

Essential Numeracy Assessment

Stage 2 - Number and Algebra - Pre NSW Syllabus Assessment

Name: _____

Pre-assessment mark:	Year 3	Pre-assessment mark ≥ 44	A	Pre-assessment mark ≥ 88	Year 4
		Pre-assessment mark 39–43	B	Pre-assessment mark 77–87	
		Pre-assessment mark 33–38	C	Pre-assessment mark 67–76	
		Pre-assessment mark 28–32	D	Pre-assessment mark 57–66	
		Pre-assessment mark ≤ 27	E	Pre-assessment mark ≤ 56	
NSW Common Grade:					

NSW Syllabus Outcome MA2-4NA

Whole Numbers 1 - Number and Place Value (ACMNA052)

Question 1

4 Marks

Find each number on the number line.



3200

1800

4400

7100

NSW Syllabus Outcome MA2-4NA

Whole Numbers 1 - Number and Place Value (ACMNA053)

Question 2

4 Marks

Make the number sentence true by writing the correct symbol in the space. ($<$, $=$ or $>$)

$$6000 + 600 + 10 + 4 \quad \underline{\hspace{2cm}} \quad 6641$$

NSW Syllabus Outcome MA2-5NA

Addition and Subtraction 1 - Number and Place Value (ACMNA055)

Question 3

4 Marks

What is the missing number in the number sentence?

$$63 + 3 = 55 + ? - 2$$

$$? = \underline{\hspace{2cm}}$$

NSW Syllabus Outcome MA2-5NA

Addition and Subtraction 1 - Number and Place Value (ACMNA054)

Question 4

4 Marks

You have purchased the following meal for lunch.

Hamburger	\$4.50
Chips	\$1.50
Coke	\$2.00



- a) How much have you spent? _____
- b) What is your change from \$10? _____

NSW Syllabus Outcome MA2-5NA

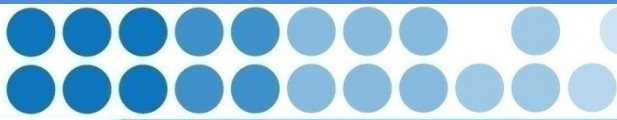
Addition and Subtraction 1 – Money and Financial Mathematics (ACMNA059)

Question 5

4 Marks

You have just bought lunch at the canteen costing \$1.25. If you pay with a \$5 note, circle the change that you will get.





NSW Syllabus Outcome MA2-6NA

Multiplication and Division 1 - Number and Place Value (ACMNA056)

Question 6

6 Marks

Fill in the multiplication table.

×	3	6	4	9
2				
5				
10				

NSW Syllabus Outcome MA2-6NA

Multiplication and Division 1 - Number and Place Value (ACMNA057)

Question 7

4 Marks

Multiply the following numbers.

a) $4 \times 4 =$

c) $7 \times 3 =$

b) $3 \times 6 =$

d) $9 \times 5 =$

NSW Syllabus Outcome MA2-7NA

Fractions and Decimals 1 – Fractions and Decimals (ACMNA058)

Question 8

4 Marks

Shade the fractions in each shape.



$$\frac{1}{2}$$



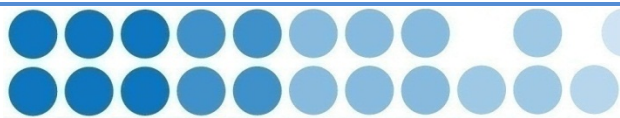
$$\frac{4}{5}$$



$$\frac{3}{4}$$



$$\frac{1}{3}$$



NSW Syllabus Outcome MA2-7NA

Fractions and Decimals 1 – Fractions and Decimals (ACMNA078)

Question 9

4 Marks

Estimate the location of each fraction on the number line.



$$\frac{1}{2}$$

$$\frac{1}{3}$$

$$\frac{1}{4}$$

$$\frac{2}{3}$$

NSW Syllabus Outcome MA2-7NA

Fractions and Decimals 1 – Fractions and Decimals (ACMNA078)

Question 10

6 Marks

Fill in the missing fractions in each number pattern.

a) $\frac{3}{4}$, 1 , $1\frac{1}{4}$, _____ , _____ , _____ , _____

b) $6\frac{1}{2}$, 6 , $5\frac{1}{2}$, _____ , _____ , _____ , _____

c) $1\frac{2}{3}$, 2 , $2\frac{1}{3}$, _____ , _____ , _____ , _____

NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 1 – Patterns and Algebra (ACMNA060)

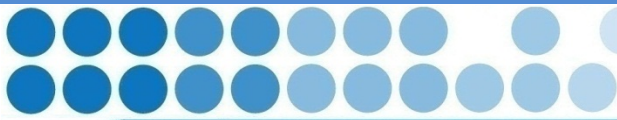
Question 11

4 Marks

What is the rule for the number pattern?

232 , 241 , 250 , 259 , 268 , 277

The rule is: _____



NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 1 – Number and Place Value (ACMNA051)

Question 12

4 Marks

Colour the numbers in the table that are even.

31	56	8	68	41	81
82	5	33	52	74	63
51	66	27	97	45	28

NSW Syllabus Outcome MA2-4NA

Whole Numbers 2 - Number and Place Value (ACMNA072)

Question 13

5 Marks

Order the numbers from smallest to largest.

720 , 6520 , 7420 , 5870 , 99

	<		<		<		<	
--	---	--	---	--	---	--	---	--

NSW Syllabus Outcome MA2-5NA

Addition and Subtraction 2 - Number and Place Value (ACMNA073)

Question 14

4 Marks

Solve the addition problem.

$$\begin{array}{r} 9653 \\ + 648 \\ \hline \end{array}$$

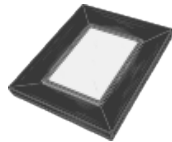
NSW Syllabus Outcome MA2-5NA

Addition and Subtraction 2 – Money and Financial Mathematics (ACMNA080)

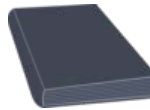
Question 15

4 Marks

Mabel is going to buy a picture frame and a book. If she pays with a \$10 note, how much change will she get?



\$4.40



\$4.45

NSW Syllabus Outcome MA2-6NA

Multiplication and Division 2 - Number and Place Value (ACMNA075)

Question 16

4 Marks

Answer the multiplication and division sums.

a) $8 \times 6 =$

c) $7 \times 4 =$

b) $72 \div 9 =$

d) $56 \div 7 =$

NSW Syllabus Outcome MA2-6NA

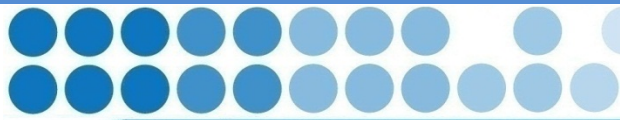
Multiplication and Division 2 - Number and Place Value (ACMNA076)

Question 17

4 Marks

If a mini bus can hold 13 passengers safely, how many trips will be needed to transport 156 people?





NSW Syllabus Outcome MA2-7NA

Fractions and Decimals 2 – Fractions and Decimals (ACMNA077)

Question 18

4 Marks

Estimate the location of each fraction on the number line.



$$\frac{3}{4}$$

$$\frac{5}{10}$$

$$\frac{2}{4}$$

$$\frac{6}{8}$$

NSW Syllabus Outcome MA2-7NA

Fractions and Decimals 2 – Fractions and Decimals (ACMNA079)

Question 19

4 Marks

Write each fraction as a decimal.

a) $\frac{8}{10} =$

c) $\frac{92}{100} =$

b) $\frac{35}{100} =$

d) $\frac{13}{100} =$

NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 2 – Patterns and Algebra (ACMNA083)

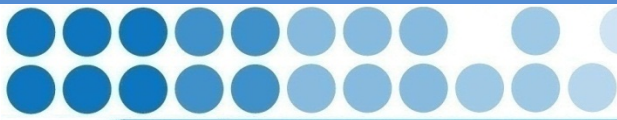
Question 20

4 Marks

What is the missing number in the number sentence?

$$7 + ? = 5 + 10$$

$$? = \underline{\quad}$$



NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 2 – Number and Place Value (ACMNA071)

Question 21

4 Marks

Colour the answer to each problem as odd or even.

a) 7×3 odd even c) 8×6 odd even

b) $81 \div 9$ odd even d) $64 \div 8$ odd even

NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 2 – Number and Place Value (ACMNA074)

Question 22

6 Marks

Fill in the missing numbers in each number pattern.

a) 12 , 20 , 28 , _____ , _____ , _____

b) 33 , 39 , 45 , _____ , _____ , _____

NSW Syllabus Outcome MA2-8NA

Patterns and Algebra 2 – Patterns and Algebra (ACMNA081)

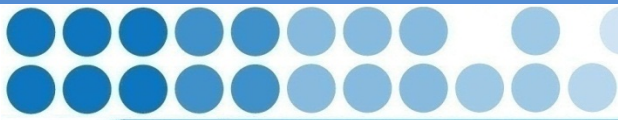
Question 23

4 Marks

What is the pattern in the number sequence?

10 , 30 , 90 , 270

Pattern = _____

**NSW Syllabus Outcome MA2-8NA**

Patterns and Algebra 2 – Patterns and Algebra (ACMNA082)

Question 24*4 Marks*

There were 9 wet days per month last winter (3 months).
How many wet days in total were there during winter?












Sample

Essential Numeracy Assessment








Stage 2 - Number and Algebra - Pre NSW Syllabus Assessment

Teacher Reference

Question	NSW Syllabus Outcome	Australian Curriculum Sub strand	Content Description
1	Whole Numbers 1 applies place value to order, read and represent numbers of up to five digits MA2-4NA	Number and Place Value Year 3	Recognise, model, represent and order numbers to at least 10 000 (ACMNA052) 
2			Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053) 
3	Addition and Subtraction 1 uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers MA2-5NA	Number and Place Value Year 3	Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) 
4			Recognise and explain the connection between addition and subtraction (ACMNA054) 
5		Money and Financial Mathematics Year 3	Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059) 
6	Multiplication and Division 1 uses mental and informal written strategies for multiplication and division MA2-6NA	Number and Place Value Year 3	Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) 
7			Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057) 
8	Fractions and Decimals 1 represents, models and compares commonly used fractions and decimals MA2-7NA	Fractions and Decimals Year 3	Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058) 
9		Fractions and Decimals Year 4	Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line (ACMNA078) 
10			








Essential Numeracy Assessment


Stage 2 - Number and Algebra - Pre NSW Syllabus Assessment

11	Patterns and Algebra 1	generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values MA2-8NA	Patterns and Algebra Year 3	Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060) 
12			Number and Place Value Year 3	Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) 
13	Whole Numbers 2	applies place value to order, read and represent numbers of up to five digits MA2-4NA	Number and Place Value Year 4	Recognise, represent and order numbers to at least tens of thousands (ACMNA072) 
14	Addition and Subtraction 2	uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers MA2-5NA	Number and Place Value Year 4	Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073) 
15			Money and Financial Mathematics Year 4	Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080) 
16	Multiplication and Division 2	uses mental and informal written strategies for multiplication and division MA2-6NA	Number and Place Value Year 4	Recall multiplication facts up to 10×10 and related division facts (ACMNA075) 
17				Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076) 

Essential Numeracy Assessment

Stage 2 - Number and Algebra - Pre NSW Syllabus Assessment

18	Fractions and Decimals 2	represents, models and compares commonly used fractions and decimals MA2-7NA	Fractions and Decimals Year 4	Investigate equivalent fractions used in contexts (ACMNA077) 
19				Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079) 
20	Patterns and Algebra 2	generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values MA2-8NA	Patterns and Algebra Year 4	Use equivalent number sentences involving addition and subtraction to find unknown quantities (ACMNA083) 
21			Number and Place Value Year 4	Investigate and use the properties of odd and even numbers (ACMNA071) 
22				Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074) 
23			Patterns and Algebra Year 4	Explore and describe number patterns resulting from performing multiplication (ACMNA081) 
24				Solve word problems by using number sentences involving multiplication or division where there is no remainder (ACMNA082) 

All material identified by  is material subject to copyright under the Copyright Act 1968 (Cth) and is owned by the Australian Curriculum, Assessment and Reporting Authority 2014.
"Essential Numeracy Assessment - NSW Syllabus" © Copyright 2015 The State of New South Wales (Board of Studies, Teaching and Educational Standards NSW)."