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## INTRODUCTION

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Every teacher should be a teacher of thinking, a professional who deliberately addresses thinking. The teacher is the key factor in a thinking classroom with control over the process, the skills and attitudes. Key variables involved in effective thinking include

1. Content: Knowledge and information which forms the basis for thinking.
2. Skills: Process skills which teach students to think effectively.
3. Motivation: The environment which gives students a reason to think.

There are four components in a thinking classroom.

1. The teacher will create the climate where thinking is a valued activity.
2. The teacher will apply strategies and techniques for structuring a variety of classroom interactions.
3. The teacher will promote metacognition through modelling his or her own thinking process and helping students become aware of their own thinking.
4. The teacher will provide for explicit instruction of thinking skills.

The **Thinking Skills Resource Book** is a compilation of creative and critical thinking skills which can be used in the classroom. Material has been developed for each skill which contains the information a teacher needs to plan lessons to introduce the specific skill, provide guided practice and allow students to apply the skill. Each skill should be the focus of five to eight lessons in order to develop the skill for transfer and application.

It is suggested that a scope and sequence of thinking skills be developed to ensure systematic instruction in a curriculum for thinking. A sample scope and sequence for years P-5 is provided in the appendix. Barry Beyer states that every school system "should have a comprehensive program that teaches thinking skills systematically and directly to all students throughout the curriculum."

While it is suggested that the steps within the process lesson format be followed, the applications to content areas are merely suggestions. The **Thinking Skills Resource Book** is a guide for you to adapt as best suits your class.

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## CREATIVE THINKING SKILLS

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To the Teacher:

Creative thinking is defined by Costa as “the act of being able to produce along new and original lines” (Costa, 1985). Students of today will be involved in careers and experiences which will require the use of creative problem-solving skills. Research indicates that an individual’s creative abilities can be developed through systematic training. We teach for creative thinking so that students will be producers of knowledge rather than consumers of knowledge. Teaching the skills of creative thinking will encourage divergent thinking abilities, the use of higher level thought processes and the development of a variety of talents.

The following section provides the necessary information to organise skill lessons. Lessons are designed to teach the basic process skills identified in creative thinking and problem solving. The teacher should use the material to plan explicit instruction in the techniques of creative thinking. The activities are designed to encourage divergent thinking, create an environment in which thinking can occur and enhance the creative process. Use the ideas that are suggested or be creative and develop your own application when transferring skill to content.

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## FLUENCY

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**DEFINITION**

Fluency is the generation of many responses, solutions to a problem, answers to a question, possibilities or consequences. Being fluent is being able to think of many ideas.

**OBJECTIVE AND PURPOSE**

Fluency is taught as a technique to develop a method for listing a large number of options to consider or evaluate.

**PROVIDING INFORMATION***Guidelines:*

1. Large number of responses is wanted.
2. There is no correct number of answers.
3. Skill is done orally.
4. One person speaks at a time.
5. All responses are accepted.

*Model Skill:*

Use such topics as the following:

- List ways to spend your pocket money.
- List things you could make from a letterbox.
- List things that are blue.
- List things that come in threes.

*Guided Practice:*

Use such topics as the following:

- Name things that fall.
- List reasons for not cleaning your room.
- List things to do with a newspaper.

**INDEPENDENT PRACTICE***Language Arts*

- List words or phrases to describe a rainy day.
- List things that begin with "m".

*Maths*

- Name ways to measure time.
- List all the things that are round or square, etc.

*Science*

- Name things that are sweet.
- List words that are related to space.

*Social Studies*

- List words that describe school.
- List things that your family could do on the weekend.

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## FLEXIBILITY

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**DEFINITION**

Flexibility is the ability to think of alternatives to a problem or situation. Being flexible means to change your direction of thinking and adapt to different situations.

**OBJECTIVE AND PURPOSE**

Flexibility is taught as a technique for developing a number of options from a variety of approaches.

**PROVIDING INFORMATION***Guidelines:*

1. Explain the difference between fluency and flexibility.
2. State topic or concern.
3. Take time to examine many possibilities.
4. Encourage flexibility by asking, "What other ways?" "What different kinds?" "Suppose that..."
5. Use your five senses: How would it feel, taste, look, etc.?

*Model Skill:*

Use a topic such as animals. Do your thinking orally so students can follow your progress as you change categories.

*Guided Practice:*

Use such ideas as the following:

- In what different ways could we use a comb?
- What could you find in a messy room?
- What are some uses for an old tyre?

**INDEPENDENT PRACTICE***Language Arts*

- How many words can you list that would replace the word *said*?
- Select a fairytale and come up with new ways for the main character to solve his or her problem.

*Maths*

- List things that we can measure.
- Name things that are square.

*Science*

- List many terms related to space.
- Think of many places a butterfly could hide to get away from the rain.

*Social Studies*

- List many problems of a Prime Minister.
- List words associated with Australia Day.