Thinking @ PLC Library:

Objectives:

- Engage and explore thinking alongside students in an environment that is critical, creative, and analytical and to teach this in explicit ways.

- Enable students to manage, organise, and record their thinking via a range of scaffolds.

- Build interdisciplinary links by developing rich, open-ended learning experiences that allow transfer beyond the immediate subject disciplines to wider contexts and are consistent with International Baccalaureate principles.

- Recognise the affect variable as being an integral part of thinking (learning styles, thinking style, and multiple intelligences, environment)

- Keep it simple!

Tools:

1. The use of Blooms Thinking Strategy as a carrier to develop thinking (knowing/cognition) side of things.

2. Acknowledgement of the affect variables (social and emotional) as an essential part of differentiating the learning experience.

3. Thinking frameworks to guide learning that builds cognition and recognises student difference.

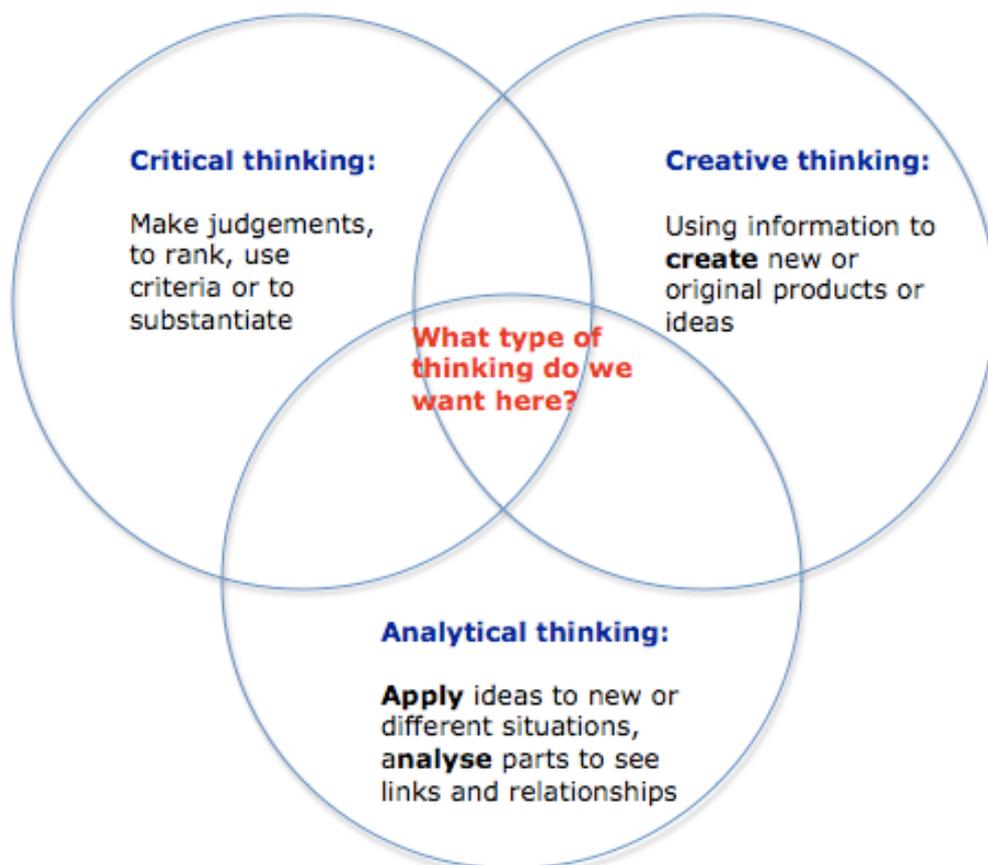4. MYP documents, Yr overviews, concepts, guiding questions.

Affect considerations:

What allowances will we make for the social and emotional differences in our students?

- o Collaborative learning + how we group students
- o Acknowledgement of learning style, thinking style and multiple intelligence
- • Learning style (How we take information in - auditory, visual, kinaesthetic)
- • Thinking style (what do we do when it goes into our brain – analyse, synthesise, organise or personalise)
- • Multiple intelligences (What ways do we show our learning?)
- o Environment
- o Age + 2 rule

==Critical==, ==creative== and ==analytical== thinking:

- o Use critical, creative and analytical thinking as the main categories.
- o Natural assumption that metacognitive thinking is a common element to all.

Critical thinking:

Make judgements, to rank, use criteria or to substantiate

Creative thinking:

Using information to **create** new or original products or ideas

What type of thinking do we want here?

Analytical thinking:

Apply ideas to new or different situations, **analyse** parts to see links and relationships

Thinking and Blooms:

Thinking stages	Bloom's stages
Critical	Evaluate + remembering + understanding
Creative	Create + remembering + understanding
Analytical	Apply and analyse + remembering + understanding

Thinking Frameworks: (Guiding thinking)

What's the purpose of these frameworks and how does it match the thinking outcome required?

1. What is its purpose of this framework?
2. How does its structure assist in developing this type of thinking?
3. Can I adapt it to cater for learning style differences?
4. Do I need to explicitly teach this scaffold as a tool to show students how it will benefit their thinking both now and in the future?

Some useful frameworks:

Critical (evaluate)

Compass Rose (looking at point of view and perspective)
Scamper
Thinking Hats

Creative

Brainstorm
POOCH (**P**roblem, **O**ptions, **O**utcomes, **C**hoice, **H**ow did it turn out?)
Mind map (free flowing thinking but with evolving classification of new and existing ideas

Analytical (Apply and analyse)

Clustered brainstorm (sort and classify after brainstorm)

Concept map (link ideas with sentences that explain the link)
Timelines (sequences related particularly to time)
Flowcharts (sequence to show processes, routine, life cycle, order)
Sequences (Plot summary)
Grids (general framework for data gathering, similarities/differences)
Venn + tri Venn (similarities/differences)
Structured overview (organise under a specific heading)
Bullseye (isolate attributes or parts to combine later)

This is what I will ask you about when we plan together:

1. What's the type(s) of thinking you want here?
2. What are the affect considerations?
3. What is the guiding question, AOI and concepts?
4. What are the content, process and product requirements?
5. What are the tools and frameworks to guide the learning?
6. How do these tools impact upon the thinking required?
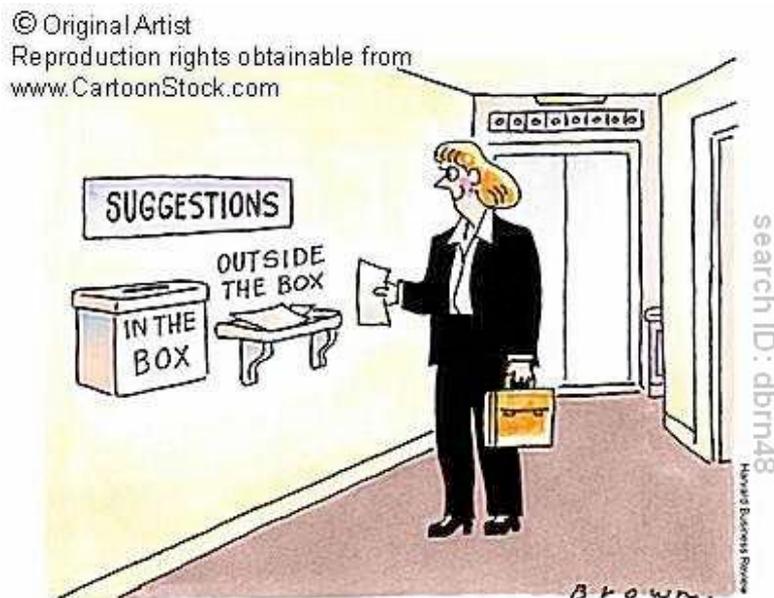
Gary Green, Presbyterian Ladies' College, Perth, September 2009.