

MEALTIME EXPLORATIONS: Young Toddlers (1-2 years)

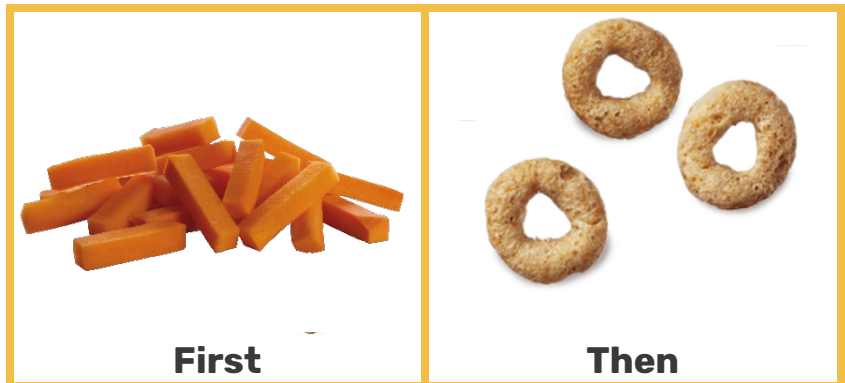


Mealtimes are a great opportunity to support STEM learning. You can talk about STEM ideas and use STEM words as you feed or talk with your young toddler during mealtimes.

Children can learn about **quantity** (“You have two crackers!”), **volume** (“This cup has more milk.”), **sequencing** (“First eat the carrot, then a Cheerio.”), **physical properties** (“It is too hot. My ice cream is melting!”), and **plants** (“Carrots grow in the ground, but apples grow on trees.”)



Children learn new things when they practice them in everyday routines. Try one or two of the following activities during mealtimes. With a little bit of practice, mealtime can become a natural place to talk and learn about STEM. Use these ideas to set up the environment and materials to best suit your child’s needs.



Key STEM Learning:	<i>Science</i>	<i>Computational Thinking</i>	<i>Engineering</i>	<i>Math</i>
--------------------	----------------	-------------------------------	--------------------	-------------

Note: STEM concepts are highlighted in **bold** and *italicized*. At the STEMIE center, technology refers to computational thinking.

Technology is the introduction of underlying concepts of building or creating technology, including computational thinking, which is the basic logic underlying computer science (U.S. Department of Ed/U.S. Department of Health and Human Services, 2016)

Adaptations: What I can do to support my child's learning

Access/Environment:

Minimize distractions so that your child can be more engaged during mealtime.

ALWAYS ASK YOUR CHILD'S DOCTOR, PHYSICAL THERAPIST, OCCUPATIONAL THERAPIST, OR FEEDING-SPECIFIC SPEECH-LANGUAGE PATHOLOGIST FOR INPUT ON FEEDING POSITIONING.

To help position your child for feeding, use pillows, stack boxes or reams of paper to support their feet.



Image Credit: Feeding Littles

<https://www.feedinglittles.com/blog/starting-solids-the-importance-of-sitting-unassisted>

For child with low motor tone, use a pillow or rolled up towel to support their trunk and body.



Image Credit: Feeding Littles

<https://www.feedinglittles.com/blog/starting-solids-the-importance-of-sitting-unassisted>

Adaptations: What I can do to support my child's learning

Materials:

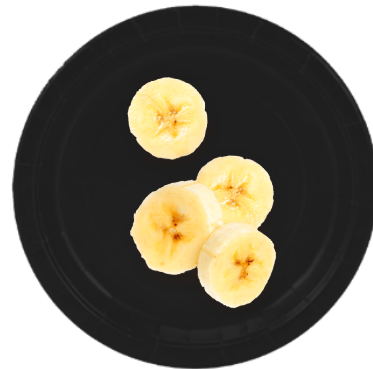
- Use small portions when introducing new food
- Use soft foods, and keep all cut sections of food smaller than a thumbnail to prevent choking

Use a cup with handles or offer a bowl and a small, simple spoon to encourage self-feeding



Image Credit: green sprouts®

To make food more visible for your children, present food using high-contrast materials (e.g., place banana pieces on a dark plate)



- For easier grasping, adapt the utensils by building up the handles or creating grip straps using household items (e.g., masking tape, pool noodles)
- Offer a bowl and fork or spoon to promote self-feeding
- Use non-slip mat at the bottom of the plate/bowl to prevent any slippage

Use a tray or plate with raised lip or rim to steady the food as your child handles it and explore it.



For child with significant fine motor difficulty, considering using handled measuring cups or built-up ladles to allow them to scoop the food.



Image Credit: Fabricate4All

<https://www.fabricate4all.org/atsolution/built-up-handle-grips/>

Adaptations: What I can do to support my child's learning

Interactions/Instruction:

Note: Communication may include the use of words, signs, gestures, and different types of cues (e.g., touch, object, movement, visual, etc.)

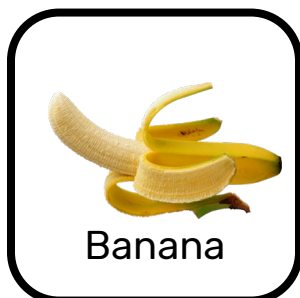
- Communicate with your child at eye-level.
- Speak/sign slowly, emphasize keywords, and wait for a response.
- Praise your child's efforts (e.g., to try new foods) with words, facial expression, or body language.
- Make eye contact and smile as you talk to your child.
- Provide hand-over-hand support or be physically close by if needed to help your child direct utensils and explore foods together.
- Narrate/sign your child's actions as they experiment with the utensils and foods ("Oh, you're scooping with your spoon!").
- Model exploring and trying the foods your child has. Use gestures/signs and your voice to draw their attention to the properties of the food.
- Encourage your child to manually handle the food and to explore it with their mouth. If your child seems interested in biting off pieces of soft food, watch carefully to ensure the size of food is manageable and not a choking hazard.
- Use visual pictures/symbols to provide instructions and communicate with your child.



Image Credit: Andrea Piacquadio (Pexels)



Eat



Banana



Blueberries

- 'Chain' new foods - encourage picky eaters to tolerate new food on their plate before asking them to touch it or taste it. Once they are willing to touch or taste, expand repertoire with similar foods (if they will eat apple slices, try dried apples next).

Exploration: What Comes Next?

Key STEM
Learning:

Science

*Computational
Thinking*

Math

Description: Provide two different food items and encourage your toddler to **copy a simple AB pattern**.

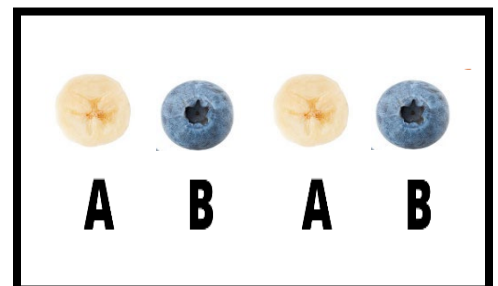
Create a simple AB-AB pattern using two foods such as banana slices (a) and blueberries (b) in a row. Model eating a banana slice first, then a blueberry and say, "I am having a banana first, then a blueberry." Repeat the action at least three times. Then, ask your child **what is next?** Have your child point to the food and copy the pattern.

What My Child Is Learning!

Patterns are all around us. Children love to find patterns in their everyday lives. They can **find and notice the patterns** on a striped shirt, zebra skin, or even in songs.

Why is learning patterns so important? **Learning patterns can help children understand logic, make predictions, and solve problems.** These are fundamental skills for later STEM learning and success.

Besides modeling how to create a pattern, you can also use a simple laminated placemat for AB - pattern (print this card and put in a Ziploc or trace it on wax paper yourself) for communications.



Exploration: Mealtime Engineer!

Key STEM
Learning:

Science

Engineering

Math

Description: Provide two baby-safe bowls and a spoon. Model how to **scoop/pour** the cereal from one bowl to another and describe the action. Have your toddler repeat the task. Allow your toddler to **experiment with the scooping, pouring, and filling** in their own way. Do not forget it is okay to get messy!

What My Child Is Learning!

During this age, your toddler starts showing interest in **scooping, pouring, and filling** the containers. **Scooping, pouring, and filling** are not only great times for your toddler to develop fine motor skills, but also great opportunities to explore and discover STEM concepts, such as **cause & effect, gravity, volume.**



Image Credit: Unsplash

Your toddler may start communicating with you using words or gestures. Matching your actions with words can help your toddler understand the concept. For example, you can say “**Scoop**” when you scoop dry cereal into a bowl and say “**Pour**” when you add milk to the bowl.

Using open-ended questions is another great way to encourage your toddler’s critical thinking skills and STEM learning. For example,

- After scooping the cereal into a bowl, you may ask “**What should we do next?**”
- After adding milk, encourage your toddler to explore using different senses. Then ask “**What happens when cereal stays in milk for too long?**” or **how the cereal changed when the milk was added?** Model attribute description words such as **hard, crunchy, and soft.**

Exploration: This and That...

Key STEM
Learning:

Science

Math

Description: While having a meal, ask your toddler to **sort** or **classify** the food into **groups** (i.e., vegetables; fruits, color, size). Encourage your toddler to **describe the similarities and differences**.

What My Child Is Learning!

During the process of sorting and classifying, your toddler learns to observe and group objects based on their similarities and differences. This is an important fundamental skill to support children's development of reasoning and math (e.g., geometry). This is also supporting children's observation skills which is an important scientific practice that children engage in with science learning



Image Credit: Pixel

To develop the skills of sorting and classifying, there is no need to buy expensive STEM toys. You can always incorporate this learning opportunity into your regular breakfast, lunch, and dinner time. You can encourage your toddler to **classify** items based on **pre-determined groups** (e.g., size, color, or shape). For example, you may ask **"Can you help me put all the round shaped food we have for lunch today over here and all the non-round shaped food over here?"** You can also encourage your toddler to **sort** items according to self-determined **attributes/property** (e.g., **"I put all these together because they taste yummy!"**). To help with sorting or classifying, you can also offer differently colored cups or bowls for grouping different food items.

Exploration: What is on the Table?

Key STEM
Learning:

Science

Description: While having a meal, ask your child to **guess where this food comes from**, or **why you like this food**. Expand your toddler's answers by providing more details (e.g., talk about how an apple tree grows).

What My Child Is Learning!

This is also a great opportunity to help your toddler understand that some food comes from plants, and some food comes from animals. You can **expand your toddler's knowledge and understanding in science by discussing living things or the food** (e.g., "Where do you think the food comes from?", "How do you think this will taste?"). Using the language of "think" may begin to elicit children's engagement and understanding of predictions.

