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| Kind HandwritingCute Aurora |
| Week Commencing: | White Rose Phase |
| EVERY WEEK | Throughout the classroom environment, children are given opportunities to practice, embed and deepen their mathematical understanding as part of daily practice. Mathematical resources and challenges are constant within continuous provision, seeking to promote a love of mathematics and a genuine interest in mathematical exploration. We follow the White Rose Maths Scheme of learning, which divides learning into areas of focus in order for learning to delve deeply into specific skills, with clear progression throughout the year. In accordance with this, there are constant opportunities to gain an understanding of: the one-one principle, the stable-order principle, the cardinal principle, the abstraction principle and the order-irrelevance principle. The BBC Series ‘Number Blocks’ is used to support early number understanding; it is a fun favourite of the children! |
| **EMERGENCY HOME LEARNING LINKS** | In the event of a class bubble or school closure, Robin Class will be provided with a ‘Maths Learning Grid’, which will include activity ideas and links to online games and resources to be used throughout the week to support learning. |
|  | WRM Guidance: | Teacher Directed Input Ideas: | Continuous Provision Ideas: |
| Week 1W/C: 04.01.2021Alive in Five | **Introducing Zero**The children will already have some practical understanding of ‘nothing there’ or ‘all gone’. Here, they learn that the number name zero and the numeral 0 can be used to represent this idea. The children should be given opportunities to apply this understanding within the classroom. E.g. There are 0 children playing in the sand. Number songs which count back help to develop the understanding that 0 is one less than one. | * Watch Numberblocks - S3:E5-Zero
* Learn ‘5 Little Monkeys jumping on the Bed’. Encourage children to take on the role of the 5 monkeys. Represent each verse with counters on a 5 frame, displaying the numerals alongside. Ask them to predict how many monkeys will be left as each one falls off the bed. What about the last monkey? How could we show this on our 5 frame? Which numeral should we use?
* Provide examples contrasting familiar numbers with 0 to support the children’s understanding that 0 represents the absence of something. How many apples on each tree? How many people on each bus? Which field has 0 horses?
* Encourage the children to represent numbers including 0 Show me 3 fingers, show me 5, show me 0 Show me 4 apples in the basket, show me 2, show me 0 Show me 4 claps, 1 clap, 0 claps.
 | * Provide a range of loose parts and labelled pots including 0 for the children to count items into. Picture cards and dot plates to represent different quantities including zero can also be sorted and matched to numerals.
* Have a bag containing numerals from 0 to 5. As you pull out a numeral combine it with a task for the children to do. For example, if you pull out a 2, the children could take 2 giant strides or 2 tiptoes, do 2 jumps, run to the hoop and back twice, find 2 pebbles and bring them back etc.
* Provide equipment for throwing and rolling games such as skittles, beanbags and buckets. Encourage the children to notice when they knock over 0 skittles or when 0 beanbags land inside the bucket. How could they record their score?
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| Week 2W/C: 11.01.2021Alive in Five | **Comparing Numbers to 5**Children continue to understand that when comparing numbers, one quantity can be more than, the same as or fewer than another quantity. Use a range of representations to support this understanding and encourage the children to compare quantities using a variety of objects and representations. Support the children to make comparisons in different contexts as they play. | * Show the children 3 fingers – ask them how many fingers? Can they hold up 3? Can they hold up more than 3 fingers? Is there more than one way to do this? Can they hold up fewer than 3 fingers? How many do they have?
* Working with a small group, provide each child with a plate and give them each a handful of snack such as grapes or crackers. Does everyone have the same? Is it fair? Encourage them to notice that some children have more snack and some have less and to share out the snack fairly. Can they check that everyone now has the same?
* Provide opportunities to compare smaller quantities of large items with larger quantities of small items to help children make the distinction between size and quantity. E.g. 2 large balls take up more space than 3 small balls but there are more small balls.
 | * Children use the number shapes, linking cubes and numeral cards to match and compare quantities. Provide a set of dominoes to explore. Ask the children to compare the number of spots on each side of the domino. Are there the same, more or fewer dots?
* Make towers of pebbles. Who can make the tallest tower? How many pebbles are in each tower? Does your tower have more or less pebbles than your friend’s tower? Can you each make a tower using the same number of pebbles?
* Provide a set of dot plates with different arrangements of 0-5 dots. Can you find a plate with 4 dots? With more/fewer than 4 dots? Can you put the plates in order? One of the plates is missing. Can you work out which one?
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| Week 3W/C: 18.01.2021Alive in Five | **Composition of 4 and 5**Children will continue to develop the understanding that all numbers are made up of smaller numbers. Allow them to explore and notice the different compositions of 4 and 5. For example 5 can be composed of 1 and 1 and 3 or 2 and 3 or 1 and 4. Encourage them to subitise (instantly recognise these small quantities without counting). Encourage them to notice how numbers can be composed of 2 parts or more than 2 parts. | * Give the children 5 bean bags. Ask them to throw them into a hoop noticing how many land inside the hoop and how many land outside. Encourage them to record their results. Is there ever 0 inside or outside the hoop?
* Ask the children to count out 5 double-sided counters. Shake and drop them onto the table. How many are red? How many are yellow? Look at your partners. Is it the same? Drop them again. What has changed? Could you show your counters on a 5 frame? If you had 5 red counters, how many yellow would there be? (Butter beans with one side painted are an alternative to double sided counters and are easily manipulated by little fingers.)
* Play Bunny Ears Using 2 hands to be the ears, how many ways can you show 4 or 5 fingers? Can you see what number I have made? Can you make ears the same as mine? Can you make the same number in a different way? How many different ways can we find?
 | * Set up a log and pool and provide 5 speckled frogs for the children to re-enact the song. Encourage the children to sing the song as they play and to count how many frogs are on the log and in the pool at the end of each verse.
* Provide 4 children with 2 hoops labelled yes and no. Children take turns to ask questions and sort themselves into the hoops. For example: Do you like carrots? Have you got a sister? Can you find a question which sorts the children into 4 and 0?
* Use the number shapes to investigate which smaller numbers combine to make exactly 4 or 5. Check by sitting them on top of the whole number. Is there more than one combination? Which number has the most combinations?
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| Week 4W/C: 25.01.2021Alive in Five | **Compare Capacity**Children may already have some experience of weight through carrying heavy and light items. Encourage them to make direct comparisons holding items to estimate which feels the heaviest then use the balance scales to check. Prompt them to use the language of heavy, heavier than, heaviest, light, lighter than, lightest to compare items starting with items which have an obvious difference in weight. Avoid the common misconception that bigger items are always heavier by providing some small, heavier items and some large, lighter ones.**Compare Mass**Encourage the children to build on their understanding of full and empty to show half full, nearly full and nearly empty. Provide opportunities to explore capacity using different materials such as water, sand, rice and beads. Provide different sized and shaped containers to investigate. Prompt them to use the language of tall, thin, narrow, wide and shallow. Encourage the children to make direct comparisons by pouring from one container into another. They can also use small pots or ladles to make indirect comparisons by counting how many pots it takes to fill each container. | * In a small group perhaps during snack time, provide each child with a cup. Ask them to make their cup full, make it empty, nearly full, nearly empty, about half full. Can they find a container which holds more than their cup? Can they find one which holds less?
* Provide a selection of containers of different shapes and sizes and ask the children to investigate which holds the most. They may do this by pouring directly from one container to another. They could also use a small cup to fill each container, counting how many small cup-fulls the containers hold. Encourage them to record their results using their own methods of recording.
* Provide sets of similar containers in different sizes such as sets of nesting bowls or boxes. The children will enjoy comparing and ordering them and seeing how many loose parts such as beads, cubes or corks they will hold.
* Bring in a heavy case or box. Show the children that it is difficult to lift and carry because it is really heavy. Ask if they have ever carried anything heavy? Ask the children to discuss what could be inside.
* Ask the children to be human balance scales – place an item on each hand and ask them to tip to show which item is heavier and which is lighter. Use the balance scales to check the children’s estimations. The children could also hold buckets or bags in each hand and place items inside to feel which has the stronger downward pull.
* Give the children an item, for example, an apple. Challenge them to find things which feel heavier and lighter than the apple and sort them into sets. Use the balance scales to check their estimation. Are all the heavier things larger than the apple? Can they find anything which is larger than the apple but lighter?
 | * Set up a pop-up café or picnic area providing a variety of jugs and beakers. Encourage the ‘waiters’ to take drinks orders and bring out the drinks. Play alongside the children to model the language of nearly full, half full, nearly empty etc and enjoy your delicious drinks! (Discuss why we don’t want the cups to be absolutely full!)
* Provide a variety of pans, bowls, spoons and ladles for the children to use. Add daily recipes on a chalkboard to encourage the children to measure out ingredients. They could also design and create their own recipes.
* Provide each child with a bowl or cup and a selection of different sized spoons and ladles. Ask them to investigate how many small spoons it takes to fill their container. How many large spoons? How many ladles? Which sized spoon was the best? Why?
* Provide buckets with strong elastic bands attached to the handle. Ask the children to hold the elastic band and watch how far it stretches when they add an item to their bucket. What do they notice when they add a heavy item? A light item?
* Provide a set of balance scales and an assortment of loose parts to compare. Encourage the children to use the mathematical vocabulary of heavier than and lighter than as they compare the different items.
* Add a set of balance scales to the dough area and encourage the children to compare the weight of different size balls. To provide further interest, encourage the children to use loose parts to balance the dough on the scales.
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| Week 5W/C: 01.02.20216, 7 and 8 | **Making Pairs**Children build on their earlier work on matching to find and make pairs. They begin to understand that a pair is two. Provide collections of items which come in pairs. Encourage the children to arrange small quantities into pairs and notice that some quantities will have an odd one left over with no partner. Teach the children to play games which involve matching pairs for example snap or memory games. | * Collect a basket of small items in pairs – have enough items for each child to have one. As the children come into the classroom ask them to collect one item from the basket. When all the children have arrived, ask them to find who has the same and sit together in a pair.
* Have a basket of unsorted socks or wellies and ask the children to help you sort them into pairs. Can they spot which pairs go together? Why do they match?
* Ask the children to get into pairs ready for a game or to line up in pairs for a Spring walk. Do they notice any pairs on their walk? They could also face each other in pairs and take it in turns to mirror the other’s actions or play bunny ears.
* Encourage children to investigate making pairs using different quantities of small world creatures, cubes or counters. Which quantities will make pairs and which will have one left out? Do they notice a pattern?
 | * Provide a set of cards with different representations of the numbers to 8. Teach the children how to play pair games such as snap and memory matching games. Add some blank cards and encourage the children to create their own sets of cards in pairs to use.
* Provide collections of items that can be arranged into pairs. Encourage the children to notice which quantities make even pairs and which have an odd one left over. Do they notice a pattern?
* Follow the mini-beast hunt by providing a variety of materials for the children to create their own insect models. Encourage them to fold zig-zags to give their insects springy legs. How many pairs of legs will they add to their creatures?
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| Week 6W/C: 08.02.20216, 7 and 8 | **Combining 2 Groups**Children begin to combine 2 groups to find how many altogether. They should be given opportunities to do this in many contexts using real objects. E.g. There are 3 frogs on the log and 4 in the pool. How many frogs altogether? Encourage the children to subitise where possible although they may need to count in ones to find how many altogether. The interactive whiteboard files can also be used to create pictorial scenes for the children to discuss. | * Tell your partner about the flowers. How many purple flowers can you see? How many blue flowers? How many flowers altogether?
* Spread a set of dominoes out face down. Ask the children to pick a domino and tell their partner how many spots there are on each side. Can their partner tell them how many spots on the domino altogether? What if my domino has 6 spots? How many could be on each side? Can you draw a domino with 6 spots? Can you draw more than one?
* Provide pictures or small world scenes which provide opportunities for combining 2 groups. What can you see in the picture? How many big fish can you see? How many small fish? How many fish altogether? I spy a group of 3 and a group of 2. What am I looking at?
* Provide an assortment of 1-5 number shapes. Ask the children to choose a number shape. Next, find a friend and combine their shapes to see what number they can make altogether? Repeat by moving to different friends
 | * Provide a coat hanger and a basket of pegs. Ask the children to put the pegs onto the hanger and to explore how their numbers can be partitioned in different ways and recombined to see how many altogether
* Provide simple board games and pairs of dice. The children roll 2 dice and move the required number of spaces on the board. Ask: What numbers did you roll? How many altogether? How many do you need to win the game? (1-3 dice could be used first before moving onto 1-6)
* Provide a set of dominoes and a large ‘parking area’ with numbered garages. Ask the children to find the total amount of spots on the dominoes and park them into the correct garage!
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