

Early Childhood Education

Video__: Baking

Category: Early Childhood Language/Literacy

Grade Band: Ages 3 to 5

Topic: Daily Activities

Concepts: Receptive/Expressive Language, Vocabulary, Print Awareness

Context: Young children learn early language and mathematical skills best in natural environments, such as daily routines, special events, and play. Baking is a special event that many young children enjoy. It is fun! It is also a natural laboratory to explore literacy, mathematics, and science. Baking provides young children and their families opportunities to explore ingredients, talk with each other, learn how measurement works, and see how changes occur during the baking process. The end result is not what is important. It is the working and learning that occurs *during* this activity that will lead to positive growth and development. Children need many experiences to build background knowledge. Baking is a quality experience that offers opportunities for families to support learning in fun and meaningful ways.

Rational: Children need many early experiences to develop background knowledge. The young brain is growing in response to sensory experiences in a child's environment. High-quality experiences in preschool (years) result in greater competence in a variety of domains upon entry into kindergarten (Christian, Morrison, Frazier, & Massetti, 2000; Clements & Sarama, 2008a; Magnuson, Meyers, Ruhm, & Waldfogel, 2004; National Research Council, 2001b; National Research Council and Institute of Medicine, 2000; Sarama & Clements, 2009). Baking can inspire children's creativity and thinking. Learning, when connected to a child's life, is the perfect backdrop for meaningful learning. Literacy, math, and science learning can be part of everyday life experiences when parents invite their children to talk and think about what they are experiencing.

Opportunities for building receptive expressive language and vocabulary

- I. Baking has a its own set of terms and **vocabulary**. Cooking related words like *recipe, sift, blend, ingredients, whisk, grease, prepare* may be new words children can learn. Remember that children need to hear new words over and over before they begin to use them in their own speaking. Food words like *baking soda, flour, cinnamon, walnuts, batter* also may be unusual, but new words that can be introduced to expand vocabulary.
- II. **Social-emotional** skills are critical skills for school success. When sharing in baking experiences, children can develop a **sense of accomplish** and **pride** in creating something that they and others can

enjoy. They can experience **independence** as they learn to do adult tasks (measuring, mixing) on their own or with *just enough* assistance from parents. Statements like “Look what you’ve made!” or “You have really been working hard for a long time.” will help young children develop a sense of **internal motivation** for a job well done.

- III. Baking inspires children’s creativity and thinking. When parents **invite children to engage in conversation**, children can practice using and expanding language that reveals their thinking. **Commenting** (“It looks like you are almost done mixing that dough.”) invites children to respond and continue the conversation. **Asking questions** (“What do you think the dough will look like when we add the eggs?” “Do you think everything looks like it is mixed together?”) invites children to think and share. Children need many opportunities to talk if they are going to develop language skills sufficient for foundational early reading instruction. The more children engage in conversation, the more exposure and practice they have with language.
- IV. Young children need to learn that print carries meaning. Baking offers a variety of opportunities to help make children **aware of print**. Pointing out meaningful print on ingredient packages, talking about labels on measuring tools, reading aloud recipes show children that print is all around us in our everyday lives.
- V. Using the print on ingredient packaging can also be used to draw attention to individual alphabet letters. Drawing attention to letters that appear in their children’s names reinforces the idea that words and sounds can be combined to form words. You don’t need to quiz children about letters you see. Simply talking about the letters and naming them yourself, strengthens children’s **alphabet knowledge**.

Mathematical Connections

- I. Baking teaches children to use **counting and understanding of numbers** in meaningful ways. Compiling the correct amount needed ingredients is a natural way to practice counting (i.e. eggs). Reading recipes together helps children listen for numbers and amounts as you prepare for the baking activity. There are many things you can count: number of ingredients, number of steps in the recipe, number of units for each ingredient.
- II. As adults, we know that baking requires accurate **measurement**. Talking about the size of the different cup and spoon measurement tools (“Which one of these cups do you think will hold the most water?”) helps children think about size and volume. (“Let’s divide this dough *in half*. We can bake *half* today and save *half* for next week.
- III. Baking sometimes involves some **problem solving**, even for adults.

- What a fun way to practice with young children! (“We want to have 12 cookies when we are done. We have only 11. What can we do?”)
- IV. Baking involves following a **sequence** of directions. Learning that order does make a difference is an important skill for future math and science thinking. Words like *first, second....,last* are vocabulary needed to explain math and science thinking.
- V. Baking is a natural laboratory. Children can begin to explore **cause and effect relationships**. (“We need to *melt* the butter for this recipe. Let’s see what happens to the butter when we put it in the microwave.”) Talking with adults during this special time promotes, language, thinking, and natural curiosity.

***Note:** I am thinking baking cookies might be a good example.