Supporting numeracy development from home

There are many things parents can do to support the numeracy development of children at home. Some of the activities suggested below will require access to technology but many of them do not.

Supporting K-2 children

<table>
<tr><td>Counting</td><td>Counting is a foundational skill in mathematics. Children need plenty of opportunities to count. Have children count the number of steps to different locations around the house. They could also be developing their skip counting as they help out around the house (How many sets of cutlery? How many sets of pegs on the washing line?).
Young children also need experiences counting objects- use buttons, counters, pasta shapes or anything else appropriate.</td></tr>
<tr><td>Card or dice games</td><td>There are many games that can be played with playing cards or dice. Create a place value mat and ask children to make the biggest or smallest number with their cards or dice. You can also ask them to make specific numbers
(e.g Make a number with a 4 in the tens column).
You can then ask children to add or subtract 1, 10 or 100

<table><tr><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td></td><td></td><td></td></tr></table>
There are many free activities that can be found online with ideas for card and dice games. Here is one:
https://www.pepnonprofit.org/uploads/2/7/7/2/2772238/acing_math.pdf</td></tr>
<tr><td>Addition and subtraction</td><td>Use concrete materials from around the house to practise the skills of adding and taking away. Use the happenings of the day to create number stories.
e.g Mum had 6 biscuits. You ate one and your sister ate one. How many biscuits are left?</td></tr>
<tr><td>Play a board game</td><td>Board game with dice help younger children to instantly recognise the dot patterns on them. It also helps them associate numbers on dice with moving a certain number of squares.</td></tr>
<tr><td>2D shape and 3D object hunt</td><td>Have children look through your kitchen cupboard. Depending on their age, they can sort objects by different characteristics. For younger children, this could be whether they stack or roll whilst older children may name the objects and describe their properties. (e.g the name and the number of faces, edges and vertices)
They can also look for 2D shapes around the house and count the number of sides and vertices. They could also draw them.</td></tr>
<tr><td>Cook</td><td>There is a lot of Maths involved in cooking. Have children weigh and measure various ingredients. You can also be introducing doubling and halving (e.g we need to double a recipe so how much flour will we need?)</td></tr>
<tr><td>Money</td><td>Find some coins in your house. Have children identify the coins and count collections of money. Make piles of money and see who has more/less. With older children, encourage skip counting. They can also calculate change from $1</td></tr>
<tr><td>Time</td><td>Discuss the time. Talk about what you are doing today as well as what you did yesterday or will do tomorrow. Create a schedule for your day and have children complete activities at different times. Discuss the duration of different events and when these occur. Children can also begin reading analog and digital clocks, starting with o’clock times (Kindergarten), moving to half part (Year 1) and finally quarter to and quarter past (Year 2)</td></tr>
<tr><td>Position</td><td>Complete a treasure hunt in your house or garden. Have children find objects (e.g it is to the left of the tv) Older children could draw a map and give directions to help you find treasure.</td></tr>
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Supporting 3-6 children

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<tr><td>Card or dice games</td><td>There are many games that can be played with playing cars or dice. Create a place value mat and ask children to make the biggest or smallest number with their cards or dice. You can also ask them to make specific numbers
(e.g Make a number with a 4 in the tens column).
You can then ask children to add or subtract 1, 10, 100 or 1000
Your mat could include larger number or decimal numbers for older children.
<table><tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>
There are many free activities that can be found online with ideas for card and dice games. Here is one:
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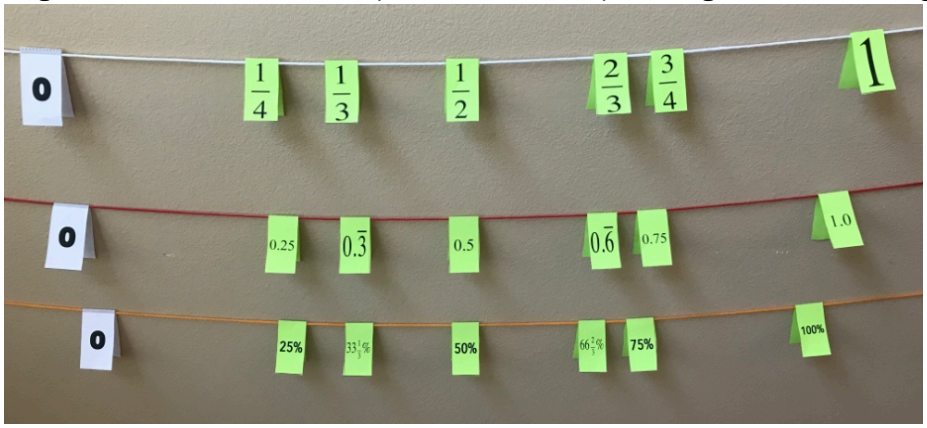
<tr><td>Multiplication and division facts</td><td>Children need to become fluent in their multiplication and division facts. There are many free online resources that can support this, such as songs, games or apps that allow times tables practice. Some possible sites are included in the table of resources.</td></tr>
<tr><td>Fraction washing line</td><td>Create a fraction washing line. Have children make fraction cards and peg these at the appropriate places along a 0-1 or 0-2 number line. Explore equivalent fractions, by halving student place equivalent fractions along the washing line. Older children can also place decimals and percentages on their washing lines.
  </td></tr>
<tr><td>2D shape and 3D object hunt</td><td>Have children look through your kitchen cupboard. They can choose items to sketch, naming them and labelling their features. Ask children to create shape drawings, labelling the shapes they have created. Children could also deconstruct boxes such as cereal boxes and draw their nets.</td></tr>
<tr><td>Cooking</td><td>There is a lot of Maths involved in cooking. Have children weigh and measure various ingredients. You can also be introducing doubling and halving (e.g we need to double a recipe so how much flour will we need?) as well as fractions and measurement conversions (e.g how many grams in ¼ cup flour?)</td></tr>
<tr><td>Money</td><td>Find some notes and coins in your house. Have children identify collections of money. Using online shopping tools or a shopping catalogue, give children amounts of money to spend. Give older children responsibility for a family shopping budget for the week, having them list the items and their cost.</td></tr>
<tr><td>Time</td><td>Discuss the time. Talk about what you are doing today as well as what you did yesterday or will do tomorrow. Create a schedule for your day and have children complete activities at different times. Children can also be reading analog and digital clocks, as well as solving time problems. (e.g it is now 2:20pm. We had lunch at 12:45pm. How long since we had lunch? How long until dinner?)</td></tr>
<tr><td>Position</td><td>Download a map from the zoo or other location. Have them locate certain animals using the coordinates. Using online lines or paper, have children create their own maps and describe routes. Use google maps to plot familiar routes and distances.</td></tr>
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Possible websites and apps

Maths apps	A variety of apps based on visual models to support maths learning	https://www.mathlearningcenter.org/resources/apps
Math playground	Maths games aimed at K-6 organised by grade and maths strands including addition and subtraction and multiplication and division	https://www.mathplayground.com/math-games.html
IXL	A variety of interactive maths activities divided into grades and maths strands.	https://au.ixl.com/
NRich	A variety of maths activities which focus on problem solving and reasoning across all strands of maths.	https://nrich.maths.org/
Crickweb	Free online resources and games from the UK	http://www.crickweb.co.uk/
Khan Academy Kids	Free app aimed at children in K-2. This covers literacy and numeracy	https://learn.khanacademy.org/khan-academy-kids/
Third Space Learning	Information for parents to help support their child's maths learning	https://thirdspacelearning.com/blog/how-help-child-with-maths-at-home/
Math Before Bed	Math Before Bed is a collection of prompts that can inspire mathematical discussions that you and your children can have before bed, at dinner, or anytime.	https://mathbeforebed.com/
Which One Doesn't Belong?	'Which one doesn't' belong is a website that provides thought provoking puzzles. There are no answers provided as there are many ways of choosing which one doesn't belong.	http://wodb.ca/
Would You Rather Math?	Mathematical prompts and questions to inspire discussion and mathematical thinking.	http://www.wouldyourathermath.com/
What's the Same and What's Different?	Images to inspire mathematical discussions.	https://www.samebutdifferentmath.com/
Primary Learning	5 Tips on ways to make mathematics matter at home.	https://primarylearning.com.au/wp-content/uploads/2018/08/5-tips-for-introducing-maths-at-home.pdf