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# Introduction

With the understanding that students begin to develop their thinking skills at a very early age, *Keep Them Thinking: Years 1-6* presents lessons and activities designed especially for primary students. These lessons cover three different areas of thinking – creative, critical and problem solving – and detail a spectrum of mental processes ready to be practised and taught in the classroom.

## Creative Thinking

The first section introduces students to the creative thinking skills of **idea collecting** and **brainstorming**. The transfer lessons demonstrate ways to use idea collecting processes in promoting multiple ideas, increasing student motivation and applying reinforcement to any content area lesson or skill. Brainstorming is developed through the acronym SCAMPER – Substitute, Combine, Adapt, Put to other use, Eliminate, Reverse. The strategies introduced in this brainstorming technique lead students toward a deliberate visualization approach to generating and producing ideas.

## Critical Thinking

In the second section, students practise **identifying attributes** to foster their critical thinking abilities. The transfer lessons demonstrate that all students can learn and practise critical thinking as it is transferred into lessons in maths, science and literature. This skill requires students to analyze and evaluate information as they process data. **Analyzing for bias** causes students to think analytically and evaluatively. This skill presents bias clues that students can search for as they become more critical thinkers. The clues developed include: exaggeration, overgeneralization, imbalance, opinion stated as fact and charged words.

## Problem Solving

Both creative, generative processes and critical, analytical processes are promoted in the third section to help students in **finding problems and solutions**. The problem-solving model that is introduced focuses on the problem-finding, idea-finding and solution-finding processes of the Parnes and Noller Creative Problem-Solving Model. The lessons included in this chapter allow students to process familiar situations encountered both at home and at school.

## Explicit Lessons

Each skill is developed around a similar format and taught explicitly in an introductory lesson. Practice lessons are outlined to ensure internalization of the skill and transfer lessons delineate the ease of bridging thinking skills into content areas and life situations.

The elaborated lesson design provides models or templates for the teacher to adapt in designing explicit thinking-skill lessons, practice exercises and transfer lessons.

## KEEP THEM THINKING

The **Model Lessons** include:

**Lesson Objective** The new skill for the lesson explicitly stated.

**Key Vocabulary** Vocabulary that may require clarification, explanation and/or emphasis before, during and after the lesson.

**Looking Back** A brief statement to stir prior knowledge to help relate the new information to previous experiences.

**Getting Ready** Background information, rationale and premises that form the basis of the lesson.

**At-A-Glance** A synopsis of the lesson or the lesson in a nutshell.

**Materials** A quick reference list of all the materials you will need for the model lesson.

**Focus Activity** A short, anticipatory activity suggested to set the stage for the introduction of the new skill.

**Activity Objective** A concise statement of the purpose of the main activity.

**Activity** The interactive part of the classroom lesson, including the instructional input and the student participation.

**Metacognitive Processing** Reflective questions, activities and discussion ideas about the lesson and the new skill.

## Practice

To ensure internalization of the skills, short practices are outlined after the model lesson. The **Short Practices** offer suggestions for using the skills in your lessons and provide examples of exercises for relating that skill to familiar situations in students' everyday lives.

## Transfer

Specifically tailored to activities in a variety of subject areas, the **Transfer Lessons** delineate the ease of bridging thinking skills across the curriculum. These shortened versions of the model lessons include: **Focus Activity, Objective, Activity, Metacognitive Processing** and **Follow-up** (lesson extensions and enrichment ideas for both in and out of the classroom).

## **Evaluation**

As a final step in ensuring student transfer and understanding of the thinking skills presented, each chapter concludes with an **Evaluation of Skills**. You may use this section to further process the activities with your students or to measure, gauge or evaluate your students' development and comprehension of the lessons.

## **Ongoing Transfer**

View the lessons as generic patterns upon which to model personally relevant lesson plans for the teaching of critical and creative thinking. Enjoy the activities and their flexibility in teaching students cognitive skills as thinking becomes an integral part of all that we do in our interactions with students.