

# Training 4. Math Moments with Babies

## Make Connections: You and Me and Math

### Background for trainers

#### Goals

- Understand that babies can learn about math through touch, actions, and sound.
- Recognize that math for babies includes simple patterns.
- Practice “math talk” for babies

#### Materials

- Pencils or pens, 1 per participant
- HANDOUT 4 (4A-4B), 1 per participant, English or Spanish

#### Before beginning

- Copy handouts in color
- Set up projector for video (optional)

### A. Welcome and introduction (2 minutes)

#### 1. Explain the session plan



Welcome! In this training, you will:

- ▶ see how babies can learn about math through touch, actions, and sound,
- ▶ learn that math for babies includes simple patterns,
- ▶ practice “math talk” for babies.

You will learn how to include quick, simple math activities in what you already do with babies.

### B. Videos (10 minutes)

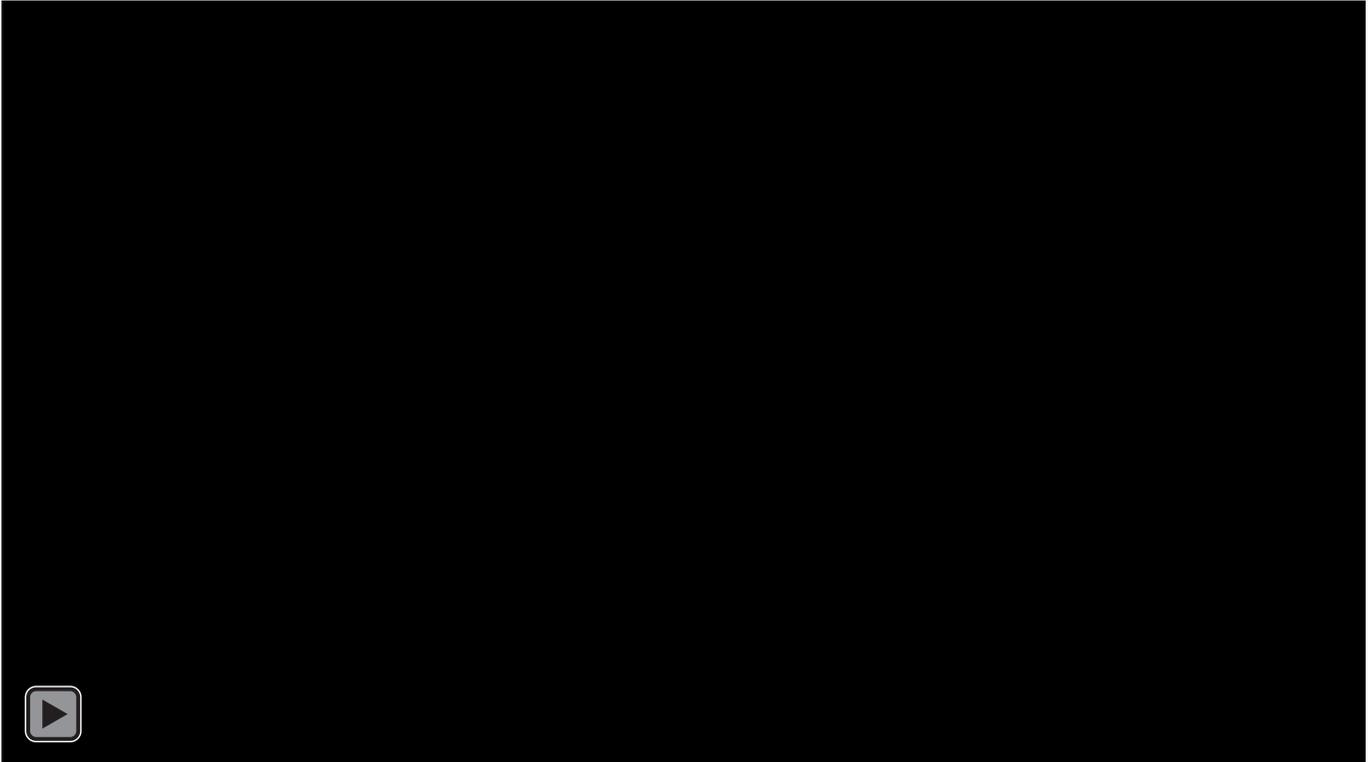
#### 1. Introduce MAKING SOUND PATTERNS video

- ▶ This video starts with a baby playing with a plastic cup. The caregiver notices that the baby likes to make a popping sound with the cup. She engages the baby in taking turns making the popping sound. This is based on a MAKE CONNECTIONS activity (LIVE HEALTHY/OUTDOORS unit, COPY ME for Under 2s).
- ▶ When you watch, think about:



*How does the caregiver engage the baby in making a simple pattern?*

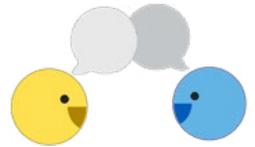
## 2. Watch MAKING SOUND PATTERNS



### 3. Have participants discuss in pairs for 1-2 minutes



*How does the caregiver engage the baby in making a simple pattern?*



### 4. Review key points



The caregiver engages the baby in patterns in these ways:

- ▶ The caregiver follows the baby's interests.
- ▶ She encourages taking turns so that the baby participates in acting out a simple pattern with her: my turn, your turn, my turn, your turn.

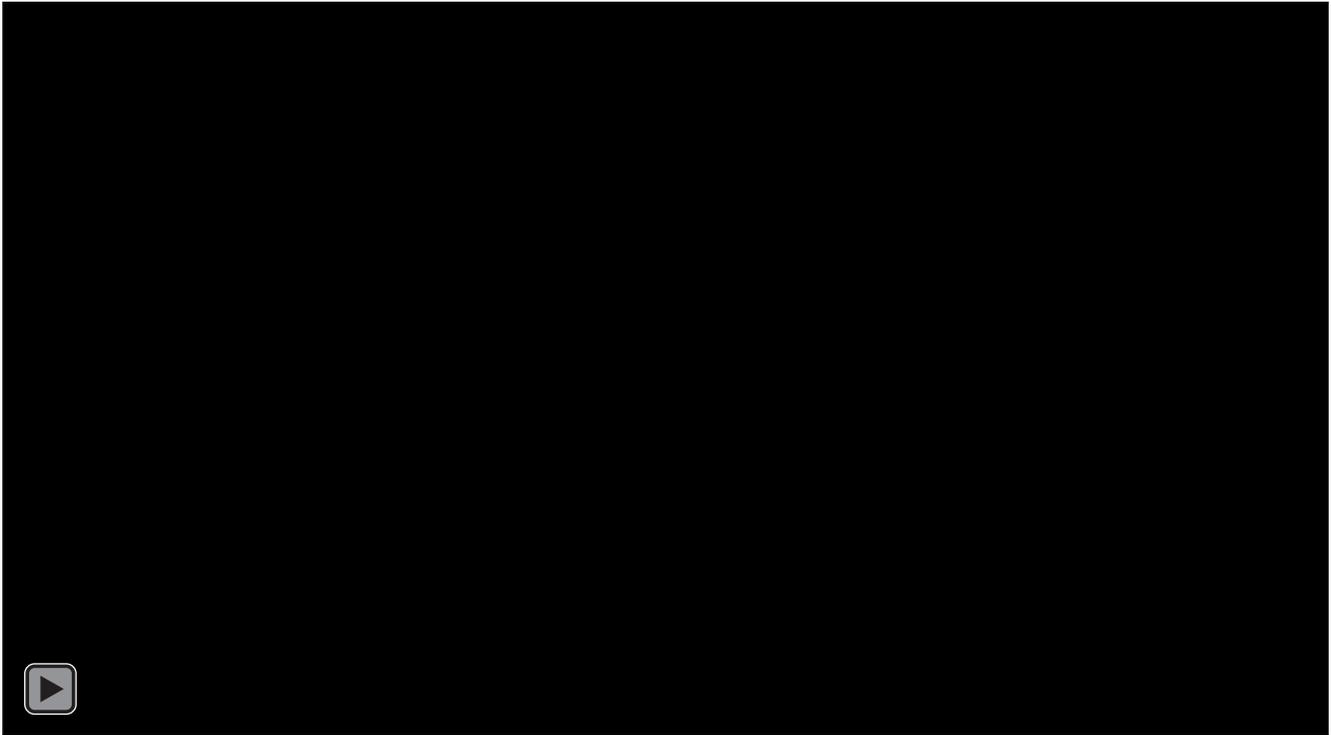
### 5. Introduce LEARNING LOGIC video

- ▶ In this video, the caregiver hides a toy bear in a cup. The baby uses logic to find the bear. This is based on a MAKE CONNECTIONS activity (ANIMALS unit, FIND THE ANIMAL for Under 2s)
- ▶ When you watch, think about:



*How does the caregiver help the baby think about where the bear could be?*

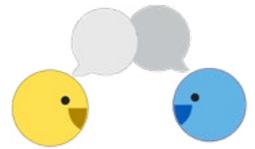
## 6. Watch LEARNING LOGIC



### 7. Have participants discuss in pairs for 1-2 minutes



*How does the caregiver help the baby think about where the bear could be?*



### 8. Review key points



The caregiver helps the baby think about where the bear could be:

- ▶ She uses sound, touch, and eye contact to engage the baby.
- ▶ When the baby chooses the wrong cup, the caregiver encourages her to keep thinking, by asking, “Where is the little bear?” She does not say that the baby is wrong.
- ▶ Her questions and math talk encourage the baby to use logic, “if it’s not under this cup, it must be under that cup.”

### C. Activity: COPY ME (10 minutes)

#### 1. Distribute and introduce HANDOUT 4

- ▶ HANDOUT 4A shows simple action patterns to use with babies. It also gives ideas for talking about patterns with a baby. Babies may not understand the words, but they will begin to learn as you talk to them.

Read the *italicized* math talk on HANDOUT 4A out loud or ask for volunteers to do so.

- ▶ You will be coming up with your own ideas for a simple pattern you can act out with a baby.

Read HANDOUT 4B out loud, including the math talk checklist.

- ▶ Your math talk should describe the pattern for the baby, just like in 4A.

## 2. Participants fill out HANDOUT 4B in pairs

As participants work, circulate to help them see if their ideas fit the math talk checklist. Help them revise if needed.

## 3. Participants share ideas

Invite volunteers to share their action pattern ideas and math talk.

## D. Wrap Up (2-5 minutes)

### 1. Review main points of the session



To review, here are the main points of the session:

- ▶ Baby math includes acting out very simple patterns and reasoning about locations of objects.
- ▶ Base math activities for babies on things that interest them.
- ▶ Babies have a very short attention span! Baby “math activities” can take just a few seconds. You can repeat them again and again.

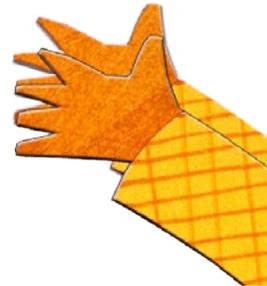
Under 2s

Live Healthy / Outdoors  
Week 3Math topic:  
PatternsMath Vocabulary:  
First, next**COPY ME**

Materials: None

Try this anywhere, anytime. First, you do something, then your baby does it. Repeat!

*First, I clap. Then, you clap.*



*I say "peekaboo!"  
Next, you say  
"peekaboo!"*



*I touch my nose.  
Next, you touch  
your nose.*



## Math Moments: Copy Me

## Handout 4B

Make up a simple action pattern to do with a baby. Your pattern should be different than those on HANDOUT 4A.

What is your pattern? When could you do it? Write your answers:

Write down a math talk comment you could make while acting out the pattern with a baby. Check that your idea is math talk. If it is not, revise it.

### MAKE SURE IT IS MATH TALK:

Does your comment use math vocabulary on the activity sheet, like first and next?

*If not, revise your comment to include math words.*

Does your comment describe the pattern?

*If not, revise your comment to describe the pattern.*

Bebés (Menores  
de 2 años)

Vida sana/Al aire libre  
Semana 3

Tema de matemáticas:  
Patrones

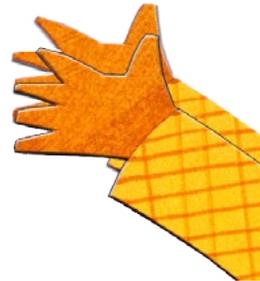
Vocabulario de matemáticas:  
Primero, siguiente

Materials: Ninguno

## ¡A COPIAR!

Hagamos esta actividad en cualquier lugar, en cualquier momento. Primero tú haces algo, y entonces el bebé hace lo mismo. ¡A repetir!

*Primero yo aplaudo  
y luego tú aplaudes.*



*Yo digo "¡cucú!"  
y luego tú dices  
"¡cucú!"*



*Yo me toco la  
nariz y luego tú te  
tocas la nariz.*



## Momentos Matemáticos: ¡A copiar!

Folleto 4

Invente un patrón de acción sencillo para realizar con un bebé. Su patrón debe ser diferente que aquellos en EL FOLLETO 4A.

¿Cuál es su patrón? ¿Cuándo podría hacerlo? Escriba sus respuestas:

Escriba un comentario de Plática matemática que podría hacer mientras actúa el patrón con un bebé. Verifique que su idea sea Plática matemática. Si no es así, revíselo.

### ASEGÚRESE DE QUE SEA PLÁTICA MATEMÁTICA:

¿Su comentario usa vocabulario en la hoja de actividad, como primero y enseguida?

*Si no es así, revise su comentario para incluir palabras de matemáticas.*

¿Su comentario describe el patrón?

*Si no es así, revise su comentario para describir el patrón.*