

Activity	How might you develop this activity to support children’s learning	Resources to support this activity
<p>Baking</p> <p>Baking with children encourages them to use their STEM skills in enjoyable real-life contexts. This will help develop productive dispositions towards STEM.</p>	<ul style="list-style-type: none"> • Talk with the children about the ingredients. Discuss items in terms of weight: heavy and light, heavier and lighter, Order items from heaviest to lightest. • Develop one to one correspondence by using bun cases e.g. 1 bun case per space. Counting. <i>How many more bun cases do we need?</i> • Encourage your child to use weighing scales and follow a simple recipe. • Discuss fractions e.g . 1 ½ cups/spoons etc . • Encourage your children to think about time while baking. <i>How are we going to time the process? If these brownies take 50 minutes to bake, what time will we need to take them out of the oven?</i> • Develop problem solving skills by amending recipes e.g alter a recipe for 12 cupcakes to make 24/30 etc. • Encourage children to develop and write their own recipes. • Explore heating and cooling. <i>What happens when we heat butter? What will happen when we take the chocolate off the heat?</i> 	<p>Baking with Kids Baking Recipes</p> <p>https://www.mummypages.ie/cakes-baking-recipes/</p>
<p>Board Games</p> <p>Board games can encourage children to develop strategic thinking and mathematical skills.</p>	<ul style="list-style-type: none"> • Play with multiple dice to reinforce addition skills. • Ask your child questions such as ‘<i>how many more do you need to land on the ladder space?</i>’, ‘<i>What is the chance of rolling a 2?</i>’ • Games that involve money provide an opportunity to develop confidence doing mental calculations. • Some games encourage strategy development. <i>Can you come up with a strategy to improve your game?</i> • Plan, design and play your own board game. 	
<p>Gardening</p> <p>Get out for some fresh air and exercise. Setting challenging problem solving tasks in context can encourage children to see how STEM is rooted in real life experiences.</p>	<ul style="list-style-type: none"> • Explore the flora and fauna. How many trees/flowers/ birds/animals/minibeasts can you see and identify. (The links on the right may be useful). Children could create their own checklist/ data collection sheet. Write a description of what you see (This can be revisited in a few weeks and comparisons can be drawn). Children could research a plant/animal they found of interest to them. (Using <i>World Book</i> on Scoilnet may help) • Explore the different planted and wildflowers in your area. Discuss with the children what a plant needs to survive. Set up an investigation around plant growth. <i>Can you design a fair test to investigate if a plant needs light to grow? / water to survive?</i> Encourage the children to come up with 	<p>List of Ireland's Birds Native Irish Trees Tree Council</p> <p>Wildflowers A Ireland</p> <p>Environmental Protection Agency Ireland: Minibeasts</p>

	<p>their own <i>Testable Questions</i>.</p> <ul style="list-style-type: none"> ● Ask the children to draw a map of their garden/ area that they live in. <i>How about an aerial view? Could you draw it to scale?</i> ● Ask them to find a suitable measuring device and take some measurements. Could they make a meter stick using their ruler and some string? Give the children the task of calculating the perimeter/ area of the garden/surrounding area. ● Set a challenge: using a piece of string, could they plot out a flower bed of 1m². <i>How many different beds can you create that are just 1m²?</i> ● It's not too late to develop green fingers! There are lots of great vegetables that can be planted in May: see here ● Make a compost bin 	<p>The Minibeast Pack</p> <p>World Book</p> <p>Primary science investigations with plants</p> <p>School Earth Education: SEED All-Ireland Pollinator Plan » All-Ireland Pollinator Plan</p> <p>GIY.ie</p> <p>Composting</p>
<p>Building Blocks Developing mathematical language from an early age is key to strengthening mathematical understanding.</p>	<ul style="list-style-type: none"> ● Talk to the children about the blocks. Discuss its appearance. <i>What does it look like? What shape is it? What colour? What could you do with blocks? What could you make?</i> ● Free play with blocks, allowing children the opportunity to explore, build and use their imagination. ● Set them a Design and Make challenge: <i>Can they build a chair for their teddy?</i> ● Sort the blocks by attribute (size, colour, shape). <i>Is there the same number of each shape? Are there more red blocks? How many more yellow than blue blocks?</i> ● Make a pattern using the blocks ● Barrier game: Together, share/divide the blocks between two. Each person should have the same collection of blocks. A cereal box or other barrier should be placed between the two players, so they cannot see each other's work. One creates a picture or structure using the blocks, and uses descriptive and positional language to explain the picture, for the other person to copy at their side. Once completed, remove the barrier and compare the pictures. Next time, swap roles! 	

<p>The Chores!</p> <p>Open ended activities encourage a disposition towards maths, as well as developing language and communication skills.</p>	<ul style="list-style-type: none"> • Get young children sorting socks. Ask them why they pair particular socks together? The reason might not always be immediately apparent. Listen to their explanations and justifications ...<i>they both have stripes...they are both blue...they both have tractors on them.</i> • This activity can be repeated using a variety of items you might find around the house, <i>buttons, toys, blocks, lego, contents of a pencil case or even the recycling bin!</i> 	
<p>Shopping</p> <p>Mathematisation involves children applying mathematics they have learned in the classroom, to solve authentic, real life problems</p>	<ul style="list-style-type: none"> • Playing 'shop' at home can familiarise children with handling coins, recognising coins and developing confidence with money and change. • Involve children in the shopping. Invite children to help you write a list for the shopping. • Explore the receipts. Look at different offers and see if you are really getting value for money! Look through free supermarket catalogues /online grocery shopping. • Give your child a scenario and set a challenge... <i>You have €10 to buy dinner for the whole family. What will you buy? Will you get change? How much?</i> 	<p>You can download a free image pack with lots of great examples here http://www.haveyougotmathseyes.com/maths-problem-pictures-or-posters/</p>
<p>Story Time</p> <p>Picture books provide many opportunities to develop mathematical and scientific language in an engaging context.</p>	<ul style="list-style-type: none"> • Children need to hear mathematical and scientific language being used in context, but they also need to be given opportunities to use it themselves. Ask lots of open ended questions during the story to get the children talking about some of the concepts in the story. • Books with animals can provide opportunities to discuss the properties of living things. One such example of this could be <i>Monkey Puzzle</i> by Julia Donaldson. More examples are to be found in the resources section. • Picture books can provide a springboard for children to develop problem solving and reasoning skills. <i>'I wonder what they could do next?' What will they do next?'</i> 	<p>Play Based Maths: Picture books</p> <p>STEM picture books</p> <p>https://nzmaths.co.nz/picture-books-mathematical-content</p> <p>http://www.mathematicshed.com/maths-story-shed.html</p> <p>Teaching science through stories</p>

Teddy Bear's Party

Holding a Teddy Bears' Picnic is a fun way to enable younger children to apply mathematical concepts in a real life context.

- Set up a teddy bears' picnic either outside or inside
- How many teddies are invited? Count the teddies. How many plates and cups will you need? Cutlery etc.
- Share out some food equally between the teddies.
- Develop problem solving skills by having an uneven amount of food. How will you share the food out equally?

<https://www.youtube.com/watch?v=YDndFOtBy-E>