

An Introduction to UEB Math/Science for Pre-Kindergarten – 1st Grade Students and Strategies for Supporting Math Learning

Lesson 7: Family Engagement to Support the Child's Success in Math



University of South Carolina Upstate, Fall 2023

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Lesson 7 Objectives

Participants will be able to:

1. Support the family in creating a positive environment for learning.
2. Describe strategies to use when introducing family members to UEB Math/Science.
3. Identify typical routines that support a child's learning of math concepts.
4. Explain activities outside of the home that families can take advantage of to increase the child's learning of math concepts.
5. Develop ideas for activities to send home for families to complete together.
6. Provide ideas to families for supporting their child in completing math homework.

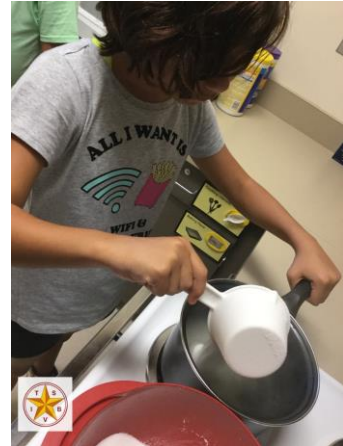
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Supporting Families in Creating a Positive Learning Environment

Guide families to:

- Engage the child in activities
- Set high expectations
- Use a "Can Do" approach
- Take advantage of opportunities
- Plan for the future



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Introducing Families to UEB Math/Science

- Provide print copies of materials.
- Explain the basics of the code.
- Help families find opportunities to learn braille including UEB Math/Science.
- Introduce families to others who use braille including UEB Math/Science.
- Invite family members to school to observe and take part in instruction.
- Explain assignments and the UEB Math/Science symbols used.

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Take Advantage of Typical Routines

- Dressing

- Count buttons on a shirt
- Match socks



- Bathing

- Fill containers "half way"
- Count the number of bath toys in the tub

- Meal time

- Getting and putting items away
- Food preparation
- Sort the silverware
- Set the table
- Add ingredients e.g., 3 measuring cups of flour



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What Math Concepts Can Come into Play Here?



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More Ideas...

Encourage families to have the child:

- Sort objects looking for similarities in either color, shape, or size.
- Sort objects looking for differences, like which box is bigger.
- Touch and manipulate containers, blocks, shape sorters, and puzzles.
- Play games like "Go Fish" and "War" using adapted cards.
- Select toys that are educational such as puzzles or shape sorters.



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Share Ideas for Activities Families Can Do Outside the Home



- Playgrounds
- Buildings
- Restaurants
- Public gardens
- Aquariums
- Zoos
- Science centers
- Theme parks
- Nature walks



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Share Ideas for Shopping with Families



- Help the child braille a shopping list numbering each item on the list.
- Have the child pick out a specific number of items such as 4 tomatoes.
- Have the child count the number of items in the cart or bag.
- Give the child money responsibility.
- Talk about the sizes and weight of items.

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Concepts, Concepts & More Concepts

Families can explore...

- Paths, positions, and directions in the environment
- Shapes in new and familiar areas
- Time concepts (e.g., morning)
- Temperature outside and what to wear



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Numbers in the Real World

- Age and birthday
- Phone numbers
- Child's height, weight
- Address
- Time
- Prices
- Elevator buttons
- Much more



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Sharing Books as a Family

Books not only build literacy skills, they can build math skills. Recommend books that:

- Rhyme
- Repeat phrases
- Contain numbers
- Contain shapes
- Include tactile illustrations



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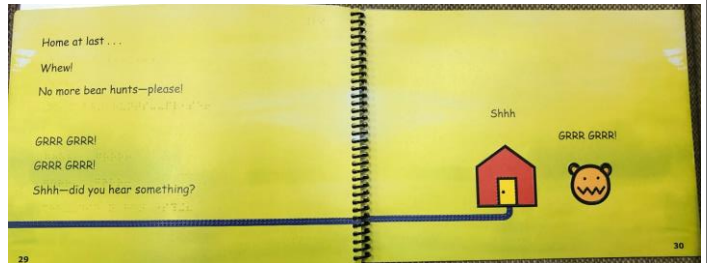
Jellybean Jungle Just one Example from APH's On the Road to Literacy Books



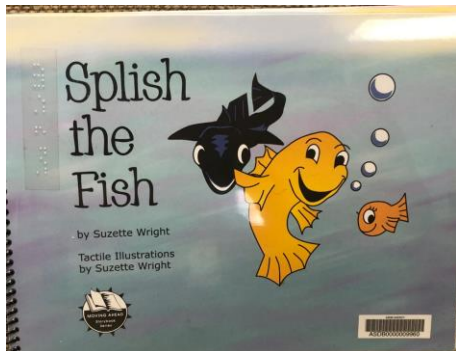
This book is currently only available in EBAAE.

Goin' On a Bear Hunt Retold by Suzette Wright - APH

This book is currently only available in EBAAE.



Splish the Fish by Suzette Wright - APH



This book is currently only available in EBAAE.

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It's Fun to Make Cards, Books, & Graphs

- Model by sending home cards, graphs, and games you and the child create.
- Suggest craft materials to have at home.
- Give ideas of how to incorporate math concepts into the fun!



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Creating Graphs

- Model how the child can collect data and make a chart.
- Stress counting
- Encourage comparisons
- Lots of things to graph!
 - Favorite ice cream flavors
 - Number of times Grandma gave each child a hug
 - How many steps it takes to go from the kitchen to each room in the house



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Paths to Literacy – Lots of Ideas for Families

PATHS TO LITERACY
for students who are blind or visually impaired

Accessibility Options [Login / Register](#) [Share Ideas](#) [Newsletter](#)

HOME | BROWSE BY TOPIC | SECONDARY TOPICS | BLOG | STRATEGIES | RESOURCES | EVENTS

BLOG CATEGORIES

- > Auditory Strategies
- > Braille
- > CVI
- > Deafblind
- > Dual Media
- > Emergent Literacy
- > English Language Learners
- > General Literacy
- > Learning Media Assessment
- > Math Literacy
- > Multiple Disabilities
- > Orientation and Mobility
- > Print
- > Struggling Readers
- > Writing

OUR BLOGGERS

Liamsmom
I am the mother of two busy boys. My oldest, Liam, is deafblind. He loves books and I love to put accessible books into his hands! |

Linda Hagood
I am a speech language pathologist

56 Tactile Math Ideas: Ideas and Suggestions for Development of Basic Concepts & Early Maths Skills

By gwyn52

Children who are blind or visually impaired, including those who have additional disabilities or deafblindness, benefit from lots of hands-on exploration of real objects from the natural environment. Exploration of various household items can help to develop basic concepts about size, shape, color, and lay the foundation for classification skills, matching, and sorting. They can compare groups of objects and find the one that is "big" or "little" or "same". At the same time, experimenting with common objects provides lots of opportunities to practice counting and arranging items, and preparing for more advanced mathematical skills, such as addition and subtraction.

To Develop Skills of Counting, Matching and Sorting, Categorizing, and Discriminating

Using different textures, make sounds, play and extend the learning. Rattle the spoon in the cup, fill the cup and the jug with water find out which holds the most, squeeze water from the sponges. Match the socks, cube-gone the brushes, find all the circular, square shapes, longest, shortest objects.

<https://www.pathstoliteracy.org/blog/56-tactile-math-ideas-ideas-and-suggestions-development-basic-concepts-early-maths-skills>

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Your Attitude Influences Your Student's Attitude

Encourage your student to:

- Do their best each and every day.
- Advocate for themselves.
- Be positive about themselves.



“Not only can I do it, it’s fun!!”