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

F.O.U.R. Ways to Help Your Child Think Like a Coder

Our world is increasingly influenced by technology, and expanding quickly. Many jobs in the future will be technology-based and most likely require skills in coding—whatever career path a child may take. According to researchers from Tufts University, children today should be learning to code, just like they learn reading and math.

In short, coding (also known as programming) is creating step-by-step instructions to tell a computer how to complete a task. Learning to code develops the higher order thinking skills children will need to thrive in our 21st century workplace. These include creative problem solving and logical reasoning (the ability to analyze information, think in a sequenced order, plan carefully, pay attention to details, and make decisions). Steve Jobs put it well when he said, "Everyone in this country should learn how to [code] because it teaches you how to think."

How does this relate to young children? This does not mean we need to get computers for young children! Instead, we can give them opportunities to learn the concepts of coding—these are foundational thinking skills that will help them easily learn and apply coding later in life.

Here are F.O.U.R. (4) ways you can help young children think like a coder. Give children opportunities to:

- **F** – Follow directions
- **O** – Order events
- **U** – Understand conditional statements
- **R** – Recognize patterns

In this newsletter, we will discuss these four ways to help children think like a coder, and present fun and engaging activities you can do with children at each age level—infants, toddlers and preschoolers—to help them gain important foundational thinking skills.

F – Follow Directions

Coding is all about writing directions. Young children will benefit from having opportunities to follow and give directions.

Here are some ideas for helping children learn to follow directions—at each age level:

- **Infants:** Begin by helping infants gain receptive language skills (the ability to listen and understand language)—by reading, singing and interacting with them. Point out sounds in the environment (e.g., a dog barking, airplane, etc.); use directional language such as "up" and "down."

- **Toddlers:** Toddlers may be able to follow simple commands such as, "Put the ball in the bucket." As they master one-step directions, give them two-step directions to follow such as, "Pick up your cup and put it on the table."

- **Preschoolers:** Give preschoolers opportunities to learn about, follow, and make maps. You can start by drawing a simple map of your child care space, then show the map to the children as you point out the various items (e.g., table, toy shelf, etc.). Encourage families to help their child draw a map of their home or bedroom, then have the child show it to you and tell you about it.

O – Order Events

This refers to knowing what comes first, next, last and so on. Understanding the order in which events happen is foundational for developing the ability to plan and act on steps to reach a goal – an important thinking skill. Children naturally develop sequencing skills as they follow familiar routines throughout their day.

Here are more ideas for helping children learn to order events—at each age level:

- **Infants:** A good place to start with infants is to use the words "now" and "next" when describing your activities. For example, say, "*Now* I am changing your diaper. *Next*, we will go outside."

- **Toddlers:** Use the words *first, next*, and *then*. For example, when talking about your day you might say, "*First*, we played ball, *next*, we did a puzzle, *then* we read a book.

- **Preschoolers:** Create a simple treasure hunt by hiding a toy and directing the children to find it. For example, say, "*First*, take 3 big steps forward; *Next*, take 4 bunny hops to the right; *Then*, take 2 small steps forward," etc. until they find the toy. *Then*, let the children make up a treasure hunt for you!

U – Understand Conditional Statements

These are "if/then" type of statements such as, "If the weather is nice, then I will wash the car." This is important in problem solving.

Here are ideas for helping children understand conditional statements—at each age level:

- **Infants:** An infant's first experience with cause and effect is when he learns that a caregiver comes when he cries. Additionally, point out cause and effect in the environment. For example, place an infant's hand on the light switch as you say, "When I flip the switch up, the light goes on; when I flip it down, the light goes off."
- **Toddlers:** Play the "freeze game." Toddlers will learn, "*If/when* the music plays, *then* I dance; and *if/when* the music stops, *then* I freeze."
- **Preschoolers:** Play *Simon Says* with a twist! For example, say, "Simon says, *if* I touch my head, *then* touch your nose," or "Simon says, if I clap my hands, *then* stamp your feet."

R – Recognize Patterns

Children who have experience in pattern recognition will be better able to identify patterns and better predict what comes next in a specific situation.

Here are ideas for helping children learn to recognize patterns—at each age level:

- **Infants:** Highlight patterns by clapping along to the beat of favorite songs, reading stories with repetitive lyrics such as, "*Brown Bear, Brown Bear What Do You See?*", or reciting repetitive finger plays such as "*Five Little Ducks.*"
- **Toddlers:** Point out things that are same and different. You can say for example, "These are the same because they are all red. This one is different because it is blue."
- **Preschoolers:** Give preschoolers hands-on opportunities to create patterns. For example, use *2 colors* of construction paper (cut into strips) to have them make paper chains. Start by building the beginning of a pattern for the child (e.g., red-blue-red-blue), then ask him to continue the pattern. When a child has mastered the ABAB pattern (e.g., red-blue-red-blue), then move on to more challenging AAB (e.g., red-red-blue) or ABC (e.g., red-blue-yellow) patterns.

Training Opportunity

Executive Function Skills: Foster with Play

Executive function skills may also be referred to as higher order thinking, critical thinking, or deeper learning. View this recorded webinar sponsored by Penn State Better Kid Care to learn how early childhood educators can promote executive function skills through play. 2.0 hours.

https://od.bkc.psu.edu/lesson/2093/information

Featured Activity
If/Then Sorting Game

What you need:
- A large basket for collecting the toys
- 3 or 4 empty boxes—large enough to hold some toys
- 3 or 4 different colors of construction paper (e.g., red, blue, yellow)
- Tape or glue, scissors

What to Do:
1. Attach a different colored construction paper to the front of each box. (You may need to cut the construction paper to fit the box).
2. Ask the children to pick up the toys and put them in the large basket.
3. Then instruct the children to put the toys in the colored boxes by giving them "if/then" instructions, such as the following:
   - *If it has wheels, then put it in the yellow box.*
   - *If it has pages, then put it in the red box.*
   - *If it is fluffy or soft, then put it in the blue box.*

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Suggested Books

Discover these books and more at the Hawai'i State Public Library **www.librarieshawaii.org**

Infants and Toddlers

Barnyard Dance
by Sandra Boynton
With its rhythmic text and sounds, this book will help the youngest child build receptive language, while spinning, swinging, and prancing!

Three Bears
by Byron Barton
The repetitive narrative, vibrant illustrations and clear sequence of events of this classic fairytale is perfect for helping young children think like a coder.
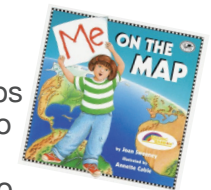
Preschoolers

Me on the Map
by Joan Sweeney
This playful introduction to maps shows children how easy it is to find where they live, the places they know and how they fit in to the larger world, and will encourage them to draw a map of their own!

If You Give a Mouse a Cookie
by Laura Joffe Numeroff
The progression of this story is logical yet funny—ensuring children will stay engaged while also sharpening their skills for story sequencing. It's also the perfect choice for talking about cause and effect!

Citations

McLennan, D.P. (2017, Feb/March). Creating Coding Stories and Games. *Teaching Young Children*. https://www.naeyc.org/resources/pubs/tyc/feb2017/creating-coding-stories-and-games

News staff. (2019, July 18). Kids Should Learn Coding Like They Do Math and Reading. *Tufts Now*. https://now.tufts.edu/2019/07/18/kids-should-learn-coding-they-do-math-and-reading