



Quality ChildCare

For Registered Home-Based Providers

LEARNING TO GROW ★ WINDWARD COMMUNITY COLLEGE Vol. III, No. 5

10 Hallmarks of Quality Child Care

- ★ Build trusting relationships
- ★ Provide consistent care
- ★ Support children's health
- ★ Provide a safe environment
- ★ Provide positive guidance
- ★ Provide a language-rich environment
- ★ **Foster curiosity and development through play**
- ★ Individualize care and learning activities
- ★ Partner with parents
- ★ Pursue personal and professional growth

This Month's Hallmark of Quality Child Care

Foster Curiosity and Development through Play

Fostering Children's Mathematical Skills Through Everyday Experiences and Play

According to the National Association for the Education of Young Children (NAEYC), children's mathematical thinking emerge at a young age. When a baby is able to distinguish between a familiar and unfamiliar adult they demonstrate the ability to sort and classify; when an infant signals he wants more food, he is using the math concept of quantity; when a toddler says words and phrases from familiar songs or stories that uses repetition, he is demonstrating patterning skills.

Researchers have found that math experiences in the early childhood years can greatly increase the likelihood of success in mathematics – as well as in all areas of academics – in later years.

In this newsletter, we'll describe the five math components and the skills related to each one. Also, we'll provide guidelines for incorporating these components into daily routines and experiences. In addition, an insert with activity suggestions is included.

These suggestions come from *NAEYC for Families* and Office of Head Start's *News You Can Use*.



Math Concepts

One way to recognize and support early math learning for young children is to be familiar with what math involves. Here are brief descriptions of components that make up mathematics.

Numbers and Operations

- developing a sense of number (that numbers have meaning)
- understanding concepts of quantity (how much)
- order (e.g., first, second)
- ways to represent numbers
- one-to-one correspondence
- counting

Shapes and Spatial Relationships (Geometry)

- recognizing
- naming
- comparing and contrasting objects based on their shape
- understanding the physical relationship (i.e., direction and position) between oneself and objects or between two or more objects in the environment



Measurement

- determining qualities such as size, weight, quantity, volume, and time
- using the appropriate tools to determine quantities

Patterns, Relationships, and Change (the Building Blocks of Algebra)

- recognizing patterns (i.e., seeing the relationships between things that make up a pattern)
- creating repetitions of objects, events, colors, lines, textures, or sounds to make patterns
- understanding that things change over time and that change can be described using math words

Collecting and Organizing Information (Data Collection and Analysis)

- gathering
- sorting
- classifying
- analyzing information to help make sense of what is happening in the environment

Incorporating Math Concepts

When children play, they are often doing much more than that. For example, children explore patterns, shapes, and spatial relations; compare magnitudes; and count objects. These explorations through play are pre-mathematical. The following are some ideas for daily routines and materials that you can use to guide the childrens' mathematical learning.

Routines

- Provide logical, orderly, predictable daily routines. Routines are patterns that help children develop a sense of time (e.g., "what comes before" and "what happens next").
- Incorporate stories and songs into the day that use repetition, rhymes, and numbers.
- Use a calendar to talk about what they will do today. Expand by going over what they did yesterday or will do tomorrow.
- Use meal preparation times to walk the children through recipes (measurement, sequencing) or getting plates and utensils ready (one-to-one correspondence).
- Transition from one activity to another by using a timer or time prompts so that children know what is coming next.



Materials

- Blocks and toys with different shapes, colors, sizes, textures, and sounds.
- Containers for measuring, sorting, and stacking
- Puzzles
- Books that introduce numbers, sequences, patterns, and attributes.
- Musical instruments or songs to have children keep the beat.
- In this packet, we have included an insert that describes specific activities for infants, toddlers, and preschoolers that encourage mathematical learning. In addition, book suggestions are given that reinforce math concepts in an age-appropriate and fun way.

Citations:

NAEYC for Families (n.d.) *Math Talk with Infants and Toddlers*. <http://families.naeyc.org/learning-and-development/music-math-more/math-talk-infants-and-toddlers>

The Progress of Education Reform (October 2013). Vol 14, no. 5. *Math in the Early Years – A Strong Predictor for Later School Success*. <http://www.du.edu/kennedyinstitute/media/documents/math-in-the-early-years.pdf>

News You Can Use – News for Head Start, Early Head Start, & Migrant/Seasonal Programs. (October 2012). *Supporting Early Math Learning for Infants and Toddlers*



Reflection Sheet and Award Book

- To receive the award book for this month, fill out your caregiver's reflection sheet and return it to the Learning to Grow Program in the postage paid envelope by the deadline posted.
- Indicate on Question #8 if you would like to receive free technical assistance or support related to a child care issue.
- Update your address or contact information if any changes have taken place.

REMINDER: Registered QCC participants can use their participation in the program to fulfill the relicensing requirement of "increased knowledge." Ask your DHS Licensing Social Worker about the requirements today.

DID YOU KNOW?

Any time that you are submitting more than one reflection sheet at the same time, feel free to enclose them in a single envelope. It will save postage costs for our funder and facilitate efficient data entry when they arrive.



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Learning to Grow Quality Child Care for Registered Home-Based Providers is a project of University of Hawai'i, Windward Community College with funding from the Hawai'i Department of Human Services ★ 808-462-4700 ★ www.learningtogrowhawaii.org