Ann Baker – 2 Day Teaching Model as part of a 2 Week Cycle

Numeracy Cycle Overview: http://youtu.be/RZN77yiQRCc

Lesson 1

Lesson 2

Mental Routine

- Develop vocabulary and activate prior knowledge of the big/key ideas through carefully planned questions
- Use three types of questions: closed (1 correct answer), open (more than 1 correct answer) and flip (guess my number, angle, shape, money amount). Through the flip question students are modelling the mathematical language being developed.
- Answers are not discussed, unless intervention is needed, the teacher scans and observes to collect information about: what students know/don't know; what are the misconceptions/common errors; what needs deeper development; where to next?

Problematised Situation

- Engage the students with the problem. Pose the problem like a narrative or story – *kids love hearing stories & become engrossed in stories they often don't ask if it's true or not*
- Challenge mathematical thinking
- Use a process for working through the problem *(e.g. Polya- understand, plan, do, check; Ann Baker- STAR model)*
- Have multiple entry points (and a challenge question ready)
- Monitor what students are doing and thinking, conference students and ask probing questions to encourage deeper thinking - *do not do the thinking (rescuing) for them!*
- Reflection is crucial - be prepared to cut it short to have time for reflection– you can always go back and finish the problem the following day, equipped with new knowledge or strategies from the reflection

Strategy Lesson

- Respond to the needs (skills or strategies) of the learners identified the day before during the problematised lesson
- Provide students with specific learning opportunities – What is something that was apparent during reflection? *(e.g. What did students find difficult? What was identified as the most popular/ efficient strategy? Did many students attempt or understand this strategy?)*
- Pose a similar question that prompts students to choose this new/efficient strategy or to practice a skill as a way of solving the problem
- Monitor what students are doing and thinking. Check for accuracy and improved skills and understandings
- Collect formative data – think about what is needed next?
- Is there a theme developing for reflection?

Reflection

- Students come together as a community of learners to share and compare strategies
- Choose work samples to use as 'learning opportunities' to explore further. Even the most inefficient strategy can have positive aspects and possibly something for the higher-order thinkers – engaging and respecting all students as learners
- Mathematical connections are made between different ideas and representations, and are linked back to the big/key ideas

Natural Maths Planning Term: Weeks: Year Level: Big Idea:

Top 5 – The Big Ideas	Key Vocabulary	Australian Curriculum Links	Prior Knowledge

Date	Monday	Tuesday	Wednesday	Thursday	Friday
Mental Routine (10 min.)					
Main Part of Lesson (30 min) e.g. ***Problematised Situation*** *–using the STA from STAR model* ***Or*** ***Strategy Lesson*** *-includes focus/ target strategies and a supporting game*					
Reflection (15 min.) *-including **R** from STAR model*					
Other Activities *-Including related Games/ Take Home Activities*		Targeted Assessment Tasks:		Future Learning:	