Learning, Habits of Mind & Inquiry

The Habits of Mind are the behaviours associated with effective learning. When faced with a new challenge or a problem to solve they are the ways of behaving intelligently to help you learn effectively.

The Habits of Mind are essential learning dispositions which will sustain the learner throughout the 21st century and beyond. They are long range, enduring skills that empower us to cope with the rapidly changing world we live in. (*By the year 2016, the amounts of information in the world will double every 72 hours. Ian Jukes*).

To enable learners to see the moral, ethical, spiritual decisions of the future, our students need to be equipped with powerful thinking skills and know how to behave and discuss with intelligence.

The Habits of Mind are more than tools for use in the classroom. They are guiding principles for life-long learning, developing such things as relationships, effective communication, flexible thinking, self reflection and resilience. These guiding principles are essential for a successful future.

Habits of Mind are relevant to students of all ages (including adults) and in all subjects. Habits of the Mind will extend beyond the learning area to create a whole school learning culture.

There is no particular sequence to the Habits, however, an important factor in developing the Habits of Mind is to explore the meaning of each one. Understanding the terminology, labels and definitions, and developing specific literacy around the language of the Habits of Mind is an important first step in understanding them and seeing the value they offer.

Students report that merely being made aware of what the Habits of Mind are helps to improve their thinking. The language alone seems to act as a cognitive anchor or trigger, allowing students to monitor and describe their own thinking.

Wyndham Vale Catholic Primary School has the 'Habits of Mind' as the framework for all learning. The 16 dispositions form the essential learning behaviours with which students will explore the concepts and essential learning standards of the curriculum within the inquiry based, integrated curriculum model.

Habits of Mind will be introduced and developed using a cumulative approach according to the 6 stages of development:

- Exploring Meanings
- Expanding Capacities
- Increasing Alertness
- Extending Values
- Building Commitment
- Internalisation

The thinking process is an integral part of all learning and activity therefore is embedded in staff and parent activities & learning as well as student learning processes.

Habits of Mind Dispositions

Persisting	• Stick to it! • Persevering in a task through to completion, remaining focused		
Managing Impulsivity	• Take your time! • Check before acting; remain calm, thoughtful and deliberate		
Listening with Understanding & Empathy	• Understand others! • Devoting mental energy to another person's thoughts and ideas in order to perceive his/her point of view		
Thinking Flexibly	 Think, rethink, think and rethink! Being able to change perspectives, generate alternatives, consider options 		
Metacognition	 Think about your thinking, know your knowing! Being aware on one's own thoughts, strategies, feelings and actions and their effects on others 		
Striving for Accuracy & Precision	 Check it again! A desire for accurateness, fidelity and craftsmanship 		
Questioning & Problem Solving	 How do you know? Having a questioning attitude; knowing what data are needed and developing questioning strategies to produce this data. Finding problems to solve 		
Applying Past Knowledge to New Situations	 Use what you learn! Accessing prior knowledge. Transferring knowledge beyond the situation in which it was learned 		
Thinking & Commuicating with Clarity & Precision	 Be clear! Striving for accurate communication in both written and oral form; avoiding over generalisations, distortions and deletions 		
Gathering Data Through all the Senses	 Use your natural pathway! Gathering data through sensory pathways - gustatory, olfactory (smell), tactile, kinesthetic, auditory and visual 		
Creating, Imagining & Innovating	 Try a different way! Generating new and novel ideas, fluency and originality. Think outside the box before getting in. 		
Responding with Wonderment & Awe	 The pleasure of figuring it out! Finding the world awesome, mysterious and being intrigued with phenomena and beauty. Finding the extraordinary in the ordinary 		
Taking Responsible Risks	Venture out! Moving outside your comfort zone and being adventuresome. Taking educated, well considered risks		
Finding Humour	 Laugh with others and at yourself! Finding the whimsical, incongruous and unexpected. Not taking oneself too seriously 		
Thinking Interdependently	 Work together! Being able to work in, and learn from others in, reciprocal situations 		
Remaining Open to Continuous Learning	 Learn from experiences! Having humility and pride when admitting we don't know. Resisting complacency 		

The Habits of Mind challenge students to take ownership of their learning behaviours, to continually to strive for accuracy, flexible thinking, effective problem solving and creative processes. Embedding the Habits in day to day learning stimulates students to tackle "big idea problems" using the Habits as a process and relying on the scaffolding of the thinking to support their endeavours as a learner.

The teacher's role as model, facilitator, supporter and co-learner builds the students capacity to operate as an independent and interdependent learner.



The Habits of Mind thinking processes will link to all curriculum areas as identified by the National Curriculum and the Victorian Essential Learning Standards:

National Curriculum

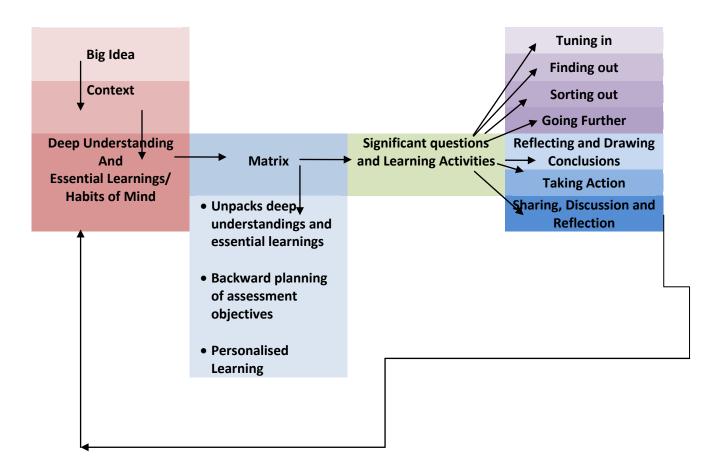
- Religious Education
- The Arts
- English
- Health & PE
- LOTE
- Mathematics
- Science
- SOSE
- Technology

Victorian Essential Learning Standards

- Physical, Personal and Social Learning:
 - Health & PE, Interpersonal Development,
 - Personal Learning & Civics & Citizenship
- Discipline Based Learning:
 - The Arts, English, Humanities (Economics,
 - Geography, History), LOTE, Mathematics,
 - Religio8us Education, Science
- Interdisciplinary Learning:
 - Communication, Design Creativity & Technology, Information & Communication Technology (ICT), Thinking

The Habits of Mind provide a framework for setting learning goals, establishing individual learning pathways, participating in an authentic inquiry process and reflecting on and assessing learning. The Habits develop learners who are critical users of information and who incorporate their prior knowledge into new learning and inquiry where appropriate.

The students develops an awareness of their own strengths as learners and the areas where they need development. As they investigate a problem or research a topic their voice becomes evident in the product of their learning – they see this learning as linked to real life situations and having relevance beyond the school walls. Students are developing the thinking skills and inquiry processes that will make them Life-Long Learners.



Inquiry Planning Process

The planning process draws on the big concept ideas and places them in a realistic context for the students. From this point teacher's (student voice is added as they develop the capacity to plan for their learning) identify the deep understandings, essential learnings and Habits of the Mind dispositions that fit with the learning.

A matrix or rubric is developed to identify the different levels within the learning context. At this point significant questions are raised to focus the inquiry. The inquiry then follows the Melbourne University model with considerable planning input from the students.

The 'backward' process comes into play as the learner seeks further understanding – "Education is learning what you didn't know you didn't know" George Boss. Hence the need to revisit the deep understandings, essential learnings and Habits of the Mind.

Below is an example of an inquiry matrix.

Thr		we can develop options and	mpacts on our lives and our en	/ironment (Kn.).
Novice	We have a responsibility to			
Novice	, ,			
		Practitioner	Expert	SIGNIFICANT QUESTIONS
can name some				
	I can discuss and	ES – NATURE OF TECHNOLO	I can <i>evaluate</i> innovation	Tuning In: 1. What is technology?
		l can <i>explain</i> how innovations and		2. What are innovations and
nnovations and	<i>classify</i> the impacts of innovations and		and inventions and the	2. what are innovations and inventions?
nventions that have	inventions in my life &	inventions impact on our society and <i>justify</i> the	<i>impacts</i> on our environment	Finding Out:
an impact on my life.	on the environment.	impact.	environment	3. Why do people innovate and
can <i>describe</i> how	on the environment.	impact.		invent (needs and wants)?
these innovations and	l can <i>explain</i> the need /		l can <i>analyse</i> this	4. How have innovations and
nventions have been	want that resulted in	l can <i>infer</i> the	information to make	inventions impacted on our
nelpful.	<i>different</i> inventions.	consequences of	predictions for the future.	environment?
	innovations and	predictions for the future.	Sorting Out:	
	inventions for the future		5. How do people innovate and	
TECHNOLOGICAL OUTCOMES & HABIT OF MIND: THINKING FLEXIBLY- KEY COMPETENCY: THINKING				invent?
can generate ideas	I can generate relevant	I can reflect on existing	Multiple perspectives	6. What makes a successful
to solve a problem.	ideas and as my	ideas and refine these to	challenge me to be open to	invention (reflection &
thinking changes I modify my design.		develop new and	changing ideas/modify	evaluation)?
		innovative ideas.	changing lacus/mouny	7. How do we think flexibly?
	mouny my design	intertaine faction	I can critically evaluate	Going Further:
		I can critically analyse	(rank/judge) from a range	8. How might innovations &
		(compare & contrast) my	of perspectives the	inventions change and affect
		idea from a range of	effectiveness of my design.	the future?
		perspectives.	······	Drawing Conclusions:
		1	My intellectual curiosity	9. What issues are there in our
			contributes to a climate	community that could be
			which challenges others to	solved using technology?
		think flexibly.	Taking Action:	
TAKING ACTION				10. How can we use technology
With encouragement	I have contributed to a	I followed through the	l initiated and sustained a	to actively contribute to a
and support from	community project.	design process and	project to solve a	community project?
others, I've	31 3 1	actively contributed to a	community issue.	Reflecting:
contributed to a		community project.	-	11. How can we evaluate the
community project.		5.5		effectiveness of our project goal?

Assessment looks for changes in children's participation using three lenses:

1. Personal lens: would look for evidence of change in the child's skill level of understanding.

2. Interpersonal lens: would look for evidence of change in the way children interact with others, their new skills to collaborate, engage in dialogue with others etc.

3. Cultural lens: would look for evidence of change in the cultural rituals of the classroom, new ways children use resources or new values developing in the classroom.

Evaluation: (How did each of my goals support my learning? Write a summative comment about your understanding using the 6 facets of understanding as a guide).

Note: Reflective comments in relation to goals and learning experiences could be recorded in a journal along with 'Thinking Maps' that show shifts in understanding.