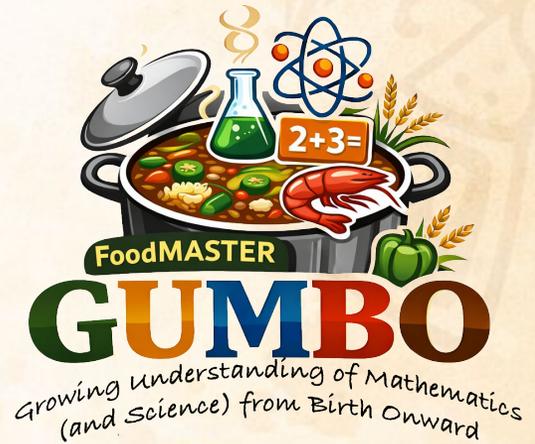
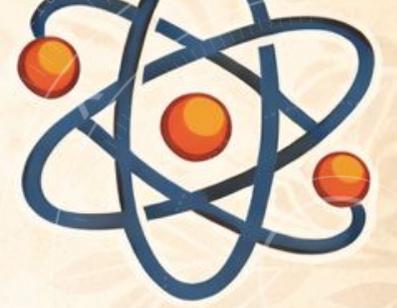


# INFORMAL STEM UNDERSTANDING IN EARLY IN EARLY CHILDHOOD



Early Childhood  
EDUCATION INSTITUTE

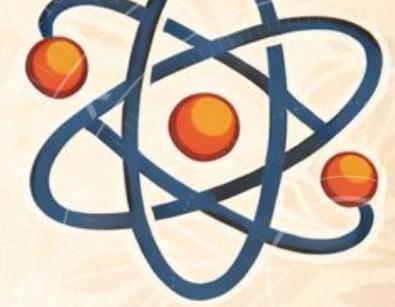




# PURPOSE

- In this session we will discuss the inherent understanding of early STEM concepts in infants and toddlers and preschoolers and explore how to facilitate early STEM experiences through using food and cooking activities.
- This session aligns with the STEM With Food: Birth-to-4 International Guide and provides practical strategies teachers can use immediately.





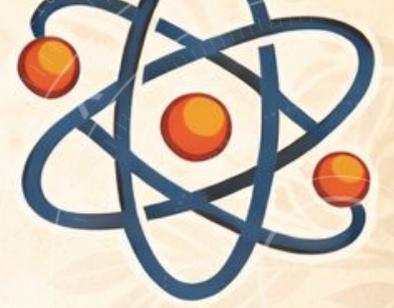
# WHAT SHOULD WE SEE?

- Children engaging with STEM materials & activities independently
- Concepts developing without direct teaching
- A developmental sequence for learning STEM and mathematical concepts
  - Infants: Sensory exploration of food (touching, tasting, squeezing), watching cause and effect
  - Toddlers: Filling and dumping, sorting by color or texture, early comparisons
  - Preschoolers: Predicting, testing ideas, graphing simple results, creating patterns
- Beginnings of STEM as early as infancy
- Children using STEM to make sense out of their world



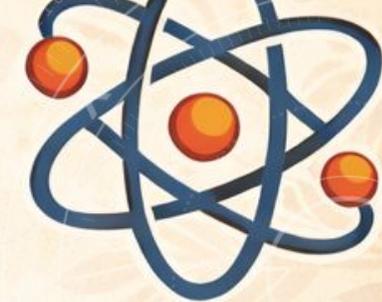


# EMERGENT STEM



- **Create stimulating environments**
  - Provide real, sensory-rich materials (bowls, scoops, soft foods, water)
  - Offer safe opportunities for touching, pouring, filling, mixing
- **Recognize everyday STEM interactions**
  - Notice when children compare textures, sort foods, or repeat actions
  - Observe children exploring cause and effect (dropping, stirring, melting)
- **Promote children's natural STEM abilities**
  - Encourage curiosity and experimentation
  - Follow the child's lead during exploration
- **What this looks like in practice**
  - Ask: "What do you notice?"
  - Model descriptive language: smooth, sticky, warm
  - Allow repeated actions to support investigation





# HOW CAN WE ADDRESS THESE COMPETENCIES?

These competencies can be addressed through food-based STEM exploration supported by a universal rubric that guides observation and reflection.

The Food Science Curriculum



# WHAT IS FOODMASTER?

While FoodMASTER targets older children, its core practices—observation, comparison, measurement—adapt seamlessly to Birth–4 through sensory-rich experiences.



Food,  
Mathematics,  
and Science  
Teaching  
Enhancement  
Resource

Uses food to  
teach STEM  
concepts

Inquiry-based  
and hands-on

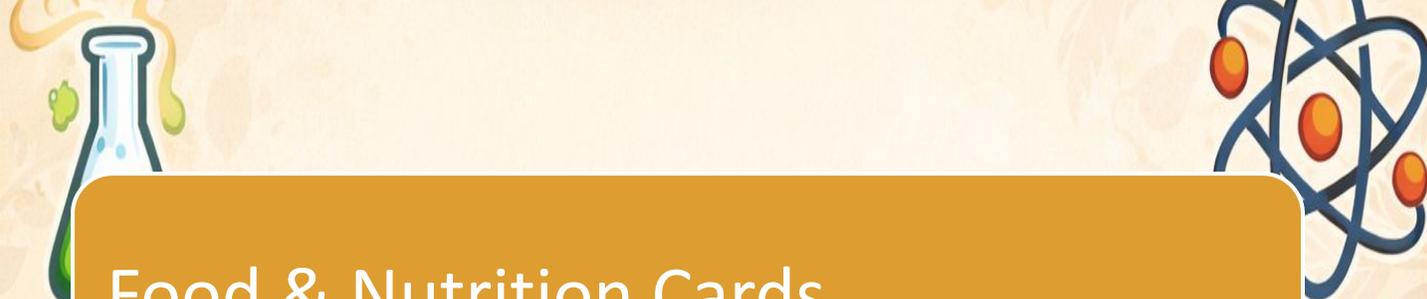
Adaptable for  
early learners



# FOODMASTER FAN CARDS

How they support  
infants/toddlers/non-readers:

- Matching cards to real foods
- Sorting by color
- Vocabulary development



## Food & Nutrition Cards

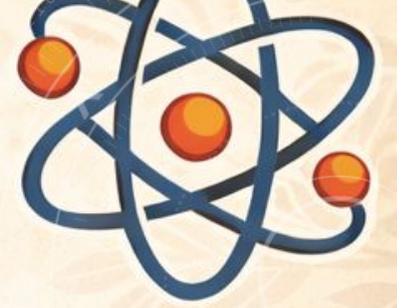
- Measurement, food groups, food safety

- Easy to use in informal settings

- Highly adaptable for young children
- 



# WHAT IS MORE PEAS PLEASE!?



01

Early childhood  
food-based  
learning program

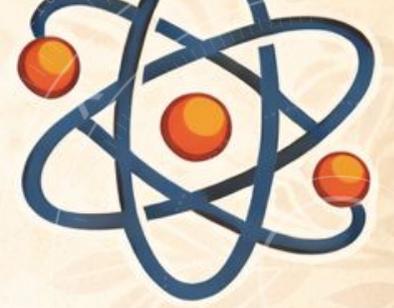
02

Promotes science,  
language, and  
healthy eating

03

Designed for  
preschool-aged  
children





## MODIFIED FOR BIRTH-4:

- Practice Science → concrete sensory based exposure
- Engage the Senses → tasting, touching, smelling
- Apply Science Talk → naming properties
- Support Learning → try → test → observe



# SAMPLE ACTIVITY: MEASURE & MIX



Children scoop, pour, and mix foods



Builds math measurement skills



Encourages sequencing and problem solving



Infants: water + spoons

Toddlers: scooping dry oats

Preschool: mixing ingredients and predicting outcomes





# SAMPLE ACTIVITY: TASTE & GRAPH



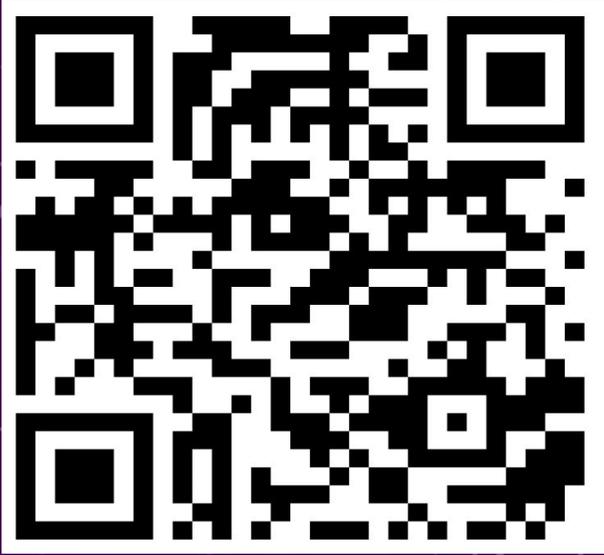
Children taste fruits and graph favorites

Early data representation

Language development



Stickers, smile/no-smile cards,  
simple tally

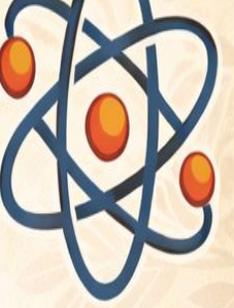


## Elementary Fan Cards

## RESOURCES



More Peas  
Please



FoodMASTER FAN Cards

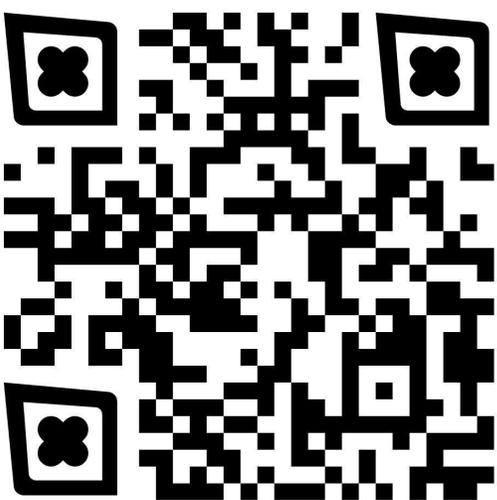
<https://foodmaster.org/fan-cards-download/>

More PEAS Please!

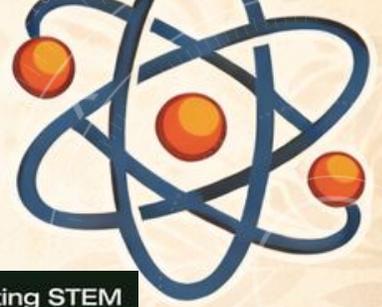
<https://www.morepeasplease.org/>

LINK TO STEM With Food: Birth-to-4 guide

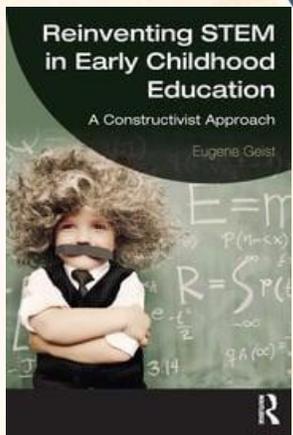




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Gumbo Guide

LSU



Early Childhood  
 EDUCATION INSTITUTE

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 Executive Director, Louisiana Association for the Education for Young Children

