National Partnerships

St John the Baptist
Koo Wee Rup
Why were we chosen as a National Partnership School?

- Having examined NAPLAN results throughout our diocese, it was decided, at a systemic level, that certain schools would benefit most from a series of Professional Learning opportunities for their staff. As a result, St John’s School was chosen.
What was our chosen Focus Area?

- St John’s Staff made an analysis of all the testing data available to them. This included:

  LITERACY
  - Fountas & Pinnell
  - Marie Clay Survey
  - TORCH Test
  - S.A. Spelling Test
  - NAPLAN
  - Peter’s Dictation

  NUMERACY
  - PAT Maths
  - M.A.I.
  - NAPLAN data
What was our chosen Focus Area?

- After careful consideration, our staff made the unanimous decision to focus on **Numeracy**, and in particular **Place Value**.
- This decision was based mainly on the globally low results of place value in the school’s M.A.I. data, throughout all the year levels.
- Interestingly, place value results were low across the entire diocese.
How did St John’s initially tackle the task of raising **Place Value** standards across each year level?

- Once Place Value was chosen as the focus, the following initiatives were implemented:
  1. NP leaders were chosen at each year level to ensure that PL occurred with all our teaching staff in PLTs.
  2. PLTs and staff meeting were structured to ensure that links were explicitly made between PDC and NP.
  3. Coaching and training, along with collegiate visits and principal-walk-throughs were undertaken in each level.
  4. School practices were evaluated and adjustments are currently being made for the 2014 school year.
Whole School P.D.C. Goal

To build a learning community where individuals are motivated to think deeper and make connections, where resilience and risk taking are valued.
Goal: For children to be able to read, write, order and model numbers to 100 and understand the value of the digits.

Possible Actions:
- Ability grouping (based on MAI Growth Points and class observations) across all 3 classes
- Arrow cards
- MAB
- Tens Frames
- Craft Sticks
- Place Value Charts
- Number Lines
- Unifix Number Strings
- Various place value games

Evidence:
- Videos/photos
- Anecdotal notes
- Work Samples
- Assessment Tasks
F/1 Evidence

Ordering numbers

Modelling numbers
F/1 Evidence

Writing numbers

Recognising and reading numbers
F/1 Evidence

Forming numerals
When comparing our beginning of year MAI Place Value Section data to our current data, we found that the vast majority of children have moved on to a higher growth point.

We are very pleased to find that most students in Grades Foundation and One have met the end of year Growth Point Goals for Place Value.
F/1 Reflection

Our National Partnership’s goal has enabled us to reflect on our teaching practices and to make learning more meaningful and relevant for students. The goal has ultimately provided us with an overarching model for teaching Mathematics and for open-ended tasks throughout the curriculum. We have noticed that reflection is a prominent theme across all three F/1 classes. Students have used a range of resources and have had a hands-on approach to understanding the value of digits in numbers.
Place Value Goal

Goal:
What changes do you want to see in students learning?
Place Value Goals for Grade 2/3 by the end of the year.
Grade 2 – Can read, write, order and model numbers 0 - 999.
Grade 3 – Can read, write, order and model numbers 0 - 9,999.

Evidence:
What will it look like if you have been successful? What evidence will you collect to show that change has happened?
MAI result progression, teacher discussion, movement through Place Value group based on MAI, Nelson maths unit assessment, sample work and assessment.

Possible Actions:
How will you explore your goal? What actions will make this goal part of our teaching?
Looking at incidental ways to incorporate Place Value throughout maths lessons & targeted MAI groups. Materials used: MAB’s, Deck of cards, Number lines, Blank number lines, Mathletics – computer program, Smartboard activities, Dice, I-pad, graphing, abacus, photos, videos, computers, skip counting, little whiteboards.
2/3 Evidence

Modelling numbers and being able to change the number by adding more or taking some away has been a good visual aide with students.
Reading, writing and ordering numbers has been part of our goal.
Overall we have seen lots of positive progression through the MAI growth points and, as a team, we are very happy with the progress made so far by the students. By targeting individual needs, focussing on mathematical fluency and implementing Mathletics, we have found that the majority of students are experiencing success whether in the low, average or high groups. They are now:

- demonstrating a greater understanding of the value of a digit;
- able to order numbers sequentially;
- able to find numbers less than and more than a given number.

Our extremely low group is moving, but not enough to register in the MAI data. They are still trying to comprehend what each digit represents though, with our new whole school approach, we feel this growth will continue.
2/3 Reflection

Through National Partnerships we have focused on Mathematics and in particular, place value. We have seen a large growth in both our students’ mathematical learning and their personal learning skills. By focussing on the students’ learning of place value and pin-pointing what they know and need to know, teachers have been able to assist students to move on in their understanding of mathematics. We believe that through PLTs, meetings, discussions with other staff and group planning we are seeing the positive influence that National Partnerships has had on all the different year levels.
Goal
What changes do you want to see in your students' learning?
Understanding the concepts of place value within the operations of number.

Evidence:
- What will look different if you are successful? What evidence will you collect to show that change has happened?
  - Language
  - Discussions
  - Reflection

Possible Actions:
- How will you explore your goal?
- What actions will help make this goal part of your teaching?
  - Number lines
  - MAB
  - Pop sticks/matches
  - Abacus
  - Montessori cards
  - Launch; Explore; Summarise; Review
Student Reflection:
“It’s a number line...it shows numbers from zero to two. They are whole or positive numbers.”
4/5/6 Reflection

As a team, we decided that all the students in grades 4, 5 and 6 needed to be exposed to uniformed definitions within the area of place value. After discussion, we all adopted the same terms when discussing number values with the students, particularly for decimals. Accompanying this was a shared understanding that student reflection and class discussion were central to the improvement of the students’ conceptual understandings of place value. This came after reading research and discussing the improvement of student understandings using the Japanese model of teaching. In this model, real life problems were posed and different solutions were debated. Another successful teaching strategy adopted in all classes was the consistent use of number lines to reinforce every mathematical concept. Our thinking was to try to link place value understanding to other mathematical concepts and by using the visualization of the number line. Both the Pat Maths data and the MAI data indicated significant improvement of most students.
An initiative of the National Partnerships process was for a key leader to be trained as Collaborative Coach. In the past the leadership team has placed a large focus on assisting staff in developing their skills to be able to create their own goals. Initially we engaged an external coach to work both collectively and individually to help staff create goals. However, now we have an internal coach who works with the staff. It has been rewarding to see the staff learn new skills. Consistently reflecting upon and re-evaluating goals through the help of peers was a key focus of the coaching process.
Considerations for the future

- Effective change doesn’t occur in one year, and as such, our **Place Value** learning focus and goal setting needs to continue. Place Value will be part of our Annual School Improvement Plan in 2014 and beyond.
- PLT structure to continue
- New PAT Maths and PAT Maths analysis
- New testing schedule
- Continue with MAI and new MAI analysis
- Explore possible improvements to our collegiate visit initiative
- Reintroduce NAPLAN item analysis
- Introduction of Mathletics from Years 2 – 6
- Continue PDC personal goal setting for staff and students
- Ensure the continuation of a common mathematical language