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Cook It! takes you on a cooking adventure where ingredients are weighed, mixed, and chopped in the kitchen.

Ages: 0 to 5 years

ATOS Reading Level: Not Available

Lexile: Not Available

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Cook It!

What is your favorite pizza topping?

Topics: order, comparison, sorting, counting, measurement, shapes, time, problem solving

Activities To Do Together:

Use the book *Cook It!* to explore math in the kitchen. Encourage your child to become a chef along side you.

While reading the book ask your child:

- To count the number of vegetables pictured on the cookbook in the story. Then compare the vegetables, what colors are they? What shapes are they? Compare the sizes of the different vegetables. How are they different than the vegetables you have seen? How are they the same?
- To predict what the girl and her father are going to make for dinner. Was your prediction correct?
- How many vegetables does the little girl draw? How many items do you think they will need to get at the store?
- To point out which vegetable is the largest on the store's shelf. Which vegetable is the smallest? How many bell peppers are on the shelf?
- What else do you think weighs as much as the flour? What may weigh more?
- To point out the many vibrant colors they see in the illustrations.

When you have finished reading the story try the following:

- Make a snack together. Arrange the snack in a pattern. For example, if you are having strawberries and crackers, lay them out on the plate as follows; strawberry, cracker, strawberry, cracker...
- Look through a cookbook together and find a new recipe to make. Gather the needed ingredients and follow the directions.
- Estimate how long it takes to cook your favorite food. Cook it and time how long it takes. Was your estimate close?
- Make a grocery list together. If your child is not yet writing ask them to draw the items needed. If the quantity needed is more than one, include that in the drawing.
- Talk about the value of coins and dollar bills. Point out what each is worth.
- Talk about the steps involved in cooking. Use ordinal words to describe what you do in the kitchen. For example, **first**, we will pick out what to make, **second**, we will read the ingredients list.

Extension Conversations During Daily Routines with Infants and Toddlers:

- 1. Snack time Make a pattern with your child. Start with a simple ABAB pattern. For example, lay out goldfish, blueberry, goldfish, blueberry. Then make an AABAAB pattern (goldfish, goldfish, blueberry, goldfish, goldfish, blueberry).
- 2. Meal time Use cookie cutters to make different funshaped food. For example, use a star cookie cutter to make star-shaped sandwiches. Point out the shapes of the food.
- 3. Clean up time Talk about which container is the best fit for your leftovers. Which containers are too small? Which containers are too large?
- Shopping time Count the number of apples you put in the cart. Talk about where items are placed on the shelf. For example, your child's favorite cereal is on the shelf below your favorite cereal.
- 5. Cooking time While stirring, count the number of times you stir out loud. Say how many you did in total when you are done.
- 6. Prepping time Show your child how to use measuring cups. Help your child measure ingredients.

Questions for Mathematical Thinking:

- 1. What would you do if you ran out of a needed ingredient while cooking a recipe?
- 2. How else can you measure flour if you do not have scale?
- 3. If you made a pizza, what shape would it be?
- 4. How do you want to help in the kitchen?
- 5. Is it important to keep track of what you need to buy at the grocery store? Why or why not? Does your family keep track of what you need to buy at the store?

Early Math Project Resources:

<u>Pizza Art</u> (English) <u>Arte de pizza</u> (Español) <u>Exploration in the Kitchen</u> (English) <u>Exploración en la Cocina</u> (Español) <u>Pizza Time</u> (English) <u>¡Hora de Pizza!</u> (Español)

Follow this link for additional online resources.

Vocabulary for Building Math Concepts:

enough, far, heavy, long, lots, more, nearly, shape

Spanish Title: A cocinar!

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Related Books: Pretend

Soup by Mollie Katzen and Ann Henderson; Salad People And More Real Recipes by Mollie Katzen; Soup Day by Melissa Iwai; Bee-bim Bop by Linda Sue Park

This link to the <u>World</u> <u>Catalog</u> will help you find *Cook It!* in the public library.





Math Connections:

Cooking is a fun way to include mathematical thinking during your day. There are many ways for your child to become a chef along side you. Give your child the opportunity to explore, notice, and wonder while helping in the kitchen.

The kitchen offers numerous ways to practice counting and build one-to-one correspondence. One-to-one correspondence is giving one number name to each object without skipping or repeating objects. To help strengthen your child's one-to-one correspondence, touch each object as you count. Try some of the ideas below next time you are in the kitchen with your child.

- Count the number of ingredients you need for a recipe (touch each ingredient as you count out loud).
- Ask your child to help you set the table. How many plates will you need for the number of people eating? Count out loud as the plates are placed on the table.
- · Count how many steps there are in a recipe.
- Count out the amount of an ingredient needed in a recipe. For example, count out 15 strawberries for a salad (pointing to each one as you count out loud).
- Count how many cups and/or tablespoons you are adding while following a recipe.
- Ask your child to count on. For example, if you need eight potatoes, count out three "one, two, three." Ask your child to count the rest. They would count, "four, five, six, seven, eight."
- Count as you stir the ingredients five times. Then ask your child to continue the stirring and count on from that number.

Children can be involved in many of the steps during cooking. As seen in the book, they can help pick out what to make, help write a grocery list, shop, cook, and set the table. For an upcoming meal, brainstorm with your child what to cook. Once you decide, ask your child to help you look in the kitchen to see what ingredients you already have and write down what else you need to buy. At the grocery store, have your child practice counting and weighing objects as seen in the book. Ask your child to estimate how much everything on your shopping list will cost. When checking out, see if they were close.

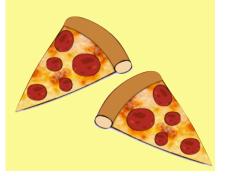
Vocabulary for Extending Math

Concepts: corner, edge, face, measuring cup, ounce, one-half, pound, tablespoon, teaspoon, vertex

Vocabulary for Reading

Comprehension:

choose, list, messy, spread out, squishy, tasty, unpack





There are many measuring opportunities in the kitchen. Using measuring tools will help your child become familiar with different quantities. Compare measuring tools with your child. For younger children you may point out the measurement on the cups and spoons and talk about which one holds the most and the least. Older children may begin to recognize which is the littlest cup, which has a 3 on it, and which cup is largest.

While cooking, allow your child to help you fill up the measuring cups, making sure ingredients are level. You can also talk about what makes up one cup. Ask your child how many 1/2 cups make 1 cup. Use the 1/2 cup to fill up the 1 cup, count how many it takes. Talk with your child how many 1/3 cups fills the whole cup and how many 1/4 cups fills the whole cup.

In the kitchen, you can also weigh objects using a kitchen scale. Weigh two objects and compare their weights. Which one weighs more? Can you find two objects that weigh the same amount?

The concept of time can also be explored in the kitchen. While cooking your child can set the timer. You can talk about what else takes that amount of time. For example, if the recipe says it cooks for ten minutes ask your child what else they can do that takes ten minutes. How many times can they run around the garden/go up and down the stairs in that time? Understanding what a period of time feels like is very important to later development. This skill can help one develop time management skills and planning skills.

The kitchen also offers an opportunity to talk about shapes, patterns, sorting, and spatial reasoning.

Shapes can be explored by using cookie cutters. Make cookies or cut out a sandwich. Name the shapes. Point out if they have straight edges or curves, and talk about how many corners they have. Play with dough and mixtures, can you change its shape? Look at the shapes of bowls, tins, pans, etc. Ask your child to find three things in the house that are the same shape.

You can create patterns while making kebabs or plating food. Make a pattern while setting the table. For example, fork, plate, knife, fork, plate, knife.

Explore spatial reasoning when trying to see how much will fit on a tray or which mixing bowl to use to fit all the ingredients. Which container will fit all the leftover potatoes? Compare the bowl sizes and predict which will hold the most.





Other things to try in the kitchen. Ask your child:

- To hold two items (bag of flour/sugar/can etc) and discuss which is heavier/lighter.
- How many blueberries do you think it will take to fill a cup?
- Which slice is bigger, yours or mine?
- · Which carrot is the thickest/thinnest/longest/shortest?
- Which container is full/half-full/empty?
- Is the flour bag bigger or smaller than the baking soda box?





Age Level	Related Infant Toddler Foundations, Preschool Foundations and CA State Standards
Infant/ Toddler	Spatial Relationships The developing understanding of how things move and fit in space Number sense The developing understanding of number and quantity Classification The developing ability to group, sort, categorize, connect, and have expectations of objects and people according to their attributes
Preschool/ TK	Number sense 1.0 Children begin to understand numbers and quantities in their everyday environment Measurement 1.0 Children expand their understanding of comparing, ordering, and measuring objects Geometry 1.0 Children identify and use a variety of shapes in their everyday environment Mathematical Reasoning 1.0 Children use mathematical thinking to solve problems that arise in their everyday environment
Kindergarten	Counting and Cardinality K.CC.4 Count to tell the number of objects. Measurement and Data K.MD.1 Describe and compare measurable attributes Geometry K.G.1 Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

