



WHOLE SCHOOL NUMERACY AGREEMENT

SIP Goal: Increase the number of students achieving
SEA and Higher Bands in NAPLAN Numeracy.

Agreed vision, approaches and common understandings that underpin the teaching of Mathematics at CBPS.

To be numerate is to have the confidence and capacity to apply mathematical knowledge to daily life and real problems.

CURRICULUM

Australian Curriculum

- Department Unit Strands
- Content strands – Number and Algebra, Measurement and Geometry, Statistics and Probability
- Proficiency Strands – Understanding, Fluency, Problem Solving, Reasoning

National numeracy progressions

Highlight the progression of skill development required for students to gain mastery in each concept

Minimum Instruction Time

- 300 minutes per week

Whole School Maths Vocabulary

- Stage appropriate maths vocabulary

PEDAGOGY

Van Der Walle – Primary and Middle Years Mathematics: Teaching Developmentally

- A resource for developing quality teaching and learning

Assessment for Learning

- Clear learning intentions shared with students
- Differentiated success criteria

Numeracy Improvement Team

- Focus on whole school Numeracy Approach staff professional development and resourcing

Effective Teaching Principles

- High Impact Teaching Strategies - Setting Goals, Structured Lessons, Explicit Feedback.
- Consistent whole school vocabulary
- Open problems
- Targeted differentiated teaching – Using data to inform
- Logical and Intentional Sequencing of Lessons

Orbis Training - Thinking Maths

Whole school Mathematics Vocabulary

High Impact Teaching Strategies

Whole School Lesson Structure

Intentional incorporation of Problem Solving each week

ASSESSMENT

Number Teaching Sequence Continuum

Department Units assessment tasks

Vocabulary assessments linked to Dfe Units

Common assessment tasks with staff moderation

NAPLAN

Year 3 and 5

PAT Maths

PAT-M Yr 1 to 6

Achievement Reports

End of Term 2 and 4

COMMUNITY ENGAGEMENT

- Individual number targets sent home each term informing parents and caregivers of their students target
- Newsletter Maths Problems
- Parent cafes sessions

HUMAN RESOURCES AND SCHOOL STRUCTURES

- Maths Improvement Committee with a representative from each learning team (2 meetings per term)
- Staff meetings (2 per term)
- Student Free Day (Maths moderation & Assessment task)

Lesson Structure

Warm-up/mental
(5-10 mins)

Warm up

- Fluency based and quick methods
- Provides students the opportunity to use concepts from previously taught area of maths
- This is a good opportunity for students to practice previous concepts they have not yet grasped
- Do not introduce new learning

Mental

- A chance for students to think about concepts
- Designed for students to use maths vocabulary eg. WODB (Which One Doesn't Belong), Natural Maths

Core
(35 – 40 mins)

- Usually the majority of the lesson
- Clear learning intentions and success criteria communicated to or planned with students

Explicit Teaching

- Suggested time: minimum three lessons per week
- Is based on your focus and should be related to the yearly overview

Problem Solving

- Minimum of 1 lesson per week (with potential to go for two lessons)
- Problem solving should taught in association to the habits being demonstrated.

Reflection
(5 mins)

- Time given at the start, during or end of the lesson to reflect and review
- Time given at the end of the lesson for students to feedback with peers or teacher. Examples of reflection at the end of the lesson include exit tickets or think, pair, share
- Reflection can be completed throughout the lesson. An example includes fish bowl.
- Reflection can be completed at the start of the lesson. An example includes brainstorming.
- Reflection can also have the purpose of setting goals for future learning.

Quality Mathematics at CBPS

Leaders will:

- Provide release time for learning teams to collaboratively plan maths units.
- Provide opportunities for staff to attend quality maths training and development.
- Analyse PAT M and NAPLAN data and assist teachers to track and monitor student/class numeracy data over time.
- Lead the Maths Improvement Committee
- Model best practice in classrooms and at staff meetings.
- Facilitate Maths Workshops with families.
- Facilitate coaching for teachers to ensure data is being used to inform task design using Curriculum Units of Work and student learning needs.
- Ensure that teachers' mathematics programs are number rich with a real life context, utilising High Impact Teaching Strategies and the process of moving from Concrete to Pictorial to Abstract (CPA)
- Encourage a whole-school focus on evidence-based practices that improve student efficacy and risk taking in number.
- Provide resources to support teachers in teaching mathematical vocabulary.
- Allow time for teachers or SSOs to create resources.
- Allow time for release to observe other teachers teaching mathematics.

Teachers will:

- Instruct time per week of 300 minutes (as a minimum). This may occur in other curriculum areas.
- Plan, teach and assess mathematical tasks that cover the content and proficiency strand in the Australian Curriculum
- Use critical and Creative Thinking continuum as a pedagogical guide
- Plan units that allow for differentiation and multi-entry points
- Use varying maths vocabulary in lessons
- Provide students with targeted feedback aligned to learning goals
- Provide students time to in collaboration with others.
- Work collaboratively to develop their practice (eg Learning Teams, Line Management conversations, engagement in Professional Development opportunities)
- Use common assessment for moderation.
- Will have clear LI/SC
- Will have specific individual learning goals-developed with students
- Participate in numeracy improvement team
- Interweave numeracy through subject areas
- Explicit direct teaching
- Use concrete materials
- Maintain and role model a positive disposition toward their mathematics teaching
- Multiple entry points for one activity
- Allow students 'time to struggle'
- Celebrate successes on mathematics to build student confidence

Students will:

- Have access to all maths concepts in authentic ways across the curriculum and recognise connections between them
- Think mathematically, explain their thinking, problem solve and develop fluency of their mathematical knowledge
- Ask questions, make suggestions and compare and evaluate strategies presented by themselves and others
- Understand and use a wider range of maths vocabulary
- Reflect on their learning through the use of goal setting
- Become a community of learners through collaboration and communication
- Increase knowledge and confidence.
- Be developing automaticity with number facts
- Engage in daily practices and aim for mastery
- Understand and use a wider range of maths vocabulary
- Create a community of learners
- Growth mindset
- Develop resilience

Resources

Title	Location
Maths Concrete resources	At the back of library in the compactus
R – 6 DfE Unit Resources	Intranet
Year level unit overviews	CBPS Teams
Useful website links – NRICH etc	CBPS Teams
R – 6 Maths Vocabulary with definitions	CBPS Teams

Assessment

Assessment & Data Collection Schedule	R	1	2	3	4	5	6
NAPLAN (Term 1)				3		5	
PAT Maths (Term 3)				101	110	112	120
School Based Moderation							