 5"
"5 is equal to three and two."
Count on to find the answer.

Have an understanding of what "more" means and be able to say what is one more than a given number.
Number tracks can be introduced to count up on and to find one more.
Children make a record in pictures, words or symbols of addition activities.

When appropriate, numicon shapes are introduced to identify 1 more/less, combine pieces to add and find number bonds.

Number lines can be used alongside number tracks and practical apparatus to solve addition calculations and word problems.



$$3 + 1 = 4$$



Vocabulary: Games and songs can be useful way to begin using vocabulary involved in addition. Add, more, sum, and make, total, altogether

Subtraction

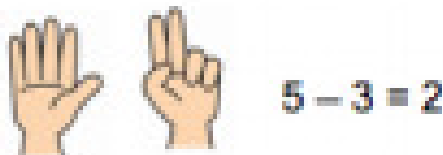
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GUIDANCE/MODELS AND IMAGES

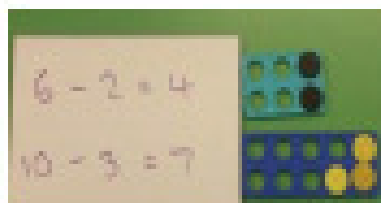
Concrete apparatus is used to relate subtraction to taking away and counting how many objects are left.



Solve simple problems using fingers. Construct number sentences verbally or using cards to go with practical activities.



Children are encouraged to read sentences aloud in different ways "five subtract one leaves four" "four is equal to five subtract one."

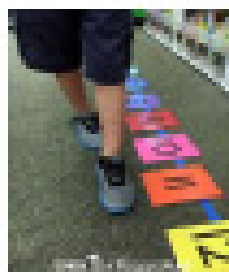


Count back to find the answer.

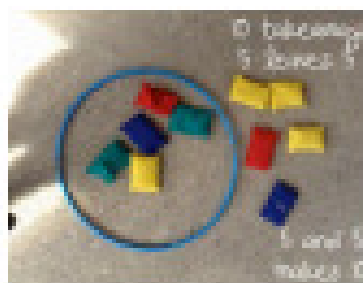
Have an understanding of what "less" means and be able to say what is one less than a given number.

What is 1 less than 9? 1 less than 20?

Number tracks can be introduced to count back and to find one less.



Children make a record in pictures, words or symbols of subtraction activities.



Number lines can then be used alongside number tracks and practical apparatus to solve subtraction calculations and word problems.



Vocabulary: Games and songs can be a useful way to begin using the vocabulary involved in subtraction. Take (away), leave, left/left over, less, fewer, difference

Multiplication

Maths for young children should be meaningful. Where possible, concepts should be taught in the context of real life.

GUIDANCE/MODELS AND IMAGES

The link between addition and multiplication can be introduced through doubling and reinforced through repeated addition of the same number.

Numicon is used to visualise the repeated adding of the same number.

Children begin with mostly pictorial representations e.g. How many groups of 2 are there? $2 + 2 + 2 + 2 + 2$, so 5 groups of 2.

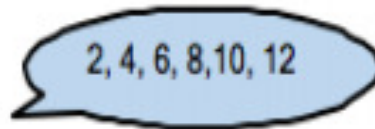
Real life contexts and use of practical equipment is used to count in repeated groups of the same size e.g. How many wheels are there altogether?

Children are encouraged to read number sentences aloud in different ways "five times two makes ten" "ten is equal to five multiplied by two" "ten is the same as five lots of two."

Count in twos, fives and tens both aloud and with objects.

Children are given multiplication problems set in a real life context. Children are encouraged to visualise the problem e.g. How many fingers on two hands? How many sides on three triangles? How many legs on four ducks?

$$5 + 5 + 5$$



Vocabulary: Lots of, groups of, times, repeated addition, double, combine

Division and Fractions

Maths for young children should be meaningful. Where possible, concepts should be taught in the context of real life.

GUIDANCE/MODELS AND IMAGES

Division can be introduced through halving or sharing an equal amount into 2 groups. Children begin with mostly pictorial representations linked to real life contexts.

Children need to see and hear representations of division as both grouping and sharing.

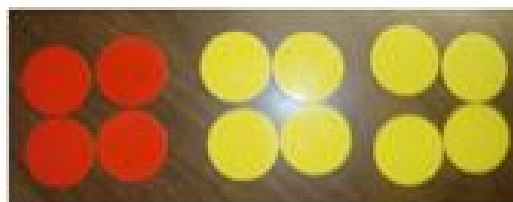
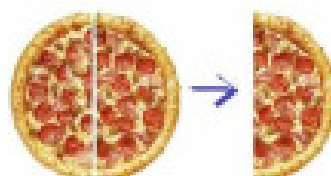
Grouping model:

Mum has 6 socks. She grouped them into pairs. How many pairs did she make?

Sharing model: I have 10 sweets. I want to share them with my friend. How many will we have each? The sharing model is a useful way to introduce young children to fractions e.g. Can you cut the pizza in half?

Children make a record in pictures, words or symbols of division activities.

Children are encouraged to have a go at recording the calculation that has been carried out e.g. by arranging concrete objects into groups.



Vocabulary: Half, halve, share, equal, groups of, left/left over.

Assessment

In EYFS, children are assessed against the Early Years Framework. They are assessed against the Early Learning Goal for number.

Equal Opportunities

We are committed to providing equitable opportunities for all pupils, regardless of gender, disability, ethnicity, social, cultural or religious background. All pupils have the right to teaching and learning experiences that enables them to achieve their full potential.

At Priestley schools, we welcome and celebrate diversity. We believe that having high self-esteem is crucial to pupils' wellbeing. Reasonable adjustments are made to the environment, curriculum and timetable to address all students' needs.

Safeguarding Statement

At Priestley Primary School, there is nothing more important to us than the physical and emotional health and well-being of our pupils and staff alike. As such we have created and work hard to maintain a climate in which staff, pupils, parents and governors feel able to articulate concerns comfortably; safe in the knowledge that effective action will be taken, as appropriate. At times we may need to share such concerns with outside agencies, such as the Wiltshire Multi Agency Safeguarding Hub (MASH) team.

Our Safeguarding and Child Protection Policies apply to all adults, including volunteers, working in or on behalf of our School. We expect everyone working in or for our School to share responsibility for keeping children safe from harm and abuse and report any concerns to one of our DSLs (Please see our 'Designated Safeguarding Leads' boards situated in the staff room.

At Priestley Primary School, children are taught about how to stay safe, including staying safe online. Our taught curriculum and programme of assemblies cover how to stay physically and emotionally healthy and includes e-safety and age-appropriate sex and relationship education (SRE).

Review

ALL SAFEGUARDING POLICIES SHOULD BE CONSIDERED IN RELATION TO EACH OTHER AT ALL TIMES

Safeguarding, Child Protection, Prevent, Internet Safety, Acceptable Usage, Anti-Bullying, Behaviour, Health & Safety, Off-Site Visits & Visitors, Whistle Blowing, Complaints Policies.

To be reviewed- September 2021