Introduction
Information gathering on student achievement and performance (individual, class, and cohort) is an ongoing process. At Narangba Valley State School student data is constantly monitored to allow us to plan for further improvement and growth (individual, class, cohort, whole school). Consistent assessments are to be made over time in order to keep track of developments in students’ learning. This, in conjunction with systems data (NAPLAN) and classroom assessment data allows us to build on our strengths and respond to the gaps in our data through curriculum design and pedagogical choices.

This Data Driven Decision Making Framework is to be used when completing the Narangba Valley State School Year Level Curriculum goals document

As a school we are committed to using student performance data to:

- Have a clear and well understood vision statement for the school
- Share and use information to discuss learning and other issues
- Answer ‘how do we get better?’ – strategies in improvement agenda

Believe there can be a number of explanations behind data and that analysis gives the best explanation
- Provide opportunities to discuss data
- Share student performance information with all staff
- Have a set protocols for analysing and discussing data
- Ensure teachers plan and work together to establish year level goals and targets

Using Data to Inform Teaching and Learning

By using student data, we can constantly monitor student learning and set goals with the process of data analysis and planning for improved student learning. The following diagram shows a collaborative inquiry approach to targeted teaching. Year levels and individual teachers will analyse data, plan, and complete their year level and class goals with the following model as its basis.

Using Student Data to Inform Teaching and Learning

Goals and targets - Set goals for: year levels, student groups and individual students
- What are the current year level/student group goals for literacy/numeracy and other learning areas?
- Which planning documents will I need to refer to?
- Have there individual student goals and targets and individual education plans (IEPs)?
- Where are students targeted for this learning?
- What do students require to achieve these goals?
- Have the previous assessment documents been read?
- What are the implications for small groups?
- What professional discussions support this implementation?
- What do the patterns in the Maths data not tell us?
- Are gaps in the curriculum/program evident?
- Are there messages here for curriculum review?
- What are our students’ English learning needs?
- What English data can we analyse?
- What do the patterns in the Maths data indicate?
- What Maths data can we analyse?
- What do the patterns in the Maths data indicate?
- What are our students’ Maths learning needs?
- What are our students’ Maths learning needs?
- What do we need to do to help them?

Infer - Make inferences from the data
- Which pattern in the data is most significant for the year level, class or individual student?
- What main messages can be drawn from the data?
- To which aspects of literacy/numeracy do they relate? Have these been explicitly taught in class?
- Are gaps in the curriculum/program evident?
- Is there an implication for classroom pedagogy? What needs to change?
- What are the implications for small groups?
- Which aspects of learning require explicit teaching?

Verify - Refer back to: school assessment data A+E, PAT-P, PAT-M, NAPLAN, etc.
- Do the patterns identified in this data set correlate with those found in other data sets?
- Is the evidence strong enough to warrant a modification of current teaching and learning?
- Have I reviewed these patterns in other year levels?
- Is the individual student data from systemic assessment measures similar to school-generated data?
- Are there implications here for my planning and pedagogy?

Goals and targets - Reflect on goals and targets
- Are our current goals/targets still the same?

Plan - Formulate a class or individual teaching and learning plan with a whole-school approach to improvement
- Which areas of learning require improvement?
- What is the intervention/action plan? Is there a curriculum plan to support this or does the current plan need revision?
- Is this targeted teaching aimed at the year level, class group, individual student or for which students is this intervention/action relevant?
- What will be the sequence of teaching and learning?
- Which assessments are in place to measure progress?
- What will the time frames be for this intervention?
- Have I included explicit planning for my work program on a term/weeks/daily basis?

Implement - Implement planned actions, modify teacher practice
- Are modifications to teaching required?
- Are there areas of teaching and learning that require professional development to ensure deep knowledge and expertise?
- What professional discussions support this implementation?
- How will school leadership be involved?
- What will be the communication strategy with parents/careers?
- How will the students be informed and engaged as partners in the learning?

Assess - Test the impact and results of implementation
- Did the curriculum changes/review have a significant impact? Is further review/revised?
- Did any change to the sequence of teaching and learning support more productive learning? How do I know?
- What level of support was achieved from parents and students, other colleagues and school leadership?
- How will the findings be reported?

Reflect - Back-map to initial goals and targets, engage in professional dialogue
- Would the same processes be followed next time?
- Are there messages here for curriculum review?
- Was the sequence of teaching and learning effective in this intervention?
- Is there continued alignment?
- What will be the next course of action?

Data Literacy Skills

In order to use and analyse data efficiently and effectively teachers must have the following data literacy skills and be able to:

- read tables and graphs
- understand means and percentages
- compare data from different years
- look for trends
- spot anomalies
- calculate % difference from mean
- know the educational, theoretical and administrative background to the data
- compare individual, class, school and state data
- be critical of the source
- be able to interpret data
- be able to deliver appropriate lessons based on the data
- understand terms used in data delivery (eg. minimum national standards, bands)
- use a key or legend
- know about medians and modes
- understand quantities
- be able to strategically analyse data
- be able to track performance overtime

[Based on the work of Dr Judy Smeed QUT]

Protocols for Analysing Data

When analysing data in year level groups the following protocols should be used.

1. Sit with your year level coordinator.
2. Choose a scribe and a participant to give a summary of the group’s analysis / evidence / group findings at the end of the session.
3. Group should have:
- A copy of the data
- A copy of the guiding questions - see below
- Paper to record responses
- Summary sheet for group findings
4. The year level coordinator describes the purpose for conducting the protocol and encourages participants to focus on evidence and refrain from making judgments.
5. The year level coordinator presents guiding questions for the group’s work and future discussion.
6. Each participant individually/collectively reviews the data (summarized section) in depth. It is very important that all participants are intellectually involved in the analysis prior to group discussion. Each participant is to answer the selected guiding questions in writing and to provide evidence for each response. Each participant is to write down questions that emerge from looking at the data.
7. After reviewing the student data, the year level coordinator convenes all the participants for a guided discussion. He/She will review the guidelines for sharing based on evidence.
8. Participants share their responses (individually without intersection from other members) to each question and the evidence supporting their responses.
9. After each participant has responded, group members are offered a few minutes each to provide a response to that particular participant’s summary.
10. Following the group’s discussion, summarise the evidence presented and any emerging patterns, issues, themes and questions from the discussion.
11. The group identifies potential next steps for deepening work related to the guiding questions.
12. Established year level goals and targets pertinent to current cohort and analysed data.

Setting English and Maths goals/targets

At Narangba Valley State School each year level is responsible for using data to establish year level curriculum goals and set targets (see WSS Year Level Curriculum Goals). The following questions should be used to assist your level in the establishment and decision making surrounding these goals.

Improving areas
- What English data can we analyse?
- What do the patterns in the English data indicate?
- What are our students’ English learning needs?
- What are our students’ English data indicate?
- What are our students’ Maths learning needs?
- What are our students’ Maths learning needs?
- What do we need to do to help them?

Data to use
- What specific and mastery goals will we set?
- What hypotheses can we formulate?
- What research should inform our direction?
- What do we need to do to move forward our programs?

What are we doing to document our actions?