ROUTINES ROADMAP

STRUCTURE

- Activity Overview & Preparation (5-10 MIN)
- Introduction (2 MIN)
- Activity & Discussion (20-30 MIN)
- Closing (5-10 MIN)

TIME

30-50 MINUTES

In this activity, caregivers develop a "roadmap" for incorporating math talk during five daily routines of family life. The "roadmap" is intended to help caregivers remember to be intentional about using math talk throughout the day, with the goal of promoting their child's early math skills

OBJECTIVES

At the end of this activity, participants will be able to:

- Recognize the value of being intentional about using math talk with their children
- Identify math topics and conversation strategies to incorporate into daily routines with their children

MATERIALS

Printout (or digital copy) of the routines roadmap table to be completed during the activity

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ROUTINES ROADMAP

GETTING READY

FACILITATOR NOTES

BUILDING CAPACITY

This activity builds on the **Revealing the Math in Everyday Life** module, but does not require module completion. (Module 3, Segment 2)

ADAPTATIONS

Use these ideas to modify the activity based on:

- child age,
- time and resources available for implementation
- caregiver needs.

TIPS

Blue text indicates something that facilitators might say (e.g.,"**Today we are going to discuss how to be intentional about talking about math during daily activities with your child**"). Regular text is information for facilitation.

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ROUTINES ROADMAP

GETTING READY

ACTIVITY OVERVIEW

In this activity, you will facilitate a discussion with caregivers about opportunities for math conversations in everyday family life. When caregivers are intentional about using math talk, they can introduce many opportunities throughout the day to build their children's early math skills. The goal is for caregivers to identify family routines that are the best fit for the purpose of having math conversations with their child, based on the child's interests and the time available for caregiver/child interaction in the context of the activity.

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GETTING READY

PREPARATION

(5- 10 Minutes)

Arrange caregiver seats in a way that they can see a screen, whiteboard, or wall where you will show the Routines Roadmap table. Distribute printed copies of the Roadmap table to each caregiver.

If you are facilitating the group in an online platform, screen share a copy of the Routines Roadmap table and duplicate it in a Google document or similar online editing platform so that each family can create their own roadmap. Provide a link to the Google document. If you are facilitating in person, pass out paper versions of the Routines Roadmap form.

Another option is to have families draw the roadmap on a piece of paper at home or to simply make a list of five daily routines they do with their child, and then for each one, write how they might talk about math with their child.

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ACTIVITY

INTRODUCTION
5 Minutes

Introduce the activity. For example, you might say: **"Today we are going to discuss how to be intentional about talking about math during daily activities with your child. We will create a roadmap of your routines to help us remember to have math conversations. Just like a car's roadmap shows milestones to remind you where you are as you travel, our Routines Roadmap will have daily activity "milestones" like breakfast, getting dressed, or bedtime, to remind us to use math talk in order to build our children's early math skills."**

ACTIVITY & DISCUSSION

Part 1: 20-30 Minutes

Distribute the Routines Roadmap table and ask participants to fill out the left column first, based on their child's daily activities from when they wake up until their bedtime.

"For this part of the activity, I want you to think about how a typical day for your child unfolds. Write down on the table five things you do throughout the day. Let's start with the first thing you and your child do in the morning."

This list might include things like:

- making bed
- having breakfast
- brushing teeth
- getting dressed
- going to school
- having lunch
- going to church, mosque, or temple
- being in nature or going for a walk
- playing outside
- dinnertime
- bedtime
- reading books or listening to music
- other activities the caregiver feels are important

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If caregivers are having a hard time coming up with ideas, it may be helpful to offer suggestions on how to organize routines. Consider offering structures such as time, location, or event categories:

- Morning, midday, evening/night
- Meal categories (breakfast, lunch, dinner)
- Location categories (bedroom, kitchen, bathroom, living room, front or backyard)

ACTIVITY & DISCUSSION

Part 2: 20-30 Minutes

Then, once they listed five daily routines, ask caregivers to use the second column to write down an idea for how to incorporate math into the routine. In this way, caregivers can form a roadmap for talking about math in their daily activities. For example, a caregiver might report:

Daily Activities with Preschooler & Math Opportunities:

Wake up and change the baby's diaper:
Have your preschooler count the baby's toes while changing the diaper

Breakfast:
Count fruit pieces on tray with child while having breakfast

Brushing teeth:
Watch a timer count down while brushing teeth; talk about size of teeth (measurement)

Travel to school or childcare:
On the way to school or childcare, talk about shapes of signs

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Next, have a whole group discussion so everybody can share their ideas. You can use prompts like:

"It looks like many of you listed breakfast as one of your daily activities. What are some suggestions to talk about math during breakfast?"

ACTIVITY & DISCUSSION

Part 3: 20-30 Minutes

Celebrate opportunities that caregivers notice in their existing routines for inserting math. Acknowledge and reinforce these daily activities as math opportunities rather than just "things they have to do" or burdens. Your goal as a Family Support Professional is to help the caregivers uncover opportunities to talk about math in the context of activities that are already happening in their lives.

You can challenge caregivers to think about opportunities for math conversations in a variety of settings, like,

"How would you include math talk at the dentist?"

"How might you include math talk at a birthday party?"

It is important to consider the skills caregivers bring to the discussion. Some families may already be intentional about talking about math during daily activities, while it might be new for other caregivers. Some tips for determining where families are in this process include:

- Ask caregivers whether any want to share what they already do to talk about math during their regular day with their children.
- Have caregivers talk about what parts of the day are easiest for them to insert math, and what parts of the day are most challenging.
- Have caregivers talk about how their own mood, or the feeling of being busy or distracted, may impact the extent to which they talk about math with their children.

If caregivers are interested, they may enjoy role-playing these opportunities for math conversations. You can ask for volunteers to act out one of their ideas during the discussion. This will help make the strategy become more realistic to use in their daily activities.

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ACTIVITY

CLOSING
5-10 Minutes

Incorporate these key take-aways in how you close the session with caregivers. You can state them as written, or paraphrase based on the caregiver's experiences.

- When they take a close look at their daily activities, caregivers can find new opportunities to talk about math with their children, which can in turn build their children's early math skills.
- More structured math activities such as doing puzzles can be fun and useful, but caregivers with limited time can support the development of early math skills just by remembering to talk about math with their child in the context of everyday family routines.

To help solidify learning, ask families to share one thing they learned about early math from this activity.

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ADAPTATIONS

CHILD'S AGE

Consider the ages of the children in the families you work with. If the children are very young, such as toddlers, help caregivers to think about how their everyday interactions might reveal different kinds of math opportunities as compared to an older child.

TIME & RESOURCES

If you have limited time to share the activity with caregivers, consider reducing the activity to focus on just one or two parts of a caregiver's day.

CAREGIVER NEEDS

If the caregivers require accommodations to participate, be sure to support their needs by:

- Offering closed captioning
- Providing all materials in caregivers' native language (with translations when relevant)
- For caregivers who prefer to interact with materials using methods other than reading or have low literacy skills, provide audio (you can record audio files or read materials aloud) and engage in discussion rather than requiring reading.
- For caregivers who prefer to interact with materials without writing, provide options that allow them to add details to the roadmap that may be helpful, like stickers that represent common daily routines and stickers that represent math topics. In this way, these caregivers can attach a sticker of a routine and a math topic sticker on their roadmap.
- Consider how family daily activities might differ across cultures, Celebrate these differences and help families feel empowered to discuss culturally relevant parts of their daily life. For example, if the caregivers in your group attend a mosque as part of their routine, include it in the roadmap and discuss how math talk can occur in that space.

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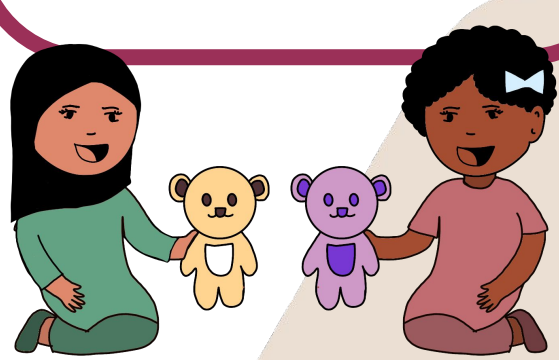
ROUTINES ROADMAP

CAREGIVER MATERIALS

DAILY ACTIVITY

MATH OPPORTUNITY



ACTIVITY 3.6

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ACTIVITIES FOR FAMILY SUPPORT PROFESSIONALS:
EXPLORING EARLY MATHEMATICS

"Everyone Succeeds" was developed for Family Support Professionals to use with the families they serve. All activities are available at no cost, on the Institute of Child Development Math and Numeracy Lab website, for private use with families and caregivers. These materials may not be reproduced or distributed for any for-profit effort without explicit permission from lead developers, Drs. Wackerle-Hollman and Mazzocco.

Module 1: How Attitudes and Dispositions May Affect Early Math

- Activity 1.1 Everyone Succeeds
- Activity 1.2 Flipping the Script
- Activity 1.3 Mathitudes
- Activity 1.4 Learning from Math Mistakes
- Activity 1.5 Comments, Questions, and Conversations (CQC's)
- Activity 1.6 Attitude Adjustments
- Activity 1.7 We Are All Math People

Module 2: Math is Numbers and More: Exploring Early Math Topics

- Activity 2.1 Math Kaleidoscope
- Activity 2.2 Early Math Topics
- Activity 2.3 Picturing Math
- Activity 2.4 Measuring Up!
- Activity 2.5 Toddlers Under Construction

Module 3: Finding Math in Everyday Life

- Activity 3.1 Early Math Success Stories
- Activity 3.2 Math Snacks
- Activity 3.3 Becoming a Math Detective
- Activity 3.4 Make a Statement with Math
- Activity 3.5 Everyday Math in Action
- Activity 3.6 Routines Roadmap

These activities were developed by the Math and Numeracy Lab, directed by Michèle Mazzocco, Institute of Child Development (ICD), in collaboration with Alisha Wackerle-Hollman, Director of the IGDIlab, Department of Educational Psychology, both at the University of Minnesota. Contributors include ICD doctoral students Sarah E. Pan and Jasmine R. Ernst. This work was supported by Heising-Simons Foundation DREME Network Awards 2018-0670 and 2020-1777. We thank members of the Math and Numeracy Lab that contributed to this work, family support professionals who provided feedback or welcomed us (and our activities) into their classrooms, and our community partner consultants who provided insight on language selection and delivered illustrations to make this work meaningful to the Latine and Somali communities.

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