

Blackwood High School NUMERACY IMPROVEMENT PLAN (1/05/2018) AA & MH

SITE STRATEGIC PLAN	Develop whole school numeracy and numeracy improvement plans supporting student engagement and achievement.
DEFINITION Australian Curriculum	Students become numerate as they develop the knowledge and skills to use mathematics confidently across other learning areas at school and in their lives more broadly. Numeracy encompasses the knowledge, skills, behaviours and dispositions that students need to use mathematics in a wide range of situations. It involves students recognising and understanding the role of mathematics in the world and having the dispositions and capacities to use mathematical knowledge and skills purposefully. When teachers identify numeracy demands across the curriculum, students have opportunities to transfer their mathematical knowledge and skills to contexts outside the mathematics classroom. These opportunities help students recognise the interconnected nature of mathematical knowledge, other learning areas and the wider world, and encourage them to use their mathematical skills broadly
SACE/DECD	Being numerate means having the confidence and skill to use numbers and mathematical approaches in all aspects of life - at work, in practical everyday activities at home and beyond, as consumers, in managing our finances, as parents helping our children learn, as patients making sense of health information, as citizens understanding the world about us.
OUR ROLES	<p>All teachers</p> <ul style="list-style-type: none"> ▪ Understand the numeracy expectations of their curriculum area ▪ Support students in the development of numeracy through explicit teaching, modelling and the presentation of learning contexts that highlights the centrality of numeracy in all forms of expression. ▪ Work collaboratively with other staff in activities designed to improve student numeracy. ▪ Engage in Professional Learning to develop a range of numeracy strategies to support all students increasing their numeracy capabilities and skills. ▪ Be aware of identified student's current numeracy levels and provide a point of reference for discussion of targeted improvement strategies.
	<p>Leaders</p> <ul style="list-style-type: none"> ▪ Support their curriculum teams in embedding teaching programs enabling the support of students in the development of numeracy ▪ Reviewing the curriculum collaboratively identifying and making explicit the numeracy foci. ▪ Model their teaching practice that explicitly recognises numeracy points, and leading their teams in the exploration of numeracy as a necessary teaching outcome. ▪ Monitor with their teams the effectiveness of the numeracy strategies. ▪ Lead data conversations for improvement in numeracy.
	<p>Numeracy Leaders</p> <ul style="list-style-type: none"> ▪ Provide leadership to curriculum leaders and staff in professional learning about numeracy development and improvement strategies supporting all students. ▪ Monitor data for improvement in collaboration with curriculum teams. Provide leadership to curriculum leaders in the development and implementation of numeracy strategies, via the provision of workshop opportunities during Collaboration Time.

	Current practice	Future directions/targets
NAPLAN	<ul style="list-style-type: none"> ▪ School Mean Score – Proficiency band of 8 in 2017 ▪ 84% of students completed NAPLAN in 2017 ▪ Preparation of NAPLAN change in 2017 to reflect consistency of application of problem solving across all Year 9 classes ▪ Using NAPLAN Data to support student growth ▪ Tracking student’s progress in NAPLAN compare to their assessment grades in Year 8, 9 and 10 ▪ Maths faculty review NAPLAN results in relation to high achievements and low achievements ▪ Presentation to Leadership Team on NAPLAN results ▪ Whole School Professional development on NAPLAN type of questions relating to numeracy across all curriculum areas 	<ul style="list-style-type: none"> ▪ Refine strategies to better track and monitor at class, cohort and site level in NAPLAN ▪ Increase number of students achieving in Bands 8, 9 and 10 ▪ Ensure that Year 9 students who achieved Bands 7 and 8 in Year 7 retain their levels ▪ Using NAPLAN data to support student growth and target intervention. ▪ Whole School PD on NAPLAN type of questions relating to numeracy across all learning areas ▪ Development of individual NAPLAN and Numeracy plans for individual students (workbooks) ▪ Increased numbers of students achieving at or above DECD SEA ▪ Increase percentage of students participating in NAPLAN to achieve 100% ▪ Increase percentage of students achieving in the higher bands 9-10
PAT Maths	<ul style="list-style-type: none"> ▪ 81% of Year 8, 9 and 10s completed PAT-M in 2017 ▪ PAT M 2017 Completion: Year 8 - 87% Year 9 – 81% Year 10 – 71% ▪ Maths faculty Professional Development on how to analyse PAT M data in relation to growth or trends of cohorts, class and student level. ▪ Presentation to Leadership Team on PAT M results 	<ul style="list-style-type: none"> ▪ 100% of Year 8, 9 and 10 completion of PAT-M online ▪ Strategies and resources developed to address PAT-Maths gaps at cohorts, class and student level across all learning areas. ▪ PAT-M gaps identified and explicitly targeted across the school ▪ Increased numbers of students achieving at or above DECD SEA
Numeracy support	<ul style="list-style-type: none"> ▪ Students identified in Year 8 and use Quick Smart materials to support their numeracy development in direct transfer to classroom learning. ▪ Continued work with 1:1 in TLC on numeracy ▪ Tracking and monitoring students achievements in current classes ▪ Teachers provided with strategies to help students in numeracy in their class 	<ul style="list-style-type: none"> ▪ Documentation of students involved in program. ▪ Team shares developed strategies with subject teachers in order to address weaknesses in numeracy ▪ Data analysis provided on progress of students and used to implement intervention strategies

Targets	Strategies	Measurements or evidence
<p>Build and improve teacher use of assessment data to inform planning for effective teaching learning.</p>	<ul style="list-style-type: none"> ▪ Analysis of PAT M and NAPLAN results to identify areas for improvement ▪ Curriculum discussions on data and identifying obvious trends ▪ Individual student data analysis to support growth by targeted interventions ▪ Data analysis at SACE and IBMYP level every term ▪ Numeracy at SACE level monitored and responded to at 5 week intervals in first semester 	<ul style="list-style-type: none"> ▪ Various data formats in use outlining achievements ▪ All teachers use the analysis of class data, PAT M and embedding intervention strategies ▪ All teachers contributing to data conversations during curriculum meetings ▪ All teachers sharing best practice with colleagues ▪ Develop the use of the traffic light system for staff to analyse for individual student intervention ▪ 100% pass in SACE numeracy requirements ▪ Increase of students achieving at or above DECD SEA for PAT Maths in Year 8,9 & 10
<p>To Build a Numeracy Improvement Cycle:</p> <p>Provide high quality professional development that supports teachers in producing improved numeracy outcomes.</p>	<ul style="list-style-type: none"> ▪ Mapping of numeracy demands developed in each learning area ▪ PD provided for staff in making explicit links between numeracy and their learning area ▪ Explicit teaching of the Australian Curriculum Numeracy Capabilities in all learning areas ▪ Monitoring of numeracy demands across learning areas ▪ Receive feedback from students from one class per semester ▪ Discussion of feedback with line manager 	<ul style="list-style-type: none"> ▪ Inclusion of numeracy components in unit plans in all curriculum areas ▪ 100% participation in some form of PD directly related to numeracy ▪ Common use of language terminology across all learning areas ▪ Teachers supported by leaders and executive ▪ PLC formed drawing on teachers' specialist skills in numeracy ▪ collect, analyse and incorporate feedback from students' and line manager ▪ Instructional PD to all staff including explicit criteria for identifying and supporting numeracy learning in all learning areas ▪ Having access to current information based on numeracy demands
<p>Pedagogical practices for effective quality numeracy teaching</p> <p>-Build active learners and teacher capacity and practices in numeracy</p>	<ul style="list-style-type: none"> ▪ Provide PD for staff on numeracy pedagogy ▪ DECD Enriching Year 8 Mathematics program – sharing resources and strategies to enrich mathematics across faculty meetings ▪ Develop a bank of tasks, rubrics and assessments that engage and stretch learners ▪ Differentiate tasks to meet learner's needs ▪ Students as co-designers of numeracy tasks ▪ Exemplar tasks identifying and incorporating numeracy ▪ Internal Standardisation and Moderation processes ▪ De-privatisation of practice ▪ Develop resilience and positive mindsets to improve numeracy achievement ▪ Explicit numeracy teaching and scaffolding across all curriculum areas ▪ Each curriculum area teaches language specific styles and common genre styles are established ▪ Inclusion of numeracy demands in all assessment types 	<ul style="list-style-type: none"> ▪ Common understandings of language and strategies developed across the school ▪ Student support personnel from Flinders University: for targeted learning support ▪ All teachers engage in professional conversations through moderation processes ▪ Increase student achievement in A grades, B grades at Stage 2 Mathematics ▪ 100% pass in Numeracy SACE ▪ Increase in student choosing Mathematics at Stage 1 for the full year and continuing on with Mathematics into Stage 2 ▪ Development of resources supporting improved numeracy teaching across all learning areas ▪ Creation of a numeracy buddy for teachers to have a consistent approach to teaching of numeracy ▪ Show continual growth in students selecting SACE Mathematics of Stage 1 and 2 ▪ Learning Areas to refine practice and develop new engagement and intervention strategies ▪ Intervention strategies to be documented