

Home / Methodology / How data were analysed / Expected levels of performance: PILNA Proficiency Scales / Numeracy proficiency level descriptors

Numeracy proficiency level descriptors

The summary descriptors for each proficiency level in the numeracy proficiency scale are detailed below.

These tables also show the associated PILNA scale score that is associated with that level of performance, and the expected scores for the Year 4 and Year 6 cohorts for 2021.

LEVEL and PILNA scale scores interval	Numeracy descriptors
<p>Level 8</p> <p>575 or greater</p>	<p>Students at each of the Levels 1 to 8 are able to do the skills in each described level with proper guidance by the teacher and are likely to do the skills in the preceding lower levels independently.</p> <p>8b: Can undertake the skills described for the levels below, and as well can use reasoning skills to solve number and more complex word problems using a range of arithmetical processes involving mixed operations and applications such as rates, percentages, and concepts of less than and more than. Undertake metric length conversions and comparisons and convert between units of time. Calculate the probability of an event as a number.</p> <p>8a: Compare and represent common fractions, decimals and simple percentages, convert fractions to percentages and round off decimals. Apply arithmetic operations to word problems, including with some mixed operations. Subtract decimal numbers with different numbers of decimal places with regrouping (including with one number being a whole number). Solve problems involving time, time duration, weight, length, perimeter and area of rectangles. Understand rotations on 2D shapes.</p>
<p>Level 7</p> <p>550 to <575</p>	<p>Round off numbers to the nearest tens and hundreds and convert simple fractions to a percentage. Divide a two-digit number by a one-digit number with a remainder and understand the order of operation by simplifying expressions involving the four operations. Solve word problems involving multiple operations and money. Tell the time from an analogue clock in minutes. Identify correct metric unit to measure height. Identify and compare everyday information represented in tables and simple graph.</p>
<p>Level 6</p> <p>525 to <550</p>	<p>Apply understanding of numbers and place value to create whole numbers up to 999 meeting specified criteria, and identify fractions and percentages represented in words, numbers or models. Complete number patterns, including with increasing decimal numbers, and decreasing whole number pattern, and determine rule given a simple number pattern. Compare numbers given as decimals, percentages and fractions. Subtract up to four-digit whole numbers with regrouping and subtract decimal numbers with regrouping. Add and subtract fractions with the</p>

different denominators. Multiply a three-digit number by a two-digit number with regrouping. Solve word problems including with multiple operations, fractions, money and rounding off. Read and compare metric measurement scales (including with decimal values) and calculate with standard metric weights units. Tell the time to the quarter hour and half hour from an analogue clock. Identify 2D from 3D shapes. Understand the use of common language of chance in relation to an everyday event. Identify and compare information represented in a table or simple graph (pie chart, bar graph).

Level 5

500 to <525

** Expected level for
Year 6*

Represent, identify and compare up to four-digit numbers, including with zeros, in words and pronumerals, and using place value material. Add and subtract fractions with the same denominators and add decimal numbers with different numbers of decimal places and with regrouping. Multiply a three-digit with a two-digit number without regrouping, solve a simple division problem, and apply order of operations. Measure the length of an object (in cm), read measurement scales with appropriate units (Temperature and Weight), convert metric length units and read the time shown on an analogue clock. Identify and compare information represented in a table and describe trend. Draw lines of symmetry and identify the consequences of rotations on 2D shapes, and apply spatial understanding related to a 3D visual representation.

Level 4

475 to <500

Read numbers on a place value number system, compare four-digit whole numbers and compare decimal numbers. Identify and extend number patterns including skip counting forward and backward by 2s, 5s, 10s. Identify the numerator and denominator of a fraction. Add sets of whole numbers, with and without regrouping, both vertical & horizontal and add decimal numbers with regrouping (horizontal). Subtract one-digit, two-digit and three-digit whole numbers, with regrouping. Multiply a two- or a three-digit number by a one-digit number with regrouping. Solve simple word problems using addition, subtraction and multiplication including equal sharing (divide a two-digit by a one-digit number). Understands metric measurement and units to tenths, including estimating lengths and identifying appropriate tool to use. Identify common properties of 2D shapes. Identify values in a whole number of data table and a pie chart. Use common language of chance in relation to identifying the outcome of a simple everyday event.

Level 3

450 to <475

** Expected level for
Year 4*

Write a four-digit number not involving zero in words and numerals. Write a three-digit number involving zero in numerals, write a four-digit number involving zero in words. Add pairs of whole numbers with regrouping up to a total of 9999, add proper fractions with the same denominators and add two decimal numbers with the same number of decimal places and with regrouping. Multiply up to a two-digit number by a one-digit number (horizontal & vertical) with no regrouping. Solve simple word problems involving subtraction and simple multiplication. Use a ruler to draw and read a given length and identify and name common 2D shape with specified features. Tell simple time from an analogue clock and identify correct volume of a given rectangular prism. Interpret information from simple tables and charts.

Level 2

425 to <450

Compare and order whole numbers up to 3 digits. Add a two-digit number to a single digit number with regrouping, subtract pairs of numbers up to 999, without regrouping, and solve simple word problems involving simple sharing. Identify hands of a clock, locate date in a specified week from a given calendar and know the relation of days and weeks. Draw a triangle.

Level 1

375 to <425

Write a two-digit number not involving zero in words and in numerals, order whole numbers up to 2 digits from the smallest to the largest. Add pairs of whole numbers up to 999 without regrouping, multiply two single digit numbers (vertical). Identify and calculate with data represented in simple whole number table, bar graph or pictograph. Read whole number value from a metric measurement scale (ruler) and identify number of sides in common shapes. Match analogue and digital times that are on the hour. Name months of the year given a sequence of months and identify days in the week.

Level 0

Less than 375

Count small numbers of items and write a two-digit number. Identify the smallest number in a set of two- and three-digit numbers and identify missing number in a whole number pattern counting by 1s. Complete a number sentence for the addition of two single digit numbers shown pictorially and add a pair of single digit numbers.