Reporting on mathematics – Stage 2 examples

These examples illustrate some optional ways schools may structure reporting on mathematics for Stage 2. 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 2 – Example 1

Focus area	A	B	C	D	E
Number and algebra					
Read, represent and order numbers to thousands			✓		
Apply place value to partition and regroup numbers up to 4 digits			✓		
Recognise and **explain** the connection between addition and subtraction		✓			
Select strategies flexibly to solve addition and subtraction problems up to 3 digits		✓			
Use known number facts and strategies for multiplication		✓			
Create fractions on a length using techniques other than repeated halving			✓		
Measurement and space					
Locate positions on a grid map				✓	
Create symmetrical patterns and shapes			✓		
Overall achievement			✓		

Raoul enjoys mathematics and has made significant improvements this semester. He **explains** his strategy choice for solving addition and subtraction problems and **represents his thinking using a variety of representations**, including a bar model.

Future directions for Raoul include:

- expressing decimals as both tenths and hundredths
- interpreting problems using money as requiring addition or subtraction
- using data in a spreadsheet to create column graphs with units that are in multiples.

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

Stage 2 – Example 2

Focus area	A	B	C	D	E
Number and algebra					
Extend the application of the place value system from whole numbers to tenths and hundredths		✓			
Generate or **describe** patterns		✓			
Model and **represent** fractions to complete a whole on a number line		✓			
Measurement and space					
Use square centimetres to measure and estimate the areas of rectangles		✓			
Make models of three-dimensional objects to **compare** and **describe** key features				✓	
Represent and read analog time				✓	
Statistics and probability					
Interpret and **compare** data			✓		
Overall achievement		✓			

Salma has a positive attitude towards mathematics and has made progress in the focus area of Number and Algebra. She **uses number lines and diagrams** to order decimals on a line and to **make visual comparisons** about the size of decimals. Salma can **recreate** a whole fraction strip when provided a fractional part and **explain her reasoning**. A future goal is to represent equivalent fractions as lengths using number lines. Salma records area in square centimetres **using the array structure** and **explains how the structure helps** to find area. Salma **interprets** data and is developing her skills in **communicating** how data is interpreted to make decisions. Future learning for Salma is to **identify** the differences between prisms, pyramids and cylinders.

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

Stage 2 – Example 3

Focus area	Limited	Basic	Sound	High	Outstanding
Number and algebra					
Read, **represent** and order numbers to thousands					✓
Represent money values in multiple ways				✓	
Recall multiplication facts of 2 and 4, 5 and 10 and related division facts				✓	
Measurement and space					
Use scaled instruments to measure and **compare** lengths				✓	
Compare angles to a right angle			✓		
Measure and order containers using litres			✓		
Statistics and probability					
Identify possible outcomes from chance experiments				✓	
Overall achievement				✓	

Sally has demonstrated growth in all focus areas in mathematics and has shown a genuine interest in **exploring** open-ended challenges. She can **fluently** count forwards and backwards by tens and hundreds on and off the decade and **apply** her understanding of number to other focus areas, such as addition and subtraction problems. Sally can **make generalisations** between multiplication and division facts using fact family triangles. She **identifies** the appropriate instrument to measure lengths including metres, centimetres and millimetres and **articulates** her mathematical choices. Future directions for Sally include **calculating** missing numbers by completing number sentences involving addition and subtraction and multiplication and division.

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