**Bromesberrow St. Mary’s Early Years Curriculum**

Bromesberrow St. Mary’s Church of England Primary School takes children from 3 years and these children are integrated into Class One from the offset. As such, we have built our curriculum so that it is sequential and works for our children, ensuring they are able to enjoy learning as a Class, but that this learning is carefully differentiated, so that children can learn at the right pace and expectations, developmentally.

These are the expectations we for the end of the year for our Preschool and Reception children:

**Communication and Language**

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| **Preschool (3-4 yr olds)** | **Communication and Language**   * Children begin to use more complex sentences to link thoughts (e.g. using ‘and, because’). * Children can retell a simple past event in correct order (e.g. ‘went down slide, hurt finger’) * Children to listen to longer stories and remember much of what happens * Children use talk to connect ideas, explain what is happening and anticipate what might happen next, recall and relive past experiences e.g. ‘when digging in the mud kitchen recall when they went to the seaside and were digging making sandcastles.’ * Children question why things happen and give explanations   e.g. ‘why aren’t the birds visiting the feeder?’ ‘Hmmm…maybe because we need some different type of food?’   * Children use a range of tenses but not always accurately e.g. ‘runned’ for ‘ran’. * Have clear pronunciation to communicate, but may still have some inconsistencies e.g. ‘th’ and ‘r’ and pronouncing multi syllabic words like ‘hospital’ and ‘hippopotamus’ * Children know many rhymes and are able to talk about familiar books e.g.’ I like it when the gingerbread man runs out of the oven and they can’t catch him’ * Children use specific vocabulary focused on objects e.g. ‘the soft blanket’ or the ‘sweet apple’ * Children can speak in sentences of four to six words * Children are able to share and express their feelings and/or opinions e.g. ‘I don’t think that is fair, because it would be kinder to share’ * Children build up vocabulary that reflects the breadth of their   experiences e.g. we need a brake pedal on our car as this is how you stop’   * Children use talk in to organise themselves in play, e.g. ‘This box is my castle.’ * Children understand a question or instruction that has two steps e.g. ‘get your coat and water bottle’. |
| **Reception 4-5 yr. olds** | * Children understand why it is important to listen carefully * Children extend their vocabulary, especially by grouping and naming, exploring the meaning and sounds of new words e.g. ‘Do you know that lakes can actually be made by humans. They are called reservoirs’. * Children practise and ‘test out’ new vocabulary throughout the day e.g. I have been persevering in my maths today’ * Children ask questions and want to learn more, they are curious e.g. why does the water disappear?’ (when looking at puddles evaporating outside) * Children use well-formed sentences to articulate their thoughts and ideas e.g. ‘I wonder if the magnet will be attracted to this metal?’ * Children are able to connect ideas e.g. I knew we would need our wellies on as it was really raining earlier’ * Children can use language well to describe in detail e.g. ‘It was a really scary night last night because it was dark and there was a thunder storm. The lightning flashed through my window and it made me feel afraid and nervous. It helped when I snuggled down with my teddy and listened to my CD’. * Use talk to ‘think aloud’ to help to work out problems e.g. ‘ if I put this piece here, then a brick under here, then the water should flow downwards into the bucket’. * Develop and use social phrases e.g. ‘good morning’ and ‘isn’t it a lovely day today’ * Engage in story times, listening intently, offering ideas and joining in with repetitive refrains e.g. ‘run, run, as fast as you can, you can’t catch me, I’m the gingerbread man!’ * Listen to and talk about stories to build familiarity and understanding e.g. I like it when the Gruffalo is scared of the mouse- it is so funny, because the mouse has tricked him!’ * Retell the story, once they have developed a deep familiarity with the text, some as exact repetition and some in their own words. * Learn rhymes, poems and songs and be able to join in confidently with these * Engage in non-fiction books and share facts e.g. ‘did you now that the oceans are salt water?’ * Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary e.g. Tyrannosaurus Rex was a carnivore. He ate meat!’ |

**Personal, Social and Emotional Development**

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| **Preschool (3-4 yr olds)** | **Families and people who care for me**   * With support, be able to talk about who lives with them at home and special people to them. * Begin to make sense of their own life story and family’s history.   **Being Safe**   * Know who can help us. * Begin to understand why rules are important. * Begin to follow rules with less adult intervention.   **Caring relationships**   * Begin to understand how others might be feeling. * Play with one or more other children, extending and elaborating play ideas.   With support, talk with others to avoid conflict and find solutions to conflict and rivalries (language use of falling out).  **Respectful relationships**   * Develop appropriate ways to be assertive. * Become more outgoing with unfamiliar people, in the safe context of their setting. * Continue to develop positive attitudes about the differences between people.   **Mental Wellbeing**   * Seeks comfort from familiar adult. * Beginning to distract themselves when upset. * Talk about their feelings using words like ‘happy’, ‘sad’, ‘angry’ and ‘worried’. * Begin to show more confidence in new social situations. * Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them.   **Internet Safety and Harms**   * Knows that information can be found on computers   **Physical Health and Fitness**   * Moves freely with pleasure, thinking about the space they have available to them. * Can tell adults when tired and need to rest. * With support, observes the effects physical exercise has on their bodies. * Be increasingly independent as they get dressed and undressed, for example, putting coats on and doing up zips.   **Healthy Eating**   * Can tell adults when they are hungry. * Adults model healthy eating and has conversations around healthy foods e.g fruit and vegetables.   **Drugs, alcohol and tobacco**   * Beginning to show awareness of what should and should not be touched.   **Health and Prevention**   * Show some understanding of what they need to wear when it is hot/cold. * Able to wash and dry their hands thoroughly and beginning to understand why washing hands is important. * Be increasingly independent in meeting their own care needs, e.g. using the toilet, brushing their teeth. * Begin showing healthy choices (with food, exercising etc.).   **Basic First Aid**   * Role play as ‘special people’ who help us and have conversations around how they help us with an adult in an age appropriate way.   **Changing bodies**   * Notice differences about people. Tall/short. Mummy/daddy. Grandparents. * Understand the key features of the life cycle of an animal (science).   **Rights and Responsibilities**   * Recognise similarities and differences with adult support. * Starts to show an interest in others’ lives. * Develop their sense of responsibility and membership of a community. * Show interest in different occupations (jobs).   **Environment**   * Notices detailed features of objects in the environment. * Comments about and ask questions about the world around them. * Shows care and concern for living things and the environment. * Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.   **Money**   * Enjoy playing with small world and role play activities e.g shops. |
| **Reception 4-5 yr olds** | **Families and People who care for me**   * Feel confident in being able to talk to someone (teacher) if something about their family makes them feel unhappy or worried and know it is important to do so. * Identify the people who love and care for them in their immediate family.   **Online Relationships**   * Know that when they use technology it should be under adult supervision. * Know who they can talk to if they feel unsafe online.   **Being Safe**   * Know who can help us in different settings (School, home, community) (Zippy’s). * Start to see the difference between right and wrong. * Recognise and report feelings of being unsafe or feeling bad with support.   **Caring Relationships**   * Develop strategies to make friends with support. * With support, contribute to the life of the class and school – how to **cooperate** with others. * With support begin to recognise good solutions when dealing with disagreements (conflict) and bullies (Zippy’s).   **Respectful Relationships**   * Play regularly involves sharing. * Allowing the children to say what they want to say in a safe and **respectful** environment (Zippy’s). * Support in listening to others and **respecting** when others are talking (Zippy’s). * Recognise that a person’s body belongs to them, and the differences between appropriate and inappropriate or unsafe physical contact. * With support, recognise the importance of privacy and when things should be shared. * With support, recognise how their behaviour affects other people (Zippy’s). * With support, listen to other people, and play and work **cooperatively** (Zippy’s).   **Mental Wellbeing**   * Having strategies to cope with death (Zippy’s). * Beginning to show an understanding that change and loss are a part of life (Zippy’s). * With support, children have the ability to communicate their feelings (Zippy’s). * With support, recognise feeling sad – feeling happy (Zippy’s). * With support, recognise feeling angry or annoyed and how to deal with this (Zippy’s). * Given strategies to adapt to new situations (Zippy’s) to allow them to show resilience and **perseverance**. * With support, recognise feeling nervous and how to deal with this (Zippy’s). * With support, recognise feeling jealous and how to deal with this (Zippy’s). * With support, identify what they are good at and their likes and dislikes (Zippy’s). * Know different ways to play and the importance of having a break from TV/Tablets. * To recognise what they like and dislike, what is fair and unfair, and what is right and wrong, with adult support (Zippy’s). * See themselves as a valuable individual.   **Internet Safety and Harms**   * Basic rules to keep safe online and what they should and should not be using.   **Physical Health and Fitness**   * That being physical is good for them. * Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. * Know and talk about the different factors that support their overall health and wellbeing: (regular physical activity - healthy eating - toothbrushing - sensible amounts of ‘screen time’ - having a good sleep routine - being a safe pedestrian). * Further develop the skills they need to manage the school day successfully: lining up and queuing, mealtimes, personal hygiene   **Healthy Eating**   * With support, know how to make simple choices to improve their health and wellbeing (Zippy’s). * With support, recognise healthy food and the risks of eating too much sugar.   **Drugs, alcohol and tobacco**   * Show an awareness of what is safe and unsafe.   **Health and Prevention**   * How do we stay safe in the sun? * Who helps us stay healthy? * Basic information on how diseases spread and how they can be controlled. * With support know the rules for, and ways of keeping safe, including basic road safety (Zippy’s). * Know how to keep themselves clean (including tooth care) and the importance of going to the dentist. * Know different ways to relax and rest. * Be increasingly independent in meeting their own care needs, e.g. using the toilet, washing and drying their hands thoroughly   **Basic First Aid**   * How to contact those ‘special people’ when they need their help – including dialling 999. * Know about the ‘special people’ who work in their community and who are responsible for looking after them and protecting them (Zippys).   **Changing body**   * Name the main parts of the body linking to the senses (Science). * Know the scientific names of the body to be able to successfully share information should they need to (Science).   **Rights and responsibilities**   * With support, set simple goals (Zippy’s). * With support, recognise differences in others and themselves (Zippy’s). * To take part in discussions with one other person and the whole class, with an adult present to support (Zippy’s). * Know that some places are special to different people within the community.   **Environment**   * Look at the similarities and differences in the environment. * Talk about why different things happen.   **Money**   * Recognise that sometimes people may not always be able to have they things they want. |

**Physical Development**

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| Our Pre-school children have the opportunity through play and repeated opportunities to develop their physical abilities. |
| **Objectives for Pre-School**:   * Continue to develop their movement, balancing, riding (scooters, trikes and bikes) and ball skills. * Go up steps and stairs, or climb up apparatus, using alternate feet. (climbing mountain) * Skip, hop, stand on one leg and hold a pose for a game like musical statues. * Use large muscle movements – dancing with flags/ ribbons. * Take part in group activities, which they make up for themselves or as part of a team. * Alternate their movements depending on the goal they want to achieve e.g. crawl or run depending on the space available. * Confidence building in the use of their movements in different scenarios. * Show a preference for a dominant hand. * Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks. * Use one-handed tools and equipment, for example, making snips in paper with scissors. |
| **Vocabulary**  Ball, throw, kick, run, jump, dance, balance, crawl, up, down, skip, hop, balance. |
| **Objectives for Reception**  **Spatial Awareness and Ball skills**   * Shows increasing control over an object in pushing, patting, throwing, catching or kicking it. * Shows a preference for a dominant hand. * Shows some understanding that good practices with regard to exercise can contribute to good health.   **Dance**   * Experiments with different ways of moving. * Show movement linked to emotion.   **Forest School**   * Uses simple tools to effect changes to materials. * Handles tools, objects, construction and malleable materials safely and with increasing control. * Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks. * Shows understanding of how to transport and store equipment safely. * Practices some appropriate safety measures without direct supervision   **Gymnastics**   * Jumps off an object and lands appropriately. * Travels with confidence and skill around, under, over and through balancing and climbing equipment   **Athletics**   * Negotiates space successfully when playing racing and chasing games with other children, adjusting speed or changing direction to avoid obstacles. |
| **Vocabulary**  Space, Safe stopping, pathways, awareness, dodging, direction, control, rolling, accuracy, aiming, balance, opposite foot forward, pace of ball, underarm, sending, receiving, bouncing, tackling, getting in line with the ball,, throwing, catching, kicking,, hands, feet, dribble.  Space, moving, resting, shake, twist, bend, obstacle, touch, travel, middle, side, corners, parts of the body, nod, mirroring, partner, group, position, emotion, feeling, silently, gently, jump, share, breathing, quickly, slowly, jog, run, hop, skip, walk, march, clap, rhythm, turn, travel, stretch, forward, backwards, sideways, high, low, landing, meeting, parting, exercise, healthy.  Safely, equipment, tools, climb, balance, jump, climb, aware, knot, carry, obstacles, risk, |

**Preschool Reading**

**The stages in which our children typically learn to read:**

* Be able to talk about the pictures in a story, retelling the story in their own words
* Be able to blend a simple word, with an adult verbally sharing ‘onset and rhyme’ e.g. b-at = bat
* Begin to recognise individual letter sounds as per phonics teaching sequence
* Be able to orally blend a simple word if an adult segments e.g. ‘c-a-t = cat
* Be able to blend and segment vc and cvc words e.g. ‘in’ and ‘tin’
* Be able to read common exception words as taught by the phonics teaching sequence e.g. ‘no’ and ‘the’
* Begin to recognise and digraphs being taught e.g. ‘er’ and ‘ai’
* Be able to blend and segment cvcc and ccvc words e.g. ‘with’ and ‘star’
* Be able to read apply phonic knowledge to words containing more than one digraph and/or trigraph and multisyllabic words e.g. ‘church’, ‘bushes’ and ‘thinking’
* Begin to add expression and intonation when reading, noticing punctuation e.g. adding emphasis on a question and pausing with elipsis.

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| **Preschool (3-4 yr olds)** | **Reading**   * Children enjoy rhyming and rhythmic activities e.g. ‘joining in with Incy Wincy Spider orally and with actions.’ * Children show awareness of rhyme and alliteration e.g. continuing a rhyming string ‘mat, bat, fat, pat, lat, gat (not all words may be ‘real’ words)’ * Children recognise rhythm in spoken words e.g. ‘you just said ‘pie in the sky- pie and sky rhyme’! * Children listen to and begin to join in with stories and poems, one-to-one and also in small groups * Children join in with repeated refrains and anticipates key events and phrases in rhymes and stories. e.g. joining in with ‘I’ll huff and I’ll puff and I’ll blow your house down’ and knowing that the wolf is coming again. * Children begin to offer suggestions as to how the story might end e.g. I think the Gingerbread man will get eaten by the fox. * Children describe main story settings, events and principal characters e.g. The giant lives in a huge castle in the clouds. He is scary and mean. He chases Jack and wants to eat him!’ * Children show interest in illustrations and print in books and print in the environment e.g. wanting to look carefully at the characters in Superworm, to find Earwig Aunt and Uncle Ant. * Children recognise familiar words and signs such as own name and advertising logos. * Children look at books independently. * Children handle books carefully. * Children know information can be relayed in the form of print e.g. they know that a recipe gives you ingredients how to make something to eat. * Children hold books the correct way up and turn pages. * Children know that print carries meaning and, in English, is read from left to right and top to bottom. |
| **Reception 4-5 yr. olds** | **Reading**  **Word Reading**   * Children can segment the sounds in simple words and blend them together to read e.g. ‘cart’ and ‘perch’ * Children link sounds to letters, naming and sounding the letters of the alphabet. * Children read letter groups (digraphs and trigraphs) e.g. ‘er’ and ‘igh’ * Children can read common exception words as per our phonics programme e.g. ‘they’ and ‘we’ * Children begin to read words and simple sentences. * Children use vocabulary and forms of speech that are increasingly influenced by their experiences of books e.g. the sun has sun spots and is a star’ * Children reread books to build on fluency.   **Early Learning Goal- word reading**  Children at the expected level of development will:  - Say a sound for each letter in the alphabet and at least 10 digraphs;  - Read words consistent with their phonic knowledge by sound-blending;  - Read aloud simple sentences and books that are consistent with their phonic knowledge, including some common exception words.  **Comprehension**   * Children are able to recall key events from stories and are able to put these in order to retell e.g. knowing that the mouse met the fox, then the snake and then the owl’ * Children relate what they have been reading to their own experiences and those of others e.g. when reading the Snail and the Whale, remembering when they had been to the beach. * Children know that information can be retrieved from books and computers e.g. asking to find a picture of an arctic fox on the ipads to see how this looks different to a red fox’ * Children enjoy an increasing range of books * Children can answer direct retrieval questions using pictures or words e.g. what creatures live in the Gobi Desert? * Ask questions about the book e.g. ‘how do jellyfish actually move?’ * Anticipate key events and what might happen next e.g. I think the Little Red Hen will make the bread herself as she has done everything else herself’. * Use and talk about new vocabulary introduced in the book e.g. the worm has a ‘saddle’ on it like a horse does. * Re-read sentences automatically to check they make sense.   **Early Learning Goal Comprehension**  Children at the expected level of development will:  - Demonstrate understanding of what has been read to them by retelling stories and narratives using their own words and recently introduced vocabulary;  - Anticipate, where appropriate, key events in stories;  - Use and understand recently introduced vocabulary during discussions about stories, non-fiction, rhymes and poems and during role-play |

**Preschool Writing**

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| **Preschool (3-4 yr. olds)** | * Give meanings to the marks that they scribe (including painting and drawing) e.g. this says that ‘mummy went to the supermarket’. * Ascribes meanings to marks that they see in different places using their knowledge of the context and past experience e.g. ‘that says Tommy’ (pointing at Tommy’s name label). * Writes with purpose and intent during independent play e.g. writing a shopping list for the builders merchant * Is able to hold a pencil correctly, having a strong and comfortable hold. * Is able to follow dots to draw a line or form a shape * Is able to begin to write some sounds at the beginning of words e.g. ‘m’ for ‘mummy’ * Is able to write their own name * Can write some letters accurately |
| **Reception 4-5 yr. olds** | * Links sounds to letters, naming and sounding the letters of the alphabet in order to write recognisable letters. * Spell words by using the sounds they have learned through phonics teaching sequence. * Spells common exception words using their knowledge of the letter names and how they are arranged in these non phonological words e.g. writing ‘was’ instead of the phonetically plausible ‘wos’. * Writes with a clear purpose to communicate- child knows that there is ‘a point’ to writing * Writes labels, captions and lists with purpose to communicate e.g. I am writing a shopping list so we can make ‘Rainbow Stew’ in school. * Attempts to write short sentences in meaningful contexts e.g. sentence writing to retell the story of the Owl Babies. * Knows that a basic sentence needs a capital letter at the beginning and a full stop at the end. * Are able to re-read what they have written to check that it makes sense. * Can write sentences that can be read by an adult.   Writing Early Learning Goal  Children at the expected level of development will:  - Write recognisable letters, most of which are correctly formed;  - Spell words by identifying sounds in them and representing the sounds with a letter or letters;  - Write simple phrases and sentences that can be read by others. |

**Preschool Maths**

**Early Years Foundation Stage:**

In preschool and Reception note that the definition alter slightly in line with the characteristics of effective teaching within Early Years:

**Skill it** - through adult modelling and imitation, children will play and explore by giving things a go.

**Apply it** – children being able to say if something is right/wrong or good/bad and are actively learning where they are concentrating and willing to try out new things.

**Deepen it**- children use their learning in different circumstances and can change something using concrete materials to make it correct; demonstrating an ability in creating and thinking critically to make links.

The Early Years Foundation Stage provides our children with the fundamental starting blocks to mathematics and our curriculum reflects this by ensuring the children are provided with the opportunities to develop a deep understanding within mathematics with a ‘can do’ attitude. To support this deepened understanding the children will continuously be developing five key skills throughout all their learning objectives and continuous provision;

*Subitising: instantly recognise small quantities.*

*Counting: regular opportunities to practise counting forward and back. This is broken into 5 principles:*

* *The one-one principle: children assigning one number name to each object that is being counted. Children need to ensure they count each object only once ensuring they have counted every object.*
* *The stable-order principle: children understand when counting, the numbers have to be said in a certain order.*
* *The cardinal principle: children understand that the number name assigned to the final object in a group is the total number in that group.*
* *The abstraction principle: involves children understanding that anything can be counted including things that cannot be touched including sounds and movements e.g. jumps.*
* *The order-irrelevance principle: involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number.*

*Composition: recognise that all quantities are composed of smaller quantities.*

*Sorting and matching: notice similarities and differences as they match and sort objects in different contexts.*

*Compare and order: compare and order quantities and measures by noticing more than/fewer than and equal amounts.*

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| **Pre School** | | | | |
| **Objective** | **Skill it** | **Apply it** | **Deepen it** | **Mathematical talk** |
| **Develop fast recognition of up to 3 objects, without having to count them individually (‘subitising’).** | Point to small groups of two or three objects: “Look, there are two!” Occasionally ask children how many there are in a small set of two or three. | Able to correct someone or themselves if recognition is incorrect. | Child picks up equipment as part of their play independently and is able to subitise quickly and accurately. | Count  One, two, three, four, five. More than, fewer than, circles, rectangles, triangles, cuboids, sides, corners, straight, flat, round, sharp corner, straight edge, pointy, curvy, off, on, under, on top, on, beside, next to, between, down, large, small, exactly, size, length, long, short, heavy, light, first, then, after, before, morning, afternoon, evening and night-time, earlier, later, too late, too soon, in a minute, yesterday, tomorrow |
| **Recite numbers past 5.** | Regularly say the counting sequence accurately. | Able to correct someone or themselves if recognition is incorrect. | In a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to high numbers. For example: hide and seek, rocket-launch countdowns. |
| **Say one number for each item in order: 1,2,3,4,5.** | Count things and then repeat the last number. For example: “1, 2, 3 – 3 cars”. Point out the number of things whenever possible; so, rather than just ‘chairs’, ‘apples’ or ‘children’, say ‘two chairs’, ‘three apples’, ‘four children’. | Recognise if someone has counted correctly or incorrectly and able to verbalise if something is incorrect. | Children to use this counting within their own independent play. |
| **Know that the last number reached when counting a small set of objects tells you how many there are in total (‘cardinal principle’).** | Ask children to get you a number of things, and emphasise the total number in your conversation with the child. | Children able to say yes or no to the number of objects they have in relation to what they have been asked. Some children may then self-correct/ some may need adult support e.g. you need 2 more cars. Now we have 4 cars | Children independently show an adult remembering earlier conversations e.g ‘I have 3 cars’ may then go and find another set of 3 objects. |
| **Show ‘finger numbers’ up to 5** | When counting shows on fingers. Adult models counting up to 5 on fingers. | Able to say if the number of fingers is right or wrong | Transfer this into counting other objects. |
| **Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.** | Use small numbers to manage the learning environment. Suggestions: have a pot labelled ‘5 pencils’ or a crate for ‘3 trucks’. Draw children’s attention to these throughout the session and especially at tidy-up time: “How many pencils should be in this pot?” or “How many have we got?” etc. | Able to say if the number of objects is correct or incorrect and can change where needed. | Able to transfer knowledge of amount into different scenarios. |
| **Experiment with their own symbols and marks as well as numerals.** | Encourage children in their own ways of recording (for example) how many balls they managed to throw through the hoop. Provide numerals nearby for reference. | Talk about the numerals they have written. | Use in play – independently |
| **Solve real world mathematical problems with numbers up to 5.** | Discuss mathematical ideas throughout the day, inside and outdoors. Suggestions: - “I think Adam has got more crackers…” | ‘I have given Adam 4 crackers’ – actually give child three crackers. Child should recognise if that is right or wrong. | Support children to solve problems using fingers, objects and marks: “There are four of you, but there aren’t enough chairs….” |
| **Compare quantities using language: ‘more than’, ‘fewer than’.** | Draw children’s attention to differences and changes in amounts, such as those in stories like ‘The Enormous Turnip’. ‘You have more than me’ | Correctly say who has more or who has fewer. | Able to share objects out so one has more or one has fewer etc. can do this through visually seeing a bigger pile and then count after. |
| **Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: ‘sides’, ‘corners’; ‘straight’, ‘flat’, ‘round’.** | Encourage children to play freely with blocks, shapes, shape puzzles and shape-sorters.  Encourage children to talk informally about shape properties using words like ‘sharp corner’, ‘pointy’ or ‘curvy’. Talk about shapes as you play with them: “We need a piece with a straight edge.” | What is the same and what is different? | When playing independently or in another environment, children to spot 2D and 3D shapes in those environments and naming these without any adult intervention. |
| **Understand position through words alone – for example, “The bag is under the table,” – with no pointing.** | Discuss position in real contexts. Suggestions: how to shift the leaves off a path, or sweep water away down the drain. | Is the ball under the table?  Children able to say yes/no and explain accurately where it is. | Children use in play. |
| **Describe a familiar route.** | Use spatial words in play, including ‘in’, ‘on’, ‘under’, ‘up’, ‘down’, ‘besides’ and ‘between’. Suggestion: “Let’s put the troll under the bridge and the billy goat beside the stream.” | Is the troll under the bridge? Children able to say yes/no and explain accurately where it is. | Children using this language in play. |
| **Discuss routes and locations, using words like ‘in front of’ and ‘behind’.** | Take children out to shops or the park: recall the route and the order of things seen on the way.   * Adult model the vocabulary as they make any route. | Did they go the right way? Yes or no. Which way should they have gone? | Set up obstacle courses, interesting pathways and hiding places for children to play with freely. When appropriate, ask children to describe their route and give directions to each other.  Provide complex train tracks, with loops and bridges, or water-flowing challenges with guttering that direct the flow to a water tray, for children to play freely with.  Read children stories such as Rosie’s walk. |
| **Make comparisons between objects relating to size, length, weight and capacity.** | Provide experiences of size changes.  “Can you make a puddle larger?”, “When you squeeze a sponge, does it stay small?”, “What happens when you stretch dough, or elastic?”  Talk with children about their everyday ways of comparing size, length, weight and capacity. Model more specific techniques, such as lining up ends of lengths and straightening ribbons, discussing accuracy “is it exactly?” | Able to explain why something is larger or smaller in an age appropriate way. | See children using the modelled learning in their own play. |
| **Select shapes appropriately** | Flat surfaces for building, a triangular prism for a roof etc.  Provide a variety of construction materials like blocks and interlocking bricks. Provide den-making materials. Allow children to play freely with these materials, outdoors and inside. When appropriate, talk about the shapes and how their properties suit the purpose. | Will this be good to use on the bottom?  Did that work? Discussion of why not or why it did. | If something isn’t working within their construction, they adapt and alter what they are doing to find success. |
| **Combine shapes to make new ones - an arch, a bigger triangle etc.** | Provide shapes that combine to make other shapes, such as pattern blocks and interlocking shapes, for children to play freely with. When appropriate, discuss the different designs that children make.  Use tidy-up time to match blocks to silhouettes or fit things in containers, describing and naming shapes. Suggestion: “Where does this triangular one /cylinder /cuboid go?” | Explain what their design is and how they made it. | Able to find what they need to complete their design independently.  Occasionally suggest challenges, so that children build increasingly more complex constructions. |
| **Talk about and identify the patterns around them.** | For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like ‘pointy’, ‘spotty’, ‘blobs’ etc.  Provide patterns from different cultures, such as fabrics. | Able to spot mistakes within the pattern. | Provide a range of natural and everyday objects and materials, as well as blocks and shapes, for children to play with freely and to make patterns with. When appropriate, encourage children to continue patterns. |
| **Extend and create ABAB patterns** | Engage children in following and inventing movement and music patterns, such as clap, clap, stamp.  Stick, leaf, stick, leaf. | Notice and correct an error in a repeating pattern. | Create their own pattern for someone to follow. |
| **Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’** | Talk about patterns of events, in cooking or getting dressed. Suggestions:  - ‘First’, ‘then’, ‘after’, ‘before’ - “Every day we…”  - “Every evening we…”  Talk about the sequence of events in stories.  Count down to forthcoming events on the calendar in terms of number of days or sleeps. Refer to the days of the week, and the day before or day after, ‘yesterday’ and ‘tomorrow | When retelling a story or sequence of events children are able to correct themselves or correct someone else by saying where something is right/wrong. | When role playing with small world/dolls, children use the language freely and correctly to describe events that are happening in a sequence. |

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| **Reception** | | | | |
| **Number** | | | | |
| **Objective** | **Skill it** | **Apply it** | **Deepen it** | **Mathematical talk** |
| **Able to make comparisons between amounts.** | Children shown smaller and larger counties to compare. Adults model this language. Show children amounts in quantity and size.  E.g. more or less cake, size of each item, number of items in each group.  Building blocks outside – challenge the children to make a shorter tower and a taller tower. How many crates/blocks did you use?  Loose parts – one child grabs a handful as does another child. Does your friend hold more than you, fewer than you or the same amount? | Children given different groups of different sizes/quantities and they are able to explain which one is smaller or larger. Adult could make an error with the expectation of the child correcting them. | Recognise comparison in other day to day activities, such as snack time or when sharing. Children may link this to the idea of fairness. | Number, one, two, three to twenty and beyond, none, count on/up/to/from/down, before, after, more, less, many, few, fewer, fewest, smaller, smallest, equal to, the same as, odd, even, digit, numeral, compare, order, size, value, between, halfway between, number line, add, more, plus, make, sum, total, altogether, double, half, halve, equals, is the same (including equals sign), how many more to make…? How many more is…? How much more is…? Subtract, take away, minus, share, share equally, group in pairs, equal groups of, divide, split, whole, equal, one half, number track, tens frame, number cards, number squares, numicon, count, work out, Subitise, compare, smaller, larger, zero, number bonds, if I add one more how many will there be? If I take one out how many will there be? How do you know? How can we check? Could there be zero? What do you notice when you try to make pairs with….  Can you arrange smallest to largest?  How many do you have to start? How many do you have now? Why? Can you represent what we did using counters?  Read, write, listen, join in, tell me, describe, work out. |
|  | * Subitise or count to find how many objects they have. * Encouraged to make their own collections. * Match number names we say to numerals and quantities. * Use own mark making to represent 1,2,3 e.g. scoring in their own game. * Have a number hunt inside and out. * Prepare dot card for children to call out 1, 2 and 3 depending on the number of dots they see. * Hickory dickory dock nursery rhyme. * Children could count the number of beats on a drum. | Use cards that show the number and a picture card set that represents the numbers. Show an example of matching card together.  Is this true or false? What is wrong? How can we make this right? | Children create their own games and create a scoring system using their knowledge of representing 1, 2 and 3. |
| **Comparing 1,2 and 3.** | Children begin to recognise that as we count, each number is one more than the number before. Similarly as we count back, each number is one less than the previous number.   * Use a range of representations to support understanding and encourage children to represent one more/ one less patterns as the count. * Use stories and number songs that count one more or one less.   e.g. The Three little bears | Ask children to compare how far they can travel in 3 giant steps or in 1 or 2. In 1, 2 and 3 tip toes. ‘I think we got further when we made 1 step’ children should recognise that this is incorrect and correct the mistake. | With the children count how many items are in a hidden bag? Ask the children to watch as you add one more item to the hidden group. How many will there be now? What if you take one out?  Drop stones on marbles into a bucket and children count how many sounds they hear. How many are there? What if we add one more?  How do you know? How can we check? |
| **Composition of 1, 2 and 3.**   * Introduce that all numbers are made of smaller numbers. | Explore and notice the different compositions of 2 and 3 e.g. 1+1 = 2  1+1+1= 3 1+2=3 2+1=3.  Use hands to make bunny ears – using two hands show me different ways to make 1, 2 and 3.  Create the numbers using numicon.  When children are playing with small world – ask the children how many animals they have in one field, how many have we got in the other? | If I have 1 and 1 there will be 3? – Children should recognise this is incorrect and say the correct answer. Encourage children to use fingers or equipment to show the correct answer. | Place 1, 2 or 3 items into a feely bag. Ask the children to feel inside the bag and try to count how many there are without looking. Count to check. |
| **Children count on and back to four.**   * Count objects, actions and sounds up to four to find how many. * Subitise sets of up to 4 objects to find how many. * Match number names to numerals and quantities. * Able to say which set has more or fewer items. * Use own mark marking to represent numbers to 4. * Final number they say is the quantity. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). | Children could make their own collections of up to 4 items.    Set up a number hunt outside. In the pictures have 4 represented in different ways. | When counting children able to self-correct if a mistake has been made or highlight the mistake someone else has made.  e.g. there are 4 items but they only count 3. Child may respond with ‘there are 4! You didn’t count this one.’  Recount then with the child leading that. | With the children count how many items are in a hidden bag? Ask the children to watch as you add one more item to the hidden group. How many will there be now? What if you take one out? |
| **Subitise up to 5 items.**   * Count forwards and backwards and backwards with 5. * Represent up to 5 objects. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). | * Use 5 frames to represent number. * Link in children’s birthdays when counting forward. * Counting 5 on fingers. ‘Show me five’. ‘let’s count back from 5’ * Use 5 bean bags, fly swatters, numerals 1-5 and a bucket or hat. Arrange the numerals around the edge of an area. Hide a quantity of bean bags under the bucker to hat and then reveal. Children subitise how many and then run to swat the correct number. | Children able to show more than 1 way to show 5 using their fingers. |  |
| **One more and one less.**   * Count, subitise and compare number. | Use five frames to represent number and predict how man there would be if you add one and subtract 1.  Use songs and stories e.g. 5 current buns/five little ducks | Show/ say an incorrect way when showing one more or one less.  Children should then pick up on the mistake and then correct what you have done. |  |
| **Introducing Zero**   * Know the number name zero. * ‘0’ in relation to ‘nothing there’ and ‘all gone’ | Popular counting back songs like 5 little monkeys jumping on the bed. – Children could predict how many monkeys would be left on the bed after one falls off.    Encourage children to represent numbers including zero.  ‘Show me 3 fingers, show me 5 fingers, show me 0 fingers’  ‘Can you park zero cars in this space?’ | Adult to say there are zero apples on the tree when there are more than zero. Children would then correct this mistake and could draw a tree showing zero apples. | Children independently recording zero in games they play that may involve scoring. Able to say there is zero and what zero means for that score. |
| **Comparing numbers to five**   * Continue to recognise that quantities can be more than, fewer/less than or the same as. | Is it fair?  Has everyone got the same?  Use snack time to reinforce the language use of comparing.  ‘Hold up more than 3 fingers, fewer than, the same’.    Make towers using pebbles – who can make the tallest tower?  How many pebbles are in each tower? Does your tower have more or less? | Hold up the incorrect number of fingers e.g. I have more than 3 fingers showing but hold up less than 3. Children should then recognise this mistake and give examples on how to make it correct. | Whilst children are in their continuous hear the language being used independently – being able to comment on if something is fair or unfair due to the quantities they have. |
| **Composition of 4 and 5**   * Explore and notice the different compositions of 4 and 5. | Encourage children to Subitise (instantly recognise these small quantities without counting) throughout this objective.  e.g 5 can be made up of 1+1+1+1+1 or 3+2 | Mistake made in composition of number and would want to see the child self-correct or child is able to correct someone ese and show how to make it correct. |  |
| **Represent, count and compare 6, 7 and 8 in different ways.**   * Continue to apply counting principles. * Count out required number of objects from a larger group. * Order and compare representation. * Continue to recognise one more/less as they count on/back to 8. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). |  | When counting, miscount the number of objects etc – expect children to self-correct or correct others and prove how to do it correctly. | Children independently able to represent and count 6,7,8. They are confident in representing these in different ways and will do so independently in their play. |
| **Making pairs**   * Begin to understand a pair is two. * Children to arrange small quantities into pairs. * Begin to notice some quantities will have odd one. | Draw children’s attention to when objects are grouped into twos and calling this a pair. | Have objects paired together with an odd one – ‘All my objects are in a pair’. Children should recognise that one of the objects is on its own and not in a pair. | Children independently pair items together. They could go on a pair hunt for items and are able to independently pair items together. Recognising that pair is two. Able to clearly explain their pairing rules. |
| **Combining two groups.**   * Combine two groups to find out how many altogether. * Children continue to practise subitising. |  | When combining two groups together. |  |
| **9 and 10**   * Apply counting principles when counting 9 and 10 (forwards and backwards) * Represent 9 and 10 in different ways. * Arrange 9 or 10 items into small groups * Notice that a 10 frame is full when there is 10 * Subitise 9 and 10 e.g. I know it is 9 because I see 3,3 and 3/ 4 and 5. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). | Show children a number card and ask them to show you the number using their fingers or other objects.  Finding 9 and 10 using numicon.  Ask children to count out 9 or 10 objects. Can they find different ways to arrange their objects?  Show me 10 beads on a bead string. Show me 9. | Have number cards lined up. Hide one of the cards – can the children spot which one is missing?  Ask the children to help you order a set of number cards up to 10. As you do this, make deliberate mistakes. Can the children spot these and correct you? | Within children’s play, they independently use their knowledge of counting forward and back with 9 and 10. They represent 9 and 10 in the games they play in writing and using objects from their environment. This is done without support. |
| **Comparing numbers to 10.**   * Make comparisons by lining items up with 1-1 correspondence (match number to object) to compare directly or count each set. * Begin to compare/order 3 or more quantities. | Grab a handful of buttons and count them out onto a tens frame. Children then take it in turns to grab some buttons and count them onto a tens frame. Use these to compare. | Using dominos, children find the domino with 7 spots. Find 6 for fewer but place as more than. Child to spot this mistake and order correctly. | During times in the day children can be using this language independently with numbers up to 10. E.g. voting on a class book/ comparing snack or toys with their peers. ‘you have more than me. You have 8 and I have 5’. |
| **Bonds to 10.**   * Explore number bonds to 10 using real objects in different contexts e.g. there are 10 apples. | Use tens frames of egg boxes. Partially filled – how many more do we need to make 10? Can also use bead strings/fingers.    Provide each child with a numicon piece. Ask them to find a partner who can complete the numicon piece to make 10.  10 hunt: draw a large tens frame on the ground outside. Hide 10 of the same object e.g. duck for children to find. As they children are finding them keep bringing them back to how many they already have and how many more they need to find. | With a tens frame, have 6 spaces filled in. Say to the children you need three more objects to complete the tens frame. Expectation of children to correct and say that 4 more are needed not three. | How many ways can they find to park 10 cars in 2 car parks? Encourage independency when doing this. |
| **Building numbers beyond 10**   * Build and identify numbers to 20 and beyond. * Use tens frames, bead strings, tower cubes. * Provide opportunities for children to recognise that numbers 1-9 repeat after every full 10. | Prepare some number card with numbers up to 20 (and beyond when necessary) show children the number card – they say the number then represent it using numicon.  Children to have number card and pictorial cards representing number – play snap. | Incorrectly match number to representation. Children should correct this mistake. | Provide black outlines of a cityscape for the children to fill using numicon. Independently they see which number fills each tower. They see if they can find more than one way of doing it. They could then go on to create their own cityscape for their peers to complete. |
| **Counting patterns beyond 10.**   * Count on beyond 10 * Count back beyond 10 * Count on and back from different starting points | Provide children with representations which clearly show full 10s and part of 10 e.g. 14 one full 10 and 4.  Use of a number line and 100 square to support children.  Play a game ‘I count, you count’ – blue is what the adult says, red is what the child says 4, 5, 6 7,8,9, 10, 11, 12, 13,14,15 etc. 12, 11, 10, 9, 8, 7 etc.    Race to 20. Provide children with a number line and counter. Children take it in turns to roll a dice and move the number of spaces. Whoever gets to 20 first wins. Board games such as snakes and ladders can also support learning. | Tell the children you are going to make the number 17 on a tens frame. Fill in the incorrect number on the tens frame. Children should recognise the mistake and correct it. |  |
| **Adding more**   * Use real objects to see quantity of a group can be changed by adding more. * Can use language of first, then, now. * Children may start by recounting objects to find total. Once confident encourage children to count on. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). | Use tens frames, fingers to support children with number stories.  First I had 5, then I added 2 more, now I have 7. | When adding more make a mistake when adding on. Children to correct the mistake. | Children to create their own first, now and then stories using small world to support them. You would be expecting to see the children doing this independently. |
| **Taking away**   * Use real objects to see a quantity of a group can be change by taking items away. * Children able to count items to start and take away required amount practically. * Children able to Subitise or recount number left. * Children able to link the number symbol (numeral) with its cardinal number value (how many of something). | Use tens frames, fingers to support children with number stories.  Ask the children to show you 5 fingers and then to show you 4. Prompt the children to notice that one less is the same as taking away one. Extend to taking away two fingers or 3 and noticing how many are left each time. | When taking away make a mistake and encourage children to correct the mistake. They could prove this by showing it on a tens frame to support their explanation. | Children able to play independently: Pick a number card and count out the corresponding number using whatever they wish. One player covers their eyes whilst the second ‘steals’ some of the objects, hiding them in their hand. The first play has to work out how many object shave been stolen. |
| **Doubling**   * Know double means twice as many. * Able to build doubles using mathematical equipment and real objects. * Able to build numbers using pair-wise patterns on 10s frames. * Children able to say doubles as they see them e.g. double 2 is 4. * Children able to sort and explain doubles. | Children given the opportunity to see doubles in mirrors/ in barrier games.    Play match my quantity: The children sit opposite each other in pairs with a barrier between them and a collection of small items such as pebbles or cubes. One child sets out a quantity. They show their partner quickly and then hide again. Their partner matches the quantity. Then the barrier is removed. Check – is it a double? Which double have we made?  Children take it in turns to roll 2 dice. The score a point each time they roll a double. The first to reach 3 points wins the game. | When playing the barrier game you could deliberately make an incorrect quantity and encourage the children to recognise the mistake and correct it. | Provide a ladybird or butterfly templates and ask the children to draw or us the tweezers to pick up objects to make doubles by adding the same number of objects (pompoms) to each side. How many different doubles can they make? Can they make one which is not a double and tell you why? |
| **Sharing and grouping**   * Able to share items equally. * Able to show how to share fairly. * Able to make equal groups. | Provide opportunities for the children to share items equally e.g. sharing cards before playing a game. Sharing a given number of counters.  This could be achieved during snack time.  Using small world – ask the children to make groups using the small world animals. Can they make groups of 2? What happens if they make groups of 3? | Able to recognise a mistake in sharing equally and explain why.  Show the children a bowl of strawberries. Explain that you are going to share them into 2 equal groups so there will be half for you and half for your friend. Put a handful straight onto each plate without counting – make sure that one plate clearly has more strawberries than the other. Ask the children if it is fair? Prompt them to explain why this isn’t fair and then ask them to show you how to share these strawberries fairly? What happens if another friend arrives? Expect children to say we need to share all the strawberries into three groups equally not 2. | When sharing equally and there are items left – children to independently share ideas on how to share or group these.    Expect children to be doing this independently. |
| **Even and odd**   * Children begin to understand that some quantities will be shared into 2 equal groups and some won’t. * Children able to notice some quantities can be grouped into pairs and some will have one left over. * Able to build pair-wise patterns on a 10s frame. | Ask 5 children to come to the front. Can we group the children into pairs? Does anyone not have a partner? Why not? What could we do to solve this problem?  Use of the language ‘we have 1 left over because there are an odd number of children’ | After pairing something successfully say that the quantity is odd. Children should correct this by saying ‘no it is even because everyone is in an equal group.’ |  |

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| **Reception** | | | | |
| **Geometry** | | | | |
| **Objective** | **Skill it** | **Apply it** | **Deepen it** | **Mathematical talk** |
| **Match and sort identical objects by recognising what is the same and different.** | When given objects e.g. socks/wellies they match them together.  Provide children with a selection of shapes that have been drawn around – children match to the correct outline.  Children group by: colour, texture, size. Could be sorting blocks in construction or sorting beads into pots.   * Read the story of Noah’s Ark – talking about matching animals. * Snap card games * Button box | Able to recognise if a match or sort has been done incorrectly and are able to explain how to make it correct.  Can you find something that doesn’t belong?  Find the odd one out.   * Adult join children in their play during constructions. Can we build towers that match? Do they look the same? Explain why not if needs be. Create an opportunity for the children to spot a mistake and correct it. | Children able to find something that matches the object given to them that is in a different environment or time.  Provide children with objects already sorted and they have to come up with the rule on how it has been sorted. Any sensible rule is correct.   * Give child one item with its pair being hidden outside for child to find. | Match, sort, same, different, group, cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, rectangle, square, shape, flat, curved, straight, round, solid, corner, face, side, make, build, draw, over, under, underneath, above, below, top, bottom, side, on, in, outside, inside, in front, behind, front, back, before, after, beside, next to, middle, up, down, forward, backwards, sideways, close, far, though, towards, away from, side, roll, turn, what is the same? What is different, is the pattern correct?, what do you notice about the pattern?, can you make the same sound pattern? Can you make a different sound pattern? Which shapes can you build? Is there more than one way to build the shape? What shape can you make when joining two squares? Two triangles? Can you find a shape like this? Can you build a larger/smaller triangle than this one? Is there more than one way to make this shape? |
| **Recognise and copy repeating patterns.** | Children shown patterns that include three full units of repeat AB AB AB to copy.  Red brick, blue brick, red brick, blue brick, red brick, blue brick.  Shown in a range of contexts and ways e.g. sounds, actions, colours, shapes and sizes.  e.g. In and out the dusty bluebells.  Children say patterns and create their own patterns. |  | Children create their own patterns for others to follow – sharing the rule with others independently. |
| **Triangles and circles.**   * Know that circles have 1 curved side. * Know that triangles have 3 straight sides | Children can build their own circles and triangles.  Go on a shape hunt for circles and triangles in everyday objects.  Mark make their own circles and triangles.  During all activities adults to highlight the feature of triangles and circles.  Use 3D shapes to print triangles and circles using the flat faces. | Miss name a shape in their play – children should correct and encourage them to explain why.  Shape jigsaw boards – try and match a triangle with a circle hole. Child should recognise the mistake and correct this, explaining why it won’t fit. | Children to use different resources (e.g. sticks, rope) to independently create their own triangles and circles in different sizes.  Is it possible to make a circle out of sticks? |
| **Spatial awareness**   * Use positional language | Language model by adults – next to, on, over, under, around, though, behind.  Build life size journeys and explore these from different perspectives.  Where shall we put the car? Where shall we but the horse? Use small world to create models. When doing this highlight positions of different objects.  Language use during tidy up time.  Share the story of ‘Going on a bear hunt’ when reading highlight the prepositional language being used. | Place something in small world incorrectly. Say clearly where you have placed the object. Child should pick up on the wrong positional language being used and either correct the language or place the object where the adult said it was in the first place. | Children create their own treasure hunts for their peers to follow. They give different clues which use prepositional language. Children should do this with increased independency. |
| **Shapes with 4 sides.**   * Name a square/rectangle * Know squares/ rectangles have straight sides and 4 corners. * Be taught that squares are special rectangles. | * Children given the opportunity to build their own squares and rectangles. * Go on a shape hunt for squares and rectangles. | Miss say a shape and the children should correct you.  Explain why a shape is a square e.g. this is a square because it has 4 straight sides and 4 corners. | Is there more than 1 way to make this shape?  Use matchsticks to build squares and rectangles. What’s the smallest size you can make? How many match sticks did you use? |
| **3D shapes**   * Explore and manipulate 3D shapes through block play and modelling. * Recognise which shapes stack, roll, and why. * Provided with opportunities to build and construct their own 3D shapes in different ways. * Introduced to the names of 3D shapes. * Explore similarities and differences between 3D shapes in their play. * Compose and decompose shapes so that the children recognise a shape can have other shapes *within* it. | Go on a 3D shape hunt.  Children make 3D shapes out of playdough. Conversations had whilst the children make them about the names and properties. Can this shape roll? Can we stack this shape?  Could we build a staircase out of the shapes we have here? Provide children with a range of 3D shapes.  Find 2D shapes within 3D shapes to support the children when exploring similarities and differences. | Miss name a shape and encourage children to correctly tell you the name. | Hide a shape from the children. Describe some of the properties to the children for them to guess what it is.  Children independently use 3D shapes to support them in constructing what they wish. They problem solve independently when something isn’t working in the way they want it to and are able to find a solution.  Can you build a shelter to keep everyone dry? |
| **Pattern (needs 3 full units of repeat).**   * Introduce more complex patterns * Explore patterns which use items more than one in each repeat e.g. ABB/AAB/AABB * Able to describe, continue and copy patterns. | Provide opportunities for the children to describe, continue and copy patterns including movement pattern along a line or around a circle: stand, sit, stand, sit, stand, sit. Hands on heads, hands down, hands on head, hands down, hands on heads, hands down. Etc. | Introduce patterns with a deliberate error. This could include an extra item, a missing item or a muddled unit of repeat. Can the children identify the mistake and put it right? | Show the children examples of fabric showing patterns from different cultures or traditions. Encourage the children to discuss the patters and recreate them. Children then independently design their own patters in a similar style. |
| **Spatial Reasoning**   * Use positional language. * Understand shapes can be combined and separated to make new shapes. * Combine shapes in different ways. * Fit shapes together and brake shapes apart – notice the new shapes created. * Understand places and models can be replicated. * Look at replicated places and models from different positions. * Replicate simple constructions, models, places in stories. * Make maps and plans to represent places and use them. | Regular opportunities for children to complete jigsaws and shape puzzles. Why did you choose this shape?      Set up a small world scene and ask the children to describe where things are in relation to other things. Then ask them to move around and look at it from a different view point. Does it look the same? What do they notice?  Show the children some different maps, lots of books have maps of the story setting. What can you see on the maps? Which map do they like best? Why do we need maps? Children draw their own map of the places in the story.  Children could make a map of the classroom – what can you see on the map. Children will use positional language when drawing their map e.g. the door is next to the board. The toilet is in the make it room.  Provide the children with a map of the outdoor area with an obstacle course. Children use the map to create the obstacle course to be able to use it. | Why does this shape not fit?  Provide some paper rectangles, squares and triangles. Encourage the children to predict which new shapes will be made if the shapes are folded or cut in different ways. Children encourage to explain their prediction and can then move on to investigating to see if they predicted correctly. | Investigate how many different ways a given shape can be built using smaller shapes independently.  What shapes can you build? Can you make them in more than one way?      Provide each child with a set of items the same as yours. Provide verbal instructions as you arrange your items for the children to follow. They can’t see your items but do it through the positional language given. Compare the finished arrangements to see if they look the same. Do the same activities but the children are the leader.  Challenge the children to solve problems on a large scale: the playground is a crocodile-infested swamp. How could we rescue teddy without putting our feet on the ground?  Children given a treasure map to follow ‘X marks the spot’! |
| **Patterns and relationships.**   * Children explore and investigate relationships between numbers and shapes. * Children able to copy, continue, and create patterns and symmetrical constructions. | Show the children a set of Cuisenaire rods. How many green rods measure the same as one blue block? What other relationships can they find? Can they find a block that is double the length of another block? How could they check? | Show the children one rabbit. How many ears do you see? Add another rabbit? How many ears do you see because I see five? Children should correct you hear. Continue to add rabbits each time and encourage the children to recognise 2 ears get added each time. | Children independently using their knowledge of patterns and relationships between shapes and numbers in their play. This can come through in construction or model making. |

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| **Reception** | | | | |
| **Measurement** | | | | |
| **Objective** | **Skill it** | **Apply it** | **Deepen it** | **Mathematical talk** |
| **Compare and order size, mass and capacity.** | What could fit in the box?  Which sized item fits where?  Children could create homes for different sized bears.  Sort items they find into different piles – large/small etc.  Provide the children with a large bucket and a small bucket. Children to fill each bucket with sand and count how many scoops it takes. | Children able to explain why an item wouldn’t fit in somewhere  e.g. ‘it is too short/long/tall’ | * Children to be using comparison vocabulary when playing with peers and able to problem solve when something doesn’t fit to find an appropriate size. * Guess my rule. * Get the children to secretly create their own rule for their peers to guess. * Add a set of balance scales to the playdough area. Children can then compare mass of different sized balls. Problem solve to try and use the scales to balance equal sized dough balls. * What else can we find that weighs the same as your ball of dough? * Baking cupcakes.   Provide a range of different sized and shaped containers and some pebbles. Ask the children to half-fill their containers with water. What happens to the water if they add pebbles to their container? How many pebbles will the need to make the containers overflow? | Short, tall, long, night, day, morning, afternoon, before, after, today, tomorrow, heavy, heavier than, heaviest, light, lighter than, lightest, longer, shorter, taller, wider, narrower, now, soon, before, then, next, after, yesterday, full, half, empty, holds, container, weigh, weighs, balance, scales, times, days of the week: Monday, Tuesday etc., seasons: spring, summer, autumn, winter, days, wee, month, year, weekend, birthday, holiday, bedtime, what else weights the same? What do we need to do first? What do I do next/after that/ then? How many minutes did you take? Who was the fastest? Did they take more minutes or less minutes than you? Which is the heaviest/lightest? How can we balance…? Who threw the furthest? How could we check? Who is the tallest person? How do you know? |
| **Night and day**   * Talk about night and day * Order key events in daily routine * Use time language events happen. * Measure time in simple ways e.g. counting number of sleeps to important events. | Use visual timetable within the classroom that is referred to throughout the day.  Use pictures to order familiar activities.  Use stories and non-fiction books to introduce the idea of nocturnal animals and explain that as we go to sleep some animals are waking up.  Put a calendar in the home corner for the children to mark their birthdays on. How many sleeps is it until… | How could you score more goals in the time you have?  How can we work out who came first?  Order something incorrectly for children to self-correct. They explain why they need to do something in the order they do. | Children independently using the visual time table within the classroom. |
| **Compare Mass**   * Make direct comparisons when estimating which object feels heaviest. Use balance scales to check. * Recognise that the bigger item doesn’t always mean the heaviest. | Bring in a heavy case or box and show the children it is hard to lift and carry because it is really heavy. Ask them if they have carried anything heavy. Discuss as a group what could be inside.  Children be a human balance scale – place an item on one hand and then on the other. They tip to the side of the heavier. This could be done using buckets of water adding more in and taking some out to change the balance scales. | Children able to discuss what could be inside a mysterious box because of its weight giving justified reasons for their choice.  E.G I think it could be a rock because when I picked a rock up on the beach it was so heavy. | Provide a selection of wrapped parcels of various shapes and sizes. Children independently compare parcels to see which are heavier and lighter than others. They could group these parcels in different ways e.g. heavier/lighter.  Are larger parcels always heavier? They are able to find the lightest/heaviest independently and use this vocabulary when sharing.  Show fully and empty using different material. Provide children with different sizes tall/thin/narrow/wide/shallow to investigate the weight of these items. |
| **Length and height**   * Begin to use language to describe length and height. * Make direct comparisons * Use objects, blocks or cubes to measure items.   Adults are mindful not to use the language of big. | Opportunities for comparing length and height will arise naturally during play. This could be they compare the height of their towers or the length of their roads. – Who has the longest scarf? Who can thread the longest string of beads?  Children could draw around their footprint and find objects around the room that are longer than or shorter than their foot.  With a group of children make comparisons by ordering their footprints in size order.  Provide the children a mixture of measuring tools to explore e.g. tape measure, ruler, trundle wheels. | Children may be building in construction – adult uses this opportunity to deepen vocabulary use by modelling the correct vocabulary being used. After this – adult could incorrectly describe two blocks e.g.’ this is the longer block’. Expect children to correct this language and use the resources to correctly describe. | Using dough: children independently use mathematical language relating to length as they play.  Challenge: provide children with different amounts of dough, which amount can make the longest snake? The shortest snake? Why has this happened?  ‘Let’s find something to measure these’ – children independently find something suitable to measure e.g. blocks, cubes etc. |
| **Time**   * Order and sequence important times in their day. * Recognise that regular events happen on the same day each week. * Describe and talk about specific events in their lives. | Ask children to see how many tasks they can complete in one minute/ how many circles they can draw in a minute etc. | Children able to actively say the order of events with little support. They can recognise if something in their day has been done in the wrong order. Can spot a change in the visual time table and then has a discussion around this change. | In own play children use stop watches/ hour glass to time activities they do with peers. |

**Knowledge of the World -Geography focused**

At the end of their preschool year, we expect children to be able to:

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|  | **Knowledge of the World** |
| **Preschool (3-4 yr olds)**  Enquiry:  I wonder what it is like to be a ………… (fire fighter)?  I wonder if people all the same?  I wonder what lives in cold/hot places? | **Children:**   * Recognise and name features in their environment **e.g. road, path, stream, house, farm.** * Are able to explore and learn about the different jobs that people in their community do **e.g. cleaner, chef, vet, doctor, firefighter, check out assistant and farm worker.** * Begin to learn specific vocabulary related to different jobs **e.g. fire hose and uniform, aprons and gloves** * Develop an understanding of difference and diversity, challenging stereotypes through learning about different occupations **e.g. firefighters are male and female from different nationalities and backgrounds** * Know that there are different places (countries) in the world and that these are different in terms of people and nature **e.g. exploring the lives of the Eskimo people, who live in the Arctic region and subarctic regions (Greenland, Siberia and Canada) and the learning about the animals that live in these cold places (Polar Bears, Arctic foxes…); and or exploring the different people (rural and urban) and animals in Africa (Giraffe, elephant, zebra, lion…)** * Learn about the different animals in different countries **(polar bears, arctic foxes, giraffes, elephants)** and are able to talk about these (using simple picture globes/atlases and books) * Know about different animals in a local place (Eastnor Park) **e.g. butterflies, ducks, fish** * Children recognise and talk about the changes in the weather **e.g. knowing it is raining today, but that it was sunny yesterday.** They know that it is important to dress for the weather to keep ourselves healthy and well. |
| **Reception 4-5 yr. olds** | * Are able to talk about different occupations and people they know in their community. They use specific vocabulary in regards to this **e.g. nurse, injection, vaccination, medicine, healthy.** * Are able to learn about their local environment (Bromesberrow) and the local town by visiting the place and making maps/observational drawings of landmarks * Know the address of the school **e.g. Albright Lane in Bromesberrow** * Can identify and recognise landmarks from their environment **e.g. the Ledbury Market House, the Market House Theatre, the swimming pool, the Clock Tower.** * Develop their vocabulary to describe place **e.g. church, spire, weather vane, stained glass, grave yard, grave stones, altar, pew** * Children are able to draw their own maps of animals within different places, using books and picture atlases to support them in this **e.g. drawing the Arctic and adding in arctic foxes, polar bears**, **Narwhals and Beluga Whale**s **and/or Africa with lions, elephants, giraffes** * Are able to draw maps of places locally **e.g. visiting Eastnor park and drawing maps to include the Obelisk, Eastnor Castle, Midsummer Hill, camping fields, lakes, roads and paths, stream, Muntjac deer, rabbits, grass snakes, fish, ducks, butterflies, bees, mayflies…** * Know that there are different seasons and that changes happen **e.g. the leaves change colour and begin to fall from the trees in Autumn and the days get shorter in Winter.** |
| **Geography Early Years Vocabulary**  **Preschool:** road, path, village, town, house, trailer, farm, shop, park, school, map, beach, forest, seaside, river, place, church, weather, rain, sun, snow, country, , people, nature, Inuit/Eskimo, fishing, igloo, furs, cold, Polar bear, Arctic fox, Arctic Woolly Bear Moth, Arctic Hare, Beluga Whale, Narwhal, Reindeer, Snowy Owl Africa, tribe, ‘black and white’ skin, giraffe, elephant, zebra, lion, hippopotamus, rhinoceros, Eastnor,Eastnor Castle,Obelisk, hill, fields, lakes, rabbits, butterflies, fish, ducks, bees, mayflies.  **Reception:** road, path, village, town, house, farm, shop, park, school, map, beach, forest, seaside, river, farm park, street, motorway, caravan park, flat, bungalow, natural, man-made, maps, plans, landscapes, journeys, similar, different, place, church, spire, weather vane, stained glass, graveyard, gravestone, altar, pew, Ledbury Market House, Clock Tower, Market House Theatre, Swimming Pool, park (the Rec), Inuit/Eskimo, fishing, igloo, furscold, Polar bear, Arctic fox, Arctic Woolly Bear Moth, Arctic Hare, Beluga Whale, Narwhal, Reindeer, Snowy Owl, Africa, tribe, ‘black and white’ skin, giraffe, elephant, zebra, lion, hippopotamus, rhinoceros, Eastnor,Eastnor Castle,Obelisk, Midsummer Hill, camping fields, lakes**,** Muntjac deer, rabbits, grass snakes, butterflies (peacock, meadow brown, red admiral, painted lady, tortoiseshell, common blue, cabbage white, brimstone), grass snakes, fish, ducks (moorhens, coots, mallard), bees (bumble and honey), mayflies. | |

**Preschool Knowledge of the World –History focused**

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| **Preschool (3-4 yr olds)** | **Children:**  **Linked to Toys (Past and Present)**  Begin to make sense of their own life-story and family’s history.  Are able to share and learn from the life story of other families  Begin to understand the concept of past and present **e.g. noticing that trains from the past are different to the trains of today**  Explore and describe artefacts from the past, using taught and known descriptive vocabulary **e.g. using taught vocabulary to describe old teddies**  Use developing taught vocabulary to describe objects from the past and present  Learn about the past from different experiences ***e.g. books, hands on visits (Perrygrove Railway), from visitors, artefacts, videos and internet resources (Merrythought Factory)***  Connect with the past in their local area  Connect with the past through stories and non-fiction texts **e.g. Lost in the Toy Museum, Dogger, Old Bear and Nothing**  **Children:**  **Linked to explorers**  Begin to make sense of their own life-story and family’s history **e.g. what different occupations have the people in their family now and in the past**  Are able to share and learn from the life story of other families **e.g. sharing the occupations of different people now and then**  Begin to understand the concept of past and present **e.g.** **know that there were explorers in the past and explorers now**  Explore and describe artefacts from the past, using taught and known descriptive vocabulary  Use developing taught vocabulary to describe objects from the past and present e.g. objects used by and found by explorers  Learn about the past from different experiences e.g. books, hands on visits, from visitors, artefacts, videos and internet resources e.g.  Connect with the past in their local area  Connect with the past through stories and non-fiction texts **e.g. The Great Explorer by Chris Judge**  **Children:**  **Linked to technology and seaside (Past and Present)**  Begin to make sense of their own life-story and family’s history.  Are able to share and learn from the life story of other families  Begin to understand the concept of past and present **e.g. how the telephone has changed and developed.**  Explore and describe artefacts from the past, using taught and known descriptive vocabulary **e.g. an old typewriter to a modern computer and keyboard or an old sewing machine compared to a new sewing machine**  Use developing taught vocabulary to describe objects from the past and present  Learn about the past from different experiences ***e.g. books, hands on visits, from visitors, artefacts, videos and internet resources (virtual tours of the seaside)***  Connect with the past in their local area **e.g. visiting the Butcher’s Row museum to look at how objects have changed**  Connect with the past through stories and non-fiction texts |
| **Reception 4-5 yr. olds** | **Children:**  **Linked to Toys (Past and Present)**  Are able to understand chronology in relation to a life timeline and they can demonstrate this understanding by creating their own timelines **e.g. timelines of families and of transport**  Understand the chronology of yesterday, today and tomorrow  Begin to gain an understanding of time words beyond this e.g. weeks, months and years  Use clues from the past **e.g. when looking at artefacts and photographs to explain why something is from the past, they didn’t have plastic in the past or we don’t have planes like that now.**  Use developing taught vocabulary and from their own experiences to describe objects from the past and present **e.g. it is an old bear as it is ragged and has a bald patch near his eye.**  Learn about the past from different experiences **e.g. books, hands on visits (Perrygrove Railway), from visitors, artefacts, videos and internet resources (Merrythought Factory)**  Connect with the past in their local area and be able to recognise things from the past **e.g. The Viaduct was built before my gran was born. It carries the train across, like a bridge.**  Connect with the past through stories and non-fiction texts and be able to offer descriptions, comparisons and observations **e.g. Lost in the Toy Museum, Dogger, Old Bear and Nothing.**  **Children:**  **Linked to explorers**  Begin to gain an understanding of time words beyond this e.g. weeks, months and years  Use clues from the past **e.g. using maps to learn about places explored and discoveries found by explorers like Christopher Columbus and Jeanne Baret.**  Use developing taught vocabulary and from their own experiences to describe objects from the past and present **e.g. using descriptive vocabulary to describe some of Columbus’s discoveries like yams, potatoes, pineapple, peppers, cocoa, vanilla, papaya, squash corn, tomatoes, peanuts, cotton and avocados**  Learn about the past from different experiences e.g. books, hands on visits, from visitors, artefacts, videos and internet resources  Connect with the past in their local area and be able to recognise things from the past **e.g. understanding that the potato (one of Herefordshire’s main crops) came from Columbus’s discoveries and that the tomatoes grown in school are from the Americas too.**  Connect with the past through stories and non-fiction texts and be able to offer descriptions, comparisons and observations **e.g. The Great Explorer by Chris Judge**  **Technology and seaside holidays from the past**  **Children:**  Are able to understand chronology in relation to a life timeline and they can demonstrate this understanding by creating their own timelines **e.g. seaside then and now**  Understand the chronology of yesterday, today and tomorrow  Begin to gain an understanding of time words beyond this e.g. weeks, months and years  Use clues from the past **e.g. when looking at artefacts and photographs to explain why something is from the past, like we don’t wear swimming costumes like that now.**  Use developing taught vocabulary and from their own experiences to describe objects from the past and present **e.g. being able to compare seaside from the past and present**  Learn about the past from different experiences  Connect with the past in their local area and be able to recognise things from the past **e.g. The bath tub in the Butcher’s Row museum isn’t like mine at all- we have running taps and electricity to power the shower.**  Connect with the past through stories and non-fiction texts and be able to offer descriptions, comparisons and observations |
| **Preschool:** Now, then, old, new, past, present, older, younger, mother, father, grandmother, grandfather, brother, sister (and other) different, same, history, time, toy, special  **Toys: teddy descriptive language**: rough, broken, bald, dirty, scratchy, soft, fluffy, cuddly, furry, clean; **toy use verbs**: push, pull, cuddle, play, **toy materials:** wood, metal, paper, train, car, plane, viaduct, inventor,  **Explorers:** Preschool: explore, explorer, now, the, past, present, describe, equipment, journey, travel, jobs (occupations)**Technology and seaside:** Now, then, old, new, past, present, telephone, telephone box, computer, laptop, ipad, digital/camera, robot, sewing machine, typewriter, seaside, beach, sun, sea, sand, sandcastles, bucket and spade, swimming costume, rock pool, ice cream, ice cream van, donkey rides, windmill, kite, pebbles, sun lotion, sun hat, beach hut, boat, shells, fish, starfish, lighthouse, seaweed, crab  **Reception:** Now, then, old, new, past, present, older, younger, mother, father, grandmother, grandfather, brother, sister (and other) different, same, history, time, timeline,  **Toys:** **teddy descriptive language**: rough, broken, bald, dirty, scratchy, soft, fluffy, cuddly, furry, clean, shiny, smooth, fuzzy, velvety, hard, silky; **toy use verbs**: push, pull, cuddle, play, twist, spin, slide, wood, metal, paper, clay, plastic and rubber, train, car, plane, viaduct, inventor, steam engine, coupler, railway tracks, change.  **Explorers:** explore, explorer, now, the, past, present, describe, equipment, journey, travel, Christopher Columbus, Jeanne Baret, maps, ship, sail, travel, ocean, America, yams, potatoes, pineapple, peppers, cocoa, vanilla, papaya, squash corn, tomatoes, peanuts, cotton and avocados,  **Technology and seaside:** Now, then, old, new, past, present, telephone, computer, laptop, ipad, digital/camera, oven, microwave, fridge, mobile phone, sewing machine, typewriter, television, radio, cassette, video, seaside, sea, donkey rides, sand dunes, sandcastles, swimming costume, bathing suit, rock pool, bucket and spde, ice cream van, windmill, deckchair, seagull, yacht, Punch and Judy, Pier, kite, pebbles, sun lotion, rock, beach, crab, sun galsses, sun hat, windbreak, beach hut, beach ball, boat, shells, fish, starfish, sea anemone, mussels, shrimps, seaweed, lighthouse, lifeguard, | |

**Preschool Knowledge of the World –Science focused**

**Working Scientifically in the Early Years:**

* I question why things happen **e.g. How come daffodils regrow every year and some flowers don’t?**
* I begin to use science words **e.g. the sea creatures all belong in this group and the birds in this one.**
* I can talk about things like plants, animals, natural and found objects **e.g. why do some trees lose their leaves in winter time?**
* I can create simple representations of people and objects **e.g. children draw an observational drawing of the human eye**
* I have my own ideas **e.g. what might happen if I mix this mud in the water? Will the water turn brown? Will the mud sink to the bottom?**
* I test my ideas **e.g. I wonder what will happen if I push this car down the ramp harder than last time?**
* I notice similarities and differences **e.g. this leaf is rougher compared to this leaf (which is soft and a little bit furry)**
* I can use my senses and look closely **e.g. I can hear that when I hit this pan it sounds deeper than the other one.**
* I use equipment and tools carefully.

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|  | **Knowledge of the World-Science** |
| **Preschool (3-4 yr olds)** | **Materials and their properties:**   * Children need to use their senses in hands-on exploration of natural materials e.g. when looking at leaves use senses to describe how they look, feel, sound and smell e.g**. the leave feels bumpy on the back, but smoother on the front.** * Children are able to explore different materials with similar/different properties to compare e**.g. looking at fabric materials and deciding which would be best to use for a waterproof den and investigating different bark patterns on trees** * Children are able to talk about the things they explore, building new vocabulary with the adults around them e.g. **this isn’t just a stick; it is a bendy and rough stick.**   **Changing Materials**   * Children notice changes in materials **e.g. ice cubes melting in the sun.** They recognise that these changes happen for a reason **e.g. ice cubes change to water because they are heated by the sun, which makes them melt.** * Through regular cooking opportunities, children recognise changes **e.g. when wet and dry ingredients are combined or when bread rises due to the effect of heat on the yeast ingredient.** * Children are able to compare objects that float and sink and begin to connect this to material propertied **e.g. the metal ball is heavy so it sinks, but the plastic ball is lighter and so it floats.** * Children see that light is ‘blocked’ by objects and notice the shadow formed **e.g. they spot a shadow of their hand and are able to share that their hand is blocking the sun.** * Children are able to use and explore new vocabulary taught through direct teaching and quality interactions **e.g. melting, heat, change, shadow, sunlight, heavier, lighter, floating, sinking…**   **Plants and Animals**   * Children know that a seed needs soil, water and sunlight to grow **e.g. they notice that a plant left in a pot with no water will wilt and die or that plants that are overwatered will rot.** * Children are actively involved in the process of ‘growing’. They sow seeds, noticing changes as they grow and then produce new seeds, to when they decay (and can be used in the composting process) **e.g. they plant carrot seeds, nurture these. They harvest the root and taste this. One of the plats they leave to ‘go to seed’. They collect the seeds from this and take these home to grow their own next year.** * Children learn about animal life cycles, noticing and being curious about the changes **e.g. they watch caterpillars hatch, grow, change into chrysalises and then hatch out into butterflies.** * Children know that living things need care **e.g. that ladybirds need to be handled with care or they will be harmed and that pets depend upon us for food and water.** |
| **Reception: 4-5 yr. olds** | **Materials and their properties:**   * Children explore the world around them using their senses at a deeper level of play (demonstrating their prior knowledge and experiences of materials) e.g:   -When wanting to build a stage they decide not to use the foam blocks but use the crates and wooden blocks instead. They explain that the foam blocks are too squishy and soft and will not hold their weight. They choose the crate and wooden blocks because they are stronger and do not bend.  -When exploring best material to use to make a ‘boat that floats’, they decide that paper will become ‘soggy’, soak up the water and sink. They discard cardboard for the same reason, although they did suggest that it would take longer to become soggy and sink. They decide to use ‘plastic’ as they felt this would float and not soak water up. They choose to use small Lego. They notice that sometimes their Lego models will float and other times they will sink.   * Children use their vocabulary taught and acquired to explain their choices and reasoning whilst investigating **e.g. when describing the effect of water on paper using words like soggy, change, soaked, absorb, sink.** * Children learn more about materials and recognise that different materials can be used for different things **e.g. wool is good for soaking up a water spillage and is warm to wear.**   **Changing Materials**   * Children know that materials change, when ‘something happens’ e.g. they recognise that water can be changed by freezing it to make ice cubes and that these ice cubes can melt back to water; and that chocolate left in the sun will melt. They know that ‘heat’ and ‘cold’ make the change happen. * Children use an increasing range of vocabulary to explain changes from their observation **e.g. when the sun heats up the chocolate it melts. It becomes all sticky and runny, not hard like chocolate usually is. If you put it in a fridge chocolate becomes really hard, so hard that I cannot bite it.**   **Plants and Animals**   * Children use their senses to explore the natural world at a deeper level of play e.g: * They listen to the different bird calls of the blackbird and pheasants. They imitate these and can identify the birds from this. * They discover that we have quite a few different beetles and bugs around. They decide to make them some homes after listening to the story ‘Bug Homes’ by Clover Robin. They use the story to decide that the beetles will need sticks, canes and straw. They collect some sticks. The following day 2 children bring in straw from home. They work together to create some homes. * Children collect a worm in a bug pot. They look closely through the magnifier top. They notice the ‘saddle’ and the ridges on the worm. They decide to draw their own worms including these features. * Children learn to identify, name and describe some of the plants and animals they encounter regularly in their environment * They notice that the rain gauge has filled up more because it has rained heavily * They see the changes to the environment depending on the season, noticing that in Autumn the leaves change colour and begin to fall from the trees. * Children learn about their bodies and how these work e.g. my eyes let me see things, my teeth need cleaning and my hands need to be washed to keep germs at bay |
| **Early Years Science Vocabulary:**  **Preschool**: question, wonder, why, how, happen, change, test, ideas, think, similar, different, senses, equipment, tools, material, waterproof, investigate, persevere, explore, pattern, heat, melt, grow, animal, plant, seed, sun  **Reception:** question, wonder, why, how, happen, change, test, ideas, think, similar, different, senses, equipment, tools, material, waterproof, investigate, persevere, explore, pattern, heat, melt, grow, animal, plant, seed, sun, absorbent, seasons, senses, environment, habitat, freeze, heat | |

**Computing**

**Preschool:**

In preschool we focus on the core goals and providing children with opportunities to explore technology and engage with a range of software. Our provocations provide stimuli to develop children’s understanding of technology e.g. Bee Bot directions, recordable microphones, hand held microscopes and sound buttons. The ‘I can statements’ are our curriculum aims for preschool (these have been adapted from Stem.org)

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|  | **e-Safety** | **Programming** | **Handling Data** | **Multimedia** | **Technology in our Lives** |
| **Foundation Stage 3-4 yr. olds** | * I can ask an adult when I want to use the Internet. * I can tell an adult when something worrying or unexpected happens while I am using the Internet. * I can be kind to my friends. * I can talk about the amount of time I spend using a computer / tablet / game device. * I am careful with technology devices. | * I can make a floor robot move. * I can use simple software to make something happen. * I can make choices about the buttons and icons I press, touch or click on. | * I can tell you about different kinds of information such as pictures, video, text and sound. | * I can move objects on a screen. * I can create shapes and text on a screen. * I can use technology to show my learning. | * I can tell you about technology that is used at home and in school. * I can operate simple equipment. * I can use a safe part of the Internet to play and learn. |

**Reception**

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|  | **e-Safety** | **Programming** | **Handling Data** | **Multimedia** | **Technology in our Lives** |
| **Foundation Stage** | * I am learning that I need to ask an adult when I want to use the Internet. * I can tell an adult when something worrying or unexpected happens while I am using the Internet. * I can be kind to my friends. * With support I am able to be careful with technology devices. | * With support, I can make a floor robot move. * With support, I can use simple software to make something happen. * I am beginning to make choices about the buttons and icons I press, touch or click on. * I can launch and quit a programme | * I am beginning to talk about different kinds of information such as pictures, video, text and sound. | * I can move objects on a screen, confidently with my finger and am learning with the mouse how to click and drag. * I can create shapes on a screen and am beginning to insert text e.g. inputting my name. * I can use technology to show my learning. | * I can recognise technology in school. * I can operate simple equipment with support * I can use a safe part of the Internet to play and learn. |

**Early Years Computing Vocabulary:**

**Preschool**: internet, tablet, computer, technology, beebot, robot, move, button, icon, open, close, start, information, pictures, video, text, sound, screen, safe, equipment

**Reception:** internet, tablet, computer, technology, beebot, robot, move, button, icon, open, close, launch, start, information, pictures, video, text, sound, screen, safe, equipment, press, touch, swipe, click, double click, drag, insert

**Expressive Arts and Design- Music focused**

**Preschool**

Preschool children have a very play based curriculum and musical skills are developed through the year, based on adult led activities based around the children’s interests, engagement with provocations and through quality interactions. Adults in the early years know the children really well and ensure that throughout the year they develop the follow skills, so that they are ready for their next stage in learning and, importantly, develop an early love for music!

**Reception**

Join in with Year 1 using Charanga music Scheme of Work

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| Preschool | Skills | Vocabulary |
| * Learn a repertoire of songs and be able to sing these from memory e.g. Once I caught a Fish Alive and Baa, Baa Black sheep (planned in as part of our Guided Reading approach) * Be able to ‘pitch match’, using a call and response e.g. adult sings in a low tone and child can imitate this. * Pitch match a variety of songs and tunes with and without words e.g. Rain, rain, go away and ‘la, la, la’ or ‘da de dum’ * Use their knowledge of pitch to be able to sing different melodies (changing their pitch to sing up high and low and the range in between). This is still developing in young children and will need practice to improve and broaden range. * Create and adapt their own songs e.g. ‘Twinkle, twinkle little car’ or ‘I saw three planes come flying in’ rather than ‘I saw three ships come sailing in’ * Be able to express themselves through percussion instruments e.g. choosing a low sounding drum and playing it slowly to show ‘sad’ * Begin to recognise and name some untuned percussion instruments | Listen  Copy  Tune,  pitch,  low,  high,  up,  down,  song,  sing,  clap,  rhythm,  rhyme,  instrument,  drum,  triangle,  maraca/shaker,  xylophone,  glockenspiel  beat,  shake,  tap,  pat,  strum,  feeling |
| Reception | Being able to copy clap the rhythm of the names e.g. this old man, five little ducks.   * -be able to clap the pulse in time with the teacher e.g. steady beat of the song * -Being able to explore high and low sounds using voice and glockenspiels * -Being able to sing along with nursery rhymes and action songs * -Learning to sing or sing along with nursery rhymes and action songs * -Improvising leading to playing classroom instruments * -Share and perform the learning that has taken place   Reception:   * -being able to keep the time with the pulse using clapping, shakers and drums * - being able to identify a high and a low sound with support and modelling * -be able to play a high and low note on a xylophone or glockenspiel * -be able to choose between two untuned instruments, which has the higher pitch * -being able to join in with clapping the rhythm * -be able to name a glockenspiel and a xylophone * Being able to explore and have a go at finding the pulse * -Copy clap the rhythm of small phrases of the song * -be able to explore high and low pitch, beginning to when a voice is singing in a high or a low pitch, as well as an instrument * -begin to respond to visual hand prompt to sing higher/lower pitch   -perform songs as part of the class and enjoy singing together   * to experience and engage with different types of music * -to be able to listen back and clap back simple phrases of music * -to begin to use the glockenspiel to play back a simple phrase * -to be able to play in time using a shaker or drum to keep the pulse with an adult   -develop listening skills to be able to clap back the rhythm of a short phrase  - begin to use notes to explore sounds and pitch using a Glockenspeil or xylophone   * - be able to play back a pattern using C and D notes * - Continue to explore high and low pitch through the context of the songs and be able to recognise these * - be able to find the pulse with support   -be able to play back a pattern using D and E notes  -be able to listen and find different notes and begin to gain a better understanding of pitch  -to be able to sing along with a track  -Know that a performance is sharing music with others  -be able to record and listen to their own music and begin to discuss | Pulse  Beat  Clap  Listen  Copy  High  Low  Sing  Song  Xylophone  Glockenspiel  Beater  Bars  beat,  shake,  tap,  pat,  strum |

**Expressive Arts and Design- Art and Design focused**

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| **Preschool**  Offer opportunities to explore scale. | **Skills** | **Vocabulary** |
| * Explore different materials freely, in order to develop their ideas about how to use them and what to make. * Develop their own ideas and then decide which materials to use to express them. * Join different materials and explore different textures. * Create closed shapes with continuous lines, and begin to use these shapes to represent objects. * Draw with increasing complexity and detail, such as representing a face with a circle and including details. * Use drawing to represent ideas like movement or loud noises. * Show different emotions in their drawings and paintings, like happiness, sadness, fear etc. * Explore colour and colour mixing. E.g what colour do we make when we mix red and yellow? * Show different emotions in their drawings – happiness, sadness, fear etc. * Find what helps them to stick different materials together (glue, masking tape etc.) | Shapes, mix, draw, paint, colour, lines, materials (e.g paper etc), feel, happy, sad, scared, face features (eye, nose etc.), stick, |

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| **Reception**  Reception are provided with opportunities to explore and use different equipment, resources and textiles throughout their adult led learning and play. | **Skills** | | **Vocabulary** |
| **Drawing** | * Experiment with a range of drawing tools and name them (pencils, felt tips pens, chalk, handwriting pens, charcoal, wax crayons, pastels, and pencil crayons). * Draw from observation, imagination and memory. * Draw on different scales (Small/Large). * Draw different kinds of objects e.g. cars, flowers. Talking about the shapes they see with adult support. * Draw up right (easel) and flat (table/floor). * Draw on/in different surfaces (in sand/ on playground with chalk). * Showing increased control to colour within the lines. * Hold the equipment they are using correctly. | Draw, shapes, thick, thin, line, colour, fill, bold, self-portrait, |
| **Painting** | * Explore different types of paint (ready mixed, powder, water colour etc.). * Use a range of applicators with adult guidance. * Children given the opportunity to use different consistencies or textures of paints. * Paint on small and large scales. * Paint upright (easel) and flat (floor or table). * Be given the opportunity to paint on different sized, shapes and coloured paper. * Name and recognise colours. * Start to experiment mixing different colours together (red, yellow, blue) * Paint objects, places from observation and imagination and be able to talk their paintings through with an adult beginning to show some likeness to what they wanted to paint. | sweep, dab, brushstrokes, colours, thick, thin (runny), large, small |
| **Printing** | * Explore printing with objects they find (sponge, vegetables, building blocks, hands, corks etc.). * Print patterns in a sequence with adult support. * Print on different surfaces (paper/ fabric). * Use stencils to create patterns. * Copy an original print with adult support. | Printing, sequence, patterns, stamping, rolling, pressing, |
| **Textiles** | * With support, sort threads and fabrics; talking about colours and textures. * Identify and talk about textiles in the environment, with adult support. * Make pictures using different fabrics and textures. * Weave with wool and recycled material. * Create simple collages using different papers and materials. * Collect different natural materials to create a temporary collage. | Texture (how does it feel?), thread, fabric, soft, hard, rough, smooth, shiny, weave, materials, fabric, over, under, collage, squares, gaps, cut, place, arrange. |
| **Clay** | * Be shown how to use clay safely. * Draw into clay using different tools. * Compare clay to other modelling materials such as playdough. * Press objects into clay and talk about what has happened. * Roll clay over different textures and discuss what they see. * Describe how the clay feels. * Make different objects out of clay and talk about them. | Model, tools, cool, hard, sticky, shapes, carving, |
| **Sculpture** | * Us a range of junk, found and natural materials to make models. * Use natural objects to create patterns on the ground. * With adult support, talk about properties of materials and name tools. * Use glue, masking tape and other fastening when making models. * Be able to talk about what the plan to make. * With adult support, talk about sculpture in the environment, what could it be made out of? * Use straws, pipe cleaners etc. to create structures and objects. * Explore how they can change the shape of different materials to support their ideas e.g rolling, scrunching, folding etc. | Sculpture, 3D/2D, model, pattern, twisting, rolling, folding, join, bend. |
| **ICT** | * Use a paint programme on the computer to create a picture from observations, memory or imagination. Explore the tools and talk about the different effects they make. * Use a digital camera to capture things of interest. | Colours, lines, shapes, zoom. |
|  | **Suggested artists/ knowledge** | Clarice Cliff – clay/ pottery.  Andy Goldsworthy, Anthony Gormley, Jean Arp – sculptures.  Jackson Pollock, Paul Klee, Kandinsky – colour.  Claude Monet - landscape painting.  Joan Miro – collage.  **Artwork from other cultures to consider:** Chinese Block Prints. |  |

**Preschool Expressive Arts and Design- Design Technology**

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| **Preschool** | **Skills** | **Vocabulary** |
| * Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel. * Use all their senses in hands on exploration of natural materials. * Explore collections of materials with similar and/or different properties. * Explore how things work. * Explore and talk about different forces they can feel. * Talk about the differences between materials and changes they notice. * Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. * Explore different materials freely, in order to develop their ideas about how to use them and what to make. * Develop their own ideas and then decide which materials to use to express them. * Join different materials and explore different textures. * Create closed shapes with continuous lines, and begin to use these shapes to represent objects. | Materials, same, different, directional words, tall, small, lines, stick, join, idea. |

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| **Reception**  Reception are provided with opportunities to explore and use different equipment, resources and textiles throughout their adult led learning and play. | **Skills** | | **Vocabulary** |
| Design | * Comment on images of familiar situations in the past. * Encourage children to notice features in the natural world. Help them to define colours, shapes, texture and smells in their own words. Discuss children’s responses to what they see. * With adult support, children given a range of materials to use for construction. They are able to talk about what they want to make with what has been provided. * Use gestures, talking and arrangements of materials and components to show design * Use contexts set by the teacher and myself * Use language of designing and making (join, build, shape, longer, shorter, heavier etc.) | Materials, same, different, idea, nature, colours, shapes, texture, smells, feel, build, longer, shorter, heavier, lighter, rough/smooth, flat/bumpy, |
| Make | * Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. * Create collaboratively, sharing ideas, resources and skills. * With adult support, use a range of materials and tools and use them with care and precision. * With support, children shown how to use glue and sticky tape to join materials. * Construct with a purpose, using a variety of resources * Select tools & techniques to shape, assemble and join * Replicate structures with materials / components * Discuss how to make an activity safe. | Directional words, tall, small. Lines, stick, join, tools, safe, knives, spoons, forks, scissors, screwdriver, glue, join, build, shape, |
| Evaluate | * Return to and build on their previous learning, refining ideas and developing their ability to represent them. * Discuss problems and how they might be solved as they arise. Reflect with children on how they have achieved their aims. * Adapt work if necessary * Consider and manage some risks * Practise some appropriate safety measures with increase independency * Talk about how things work * Look at similarities and differences between existing objects / materials / tools * Show an interest in technological toys * Describe textures | Good, improve, problems, What has easy? What was hard? What is the same/different? Risks, technology, texture, hard, soft. |
| Technical Knowledge - Textiles | * With support, sort threads and fabrics; talking about colours and textures. * Identify and talk about textiles in the environment, with adult support. * Make pictures using different fabrics and textures. * Weave with wool and recycled material. * Create simple collages using different papers and materials.   Collect different natural materials to create a temporary collage. | Texture (how does it feel?), thread, fabric, soft, hard, rough, smooth, shiny, weave, materials, fabric, over, under, collage, squares, gaps, cut, place, arrange. |
| Technical knowledge – food and nutrition | * Discuss how to make an activity safe and clean with an adult * Discuss use of senses * Begin to understand some food preparation tools, techniques and processes * Practise stirring, mixing, pouring, blending * Understand need for variety in food * Begin to understand that eating well contributes to good health | Safe, clean, five sense, food preparation tools (chopping board, pan, knives, spoon, fork etc), pour, blend, mix, stir, healthy, food. |