

Reporting on mathematics – Stage 3 examples

These examples illustrate some optional ways schools may structure reporting on mathematics for Stage 3. Schools plan their mathematics curriculum carefully, and for each reporting period, report only on those syllabus outcomes that have been intentionally taught and assessed.

The department does not prescribe a set format for reporting. Schools can decide on their own format by working in partnership with parents, carers and the school community, ensuring it is tailored to meet their unique context and the specific needs of their students.

The overarching Working mathematically outcome should not be reported on in isolation. For teaching, assessing and reporting purposes, the Working mathematically outcome should be embedded within the focus areas. These focus areas provide the mathematical concepts and context for the application of the Working mathematically processes. The suggested examples demonstrate one way the overarching Working mathematically outcome can be reported on in conjunction with the mathematics content outcomes.

These examples will be updated as needed, in response to new guidelines from [NSW Education Standards Authority \(NESA\)](#) and any changes made to the policy [Curriculum planning and programming, assessing and reporting to parents K-12](#).

Stage 3 – Example 1

Focus area	A	B	C	D	E
Number and algebra					
Apply place value to partition, regroup and rename numbers to 1 billion			✓		
Locate and represent integers on a number line			✓		
Apply known strategies to add and subtract decimals			✓		
Determine products and factors			✓		
Solve problems involving addition and subtraction of fractions with the same denominator				✓	
Measurement and space					
Classify two-dimensional shapes and describe their properties		✓			
Construct prisms and pyramids		✓			
Overall achievement			✓		

Through consistent effort and focus, Sean has made steady progress in mathematics this semester. He can partition numbers to 1 billion and **applies** this understanding to solve additive problems efficiently. Sean uses a number line to **model** addition and subtraction of decimals **up to 3 decimal places**. He can **identify** and **classify** triangles, **analysing** their properties, and **articulate** his reasoning.

Future directions for Sean include:

- using mental strategies to multiply decimals by single digit numbers
- finding the difference between fractions with the same denominator and interpreting the answer
- determining the area of a triangle.

Note: the text in **bold** demonstrates an example of how the Working mathematically processes are embedded within the mathematics content.

Stage 3 – Example 2

Focus area	A	B	C	D	E
Number and algebra					
Make connections between fractions, decimals and percentages				✓	
Apply efficient mental and written strategies to solve addition and subtraction problems				✓	
Select and apply strategies to solve problems involving multiplication and division with whole numbers				✓	
Measurement and space					
Use metres and kilometres for length and distances			✓		
Estimate , measure and compare angles using degrees			✓		
Choose appropriate units of measurement for mass				✓	
Statistics and probability					
Create random generators and describe probabilities using fractions				✓	
Overall achievement				✓	

Ingrid has enjoyed mathematics lessons and with additional support, has made some academic growth this semester. She is working towards recognising that 10% is one-tenth of 100% and using this to find 10% of a quantity. A future direction for Ingrid is to be able to **apply** this understanding to **calculate** percentage discounts of 10%, 25% and 50%. Ingrid can **record** distances using the abbreviation for kilometres and **estimate** lengths and distances using an appropriate unit involving measurement. A future goal is to use **efficient** strategies to **calculate** the perimeter of a rectangular area in meters and **communicate** the strategy used.

Note: the text in **bold** demonstrates an example of how the Working mathematically processes are embedded within the mathematics content.

Stage 3 – Example 3

Focus area	Limited	Basic	Sound	High	Outstanding
Number and algebra					
Recognise, represent and order numbers in the millions					✓
Apply known strategies to add and subtract decimals				✓	
Compare common fractions with related denominators				✓	
Measurement and space					
Classify two-dimensional shapes and describe their properties			✓		
Calculate the areas of rectangles using familiar metric units			✓		
Compare 12- and 24-hour time systems and convert between them		✓			
Statistics and probability					
Interpret data presented in digital media and elsewhere				✓	
Overall achievement				✓	

Malik enthusiastically participates in mathematical lessons and enjoys **proving and reflecting** on the **most efficient strategy** to solve addition and subtraction problems with decimals. He **records** equivalent fractions **using** a fraction strip overlaid on a number line. Malik can **identify** regular and irregular polygons and a future goal is to be able to **dissect and rearrange** one shape to make another. He can **calculate** and **record** areas of rectangles in square centimetres, square metres and square kilometres. A future goal for Malik is to be able to **apply** his understanding to **calculate** the area of composite shapes. Malik is working towards reading time using appropriate 24-hour language and converting between 24-hour time and 12-hour time using am or pm notation.

Note: the text in **bold** demonstrates an example of how the Working mathematically processes are embedded within the mathematics content.