



Thinking at Maraekakaho School



At Maraekakaho School we want the children to think - critically, creatively, cooperatively and in a caring way. We also want our kids to be problem solvers and decision makers.

Our children are going to need to think in complex ways - we want to give them the tools to structure and organise their thinking and give them practice at thinking.

The staff are involved in ongoing professional development focussed on 'Thinking'.

The following are tools and strategies that we are using to engage the students and to develop their thinking.

Next term we will hold a THINKING evening, to go into each tool in more detail.



Blooms Taxonomy

Dr Benjamin Bloom, a world renown researcher, focussed on the brain and education, has created a Taxonomy of Thinking Skills.

At MKK the teachers use Blooms Taxonomy when planning to ensure the children are engaged in activities and inquiries that require a range of thinking skills and abilities.

Bloom's Taxonomy is a way to classify instructional activities or questions as they progress in difficulty. The lower levels require less in the way of thinking skills. As one moves down the hierarchy, the activities require higher level thinking skills.

Level	Type of Activity or Question	Verbs Used for Objectives
Lowest level	Knowledge	define, memorize, repeat, match, record, list, recall, name, relate, collect, label, specify, cite, enumerate, recite, tell, recount
	Comprehension	restate, summarize, differentiate, discuss, describe, recognize, explain, express, identify, locate, report, retell, review, translate, paraphrase
	Application	exhibit, solve, manipulate, interview, simulate, apply, employ, use, demonstrate, dramatize, practice, illustrate, operate, calculate, show, experiment
Higher levels	Analysis	interpret, classify, analyze, arrange, differentiate, group, compare, organize, contrast, examine, scrutinize, survey, categorize, dissect, probe, create an inventory, investigate, question, discover, inquire, distinguish, detect, diagram, chart, inspect
	Synthesis	compose, set up, plan, prepare, propose, imagine, produce, hypothesize, invent, incorporate, develop, generalize, design, originate, formulate, predict, arrange, assemble, construct, create
	Evaluation	judge, assess, decide, measure, appraise, estimate, evaluate, rate, deduce, compare, score, value, predict, revise, choose, conclude, recommend, determine, criticize, test



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Thinking Maps

The 'Thinking Maps' were created by educational researcher Dr David Hyerle.

The maps are a set of tools and a language of thinking that help the children structure and organise their thinking.

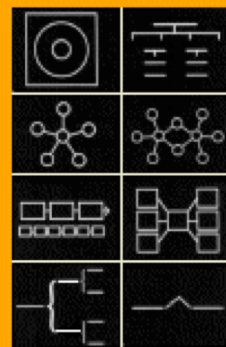
Each of the maps is designed around one of the eight key thinking processes students are most commonly engaged in - Describing, Sequencing, Comparing & Contrasting, Classifying, Defining (Brainstorming), Seeing whole / part relationships, Cause & Effect, Making Analogies.

The maps will be taught throughout the school using a common language. This makes it easy for children to transition between classes, without having to learn a new way of doing things - the learning is at the core, not the setting out.

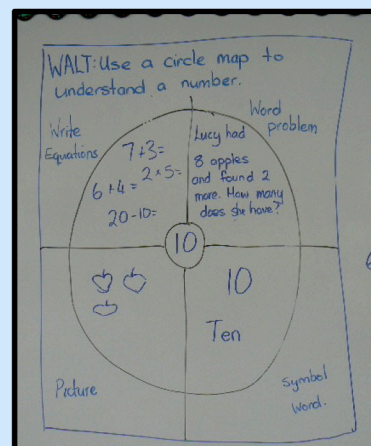
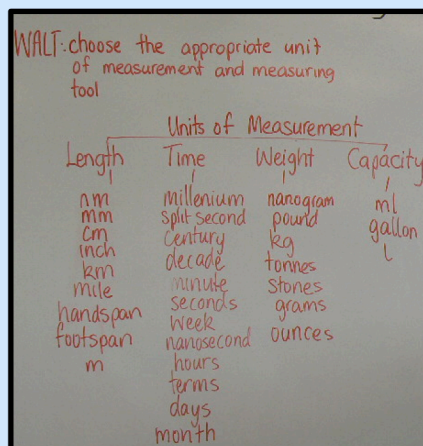
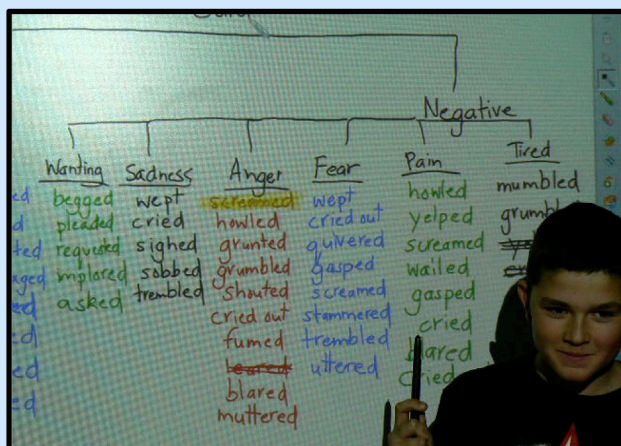
The 'Thinking Maps' can be successfully used from Year 1 through to adulthood and across every curriculum area. They work well as a whole class teaching tool or individually for kids to show their understanding. They are great for groups, as a tool for discussion. The more we use them, the more we see how much potential they have.

The attached page will give you more of an outline of the maps and how your children will be using them.

Thinking



Maps®





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Habits of Mind

The 'Habits of Mind', developed by Dr Art Costa are a set of learning habits that are exhibited by highly effective people.

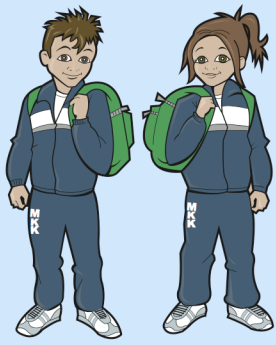
Costa researched highly successful people from every field from academics to athletes to actors - he found that they all had very similar qualities.

These habits are the way people react when faced with something they are not sure about. They are the traits we would like to see in our kids.

At MKK we will be continually referring to the Habits of Mind with the children, setting goals around them and trying to help them become HABITS.

The 16 Habits of Mind identified by Costa include:

- **Persisting**
- **Thinking and communicating with clarity and precision**
- **Managing impulsivity**
- **Gathering data through all senses**
- **Listening with understanding and empathy**
- **Creating, imagining, innovating**
- **Thinking flexibly**
- **Responding with wonderment and awe**
- **Thinking about thinking (metacognition)**
- **Taking responsible risks**
- **Striving for accuracy**
- **Finding humor**
- **Questioning and posing problems**
- **Thinking interdependently**
- **Applying past knowledge to new situations**
- **Remaining open to continuous learning**



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Thinking Hats

The 'Thinking Hats', created by Edward de Bono, are used for thinking around a problem rather than a tool to organise thinking.


Each of the Hats has a specific thinking purpose - eg - feelings, positives, negatives etc. By asking the children to use a variety of hats for a problem, they explore others points of view, find what information they have and still require, think creatively about new solutions and plan their next steps.

They are another tool the children have when attacking problems.



6 thinking HATS


THINK



THINKING HAT

What thinking is needed?
What have we done so far?
What do we do next?


WOW




FEELINGS HAT

What do I feel about this?

EMOTIONS
INTUITION
HUNCHES



NEW




CREATIVE HAT

What new ideas are possible?
What are some possible ways to work this out?

SUGGESTIONS
DIFFERENT IDEAS
PROPOSALS


FACTS




INFORMATION HAT

What are the facts?
What information do we have?
What information do we need to get?

QUESTIONS



YES




BENEFITS HAT

What are the good points?
Why is this worth doing?
How will it help us?

GOOD POINTS

NO



JUDGEMENT HAT

What is wrong with this?
Will this work?
What are the weaknesses?

BAD POINTS
ASSESSMENT
CAUTION

Six Thinking Hats® Edward de Bono