SUGARLOAF COMMUNITY OF SCHOOLS

Mathematics Stage 3 and Stage 4 Transition Project
Sugarloaf Links Community of Schools

1. West Wallsend High School
2. West Wallsend Public School
3. Barneysley Public School,
4. Edgeworth Heights Public School

Our Purpose

- Improve student learning outcomes in mathematics.
- Improve student attitudes to mathematics
- Develop consistent and sound pedagogical practice across the Community of Schools (CoS).
- Facilitate collegial sharing and cooperation between all partners in the CoS and promote mathematics professional learning for Stage 3 & 4 staff.

Our Journey

Report and Impact in Learning

**Year 6 Surveys** – Year 6 students were surveyed across the Community of Schools at the end of 2014 on their attitudes to maths. A significant number of students scored maths as 3 or less (30%) showing they did not like Maths, with most students between 7 & 4. Common comments were ‘I don’t like it when I can’t understand the concept’ Year 6 & 7 students are due to be surveyed at the end of 2015 to determine if there has been a shift in attitude.
**Teacher Professional Learning** – Staff from the four schools have been engaged in teacher professional learning throughout the project period. This has included the Educational Services Team led conferences and professional learning through the Schools Network meeting.

- Port Macquarie Conference November 2014 – 2 staff attended
- Effective Pedagogy in Mathematics in the Middle Years – 6 staff attended
- Coffs Harbour Conference – 3 staff attended.
- Teacher Network meeting – changes from Stage 3 – 4 – 6 staff attended

**Impact on learning** – we developed collegial relationships, enhanced awareness for teachers, enhanced student learning as teachers have been able to go back and teach concepts with more knowledge.

**Regular Community of Schools network meetings for Stage 3 & 4 teachers of Mathematics**
So far executives from each school have had 4 meetings to develop the plan, discuss learning and take information back to schools (including surveys etc). There has been 1 Network meeting to focus on teacher professional development with more planned for next year. Network meetings scheduled for 2016.

**Lesson Study Collaboration**
Started in term 3 2015. The Head Teacher Maths from the high school visited all Stage 3 classes in the partner schools to introduce himself. The plan was for Maths teachers from the High School to observe maths lessons in the partner schools late Term 3, early term 4. The next step in the process involved teachers from the primary partner schools observe Maths lessons in the High School later in term 4. It has been difficult to judge the impact of this so far because not all the visits have occurred.

**Data Analysis**
Plan was for all partners to spend a day analysing common data – SMART, ACER and PLAN data. This is scheduled to go ahead in term 1 2016

**Rich Assessment Tasks**
Scheduled in Term 2 2016
### Barriers

- Scheduling conflicts between schools
- Inconsistent support across the CoS (at times great, other times not)
- So many different things going on in schools at this point in time – information overload

### Future Sustainability

At this point we want to continue with our network meetings so that information and learning can be shared. We also have plans for data analysis and developing common Stage 3 / 4 Rich Assessment Tasks. The relationship between the executive involved in the project has developed and would be valuable to enhance student learning. We do need to develop more concrete measures of success hopefully through regular sharing and improved student outcomes and surveying teachers about their attitudes to teaching maths especially in the primary school we can work together to improve student learning in the transition years.
**Sugarloaf LMG**  
*Stage 3-4 Maths Transition Project Student Survey*

**Name:**

On a scale from 0 to 10, rank how you feel about maths by ticking next to the appropriate number. Some descriptors have been included to help you.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>I love learning new maths concepts.</td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I like maths most of the time.</td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I don’t like maths most of the time.</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I hate maths.</td>
</tr>
</tbody>
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### Project Name: Sugarloaf Links Maths Transition Project

**Project Description:** All students are capable of enhanced mathematical understanding through consistent and sound pedagogical practices.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>People</th>
<th>Processes</th>
<th>Products and Practices</th>
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| Improve student learning outcomes in mathematics. | School Executive  
Head teacher Mathematics WWHS (Allan Burns), Assistant Principal WWPS (Lee-Anne Burke), Assistant Principal Stage 3 BPS, Assistant Principal Stage 3 EHPS  
Stage 3 & 4 teachers  
Stage 3 & 4 students  
Educational Services Team | Year 6 Survey of student attitudes to Mathematics at the end of 2014 & 2015.  
**Teacher Professional Learning**  
Joint professional learning for Stage 3 & 4 teachers utilising the Educational Services Team, DoE resources such as Adobe Connect, CoS School resources including teachers and Explicit Instruction method. The purpose of the TPL is to develop consistent and sound pedagogical practice across the CoS to ensure a smoother educational transition for students and improve teaching and learning.  
Improved student attitude to the teaching and learning of mathematics.  
A collegial and informed teaching staff who are engaged in regular professional learning, sharing and quality teaching.  
Quality mathematics teaching and learning across the CoS based on consistent and sound evidence based pedagogical practice that leads to improved learning outcomes for students.  
Teachers focused on using best evidence based practice and data analysis to inform quality and improvement measures |

### Improvement measures
| Improved attitude to mathematics across students in Stage 3 & 4 | The purpose of the network meeting is to provide opportunities for TPL, collegial conversations as well as sharing of resources and giving feedback to and supporting staff. Focus areas include changes to syllabus. Lesson Study Collaboration | Mathematics given high priority in whole school programs with dedicated and uninterrupted teaching time. Common Mathematics areas of achievement identified across the CoS leading to collegial planning and teaching programs. |
| Improved student learning outcomes in mathematics. | Data analysis |  |
| Quality pedagogy and consistency in teacher judgement is evident through Professional Development Plans (PDP) and classroom observation. | The opportunity for the collegial analysis of common assessments including NAPLAN, Acer assessments and PLAN continuum data. Rich Assessment tasks |  |
| An established and engaged learning community which contributes to a supportive school community. | Develop rich assessment tasks for Stage 3 & 4 across the CoS. Tasks would then be analysed across the CoS. |  |