



Explore.  
Question. Experiment.  
Integrate.

## Tools in the Kitchen



### OVERVIEW

This lesson introduces children to a systematic exploration of how simple machines are used to make work easier. They will explore common tools used for cooking and baking. As they do this, they will identify the simple machine that is a part of each tool. Additionally, the following learning goals will be met as the children participate in these **ScienceStart!** activities:

#### Science

- Using simple machines makes work easier
- Identifying levers, wheel and axles, inclined planes and wedges found as parts of common cooking and baking tools
- Using simple machines in many ways, everyday

#### Literacy

- Encouraging conversations and responses to questions
- Using language to describe what is being done or what is happening
- Relating books to hands-on science activities
- Listening for and identifying rhyming words
- Alphabet letter: K/k

#### Mathematics

- Using tools to measure for a recipe
- Sequencing steps in a process using *first*, *next*, and *last*

# Center-Based Play Materials & Activities to Support Today's Science Learning



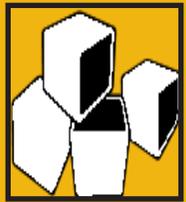
## Dramatic Play

- A woodworking shop with a workbench, tools, work apron, measuring tapes, Styrofoam blocks and golf tees for hammering, and so forth



## Art Center

- Make prints with rolling pins and paint.
- Cut paper and glue the pieces to create collages.



## Block Area

- Use wooden blocks and block people to create different types of buildings.



## Manipulatives

- Playdough, rolling pins, knives, and pizza cutters
- Scissors and paper
- Sewing cards



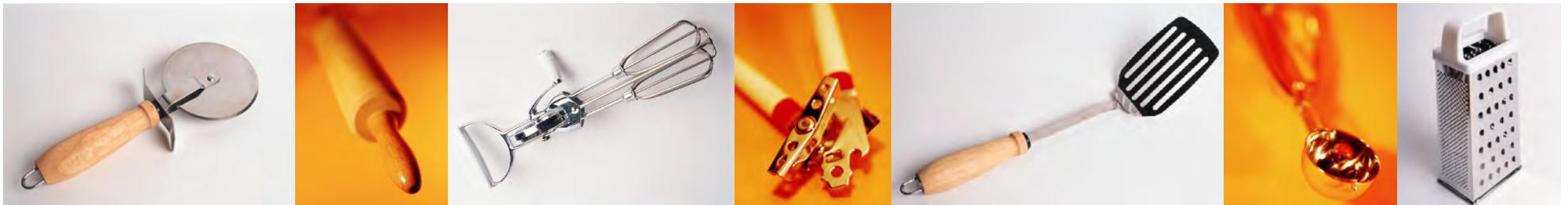
## Large Motor Play

- Bicycles and tricycles to ride
- Wagons
- Wheelbarrows
- Doll strollers



## Science Table

- Real woodworking tools
- Kitchen tools
- Sewing tools
- Gardening tools



## Tools in the Kitchen

### Concepts:

Tools are very helpful for cooking. Simple machines are a part of many tools used in the kitchen.

### Learning Goals:

Children will use kitchen tools to make a snack. They will identify the simple machines that are a part of these tools.

### Vocabulary:

recipe	egg beater
ingredients	pizza cutter
spatula	fork
can opener	spoon
knife	rolling pin

### Materials:

kitchen tools – spatula, can opener, knife, egg beater, pizza cutter, fork, spoon, rolling pin, measuring cups and measuring spoons  
an assortment of fruit for children to cut - bananas, grapes, berries, etc.  
instant pudding mix (number of packages determined by the number of students)  
milk (amount determined by directions on pudding mix packages)

### Read and Talk About:

*Tools* by Ann Morris



### Things to Talk About:

What are some tools that we use for cooking? What simple machines are being used?

What tools do we use when we eat food? Are these simple machines?

Which kitchen tools are levers?

What are the safety rules for using kitchen tools? Why do we need these rules?

## Tools in the Kitchen - Language and Literacy

<b>Speaking &amp; Listening</b>	Ask children about times they helped with cooking at home. What did they do? What tools did they use or see other family members using? Ask if any of these tools were simple machines – which ones? How did they help with the cooking?
<b>Reading Comprehension</b>	Today's book is a simple photo book that shows a variety of tools that people use all over the world for making things. As you read the book, spend time looking at the pictures, naming the tools, and talking about their uses. When you finish reading, ask children to recall some of the tools that they had never seen before. What were these tools being used for?
<b>Alphabet Awareness</b>	Introduce <b>K/k</b> for <i>kitchen</i> . Demonstrate how to make these letters. If the children are having trouble making these letters, have them glue strips of paper to make them. Talk about the diagonal lines.
<b>Phonological Awareness</b>	Teach the following nursery rhyme and ask children to identify the rhyming words. Following the rhythm of the song, either clap or walk around the room. (Or both!)  <i>Sing a song of sixpence, a pocket full of rye; Four and twenty blackbirds baked in a pie. When the pie was opened, the birds began to sing; Now wasn't that a dainty dish to set before the King?</i>
<b>Print Awareness</b>	Write today's recipe on chart paper so the children can follow along as you cook together. Explain that a recipe is written in a certain way to help with cooking. Point out where the ingredients are written and where the steps you need to follow are written. Read the recipe together as you cook.



### **Mathematics:**

As you show the children today's recipe during the Plan and Predict and Act and Observe phases, use the words *first, next, last* to describe the steps you need to take to make the recipe. Talk about how to measure the ingredients and have the children use the measuring tools.

## **Tools in the Kitchen**

### **Science Inquiry Cycle:**

#### **Reflect and Ask**

Talk about the different kinds of simple machines – wheel and axle, lever, pulley, and an inclined plane. Ask if the children can think of any of these machines that can be used in a kitchen. Talk about their experiences helping to cook – do they ever use simple machines as part of this? Show the children the kitchen tools that you have brought and talk about what they do and how they are used. Ask the children which ones they think would be helpful in making today's snack recipe.

#### **Plan and Predict**

Show the children the recipe. Together, plan how to use this recipe and talk about which kitchen tools you will need to use.

#### **Act and Observe**

Set up different stations for the children to explore using the kitchen tools. They can use the plastic knives and pizza cutters with playdough. Use the milk and instant pudding to make pudding using the egg beater. Slice the fruit using plastic knives. Set up dishpans of soapy water so the children have more time to use the egg beaters.

#### **Report and Reflect**

Talk about the cooking you did – how did the tools help you to do the job? How were the tools that you used today like the tools that builders use? How were they different? What other kinds of kitchen tools do the people who cook at your house use?

## Fruit Parfaits

(Materials listed are per small group of 4 children - adjust recipe to meet the size of your classroom)

### Cooking tools:

cutting boards      plastic knives      mixing bowls  
egg beaters      liquid measuring cup      4 clear plastic cups

### Ingredients:

1 box of vanilla instant pudding mix

Milk

Fresh fruit to cut, for example grapes, bananas, berries and so forth

### Directions:

1. Invite children to wash their hands.
2. Work together to read the directions on the pudding box and measure the appropriate amount of milk. Pour the mix and the milk into a large mixing bowl.
3. Within the group, have each child take a turn using the egg beater to mix the milk with the pudding mix.
4. Show children the fruit provided, and invite each child select a few pieces they would like to eat and use a plastic knife to help cut it up into smaller pieces.
5. Help children create a parfait by layering fruit and pudding in a clear plastic cup.
6. Eat and enjoy!

