



APPLES

DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD



ABOUT THIS ROUTINE:

Mealtime is a great opportunity to support STEM learning! Talk about STEM ideas and use STEM words as you prepare and eat together.

Next time you serve apples at mealtime, tell your child you want their help **sorting** and **counting** them.

"I wonder **how many** apples we have today. Let's **sort them into groups** and **count how many** are in each group!"

As you prepare the apples, ask your child how they want to **sort** them, by **color**, **size**, or another feature they notice. Give your child wait time to respond. Ask your child to **count** the apples in each group, pointing to each one as they count, and talk about which group has **more** or **less**.

You can also make applesauce together and follow a recipe **one step** at a time: "**First** we peel the apples, **next** we cut them, **then** we cook them, and **finally** we mash them into sauce." Recipes are a perfect example of **computational thinking**. Ask your child: "What do you think would happen if we tried to mash the apples before we cooked them?" Thinking about why the **order of steps** matters is a big part of computational thinking!

STEM LEARNING AREAS:

Computational Thinking: Concepts involved in programming computers and coding.

Math: Concepts related to numbers, patterns, shapes, and space, and how to use them to solve problems

- **Counting:** Communicating number words in order and matching each number to objects to find out "how many"
- **Classification & Data Analysis:** Sorting things into groups and then figuring out how many are in each group to help answer questions

Every child is different. Do what works best for encouraging your child's independent exploration during this suggested daily routine. These are only suggested activity adaptations. Consider consulting your child's care team first.



Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.



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ADAPTATIONS FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

WHAT CAN I DO TO SUPPORT MY CHILD'S LEARNING?

ACCESS TO ENVIRONMENT

- If possible, limit background noise and distractions so your child can be more engaged in the cooking activity
- Place materials within reach in a contained space for easier access
- Place an anti-slip stabilizing mat below the plates and bowls so they do not move
- Using adjustable height table or adjustable chair if your child needs sit down or rest frequently



Adaptations are simple changes you can make to your child's space, toys, or activities to help them stay engaged and learn STEM ideas and words during daily routines.

MATERIALS

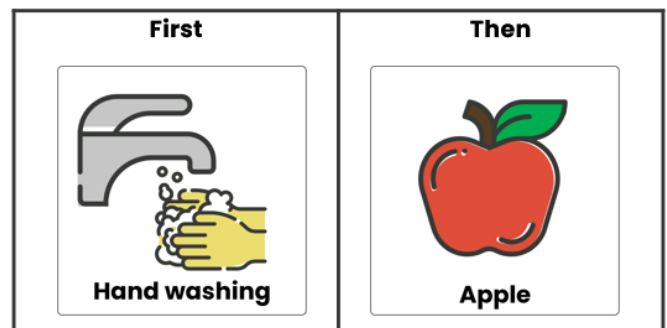
- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device
- For easier grasping, adapt the utensils by building up the handles or creating grip straps using household items (masking tape, pool noodles)

INTERACTIONS OR INSTRUCTION

- Provide hand-over-hand support to help your child explore ingredients and utensils better
- Narrate or sign your child's actions as they interact and experiment with the utensils and ingredients ("Oh, you're scooping with the tablespoon!")
- Adjust the number of steps as needed.
- Use a variety of methods of communication (sign language, gestures) to meaningfully engage your child
- Use pictures or icons to signal next steps or each step of the sequence
- Communicate with your child at eye level
- Speak or sign slowly, emphasize keywords, and wait for a response
- Praise your child's efforts (to try new foods) with words, facial expression, or body language

Quick Tip:

Communication may include the use of words, signs, gestures, and different types of cues, such as touch, object, movement, or visual.





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VISUAL CUES FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

FIRST-THEN BOARD USE TO SIGNAL NEXT STEPS

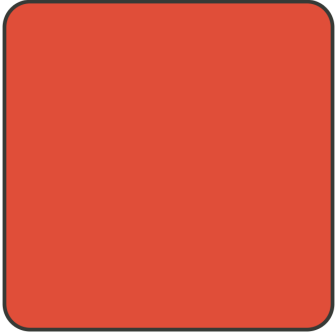
First	Then



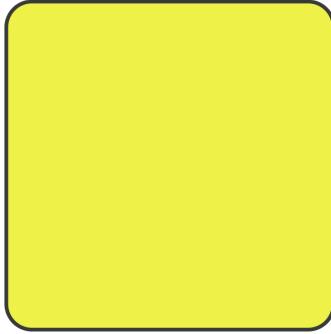
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VISUAL CUES FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

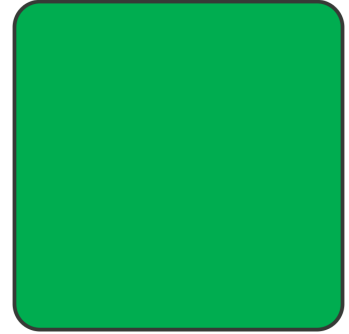
USE TO PROMPT



Red



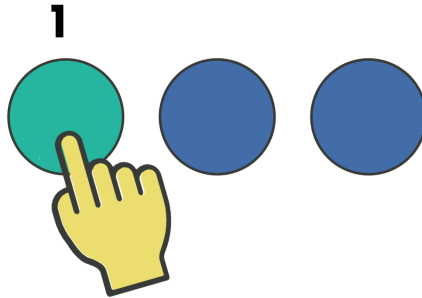
Yellow



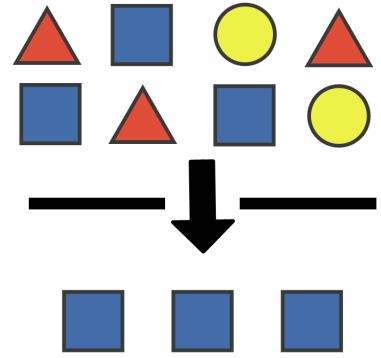
Green



Hand washing



Count



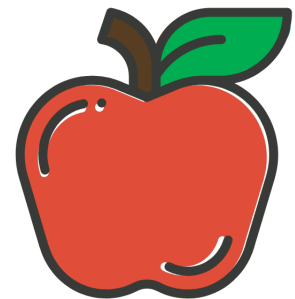
Sort



Mix



Eat



Apple



Need more visual cues?

Visit [STEMIE's Visual Cue Library](#) or check out STEMIE's tips for creating and using visual supports with [A Guide to Visual Supports](#).



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VISUAL CUES FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

USE TO DIRECT SAFETY IN THE KITCHEN



Hand washing

Wash your hands before preparing and eating meals.



Knife

Only use sharp kitchen tools when an adult or older sibling is with you.



Oven

Sometimes the oven stays hot even when turned off. Ask before touching the oven or its knobs and buttons.



Wipe

Clean up after meal prep, cooking, and mealtimes.



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ACTIVITY IDEAS FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

1 – HAND WASHER SEQUENCER

Description: Help your child recognize that there are **steps** in daily routines. Encourage your child to follow the steps. “**First**, handwashing, **then** mealtime.” Use cues to help your child follow the steps if needed.

What My Child Is Learning!

Computational thinking is the method used to problem-solve by determining ‘what’, ‘how’, and ‘why’.

Talk about the importance of following **steps**, a type of **sequence**. “By washing our hands **first**, we will know the food we make is safe to eat.” Ask, “What do you think **will happen** if we **miss a step**?”

Ask “**What should we do first? Next? Then what? Last?**” It might be fun to do **one step out of order** (like drying your hands before you turn on the water) and see if your child notices. Having pictures to show each step (turn on water, run hands under water, get soap, lather soap, rinse hands, turn off water, get towel and dry hands) can also be really helpful.

2 – APPLE SCIENTIST

Description: While enjoying apples as a snack or meal, talk about the **different parts** of an apple and how each part helps the **apple tree survive and grow**.

What My Child Is Learning!

Children learn best by interacting with people and objects. Introduce STEM words, ask questions, and encourage them to make connections between words and real-life experiences. This helps children develop fundamental critical thinking and problem-solving skills.

Talk about the parts of an apple. Say, “**Apples grow on trees**. This apple has **different parts**, a skin on the **outside**, juicy flesh **inside**, and **seeds** at the **center**. Each part has an important job!”

While **exploring** an apple together, ask: “What do you **notice** about the outside of the apple? What do you think the skin does? What do you think is **inside**?”

After cutting the apple open, point to the **seeds** and ask: “What do you think these seeds are for? What do you think will happen if we **plant** one in the ground?”



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ACTIVITY IDEAS FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

3 – APPLE SORTER



Description: Help your child **notice** that apples have different **properties, like color, size, and texture.** Encourage your child to use those properties to **sort** into groups.

What My Child Is Learning!

Children learn best by interacting with people and objects. Introduce STEM words, ask questions, and encourage them to make connections between words and real-life experiences. This helps children develop fundamental critical thinking and problem-solving skills, as well as math skills.

Talk about the **properties** of the **apples**. Say, "Let's look closely at our apples. What do you **notice**? What **colors** do you see? How do they **feel**? **Smooth, bumpy, big, small?**"

Ask your child how they want to **sort** the apples. If your child does not sort independently, encourage them to put all the apples of one **color** or **size** together. If your child still needs support, model sorting by one property, like color, and invite your child to continue with the remaining apples.

Once sorted, **count** the apples in each group together. Ask: "**How many** apples are in this group? Which group has **more**? Which group has **less**?"

If your child sorted by one property, encourage them to think about other ways to sort. Say, "I noticed you sorted the apples by **color**, the red ones here and the green ones here. I wonder how else we could sort them? What if we sorted them by size? **Big apples** in one group and **small apples** in another?"



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ACTIVITY IDEAS FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

4 – APPLESAUCE RECIPE FOLLOWER

Description: Help your child recognize that a **recipe is a sequence**. Use the recipe steps to guide your child through the **process** from **start to finish**.

What My Child Is Learning!

Computational thinking is the method used to problem-solve by determining "what," "how," and "why."

Before you **begin**, look at the recipe together. Say, "A recipe is a **sequence**, which a list of steps we follow in a **specific order** to make sure our applesauce turns out just right!" Ask: "What do you think will happen if we skip a step or do them in the wrong order?" "What do you think the applesauce will taste like?"

After enjoying your applesauce, **reflect** on the **sequence** together. Ask: "Can you remember all the **steps** we followed? What was **first**? What was **last**?"

APPLESAUCE

MATERIALS

- 8-10 apples
- ½ cup of brown sugar
- ½ cup of water *OR* apple juice
- 1 teaspoon of cinnamon
- Extras: 1 tablespoon of honey, other fruits, 1 teaspoon of vanilla, 1 teaspoon of lemon juice
- Heavy duty Ziplock bag(s) *OR* a deep cooking pan
- Rubber mallet *OR* potato masher

DIRECTIONS

1. **Adult Prep: Decide together with your child if you want peels in the applesauce. While you are peeling (if applicable), removing the apple core, and dicing (1-inch squares) the apples, talk about kitchen safety with your child**
2. Place sliced apples into a heavy duty zippered bag for your child to smash with a rubber mallet under your supervision *OR* place into a deep cooking pan for your child to smash with a potato masher
3. Measure out water/juice, sugar, cinnamon, and any extras and add to a large pot
4. Stir, then add the apples and stir again
5. **Adult Step: Set the pot on the stove and turn heat to high and bring to a boil. Once boiling, set to a simmer for 15-20 minutes or until apples are soft**
6. Wait for applesauce to cool, then stir until desired smoothness is reached
7. Enjoy!





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ACTIVITY IDEAS FOR DAILY ROUTINE EXPLORATIONS WITH YOUR YOUNG CHILD

ADDITIONAL ACTIVITY IDEAS:

- Visit a grocery store and look at the **variety of apples**
- Visit an **apple orchard**
- Check out our Storybook Conversations resource for *Ten Apples Up On Top* on **STEMIE Learning Trajectories** (<https://stemielearningtrajectories.fpg.unc.edu/>). It includes CROWD prompts and more STEM building activities related to apples. Bon Appétit!
- Check out these books about **apples**:
 - *Apples* by Gail Gibbons
 - *An Apple's Life* by Nancy Dickman
 - *Applesauce Day* by Lisa Amstutz

