



Radio Stations : **All Community Radio Stations**  
Subject : **Early Childhood Development**  
Audience : **Parents, caregivers and educators**  
Program Topic : **Encouraging Maths Skills (LOVE)**

#### **Guidelines to the presenter**

- Presenter – please familiarize yourself with the brief and the use the facts effectively by referring to them from time to time during the show.
- You should be seen as a peer rather than an authority.
- Offer guidance or opinion rather than telling people what to do.
- Encourage people to seek further information
- Always keep the objectives and outcomes in mind and drive these.

#### **Topic:**

**Encouraging maths skills**

#### **Objectives:**

- Clarify the role of parents in supporting their child’s maths development
- Encourage parents to help children to develop important concepts valuable for later learning
- Encourage parents to use maths “language” in their everyday talking and activities
- Identify fun activities for parents to do with their children that build maths concepts
- Encourage a positive attitude to maths with children.

## Introduction

On this show, we celebrate the fact that you are the most important person in your child's life. You have the power to give your child the best possible start in life and it doesn't have to cost you a cent. All it takes is your love, play and talk.

Today we are talking about developing maths skills for small children. But why is numeracy or mathematics important for young children? It is important because it helps children understand the world in which they live and the relationships between things. It encourages logical thinking and problem solving and helps them to make decisions. Importantly they need to learn numeracy and maths skills to prepare them for mathematics and problem solving later in life. Maths development starts early, long before school, and parents have an important role to play in helping children develop the concepts and understanding in their early years

Questions	Facts/Information
1. <i>What are maths skills?</i>	Math skills are just one part of a larger web of skills that children are developing in the early years—including language skills, physical skills, and social skills. Each of these skill areas is dependent on and influences the others. We use mathematics everywhere and so numeracy affects children throughout their everyday experiences. Maths skills include counting, sorting and matching, ordering things, shapes, measurement, number recognition, money, time and building.
2. <i>But doesn't maths start at school?</i>	Formal maths instruction starts at school – however many of the concepts needed for success in later maths are built in families through developing ideas about the world –

<p>3. <i>Why is it important to support maths skills development in the early years?</i></p> <p>4. <i>Many of us struggled with maths at school or feel like we can't do Maths. How can we help our children then?</i></p>	<p>for example about being able to compare things (size and shape), count and use simple language related to maths.</p> <p>Young children do not develop numeracy and maths skills on their own. They need to interact and communication with adults and learn new skills (which takes time and practice). Parents and caregivers should provide opportunities for practicing numeracy in fun and interesting ways – not as you would do at school but incorporating concepts in every day interactions that build maths understanding.</p> <p>Don't let your own struggles with math influence how you introduce the world of numbers to your child. Since you were in school, our understanding of how to teach math has been completely overhauled; for example, teachers now emphasize making the connection between real world activities and math concepts. Children understand that math helps them develop good problem-solving skills. To them, learning math is actually fun. It is your job to help them develop a positive attitude towards maths. Sorting objects by shape, color, and size. Counting to ten. Recognizing</p>
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<p>7. <i>How can you help children learn about numbers?</i></p>	<p>bother with formal maths instruction — your child will have plenty of time to do those at school in the coming years. Right now, your goal is to introduce math concepts with as much enthusiasm and as little pressure as possible. The more you enjoy numbers, and the more you can show your child how math is a part of his everyday life, the more motivated he'll be to learn. There are specific skills that you can focus on developing such as numbers and counting, classification, seriation (number ordering) and concepts of space.</p> <p>Toddlers can develop a basic understanding of numbers and can count small quantities. To do this they need to be exposed to numbers and encouraged to use them from an early age. Start with helping them learn the language for numeracy – this is best done in fun ways such as with singing and rhyme (one, two buckle my shoe, 12345 once I caught a fish alive). Parents can also use questions to stimulate thinking about numbers such as:</p> <p>How many do you have? Would you like more? There are only a few? What do you do first? Who is last? Is that enough etc</p>
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<p>8. <i>Should you teach your children to count?</i></p>	<p>Teaching your children to count is important – but more important than knowing the list of numbers, it is important to count real things. Let your children help you with household tasks and use these opportunities to practice counting. How many socks have I got? Could you pass me two biscuits etc. Do we need more milk (see it is nearly finished)? How many do you want? Slowly as they get older you can start writing the numbers that they are talking about in places for them to see, and eventually helping them write these numbers.</p>
<p>9. <i>What is classification about?</i></p>	<p>Classification is about comparing things – looking at different shapes, deciding what things are the same, deciding which things are different, sorting and matching things.</p>
<p>10. <i>Why do children need to classify things?</i></p>	<p>Children need to learn and use classification to organize things in their lives, understand what is happening in the world and it is also the basis of developing abstract skills necessary for success in maths.</p>
<p>11. <i>How can caregivers help children learn to classify things?</i></p>	<p>Firstly using the language of classification helps children develop these skills e.g. sort, compare, group, arranged, match etc. Then helping children to identify similarities and</p>

differences is really important. Everything we use in the world has its own characteristics – for example a teaspoon has a long thin handle, has a round scoop at the end, is made of metal, is cold when you pick up, is silver, makes a thudding noise when you bang it on a table etc. Adults know about these characteristics because of years of noticing the similarities and differences. Therefore parents can give infants and toddlers lots of encouragement but asking them questions, talking about everything and introducing them to new language. Using words such as fat, tall, big, small, flat, round to describe the world and pointing out differences to children will help them develop this skill. You can create some fun activities for your children to learn to classify by asking them to sort and match things in your environment - e.g. put all the red bottle tops in the same pile, get them to sort clothes for different families members, to pack away toys/books in their right place etc.

*12. What is seriation and why is this important?*

Seriation is also about comparing things and about putting them in their right order – e.g. big, bigger, biggest. It is also about comparing things and noticing differences –

<p><i>13. You also mentioned space? What is this about?</i></p> <p><i>14. How do you develop this concept?</i></p>	<p>big and small, tall and short, full and empty, heavy and light, fast and slow. Encourage children to put things in order and in matching sets – like all spoons together – and to make their own patterns for example using beads, sticks and stones.</p> <p>Space is about exploring the shape and size of things and how things fit together and come apart.</p> <p>Providing opportunities to fill and empty things is really important as children learn about shapes, sizes, volume and measurement. Therefore provide opportunities for pouring wet and dry things from container into another – water play, pouring beans, measuring rice etc. Filling water bottles and pouring juice are all important parts of this. Dishing up food for meals and comparing portion sizes is also important. Fitting things together and taking them apart is also really important – fitting different lid sizes together of tupperwares, building with blocks or household waste, finding things that stack together (like recycling materials).</p> <p>Importantly encourage children to talk about what they are doing and talk to them</p>
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<p><i>15. Is space also about place – like I am on top of something or underneath etc?</i></p>	<p>about what you see – how things change or don't change, what are bigger, smaller etc.</p> <p>Yes it is also about this – and again this is why it is so important that you talk to children about what you are doing (I am going to put the bread on top of the cupboard where the dog cannot get it) and to get children to talk about what they are doing (are you hiding under the bed or behind the door?) You can also encourage this development when reading books or looking at pictures, by asking questions such as “who is standing at the front? What is that underneath? Which way do you think they are going? At first children cannot notice the detail or understand the position of things in a picture or photograph but need to be helped to develop this.</p>
<p><i>16. Could you give us some ideas of fun activities one can do to support maths development?</i></p>	<p><b>Go on a number safari.</b> When you're driving around town, have your child look for numbers in street and store signs, and on license plates. Call out the numbers as you find them. Your child should be able to recognize numbers up to ten before kindergarten.</p> <p><b>Connect the dots.</b> This old standby will help your child understand number sequencing;</p>

that is, that one is followed by two, two by three, etc. Bookstores are full of coloring books with connect the dot themes (and don't worry if your child only wants a Teletubby or Pokémon theme — it's all about the numbers right now).

**Make a phone call.** Write the phone number of a friend or relative down on a piece of paper. Have your child dial the number to give him practice reading numbers left to right.

**Count everything around you.** Count people standing in line, the number of steps to the library, the cracks in the sidewalk.

**Count and sort household items.** Mix up the knives, forks, and spoons from the silverware drawer and have your child group them by type and count how many there are in each group. Do the same with your sock drawer (by color, by size), your child's stuffed animal collection (group the animals by big and small; put all the bears together). Have your child help you fold and sort laundry. How many socks are there? How many T-shirts? Have him divide them into groups.

**Go on a shape search around the house.** Look for squares, triangles, circles, stars — any kind of shape. Your child will be

expected to recognize, draw, and manipulate shapes well into 1st grade (not to mention high school geometry!).

**Play with shape puzzles and blocks.**

Manipulating three-dimensional objects — playing with a shape-sorter box, for example — will introduce your child to basic geometry as well as help develop his fine motor skills and spatial reasoning.

**Make a counting book.** This activity has a reading and a math component: With some help from you, have your child go through an old catalog or magazine and cut out all the items that start with the letter "A" and paste them onto a piece of construction paper. When you've gone through the list, count all the pictures on each page.

**Make a game out of snack time.** For example, give your child a handful of goldfish crackers, and draw a picture of a fishbowl on a piece of white paper. Put the fish in the fishbowl and have your child count them. Take one out, and count again.

**Play pattern games.** For example, give your child green and purple grapes. Have him arrange them in different patterns: purple, green, purple, green. Or green, green, purple, green, green. Look for patterns in

	<p>nature: rings on a caterpillar, the whorl on a snail shell, or things that come in pairs such as eyes, ears, or two peanuts in a shell. This activity will develop your child's problem-solving skills and his ability to think abstractly.</p> <p><b>Listen to counting rhymes and songs.</b></p> <p>"Three little monkeys jumping on the bed; one fell off and bumped his head. Mama called the doctor and the doctor said, 'No more monkeys jumping on the bed!' Two little monkeys jumping on the bed..." Any variation on this counting rhyme introduces basic subtraction. Look for children's games and music activity tapes such as the <i>Wee Sing</i> series that features songs about numbers.</p> <p><b>Make a recipe with your child.</b> Give your child the measuring cups and bowls and let him measure out the ingredients while you read the directions out loud. An easy — and delicious — way to introduce concepts such as volume and weight.</p>

<b>Conclusion</b>
Early maths is not about worksheets or using a calculator – it is about every day skills of addition, subtraction and comparison. Maths is fun! Develop a positive attitude to

numbers by showing children that maths can be fun and is the basis of most everyday skills and activities.

### **Learning outcomes**

After listening to this show the audience should:

- Understand their role in supporting their child's maths development
- Be aware of supporting children to develop important concepts that will improve later learning
- Be aware of including maths language in their everyday talking and activities
- Understand that time must be made to do counting, classifying, sorting and matching and number activities with children
- Encourage a positive attitude to maths with their children.