

## THINKING SKILLS USED AT ST MONICA'S PRIMARY SCHOOL

### The Six Thinking Hats <http://www.debono.org/main.html>

De Bono's Six Thinking Hats are used widely throughout the school. The different coloured hats target different ways of thinking. Students select a hat and play a thinking role attached to that hat.

1. Wearing a *White Hat* requires students to seek information and facts.
2. Wearing the *Yellow Hat* allows students to think about the strengths and pluses of an idea.
3. The *Red Hat* targets feelings and hunches.
4. The *Black Hat* encourages the wearer to look for weaknesses in a suggestion or proposition.
5. The *Green Hat* allows students to look at alternative suggestions and consider different possibilities.
6. The *Blue Hat* targets meta-cognition where students are encouraged to think about their thinking.

### Herrmann's Brain Dominance Model <http://www.herrmann.com.au/solutions/education/>

Herrmann's Brain Dominance Model was introduced to St Monica's by Elizabeth Horscroft as she worked with staff developing our school based integrated units. This approach to thinking is embedded into the activities found within these units.

This model allows students to identify and describe different thinking preferences. Herrmann uses a circle divided into quadrants to clarify his model. The quadrants are:

#### 1. Analytical thinking

Includes activities which involve collecting data, analysis, understanding how things work, judging ideas based on facts, criteria and logical reasoning.

#### 2. Sequential thinking

Includes activities involving following directions, detail oriented work, step-by-step problem solving, organization and implementation.

#### 3. Interpersonal thinking

Includes activities involving listening to and expressing ideas, looking for personal meaning, sensory input, and group interaction.

#### 4. Imaginative thinking

Includes activities involving looking at the big picture, taking initiative, challenging assumptions, visuals, metaphoric thinking, creative problem solving, long term thinking.

### KWL or KWHL

This strategy is a meta-cognition tool that requires students to think about what they know (K), What they want to know (W), How they will find out (H) and What they have learnt (L).

At St Monica's this strategy is introduced at the beginning of all our integrated units. In our Inquiry Based approach to learning, the KWHL strategy fits into the 'Tuning In' phase of the model.

All classrooms have a KWL or KWHL retrieval chart on display from early in each term. Teachers and students can refer to this chart as they work through the supporting questions in our inquiry model. It has been found to be an effective tool for engaging and motivating the students, and for reflecting upon their learning at the end of the term.

## **Bloom's Taxonomy** <http://www.kidcyber.com.au/Bloomgard.htm>

Benjamin Bloom's hierarchy of thinking skills is familiar to all teachers at St Monica's. The Taxonomy classifies the level of abstract thinking required to complete a specific task.

The original taxonomy as revised by Anderson in the 1990's involves:

- Remembering
- Understanding
- Applying
- Analysing
- Evaluating
- Designing

Depending upon the themes and topics being studied in class, teachers at St Monica's may include a range of activities targeting these thinking skills.

## **Gardner's Multiple Intelligences**

Howard Gardner's theory of multiple intelligences identifies the natural strengths and learning styles of different students. Gardner has recorded 8 intelligences as:

- Self Smart (*Intra-personal*)
- Nature Smart (*Naturalistic*)
- Picture Smart (*Spatial*)
- Body Smart (*Kinaesthetic*)
- Word Smart (*Linguistic*)
- Number/Reasoning Smart (*Logical*)
- People Smart (*Interpersonal*)
- Music Smart (*Musical*)

Teachers at St Monica's are aware of student's differing learning styles and there is evidence in programming and classrooms of lessons being delivered across the range of multiple intelligences as they apply to the year level and/or unit of work.

## **Gardner/Bloom Matrix**

At times, teachers at St Monica's may elect to combine Bloom's hierarchy of thinking skills and Gardner's multiple intelligences into a 48-cell matrix. Students are then offered a selection of activities that combine abstract thinking in their preferred learning intelligence.

This strategy is employed at the discretion of individual Stage teams and depends upon the requirements of the topics being studied in class. Because this approach requires students to have strong independent work habits, it is not always appropriate for the younger grades.

## **Other Thinking Strategies / Graphic Organisers**

At staff meetings at the end of each term, time is set aside for collegial sharing across all the grades. Teachers visit each other's classrooms, observe the displays and share ideas and strategies as well as offering suggestions and support to each other.

Some of the thinking strategies and graphic organisers that were evident throughout the school include:

- Concept Maps (*Inspiration, Kidspiration*)
- Y-Charts (*Feels Like, Looks Like, Sounds Like*)
- T-Charts (*Fact, Opinion*)
- PMI (*Plus, Minus, Interesting*)
- Alpha Ladders (*Brainstorm Technique*)
- PCQ (*Pros, Cons, Questions*)
- POE (*Predict, Observe, Explain*)
- Jigsaw
- Venn Diagrams
- Pie, Donut, Bar, Line and Picture Graph