Slytherin Reception Summer 2021 Medium Term Maths Planning Ms Davis

| Week/Date/Focus | Key Concept and Additional Focus | Possible Input | Continuous Provision | ELG's |
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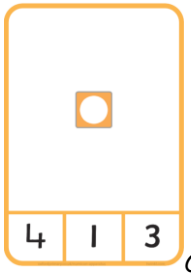
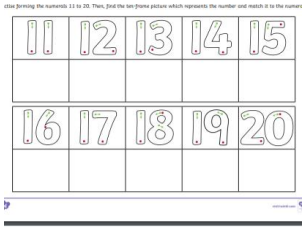
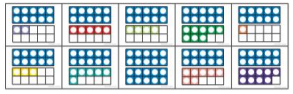
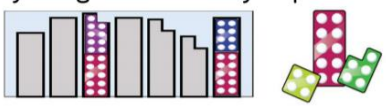
| Wk 1: 19/4/21 To 20 and beyond Building numbers beyond 10 | Encourage the children to build and identify numbers to 20 (and beyond) using a range of resources. 10 frames, number shapes, towers of cubes and bead strings all support the children to see that large numbers are composed of full 10s and part of the next 10. Provide opportunities for children to recognise that the numbers 1- 9 repeat after each full 10. So they have 1 full ten and 1, and so on. | Show the children 11 using the number shapes or 10 frame. What do the children notice? Can they see which number is represented? Now build 12. What's the same? What's different? Continue the pattern, ask the children to predict what numbers come next and how they could represent each number. What happens when they get to 20 and beyond?<br>Using a set of cards showing pictorial representations and matching numerals. Give one card to each child. Ask them to find their partner. Can they also arrange the cards in order? Each child is going to get a card one with a number on and one with the pictorial representation the children have to find the matching picture.<br>Each player starts with 2 empty 10 frames. They take turn to roll a dice and collect the corresponding number of counters. They must roll the exact number to reach 20. The first player to reach 20 wins the game.<br>Read the book One Moose, 20 Mice and work together to count all the different aspects in the book. | Additional resources:<br>Number blocks Series 3<br>One Moose 20 Mice – Stella Blackstone<br>1 is One – Tasha Tudor<br>The Real Princess – Brenda Wiliams<br>Jack the builder – Stuart Murphy<br>  Can you put the peg on the correct number? (ALL NUMBER CARDS GO UP TO 20)<br>Snakes and Ladders 1 – 20 numicon<br>  <br>  Can you cut out and stick the correct Numicon with the teen number<br>Provide black outlines of a cityscape for the children to fill using the number shapes. Can they see which number has filled each tower? Is there more than one way to do this? Can they design their own cityscape?<br>  | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |

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| Wk 2: 26/4/21 To 20 and beyond Counting patterns beyond 10 | Provide regular opportunities for children to count in and back beyond 19. Representations and numerals can support children to count on and back and notice the repeating 1 – 9 patterns. Provide representations, which clearly show the full 10s and the part of 10, for example 14 is one full ten and four. Encourage the children to count on or back from different starting points, to say what comes before or after a given number and to place sequences of numbers in order. You can also challenge them to find larger numbers on number tracks and 100 squares. | I count You count: Begin by counting as you point to yourself. When you point to the children they continue the count. This is a great way of creating a rhythmic patterns can the children continue the count. For example I would say 4,5,6 and the children would carry on 7,8,9 then I would say 10, 11, 12 and then the children would carry on 13,14, 15 etc.<br>Show the children the Numicon pictorial cards for 1 – 15 explain that the kangaroo has taken it away can you work out what the missing number is?<br>Provide a number track for each child. Children take turns to roll a dice if they roll 1 – 5, they collect the corresponding counters to fill their track. If they roll a 6 they miss a turn.<br>  <br>Have sets of numerals from 11 to 20 and corresponding pictorial representations. Ask the children to play the game of bingo with you.<br>Provide a set of containers in a range of different sizes and shapes. Ask the children to predict how many cubes each container will hold. Fill the containers using cubes and tip them out to find how many. Instead of counting in ones, encourage the children to arrange the cubes into ten frames to see how many full tens they have and how many ones. | Additional resources:<br>Numberblocks Series 3 Tween series<br>A dozen ducklings lost and found – Harriet Ziefert<br>20 big trucks in the middle of the street – Mark Lee<br>1 is a snail, 10 is a Crab – April Sayre and Jeff Sayre<br>Peg and Cat – the Teens<br>  <br>Provide a set of birthday cards for different ages up to 20. Ask the children to peg the cards onto the washing line in ascending and descending order. During the day keep swapping them around. | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 3: 3/5/21 To 20 and beyond Spatial reasoning: match, rotate and | Provide regular opportunities for the children to complete jigsaws and shape puzzles. They need opportunities to select and rotate shapes to fill a given space. Encourage them to explain why they chose a particular shape and why a different shape would not fit. Provide opportunities for the children to match arrangements of shapes, prompting them to use positional language to describe where the shapes are in in relation to one another. Ask the children to select shapes to | Show the children a set of shapes and ask them to find the shape which matches the one you hold up. Add challenged by making the shapes more similar and changing the orientations. Read the book Which One Doesn't Belong? Using the book as a prompt, ask the children to explain which shape is different to all the rest. Can they find more than one answer? Challenge them to find a reason why each of the images could be different to the rest.<br>Make sure all the children have got the same amount of cubes and the same colour. Model making a model the children have to copy the model that you have made. Extend by giving them one more cube can they make the same mode.<br>Ask the children to match your arrangement to the different tangram pictures talk about how you have to turn the different shapes around. | Additional resources:<br>Snail Trail: A Journey Through Modern Art – Jo Saxton<br>Which one doesn't belong – Christopher Danielson<br>Jigsaws and shape puzzles and tangrams<br>Pattern blocks and cusienaire rods<br>Geo boards<br>Numicon and base board overlays | Recognises, creates and describes patterns. Explores characteristics of everyday objects and shapes and uses mathematical language |

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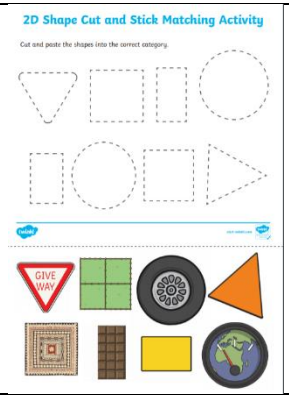
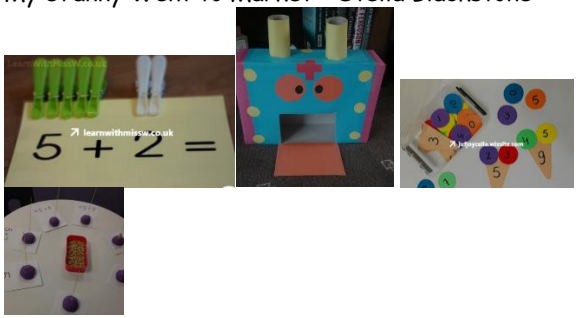
| manipulate | complete picture boards or tangram outlines. | Make a simple shape arrangement. Ask the children to finding your matching model. Make the models out of linking cubes.<br>  |  | to describe them. |
| Wk4: 10/5/21<br>First Then and Now<br>Adding more | Encourage the children to use real objects to see the quantity of a group can be changed by adding more. Then first, the, now structure can be used to create mathematical stories in meaningful contexts. At first, the children may need to re- count all of the items to see how many have altogether. E.g. 1,2,3,4…,5,6,7<br>When they are ready, support them to count on E.g. 4…, 5, 6, 7<br>Encourage the children to represent the number stories using 10 frames, number tracks and their fingers. | Show me 5 fingers/ Now sow me 2 more. How many fingers now? How do you know there are 7? Did you count them all 1,2,3,4,5,6,7? Is there another way to count them? We know we have 5 on this hand? Can we count on? 6,7?<br>Use first, then, now to tell simple maths stories to practise adding more in real life contexts.<br>  <br>First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus.<br>Make links with familiar stories e.g. first there were 3 mice in the jar. Then the snake added 2 more mice. How many mice are in the jar now?<br>Share the story of Mr Grumpy's Outing by John Burningham. Ask the children to build a boat and to create their own first, then, now stories as different groups of characters climb aboard. Encourage children to count how many altogether as more children join in. | Additional resources:<br>Mouse count – Ellen Stoll Walsh<br>Mr Grumpy's Outing – John Burningham<br>Rosie's Zoo – Ailie Busby<br>One Ted falls out of bed – Julia Donaldson<br>Quack and count – Keith Baker<br>My Granny Went to Market – Stella Blackstone<br>  | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 5: 17/5/21<br>First Then and Now<br>Taking away | Encourage children to use real objects to see that the quantity of a group can be changed by taking items away. The first, then, now structure can again be used to create mathematical stories in meaningful contexts. Encourage the children to count out all of | Ask the children to show you 5 fingers and then to show you 4. Prompt them to notice that one less is the same as taking away one. Extend to taking away 2 fingers or 3 and noticing and how many are left each time/<br>Use first, then, now to tell simple maths stories to practise taking away in familiar contexts. | Additional resources:<br>Incey Wincey Spider game – Nrich<br>Tad – Benji Davis<br>Mouse Count – Ellen Stoll Walsh<br>The Shopping Basket – John Burningham<br>Monster Math – Anne Miranda<br>Elevator Magic - Stuart J Murphy | Counts reliably with numbers from one to 20, places them in order and says which |

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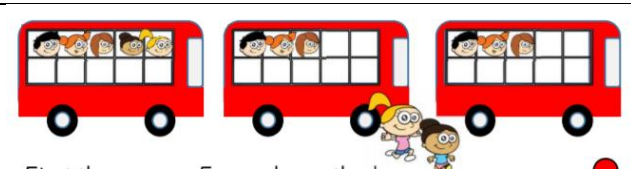
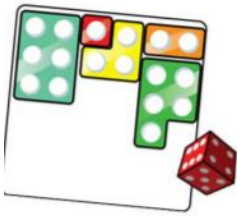
| | the items at the start, take away the required amount practically, and then subitise or recount to see how many are left. Continue to encourage the children to represent the number stories using 10 frames, number tracks and their fingers. |  <br>First there were 5 people on the bus. Then 2 people got off the bus. Now there are 3 people on the bus.<br>Pass it on – Each child starts with 6 cubes. They roll a 1 – 3 dice and pass the corresponding number of cubes to the person on their left. The winner is the first person to give away all of their cubes. Encourage the children to count how many they have left as they pass on their cubes<br>Race to Zero – Each child collects 20 items which can be arranged to fill two 10 frames. They take turns to roll a dice and remove the corresponding number of items. They must reach exactly zero to win the game. |  | number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 6: 24/5/21 First Then and Now Spatial reasoning: Compose and Decompose | Children understand that shapes can be combined and separated to make new shapes. Provide opportunities for the children to fit shapes together and break shapes apart and to notice the new shapes they have created. Investigate how many different ways a given shape can be built using smaller shapes. | Show the children 2 identical right angled triangles which have been made by cutting a rectangle in half diagonally. How many new shapes can they make by fitting the triangles together? Can they make shapes with 3 sides? With 4 sides? Can they make a rectangle again? A tall thin triangle? A short fat triangle? What if they had 4 right – angle triangles?<br>Using square tiles or pieces of card, how many different squares and rectangles can they build? How many times do they need for the smallest possible rectangle? Can they build a long thin rectangle? A short wide rectangle? How many tiles do they need to build a large square? How do they know it is a square?<br>Grandpa's Quilt; Ask each of the children to design one square using different shapes. Put all of the individual squares together to make a new quilt for Grandpa. Can we arrange the squares to make a long thin rectangle, a short fat rectangle? | Additional resources:<br>Grandpa's Quilt – Betsy Franco<br>Jack and the Flumflum Tree – Julia Donaldson<br>Pezzettino – Neo Lionni<br>Tangrams<br>Pattern blocks and Cuisenaire rods<br>  <br>Provide each child with a Numicon board – children roll a dice and select corresponding number shape which they place in their square. The winner is the first player to fill their square exactly. | Recognises, creates and describes patterns. Explores characteristics of everyday objects and shapes and uses mathematical language to describe them. |

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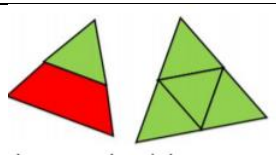
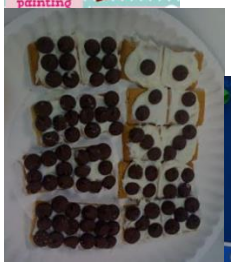
| | | |  Provide a set of pattern blocks or similar and challenge the children to build as many different triangles as they can. | |
| HALF TERM | | | | |
| Wk 7: 7/6/21 Find My Pattern Doubling | The children will learn that double means "twice as many". They should be given opportunities to build doubles using real objects and mathematical equipment. Building number using pair – wise patterns on 10 frames helps the children to see the doubles. Mirrors and barrier games are fun way for children to see doubles as they build and to explore early symmetry. Encourage children to say the doubles as they build them, e.g. double 2 is 4. Provide examples of doubles and non – doubles for the children to sort and explain why. | Allow the children to explore different ways to build doubles using real objects and practical equipment. Provide set of dominoes and ask the children to find doubles Show the children how to play dominoes and look at the doubles they make as they play.<br>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?<br>Play doubles – the children take turns to roll 2 dice. They score a point each time they roll a double. The first to reach 3 points wins the game.<br>Provide large paper with a fold down the middle. Encourage the children to make doubles by adding blob of paint on one side of the paper only. Then fold the paper over to make the double. Can they predict how many blobs of paint there will be altogether if they start with 3 blobs?<br>Provide ladybird/ butterfly templates and ask the children to use the tweezers to make doubles by adding the same number of pompoms to each side? How many different doubles can they make? Can they make one which is not a double and tell you why? | Additional resources:<br>Double Trouble – Nrich<br>This is the story of Alison Hubble – Allan Ahlberg<br>Two of Everything – Lilly Hong<br>Double Dave – Sue Hendra<br>Double the Ducks – Stuart J Murphy<br>Numberblocks Series 2 Episode 9 – Double Trouble<br>  <br>  <br>  | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 8: 14/6/21 Find my Pattern | During snack time or group activities, encourage them to check that items are shared equally and that everyone has the same. The children should also be given opportunities to recognise and make equal groups. For | 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 your and half for your friend. Put a handful straight onto each plate without counting – make sure that one plate has clearly more strawberries than the other. Ask the children if this is fair. Prompt them to show you how to share the strawberries fairy. What if another friend arrives? | Additional resources:<br>The Doorbell Rang – Pat Hutchins<br>Nrich – Maths Story time<br>The Gingerbread Man<br>Bean Thirteen – Matthew McElligott<br>One Hungry Cat – Joanne Rocklin<br>Ness the Nurse – Nick Sharratt | Counts reliably with numbers from one to 20, places them in order and |

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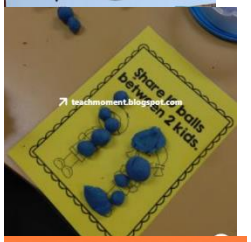
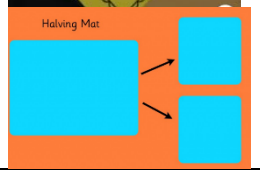
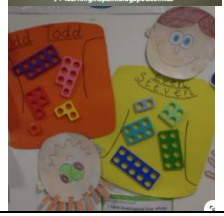
| Sharing and grouping | example, can you put 3 crackers on each plate or plant 2 flowers into each pot. What groups do they notice on a bead string? The children will notice that sometimes there are items left over when they share or group. Encourage them to come up with their own suggestions for how to resolve this. | Provide opportunities for children to group objects in different contexts. Can they give each gingerbread man 3 buttons?<br>Can they give each child 5 carrot sticks during snack?<br>Can they arrange their pebbles into groups of 2? What about groups of 3?<br>Provide some threading beads or coloured pasta and encourage the children to thread the items in groups to create a necklace. Do all the necklaces have equal groups? Compare the necklaces. What's the same? What's different? |  <br>  <br>  | says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 9: 21/6/21<br>Find My Pattern<br>Even and Odd | The children begin to understand that some quantities will share equally into 2 groups and some won't. they may also notice that some quantities can be grouped into pairs and some will have one left over. Provide opportunities for them to explore these ideas in different contexts as they play and talk about what they notice. Encourage the children to notice the odd and even structure on the number shapes and by building pair – wise patterns on the 10 frames. | Ask 5 children to come to the front. Can we group the children into pairs? Does everyone have a partner? Why not? What could we do to solve this problem?<br>Investigate with other quantities of children. Encourage the children to notice that sometimes we can make even pairs and sometimes there is an odd one left out.<br>Encourage the children to investigate whether small quantities are odd or even by sharing into 2 groups and by making pairs. Prompt them to recognise that sometimes there is one left over.<br>Ask the children to build pair – wise patterns on the 10 frames and sort them into those which have two equal groups (even numbers) and those which have two unequal groups (odd numbers).<br>After reading One Odd day, encourage the children to create their own odd and even pictures. Look at the pictures together. Is this an odd or an even picture? How do you know? Encourage the children to talk about the pictures. How many odd or even features can they spot? | Additional resources:<br>Numberblocks Series 2 Episode 11 Odds and Evens<br>One Odd Day – Doris Fisher<br>Pete the Cat and the Missing cupcakes – James Dean<br>Underwater Counting – Jerry Pallotta<br>10 Fat Sausages Song<br>  <br>  <br>  | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |

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| Wk 10: 28/6/21<br>On the Move<br>Deepening Understanding | Children ned time and opportunities to engage extended problem solving and developing their critical thinking skills. These problems can be linked to familiar stories or come from the children's suggestions or real problems that arise as they play. Encourage the children to discuss different possible starting points. Children might need support to carry out their plans and to make adaptions as they go along. Afterwards, encourage the children to review and discuss their strategies. Which were the most successful, which didn't work and why? | Familiar stories provide a great starting point for problem solving. Mr Grumpy's Outing is one example. Show the children a page from the story and explain that Mr Grumpy has a problem. There are too many legs in his boat. Everyone's legs are getting tangled up. Ask the children to work out many legs there are. Could they draw a picture to help them work it out? What if there are 3 characters inside the boat? How many legs could there be? What if there are 14 legs in the boat? How many characters could there be? Ask the children to explore the different possibilities.<br>Billy's Bucket can be used as a starting point for comparison and number stories. Set up a small world scene in a tuff tray and ask the children to talk about what they can see. What number stories can they make using the different combinations like Billy? Can they create their own bucket scene and number stories? | Additional resources:<br>Mr Grumpy's Outing – John Burmingham<br>Billy's Bucket – Kes Gray<br>Harry and his Bucketful of Dinosaurs – Ian Whybrow<br>Who Sank the Boat – Pamela Allen<br>Mr Archimede's Bath – Pamela Allen<br><br>Ask the children to make boats out of given material such as tin foil or modelling clay. How many marbles will their boat hold whilst staying afloat? Whose boat will hold the most marbles? Could they adapt their design so their boat holds more marbles? | Counts reliably with numbers from one to 20, places them in order and says which number is one more or one less than a given number. Solves problems, including doubling, halving and sharing. |
| Wk 11: 5/7/21<br>On the Move<br>Patterns and Relationships | Children should be given opportunities to explore and investigate relationships between numbers and shapes. Classroom resources based around a standard unit such as Cuisenaire rods, pattern blocks and unit construction blocks are good for exploring these relationships. Children should also continue to copy, continue and create a widening range of repeating patterns and symmetrical constructions. Draw children's attention to patterns in stories from a range of cultures. | Show the children a set of Cuisenaire rods How many green blocks measure the same as one blue block? What other relationships can the find? Can they find a block which is double the length of another block? How could they check? Show the children one rabbit. How many ears do they see? Add another rabbit? How many ears now? Continue to add rabbits and count the eats each time. Encourage the children to notice that each rabit has two ears, every time they add one rabbit they are adding two more ears. Can they continue the pattern? Build a repeating ABBC pattern. Ask the children to identify the unit of repeat? Challenge them to create a different pattern using the same ABBC structure. Can they represent their pattern using drawings of symbols? Can they make their pattern continue around a circle? | Additional resources:<br>Ants Rule The Long and Short of it – Bob Barner<br>Pattern Fish – Trudy Harris<br>Pattern Bugs – Trudy Harris<br>The Leopard's Drum – Jessica Souhami<br>Jamil's Clever Cat – Fiona French<br>  <br><br>  <br>  <br><br>  <br> | Recognises, creates and describes patterns. Explores characteristics of everyday objects and shapes and uses mathematical language to describe them. |

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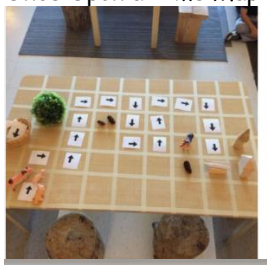
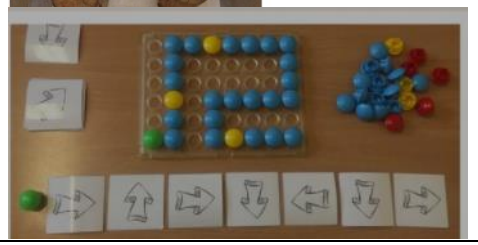
| | | |   Number recognition cards from Twinkl | |
| Wk 12: 12/7/21 On the Move Spatial Reasoning | The children understand that we can make maps and plans to represent places and use these to see where things are in relation to other things. Provide a range of maps and plans for the children to look at and discuss. What can they see on the map? Where would we put the carpet area on a map of our classroom? Provide opportunities for them to create their own maps. | Show the children some different maps, lots of different books have maps of the story settings. What can they see on the m aps? Which map do they like best Why do we need maps? Can they draw their own map of places in the story? Could they change the story and design a new map? What if Little Red Riding Hood did not go to the Grandma's house? Ask the children what they pass on their way to school. Can they draw a simple map to show their home, their street, their school and some of the landmarks they pass on the way? What do they pass first, next etc.<br>Provide a large piece of paper in the shape of the classroom with the door and windows already marker on. Explain that you are going to make a map of the classroom. Have some simple pictures to represent the classroom. Have some simple pictures to represent the classroom items. Ask the children to discuss where to place them on the map.<br>Provide a simple map for an obstacle course – courage the children to use the map to build the obstacle Couse, checking where things need to be in relation to others. They might also like to design their own obstacle course and draw a map to help them remember their design. | Additional resources:<br>The Secret Path – Nick Butterworth<br>Me on the Map – Joan Sweeney<br>Little Red Riding Hood<br>It I Built a House – Chris Van Dusen<br>In Every House on Every Street – Jess Hitchman<br>Once Upon a Time Map Book – B.G. Hennessy<br>  <br>  | Recognises, creates and describes patterns. Explores characteristics of everyday objects and shapes and uses mathematical language to describe them. |

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| | | |  Magnet Mazes<br>https://teachbesideme.com/magnetic-marble-mazes/ | |