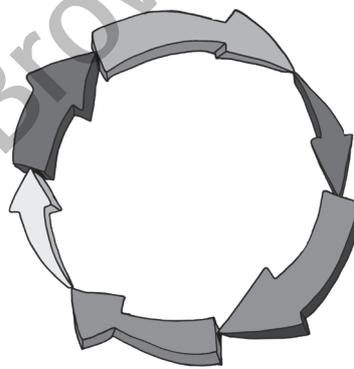


# Learning to Think Thinking to Learn

within the Australian Curriculum

**Thinking Models and Strategies for  
Teaching and Learning**



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# Contents

<b>Foreword</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>5</b>
<b>Strands and Sub-strands in the Australian Curriculum</b> .....	<b>7</b>
<b>Section One</b>	
<b>Instructional Approaches to Develop a Broad Range of Thinking and Feeling Processes</b> .....	<b>9</b>
The Revised Bloom's Taxonomy .....	9
Extended Brainstorming.....	24
Thinkers Keys .....	30
Directed Thinking .....	39
<b>Section Two</b>	
<b>Instructional Approaches to tap into Different Ways of Knowing and Understanding the World</b> .....	<b>49</b>
Gardner's Multiple Intelligences.....	50
<b>Section Three</b>	
<b>Instructional Approaches with a Focus on Critical, Creative or Caring Thinking</b> .....	<b>61</b>
Instructional Approaches with a Focus on Critical Thinking .....	62
Taylor's Multiple Talent Model.....	62
Instructional Approaches with a Focus on Creative Thinking .....	67
Eberle's SCAMPER.....	67
Instructional Approaches with a Focus on Caring Thinking.....	72
Lipman's Caring Thinking Model.....	72
<b>Section Four</b>	
<b>Integrated Instructional Approaches</b> .....	<b>79</b>
Bloom's Taxonomy and Gardner's Multiple Intelligences.....	80
Bloom's Taxonomy of Cognitive Objectives and Krathwohl's Taxonomy of Affective Objects .....	85
The Divergent Thinking Model .....	90
<b>Summary of Topics and Themes</b> .....	<b>97</b>
<b>References</b> .....	<b>99</b>

## Foreword

The Australian Curriculum framework acknowledges that Australian students are entitled to rigorous, relevant and engaging learning opportunities, and stresses the need to develop skills for life-long learning through a strong classroom focus on high-order thinking. The inclusion of the General Capabilities within the framework is a testament to this, and this publication aims to demonstrate how teachers may plan learning tasks for students with a strong thinking focus.

*Learning to Think/Thinking to Learn within the Australian Curriculum* describes processes that can be used to infuse thinking into everyday learning through the application and explicit teaching of various models and strategies. These strategies will see students engaging in a wide range of thinking tasks regardless of whether they are working within defined subject areas or on units that cut across traditional curriculum boundaries.

In a previous publication, I described a whole-school approach to the explicit teaching of thinking skills in the primary years. It was suggested there that a direct approach to teaching thinking was central to developing a thinking culture within a school. The first chapter of this book builds on that publication and talks about what is meant by a “culture of thinking”. More specifically, it describes what teachers can do to foster a classroom culture of thinking, and outlines how such a culture might affect student learning processes.

Subsequent chapters give specific examples of models and strategies most applicable at different levels of schooling. Both subject-specific and cross-curriculum examples are given for the junior, primary, middle and senior years.

Much of the book is devoted to practical examples of infused thinking, including introducing the revised Bloom’s Taxonomy, exploring Gardner’s Multiple Intelligences as a planning tool and applying strategies such as Tony Ryan’s Thinkers Keys. A range of other, lesser known models and strategies that encourage analytical, critical, creative and caring thinking are also described, equipping teachers with a diverse range of tools that will assist in bringing about a culture of thinking in their classrooms and across their schools.

## Introduction

The Australian Curriculum sets out the essential knowledge, understanding, skills and general capabilities important for all Australian students. It is designed as a platform to

- launch students into future learning, growth and active participation in the Australian community,
- clarify what all young Australians should learn as they progress through their schooling, and
- highlight the high quality teaching required to meet the needs of all Australian students.

The Australian Curriculum acknowledges the challenges of planning to meet diverse learning needs, and recognises that different groups of learners may have different learning needs than some other students.

Embedded within the curriculum statements are the General Capabilities and Cross-Curriculum Priorities, which can be considered to be crucial elements required to support a robust curriculum for 21st-century learning.

The General Capabilities aims to create successful learners who are confident, creative individuals, and who are active, informed citizens. Consequently, students will need to be adept at a range of General Capabilities if they are to be successful beyond school.

The chapters that follow explore how the Critical, Creative and, indeed, Caring dimensions of the General Capabilities might be best met as teachers go about planning topics with high order thinking outcomes in mind.

Consequently, teachers are required to design teaching and learning activities that will

- ⇒ **engage** students in a wide range of analytical, critical, creative and caring thinking tasks.

**An essential element in developing a thinking culture will be the explicit teaching of thinking skills to all students.**

Employing a range of frameworks in the planning of teaching and learning activities will assist teachers in maintaining student motivation and interest.

What is imperative is that teachers at all levels of schooling can answer an essential question – “I know what to teach, but do I know how to deliver it with the thinking focus that is appropriate in this context?”

- ⇒ **create** ongoing opportunities for students to
  - learn and expand their use of the language of thinking;
  - develop, practise and refine their thinking skills; and
  - share their thinking in many ways and in all curriculum areas.
- ⇒ **provide** students with the tools to
  - manage,
  - organise, and
  - record  
... their thinking.
- ⇒ **promote** productive thinking, i.e. taking students beyond memorisation and simple recall into the higher order thinking skills of analysis, synthesis and evaluation.
- ⇒ **assist** in the transfer of skills as tools for life-long learning.
- ⇒ **encourage** students to apply thinking tools and strategies in everyday situations and in solving problems they encounter in the real world.

Clearly this will require both a whole-school approach to the explicit teaching of thinking skills and the ongoing application of an extensive range of models and thinking strategies by teachers as they create meaningful learning activities for students.

Fortunately, teachers have an extensive range of models, strategies and tools available to assist them in infusing thinking into the curriculum. Some of these have gained wide acceptance and are used extensively. For example, there is any number of excellent resources for teachers that provide examples of how frameworks such as Bloom’s Taxonomy of Cognitive Objectives or Gardner’s Multiple Intelligences may be applied in the planning of learning activities for students. Indeed, the application of both models at all levels of schooling is show-cased in later chapters of this book.

However, while acknowledging the value of both frameworks, teachers will need to look “beyond Bloom’s” as they establish a culture of thinking in their schools. Employing a range of frameworks in the planning of teaching and learning activities will assist teachers in maintaining student motivation and interest. In addition, employing some different instructional approaches in planning learning activities can be a refreshing and rewarding challenge for teachers who have relied on a narrow range of planning structures in the past.

## Thinking to Learn

A range of instructional approaches have been selected. Some of these will evoke specific types of thinking (e.g. critical, creative and caring thinking).

Others will

- cover a broad range of thinking skills
- allow for different ways of knowing and understanding
- focus specifically on the affective components of learning
- integrate models and strategies so as to encourage a range of thinking and feeling processes.

### Strands and Sub-strands in the Australian Curriculum

Supporting students' growing understanding within each of the Foundation to Year 10 curriculum areas, are strands and sub-strands.

In English, for example, there are three strands that focus on developing students' knowledge, understanding and skills in listening, reading, viewing, speaking and writing.

The three strands are:

- Language: knowing about the English language
- Literature: understanding, appreciating, responding to, analysing and creating literature
- Literacy: expanding the repertoire of English usage.

Content descriptions in each strand are grouped into sub-strands that, across the year levels, present a sequence of development of knowledge, understanding and skills. In Australian Curriculum: English, the sub-strands are:

LANGUAGE	LITERATURE	LITERACY
Language variation and change	Literature and context	Texts in context
Language for interaction	Responding to literature	Interacting with others
Text structure and organisation	Examining literature	Interpreting, analysing, evaluating
Expressing and developing ideas	Creating literature	Creating texts
Sound and letter knowledge		

Below is an example of this connection for a work unit that appears later in this publication.

**“Of Mice and Men – John Steinbeck”**

Strands and sub-strands addressed in this topic:

LANGUAGE	LITERATURE	LITERACY
Language variation and change	Literature and context	Texts in context
Language for interaction	Responding to literature	Interacting with others
Text structure and organisation	Examining literature	Interpreting, analysing, evaluating
Expressing and developing ideas	Creating literature	Creating texts
Sound and letter knowledge		

The shaded areas indicate the sub-strands targeted within each of the strands identified for each curriculum area.



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