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The Thinking School: implementing thinking skills across the school

It is essential that thinking skills are implemented school – wide in a clear manner of scope and sequence as part of a thinking skills program. This program should be a public document so that every teacher, student and parent becomes fully aware of the five new thinking tools that will be introduced every year (in both primary and secondary schools). Furthermore, this program will set out the thinking tools that will need to be revised at the beginning of each year. This will be particularly important to students who are new to the school and to those who may have missed a good deal of schooling due to illness or travelling interstate and overseas.

Below is an example of a whole – school thinking skills program that has been implemented in a primary school. Each of the thinking tools listed in this program shall be addressed in more detail within this book.

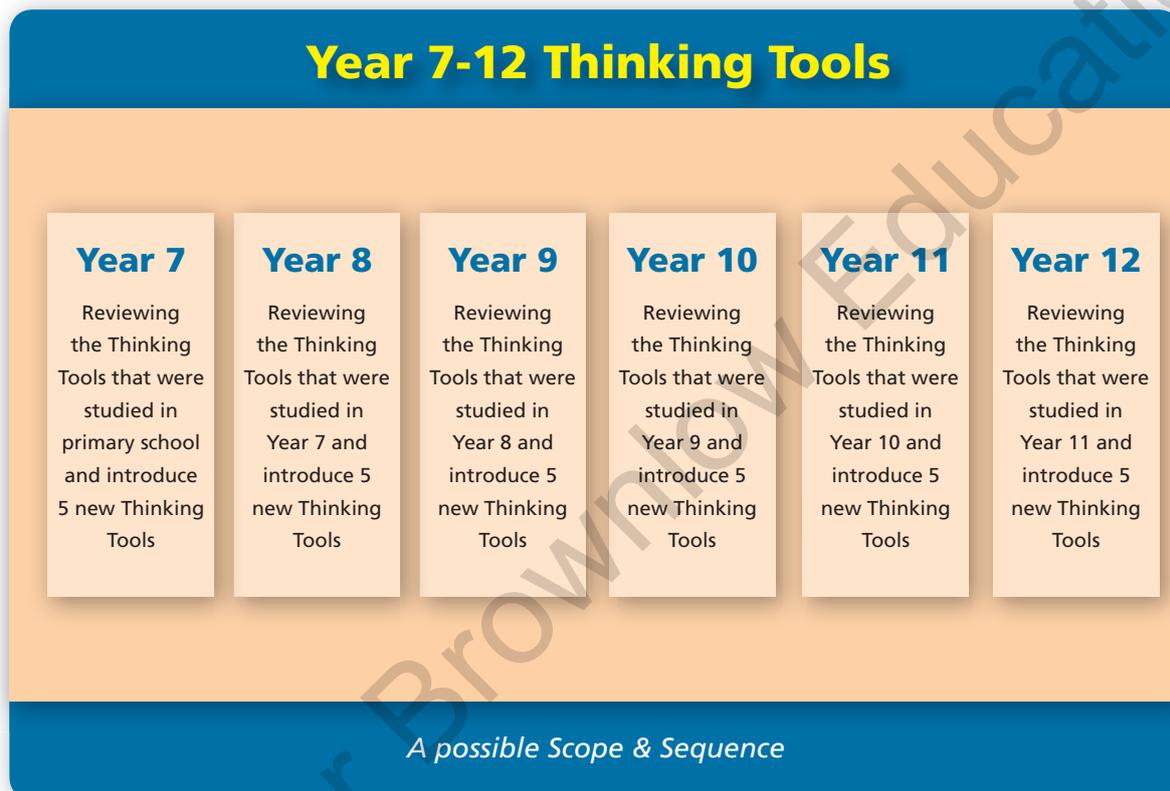
P-6 Thinking Tools					
P-1	Year 2	Year 3	Year 4	Year 5	Year 6
LDC	Review P-1 Thinking Tools and introduce the following tools:	Review P-2 Thinking Tools and introduce the following tools:	Review P-3 Thinking Tools and introduce the following tools:	Review P-4 Thinking Tools and introduce the following tools:	Review P-5 Thinking Tools and introduce the following tools:
TEAM	LITE	ARC	IW ^S	ITPE	DMT
Y CHART	A & R	MAC	PSDR	LEAP	ISACS
X CHART	GLOW	BROW	Trec	WASPS	BROWSE
W CHART	RIB-TT	MACE	WINCE	LEADER	LIMACE
STIESA	The Rake	SCRAM	SCREAM	RedMast	SOWC analysis
TPS & TPSS					
Concept Maps					
Thinking Clouds					

For example, a Year 2 teacher at this school will be expected to introduce the LITE, A & R, GLOW, RIB – TT and the Rake thinking tools to their students, and review the ten P – 1 thinking tools that the students should already be familiar with.



It is important to note that in relation to this school's thinking skills program, LITE, A & R, GLOW, RIB – TT and the Rake represent the minimum number of thinking tools to be introduced in Year 2. More tools can be introduced at the teacher's discretion.

While working in primary education, it is very advantageous to implement thinking skills across the whole school. However, this approach has not worked well in secondary education. In secondary schools, teachers prefer to implement thinking skills at the faculty level. For example, the English faculty may decide to introduce the following Year 7–12 thinking skills program:



What are the benefits of implementing thinking skills either at the school – wide level in primary education or at the faculty level in secondary schools?

By doing this every teacher, student and parent will know what is expected at each year level. This means that every year, students will:

- have the opportunity to review the tools that were introduced in the previous year(s)
- be introduced to a minimum of five new thinking tools.

From the teacher's point of view, this is advantageous because they will choose the thinking tools to be introduced and will know exactly what is expected of them. In other words, everyone will be speaking the same language. This "scope and sequence" approach to the implementation of thinking skills will ensure that teachers at the same year level (primary) or faculty (secondary) are using the same thinking tools.

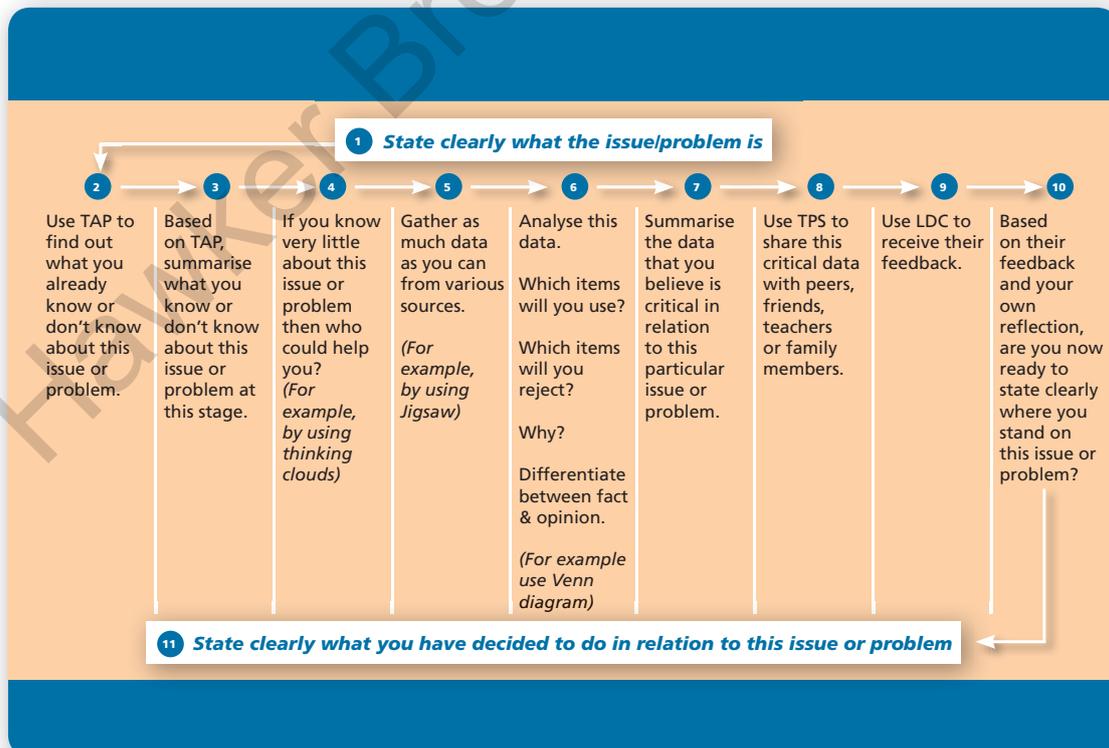
DMT

Decision Making Tool

How do you make critical decisions regarding controversial and sensitive issues such as:

- Adoption laws
- Building desalination plants
- Building new dams
- Building nuclear plants to produce electricity
- Child labour
- Drilling for oil under the Great Barrier Reef
- Drinking recycled water
- Gay marriages
- Global warming
- Greenhouse gas emissions
- How to deal with refugees?
- How to deal with those responsible for the collapse of HIH, Westpoint Corporation Pty Ltd and One:Tel
- Laws that prevent individuals from placing offensive material on the internet
- Lowering or increasing the drinking age
- Reconciliation issues
- Stem cell research
- Uranium mining
- Which political party to join?
- Which political party to vote for?
- World hunger
- World poverty

The decision making tool may assist you in deciding where you stand on some of these issues.





1. Why do I want this?

Use thinking clouds (pp. 80 – 81) to discover the goods that students would like to have and then separate these goods into “Needs” versus “Wants” on a Venn diagram. Ask the students to choose the best advertisement that they have seen recently and apply either the W, X or Y chart (pp. 96 – 102) or the Rake (pp. 77 – 79) to discover how skilful advertising people are at convincing students that they have to buy certain goods. If possible, source some advertisements that bombard the students with messages such as “You are worth it”, “You deserve it” and “Want it all and want it now”.

2. Why does it have to be this specific brand?

Ask the students why they need to have specific brands of mobile phones, shoes, mp3 players etc. Students discover that most of the time they want a particular brand because they desperately want to be seen as cool and as belonging to a particular group. Thus, often the material goods that they crave have a lot to do with their need to belong.

3. Who am I trying to compete with?

By brainstorming, the students discover that they want to compete with the coolest kids in the classroom, with those students who appear to them to be leaders, risk takers and those who constantly challenge figures of authority.

4. What am I prepared to do to get this?

We often hear students saying, “I would do anything to get the latest label!” Some students are prepared to get part – time jobs to save enough money to buy these items. Other children pressure their parents into purchasing these very expensive items.

5. What other items am I prepared to buy instead of this?

Often, the answer is “nothing else will do!”

Reflection

- Have the students clearly identified what constitutes a “need” and what constitutes a “want”?
- What do students mean when they say “I wouldn’t be caught dead wearing that brand”?
- Do students believe that advertising has a major impact on the material goods that they crave and eventually buy? If so, what is the role of parents and teachers?



3. Argue

The team works together to organise the arguments that they will put forward. They need to allocate each point to a speaker. Ideally the arguments should be split along a theme, for example:

- how the argument affects the individual
- how the argument affects the wider community or society
- the general or “big picture” view
- a specific view
- the environmental reasons
- the practical reasons
- the moral reasons
- the economic reasons.

Some of the points can be allocated to the first speaker, whose primary purpose is to define the debate topic and to support the path that his or her argument will take. The majority of the points need to be given to the second speaker as they have the most time to develop the argument. No points are to be allocated to the third speaker as their primary role is to summarise their team’s argument.

The team should also work together to look at what arguments the opposing team could put forward. This allows the team to have rebuttal prepared for the opposing team. All speakers in a debate, except for the first speaker for the affirmative, have to rebut. Rebuttal should follow this basic structure:

- what was said
- who (which speaker) said it
- why it is wrong.

For example:

The first speaker for the affirmative said that, “According to the opponents, mobile phones should be banned in classrooms due to potential radiation poisoning. We in the negative believe this to be incorrect because there has not been a conclusive study published that has definitively shown that mobile phone usage increases risks of radiation poisoning.”

4. Debate

The team members debate their topic, taking into account possible rebuttal. This is when the speakers begin to write their debate. They look at the tasks that they have to fulfil as a particular speaker (1st affirmative, 1st negative, 2nd affirmative, etc.) The teacher should designate a set amount of time for each speaker, and the team members need to be aware of this when writing their debate.



LIMACE

Locate, Identify, Make, Analyse, Compare and Contrast, Evaluate

LIMACE					
L	I	m	A	C	E
L a b e l	I d e n t i f y	M a g n i f y	A c t	C l a s s i f y	E m p a t h i s e
L i n k	I l l u s t r a t e	M a k e	A d v i s e	C o m p a r e	E m p o w e r
L i q u e f y	I m a g i n e	M a t c h	A n a l y s e	C o m p l e t e	E s t i m a t e
L i q u i d a t e	I m i t a t e	M i m e	A p p l y	C o m p o s e	E v a l u a t e
L i s t	I n t e r v i e w	M i n i m i s e	A r g u e	C o n d u c t	E x p e r i m e n t
L i s t e n	I m p e r s o n a t e	M o d i f y	A r r a n g e	C o n s t r u c t	E x p l a i n
L o c a t e	I m p r o v e		A s s e s s	C o n t r a s t	E x p r e s s
L o d g e	I n c l u d e		A u d i t i o n	C r e a t e	E x t r a p o l a t e
L o o k	I n t e r p r e t				
	I n t e r v i e w				

A possible sequence that students can use to improve their level of creativity

Description

LIMACE is a versatile thinking tool because different verbs can be selected from each of the six columns depending on the activity that the students are involved in.

Scenario

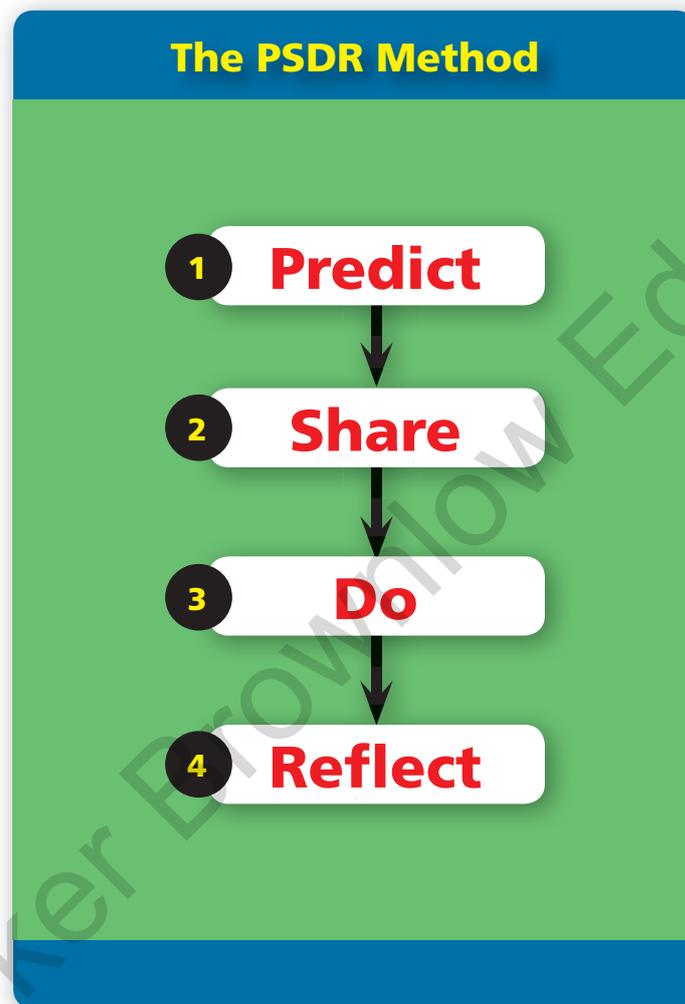
The teacher wants the students to build a bridge of their own choosing in order to discover that triangular shapes provide the most strength of any other shape. The students work in groups of four and each group is provided with:

- 150 plastic straws
- a glue gun loaded with glue (ensure the glue gun is only operated by an adult)
- two blocks of wood (20 cm x 20 cm)
- masking tape
- a book weighing 500 grams.



PSDR

Predict, Share, Do, Reflect



Description

The PSDR method encourages students to go through a four – stage thinking process that involves:

1. **P**redicting the outcome of an experiment
2. **S**haring their predictions with others
3. **D**oing the experiment
4. **R**eflecting on the outcome of the experiment.