

Facilitator's Guide

COUNTING ON MATH

For Parents with Children Ages 6-12

A resource to strengthen parents' knowledge
and skills to improve their child's social and
emotional wellbeing

Parents Matter Project

MIDDLE CHILDHOOD MATTERS
—COALITION TORONTO—

Ontario
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Middle Childhood Matters Coalition Toronto (MCMCT)

The Middle Childhood Matters Coalition Toronto (MCMCT) is a group of 20 social service, child welfare, education, recreation, health organizations and parent leaders promoting and influencing a system that prioritizes children ages 6-12 (middle childhood), and their families. MCMCT envisions a city where children ages 6-12 and their families have equitable opportunities and resources to thrive.

The Coalition believes, and research states, that this is an important time in a child's life. To support children's healthy development during this stage, MCMCT promotes high quality, affordable, accessible and culturally appropriate out-of-school time programs (before and after school time, summertime and holidays). The Coalition was one of the driving forces behind the development of the City of Toronto's first Middle Childhood Strategy, which prioritizes programming for this age group.

Our member organizations work with thousands of parents and children across Toronto. MCMCT recognizes the vital need to educate and support parents, caregivers and adult allies living, working and caring for these children across Toronto.

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INTRODUCTION

The Parents Matter Project endeavors to support and educate newcomer, low-income and racialized parents in Toronto with children ages 6-12 (middle childhood) on how to best improve developmental and social outcomes for their children. This includes the creation and implementation of topic-specific parent learning sessions. Parenting and family relationships provide the foundation from which children ages 6-12 can develop the skills to overcome challenges and thrive to adulthood. These parent learning sessions aim to build upon the assets, capabilities and strengths of parents to help increase their knowledge on a number of topic areas relevant to their child's social and emotional development.

This facilitator's guide provides practical learning sessions to increase familial relationships, including resources that can be utilized and accessed beyond the life of the session. This is grounded in the knowledge that families crave more meaningful time together and the need to have access to materials, tools and skill building knowledge on an ongoing basis that is accessible at all times. By attending a learning session, a parent will leave with more knowledge, awareness and confidence in their ability to parent throughout this developmental stage. The interactive activities and supplementary resources will help parents to solidify their learnings.

In addition to Counting on Math, 15 evidence-based learning sessions have been developed in collaboration with experts in the fields such as:

- Sleep and Bedtime Routines
- Body Image and Self-esteem
- Healthy Eating and Nutrition
- Physical Activity
- We All Have Mental Health
- Growing Healthy Minds
- Children's Mental Health Challenges and Seeking Support
- Reading is Everywhere
- Keeping Children Safe Online
- More than Just Video Games
- Raising Responsible Digital Children
- Cognitive Development in Middle Childhood and Adolescence
- Emotional Development in Middle Childhood and Adolescence
- Social Development in Middle Childhood and Adolescence

FLOW OF THE LEARNING SESSION

LEARNING SESSION STRUCTURE	DESCRIPTION
Learning Objectives	What parent participants can expect to learn by attending each learning session.
Warm-up/ Check-in	An activity to introduce and ground parent participants. The purpose is to begin getting to know each other by creating an inclusive and welcoming environment where all voices are heard and valued.
Group Agreements	An opportunity to collectively co-create the conditions of how learning will unfold. Creating a group agreement demonstrates that the space is shared by all.
Reflection Moment	Guiding questions are used to prompt reflection on current knowledge of the topic presented.
Content Development	How the information will be delivered and resourced (learning discussions) -how learning happens- what do we need to know.
Action Moment	Each learning session will motivate concrete actions for parent participants to go from “reflection to action-now what?” with tips, tools and hands-on experience.
Evaluation and Check-out	Reinforce new learnings, takeaways and evaluate the learning.

FACILITATION TIPS

- Prepare your session in advance; read content carefully and resources needed.
- Be clear and concise in your interactions.
- Listen to what is said.
- Remember to integrate important points that have not been raised by parent participants.
- Validate questions outside of the lesson plan raised by parent participants and direct them to their service provider.
- Be ready to accommodate changes and respond to your audience. Flexibility will be required from time to time and you may need to adapt the agenda in some situations.
- When appropriate, share your own lived experience as a parent or caregiver. However, be conscious not to dominate the conversation.



Useful Tips to Successfully Facilitate a Group Discussion

1. Adults learn better when:

- They are personally motivated and engaged.
- They have the opportunity to reflect on what they are learning.
- They can exchange knowledge and experiences with others.
- They can have better understanding of what they learn and the implementation of that learning at home.

2. Adapting for inclusion:

- Know the diversity within the group: who are the participants? What experiences do they bring?
- Integrate cultural experiences: consider how both the facilitator and parent participants can bring their cultural experiences into the session.
- Be sensitive to emotional responses: depending on parent participants lived experiences, sometimes exercises can trigger participants' emotions.

COUNTING ON MATH

Overview

Math is everywhere; at home, grocery stores, in the news, and in school, math can be integrated into the family conversation everyday. When you find ways to engage your child in thinking and talking about mathematics, you are providing an important key for unlocking their future success. Today, critical thinking, problem solving, reasoning ability and the ability to communicate mathematically are essential skills. Integrating these tools at home, reduces the discomfort and uneasiness that many children feel when learning math.

Learning Objectives

- a. Understanding the importance of math
- b. Building your child's ability to think of math outside of school
- c. Practicing learnt skills outside the classroom
- d. Having fun when learning math



Materials and Supplies

FLIP CHART



MARKERS



POST-IT NOTES



PENS



LEARNING TOOLS



MASKING TAPE



FLIP CHART PAPER



ATTENDANCE FORM



EVALUATIONS



LEARNING SESSION OUTLINE

Agenda	Length of the learning session (1 hour)
1. Welcome and Introduction	(5 minutes)
2. Check-in	(10 minutes)
3. Reflection Moment	(10 minutes)
4. Content Development	(20 minutes)
5. Action Moment	(10 minutes)
6. Evaluation and Check-out	(5 minutes)

1. Welcome and Introduction (5 minutes)

Facilitator(s) will welcome parent participants and organization(s) supporting the learning session. Housekeeping items should be introduced: washroom facilities, fire exit and additional information needed for the learning session.

Materials needed: Pens

Appendix 1 - Tool 1.1 Agenda

Tool 1.2 Attendance and Photo Release Form

Tool 1.4 Evaluation (Pre)

2. Check-in (10 minutes)

Getting to know each other: Introductions of parent participants using “the web” activity
(5 minutes)

Materials needed: Ball of yarn or string

Facilitator asks parent participants to sit/stand in a circle; one-person holds the ball of yarn/string to start. The person holding the ball of yarn/string says their name, their children’s names, ages and a memory of math when they were a child. While holding the end of the string, the person tosses the ball of string to someone they do not know.

2.a Group Agreements

(5 minutes)

Materials needed: post-it notes, markers, flip chart paper, pens.

Facilitator asks parent participants any of the following.

? Guiding Questions

- What do we need from each other and ourselves to create a safe learning space?
- How are we going to learn together in this space?

Parent participants are asked to write their answers on a post-it note and place it on the flip chart. Facilitator will read them out loud for parents' consensus.

The list should be posted visibly for the length of the learning session.

Building a group agreement with parent participants is an important step to take when working with groups. It invites members to co-create a safe space for sharing where all voices are heard and valued.



3. Reflection Moment

(10 minutes)

Materials needed: Flipchart paper, markers, pens

Appendix 2 - Learning tool 2.1 The Attribute Sheet

The Attribute Game

This is a great activity to play with a group of children (family or friends).

Facilitator introduces the concept of attributes to parent participants before introducing game rules.

Definition: Attributes are ways to describe something. We have many attributes. I have curly hair. I have brown eyes. I may be wearing a dress but if that changes, it is not an attribute. It has to be something that is true about you over a long period of time. Another attribute could be something you do all the time. I enjoy reading. I like to watch movies.

Facilitator asks parent participants to share their ideas of attributes, while recording them on the flip chart paper as they are called out.

As soon as few ideas of attributes have been recorded, facilitator hands out the **Learning Tool 2.1** The Attributes Sheet and has everyone write five attributes they have on their paper. (They do not have to be the attributes from our ideas list).

Once completed, facilitator collects them, shuffles them to see how many of the parent participants share the same attributes. Facilitator asks everyone to stand up, and randomly chooses one of the sheets to read from (they do not have to be read in order). If the attribute does not apply to them, they sit down. Facilitator can do this a couple of times until there are less and less parent participants standing.



Facilitator Tip

The Math Connection: Attributes appear a lot in geometry, looking for and describing them helps children organize and make sense of the math they are working on. Once parent participants play the Attribute Game, it is easy for them to support their children when they have to describe the attributes of different shapes like a rectangle: four right angles and two sets of parallel sides.

4. Content Development

(20 minutes)

Materials needed: blank paper, pens, masking tape, post-it notes

1. When is math most useful?

Activity: The Number 24

Facilitator hands out paper and pens to parent participants, and invites them to show/represent the number 24 in all the ways they can think of (it can be in number, words, pictures, equations).

When participants are done, ask them to tape their work around the room. After all the paper is posted, provide them with post-it notes and invite them to walk around and observe their answers.

Ask participants to put a post-it note on the answer they think is best.

Once everyone has posted their post-it note, lead a conversation with the following

? Guiding Questions

- Did one answer get all the post-it notes?
- Why not?
- Did any of the ideas make you think differently?
- Do you see anything that needs an explanation?
- Why is it important to see all the ways to get to 24?

Discussion Points

If you and your child are more comfortable in a language other than English, use it. Your child will understand concepts better in the language they know best.

Everyone comes to an answer from their own perspective. As parents and teachers, we need to respect the differences and recognize that everyone sees things differently.

In mathematics, it is good to know the answer; however, the expectation is for your child to be able to explain how they found the answer. The correct answer is not always enough. This is why it is important to explore mathematics through conversations and inquiries.

Parent Tip: Begin with activities that meet your child's level of understanding. Early success in solving problems will build your child's confidence. Gradually move to activities that provide more challenge for your child.

2. What technology do you use when you have to solve a math problem?

Materials needed: Blank paper, pens, cellphones

Facilitator asks parent participants to pair with someone that has a cellphone.

Participants are asked to use their cellphone calculator to do the following activity.

Broken Calculator

Facilitator asks parent participants to pretend that the number 8 key on the calculator is broken. Ask how they can make the number 18 appear on the screen without the 8 key. (Sample answers include $20 - 2$ and $15 + 3$).

Ask other questions of the same type by using different "broken" keys. Make this task easier or more challenging by varying the number parent participants must show on the calculator.



Facilitator Tip

Have one parent participant record on paper the many ways of solve the problem without typing the number 8 on their calculator.

Discussion Points

- Although calculators are able to quickly add, divide, multiply and subtract, students still need to know how to do math by hand.
- Mathematicians know that there are different ways to represent a quantity with or without the use of technology.

Parent Tip: When your child has played a game in math class or shows their work to you, make sure you take the time to explore with them how they got to their final answer. Either using technology or not. This is a way that you help your child (and yourself) learn to analyze questions more deeply before accepting there is only one answer.

Encourage your child to talk about and show a math problem in a way that makes sense to them - for example, your child may act it out, use the actual materials, draw it or count on their fingers!

5. Action Moment

(10 minutes)

Materials needed: Blank paper

Appendix 2 - Learning Tool 2.2 The Hundreds Chart

What is your favourite way to use math in real life?

Activity: Drill and Practice

Facilitator hands out a piece of blank paper to parent participants and invites them to write the multiplication facts for 3 times table from 0-12

- a. For example: $3 \times 0 = 3$; $3 \times 1 = 3$

Invite parent participants to answer the following

? Guiding Question

How did you know your times table facts? Turn to a partner and explain.

Facilitator asks parents to share their answers. After sharing, hand out **Learning Tool 2.2** The Hundreds Chart and have parents circle the answers for the 3 times table.

Turn to an elbow partner and share what you know by looking at the Hundreds Chart.

Invite parent participants to answer the following

? Guiding Questions

How did using **Learning Tool 2.2** The Hundreds Chart help with your explanation?



Facilitator Tip

Discuss with parent participants the difference between knowledge and understanding. In addition, emphasize on the importance of talking to their children about how to find alternative solutions when having a problem.

Facilitator asks parents to look at the times table and Learning Tool 2.2 The Hundreds Chart.

- What is your knowledge? How do you know?
- What is your understanding? How do you know?
- Share what you know.

Parent Tip: Parent engagement matters. Study after study has shown that student achievement improves when parents play an active role in their children's education, and that good schools become even better schools when parents are involved. It is recognized that parent engagement is a key factor in the enhancement of student achievement and wellbeing.

6. Evaluation and Check-out

(5 minutes)

Materials needed: Pens

Learning Tool 1.5 Evaluation Form (Post)

Evaluation: Facilitator hands out **Learning Tool 1.5** and invites parent participants to give their feedback. Provide parent participants with pens and evaluation forms to be filled out. Encourage them to be honest. Their responses are anonymous and they don't have to answer any questions they don't feel comfortable answering.

Check-out: Thank parent participants for their participation and time.

APPENDICES

APPENDIX 1

Tool 1.1 Agenda

Tool 1.2 Attendance and Photo Release Form

Tool 1.3 Facilitator's Check List

Tool 1.4 Evaluation (Pre)

Tool 1.5 Evaluation (Post)

APPENDIX 2

Learning Tool 2.1 The Attributes Sheet

Learning Tool 2.2 The Hundreds Chart

APPENDIX 3

Resources

Tool 1.1 Agenda

1. Welcome and Introduction (5 minutes)
2. Check-in (10 minutes)
3. Reflection Moment (10 minutes)
4. Content Development (20 minutes)
5. Action Moment (10 minutes)
6. Evaluation and Check-out (5 minutes)

APPENDIX 1.2 - ATTENDANCE AND PHOTO RELEASE FORM

Tool 1.2 Attendance and Photo Release Form

FULL NAME	EMAIL	PHONE NUMBER	DO YOU CONSENT TO HAVE YOUR PHOTO TAKEN?	SIGNATURE REQUIRED
1.			<input type="checkbox"/> Y <input type="checkbox"/> N	
2.			<input type="checkbox"/> Y <input type="checkbox"/> N	
3.			<input type="checkbox"/> Y <input type="checkbox"/> N	
4.			<input type="checkbox"/> Y <input type="checkbox"/> N	
5.			<input type="checkbox"/> Y <input type="checkbox"/> N	
6.			<input type="checkbox"/> Y <input type="checkbox"/> N	
7.			<input type="checkbox"/> Y <input type="checkbox"/> N	
8.			<input type="checkbox"/> Y <input type="checkbox"/> N	
9.			<input type="checkbox"/> Y <input type="checkbox"/> N	
10.			<input type="checkbox"/> Y <input type="checkbox"/> N	
11.			<input type="checkbox"/> Y <input type="checkbox"/> N	
12.			<input type="checkbox"/> Y <input type="checkbox"/> N	
13.			<input type="checkbox"/> Y <input type="checkbox"/> N	
14.			<input type="checkbox"/> Y <input type="checkbox"/> N	
15.			<input type="checkbox"/> Y <input type="checkbox"/> N	
16.			<input type="checkbox"/> Y <input type="checkbox"/> N	
17.			<input type="checkbox"/> Y <input type="checkbox"/> N	
18.			<input type="checkbox"/> Y <input type="checkbox"/> N	
19.			<input type="checkbox"/> Y <input type="checkbox"/> N	
20.			<input type="checkbox"/> Y <input type="checkbox"/> N	

Tool 1.3 Facilitator's Check List

Materials and Supplies:

- Markers
- Flip Chart (if needed)
- Flip Chart Paper
- Post-it Notes
- Pens
- Masking Tape
- Blank Paper
- Learning Tools
- Attendance Form
- Evaluation Forms (Pre & Post)

APPENDIX 1.4 - EVALUATION (PRE)

PARENT EVENT: ____ / ____ / 20__

Do at **START**
of Event

Please answer the questions below.

PART 1: About You

- Your gender:** Female Male Trans I describe my gender in a different way
- Your children's age(s):** 0-5 6-12 13+
- Parenting status:** I'm a single parent I'm **not** a single parent
- What country were you born in:** _____
- What is your postal code:** _____
- Do you have any relatives living with you at home?** Yes No
If YES how many? _____

PART 2: About the Event

- How did you hear about this event?** Friend/Family Another Organization
 Internet Flyers Other (please specify): _____
- Please rate your knowledge on:** (Circle **ONE** answer per question)

		HIGH	MEDIUM	LOW	DON'T KNOW
a	The importance of math in our everyday lives	H	M	L	DK
b	How to build my child's ability to think of math outside of school	H	M	L	DK
c	How to help my child practice math skills	H	M	L	DK
d	How to help my child develop positive feelings about math	H	M	L	DK
f	Please rate your level of comfort with: helping my child with math	H	M	L	DK

PART 3: About your Learning

- What do you hope to learn today?**
-

THANK YOU!

APPENDIX 1.5 - EVALUATION (POST)

PARENT EVENT: ___ / ___ / 20__

Do at END
of Event

Please answer the questions below.

PART 1: About the Event

1. **Please rate your knowledge on:** (Circle **ONE** answer per question)

		HIGH	MEDIUM	LOW	DON'T KNOW
a	The importance of math in our everyday lives	H	M	L	DK
b	How to build my child's ability to think of math outside of school	H	M	L	DK
c	How to help my child practice math skills	H	M	L	DK
d	How to help my child develop positive feelings about math	H	M	L	DK
e	Please rate your level of comfort with: helping my child with math	H	M	L	DK

PART 2: About your Learning

2. **What did you learn today?**

PART 3: About your Satisfaction

1	How often will you use what you learned today with your child(ren)? (Circle ONE answer)	Never	Sometimes	Always
If never, please tell us why not?				
2	How informative was the facilitator? (Circle ONE answer)	Not Informative	A little Informative	Very Informative
3	How satisfied are you with this event overall? (Circle ONE answer)	Not Satisfied	A little Satisfied	Very Satisfied
4	If we could improve ONE THING – what would it be?			

Learning Tool 2.1 The Attributes Sheet

The Attributes Sheet

List five attributes that describe you:

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
-

The Attributes Sheet

List five attributes that describe you:

1. _____
2. _____
3. _____
4. _____
5. _____

APPENDIX 2

Learning Tool 2.2 The Hundreds Chart

<p>KNOWLEDGE</p> <p>Knowledge is what you know. The facts. This never changes.</p>	<p>UNDERSTANDING</p> <p>Understanding is being able to understand and transfer that knowledge to something else. When you know the facts, you are able to understand why they are true. In math language, this would be the evidence or proof to show your knowledge.</p>									
<p>TIMES TABLE</p> <p>$3 \times 0 = 0$</p> <p>$3 \times 1 = 1$</p> <p>$3 \times 2 = 6$</p> <p>$3 \times 3 = 9$</p> <p>$3 \times 4 = 12$</p> <p>$3 \times 5 = 15$</p> <p>$3 \times 6 = 18$</p> <p>$3 \times 7 = 21$</p> <p>$3 \times 8 = 24$</p> <p>$3 \times 9 = 27$</p> <p>$3 \times 10 = 30$</p> <p>$3 \times 11 = 33$</p> <p>$3 \times 12 = 36$</p>	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96	97	98	99	100

APPENDIX 3

Resources

1. Inspiring Your Child To Learn And Love Math. This is a 7-8 minute video presented by Dr. Lynda Colgan who provides practical strategies and suggestions to parents to enhance their child's math education:
https://www.youtube.com/watch?v=A-VxlJWY_Es
2. Get Smarter About Money (Ontario Security Council) The best resources on the website are the archives and regular newsletters about Money. You can subscribe to a newsletter here. On the Resources page you can also access multilingual services:
<https://www.getsmarteraboutmoney.ca/your-new-getsmarteraboutmoney-ca>
3. Make it Count: A site designed for parents to learn about talking to your kids about money:
<http://www.makeitcountonline.ca/msc/parents>
4. Doing Mathematics With Your Children: More activities to do with your children from Kindergarten to Grade 6:
<http://www.edu.gov.on.ca/eng/literacynumeracy/parentGuideNumEn.pdf>
5. Inspiring Your Child to Learn and Love Math (video)
https://www.youtube.com/watch?v=A-VxlJWY_Es
6. Doing Mathematics With Your Child (Parent Tips):
<http://www.edu.gov.on.ca/eng/literacynumeracy/parentGuideNumEn.pdf>
7. Ontario Directors- Parent Engagment Module One: Fact Sheet:
http://www.ontariodirectors.ca/parent_engagement-math/downloads/docs/en/module01_factsheet_2015-09-21.pdf
8. Ontario Ministry of Education Parent Involvement:
<http://www.edu.gov.on.ca/eng/parents/involvement>

