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INTRODUCTION

A New Way to Use Your Bean is an outgrowth of several years of ongoing curricula development I have done at the Hunter College Elementary School in New York City - a school for intellectually gifted children. The book uses cooking to introduce youngsters to four thinking processes: critical thinking, creative thinking, logic, and problem solving. The cooking experiences serve as a generator for the development of this goal. Experiences with which the children will be involved will extend beyond the kitchen and will help youngsters recognize the fact that learning is not merely an accumulation of isolated facts and concepts. Instead, learning is viewed as a process that involves an accumulation and a creation of new ideas. Students will be given an opportunity to exercise and to strengthen their potential for understanding and organizing existing phenomena in their environment, as well as motivating them to create and to add new dimensions to it.

Thinking processes can be defined as a means of ordering the world an individual knows, giving insight into the unknown and strengthening one's ability to create. Specifically, critical thinking is the breaking down of the whole into its parts. It involves activities such as sorting, classifying, analyzing, comparing, and contrasting. Creative thinking involves helping children to become fluent and flexible thinkers which in turn will strengthen their abilities to create new and unusual solutions to problems, to create original products and to recognize new problems in a given situation. Brainstorming is involved, as well as developing the students' skills in combining elements that are the same or apparently different. Logic involves going from the general to the specific or from the specific to the general. It includes activities such as making inferences, using analogies, making predictions, seeing causes and effects and patterning. Problem solving involves defining a problem, analyzing information, hypothesizing, developing research skills, validating, and judging. It does not only include formal investigation. It can include solving problems that come up daily. Many of you have probably utilized some of these processes in units and activities you've developed with your class or with your own children.

It is clear that thinking processes cannot be developed independent of content area in prescribed curricula or in social situations. In addition, these processes cannot be taught as if they are mutually exclusive. They are threads that run through and connect all areas. In order to clarify this idea to students, the thinking processes developed in each cooking experience in this book are extended to other curricula areas, other areas of interest, and other experiences. Each different academic or social experience used to help teach thinking processes can be compared to members of a volleyball game, cooperating to hit the ball over the net. Each experience scores a point by helping the individual assimilate these skills into all areas of his/her life.

An ideal quality of cooking is that it is a relaxed way to challenge children and to develop their thinking skills. It requires little or no prior experience. Children, as young as pre-schoolers, associate cooking with pleasurable and other positive thoughts. Psychologically, a child experiences a sense of security working closely with someone in the kitchen. He/she also senses a feeling of satisfaction at the completion of a task which is relatively non-taxing when compared to assignments associated with academic subjects, such as analyzing historical events, or at a younger level, decoding words. Although the thinking processes used in cooking may be as sophisticated, similar or the same as those employed in a history, maths or reading assignment, the content area is less threatening. Cooking's element of stresslessness encourages risk taking which is an essential ingredient in the creation and production of new and original ideas. It therefore would be a pleasurable way to begin or to reinforce higher level thinking processes.

What are all the different ways you can use an apple?

1. You can cook with apples. (Sarah)
apple pie, apple sauce, dried apples, apple pancakes, toffee apples, apple juice...
2. You can use apples to play games.(Philip)
bobbing for apples, catch, apples on strings...
3. You can use apples to plant apple trees.(Ben)
Use the seeds.
4. You can exercise by going apple picking.
(Joseph)
5. You can use apples for art projects.(Kyla)
printing, sculpture...
6. You can eat apples. (Kristin)
An apple a day keeps the doctor away.

WHAT ARE ALL THE DIFFERENT WAYS YOU CAN USE AN APPLE?

THINKING PROCESSES UTILIZED

Creative Thinking:

- Regrouping in order to develop fluent, flexible and original thinking

Problem Solving:

- Collecting information to get a better understanding of a product

MATERIALS AND EQUIPMENT

Ingredients:

- apples (about 450 g for every cup of apple sauce)
- sugar
- cinnamon

Utensils:

- a strainer
- a corer

Other Preparation:

- a history of apple growing in Australia
- an experience chart for a class lesson (or a small piece of paper for an individual lesson)
- a duplicated diagram for each child (see top diagram, page 6)

PRE-COOKING ACTIVITIES

ACTIVITY #1 *Read information about the introduction of apples to Australia to familiarize children with the history of the apple in this country.*

ACTIVITY #2 *Arrange for a trip to an apple orchard.*
-How many different ways can you gather the apples?

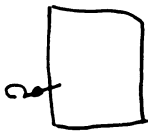
What are the different ways you can use _____ ?

Use the other side if you have more ideas.

What are the different ways you can use a key ?

DAVID age 6

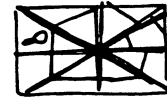
You can use a key to try to lift up things.



You can open a door with a key.



You can use a key to break a spiderweb.



You can use a key to write a message.



You can play catch with a key.



You can make a puppet from a key.



Use the other side if you have more ideas.