

NUMBER AND ALGEBRA RESOURCES

These resources are available commercially. All other resources (large and small 10 frames, numeral cards, 10 frame buses) are included as printable pages in relevant Teaching Plans and Investigations.

Counters for representing addition, subtraction, groups and arrays, square and triangular numbers - **K – 6**

Teddies or other animals, for use as group markers - **K**

Small containers to hold 20 counters (makes classroom management easy) – 1 per student K – 2, about 5 per class **Years 3 – 6**

Small interlocking cubes, 1cm x 1cm x 1cm, for representing place value (including of decimals) – **K – 6**

Small containers to hold 40 small interlocking cubes (makes classroom management easy) – 1 per student **Years 1 – 6**

Large interlocking cubes, 2cm x 2cm x 2cm, for partitioning numbers, finding difference – K, Years 1 and 2, plus small amount for **Years 3 – 6**

Small paper squares for fractions - **K, Years 1 and 2**

Small paper circles for fractions - **K, Years 1 and 2**

Plastic fraction walls, in class sets of 1 per student (grades / classes can share a set), for use after students have constructed their own fraction wall (it is very worth buying the ones that each come in a plastic tray so students pack them back into a fraction wall so no pieces ever get lost) - **Years 3 - 6**

1cm maths grid books, makes setting out easy, also for area, cubic volume and capacity, constructing graphs and tables – **Years 1 – 6**

Playing cards - in class sets of approx 15 (1 between 2 students) – **Years 1 – 6** (K use numeral cards 0 – 20) (Discount stores are cheaper than catalogues)

Plastic sandwich bags for holding 1 pack of cards each, plus more for holding small 10 frames and numeral cards (buy good quality ones to avoid having to replace them often)

Calculators for patterns, estimating, reasoning in class sets – **K – 6**

Coins and notes – class sets K, Years 1 and 2, plus small amount for **Years 3 – 6**



GEOMETRY

Geometric solids - rectangular prisms, square and triangular pyramids, cylinders, cubes, triangular prisms, cones, spheres for features and properties of three-dimensional objects - **K - 6**, as **containers with one open face** for cross-sections, volume and capacity - **Years 5 - 6**

Plastic polygons - circles, triangles, squares, rectangles, kites, trapeziums, rhombuses, pentagons, hexagons, octagons for features and properties of two-dimensional shapes, translating (sliding) rotating (turning) reflecting (flipping), combining and splitting, symmetry and tessellation, symmetry and rotational symmetry, diagonals - **K - 6**

Transparent polygons as above for combining and splitting - **Years 1 - 6**

Paper squares and circles for features and properties of two-dimensional shapes, splitting and combining - **K - 6**

Pattern blocks - for features and properties of two-dimensional shapes, translating (sliding) rotating (turning) reflecting (flipping), combining and splitting - **K - 6**

Counters - (see Number and Algebra resources) for use as circles for all classes for features and properties of two-dimensional shapes, translating (sliding) rotating (turning) reflecting (flipping), combining and splitting - **K - 6**

Hoops for grouping shapes and objects - **K**

Matchsticks and short and long pop sticks (see Measurement resources) for constructing two-dimensional shapes - **K - 6**

Protractors for measuring and constructing angles, angle properties of two-dimensional shapes - 1 per student in **Years 5 and 6**

Geoboards and elastic bands or digital on individual devices for students to manipulate - **Years 1 - 6**

Plasticine / modelling clay for constructing three-dimensional objects, cross-sections and sections - **K - 6**

Fishing line or plastic knives for cutting modelling clay, including for cross sections and sections - **Years 3 - 6**

Small interlocking cubes, 1cm x 1cm x 1cm, (see Number and Algebra resources) for constructing models for sketching views - **K - 6**

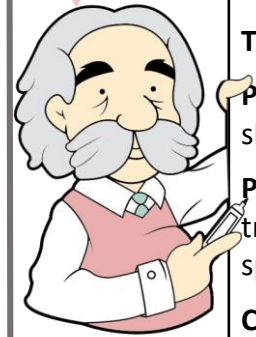
Isometric grid paper for sketching views - **Years 3 - 6**

Dot paper for sketching views - **Years 3 - 6**

Good quality straws for constructing skeletal models of three-dimensional objects - **Years 5 - 6**

Chenille sticks / pipe cleaners for constructing skeletal models of three-dimensional objects - **Years 5 - 6**

Compass for drawing circles - **Year 6**



MEASUREMENT RESOURCES

| LENGTH | AREA | VOLUME & CAPACITY | MASS | TIME |
|---|--|---|--|---|
| <p>String for constructing lengths, and for measuring curved lengths - K – 6</p> <p>Pop sticks, long and short match sticks, long and short paper clips for measuring and comparing length in informal units - K – 2</p> <p>paper squares and circles, plastic polygons (see Geometry Resources) for measuring length and perimeter - Years 1 – 6</p> | <p>Pattern blocks (see Geometry Resources) as informal units for measuring area - Year 1</p> <p>Plastic squares 2cm x 2cm for measuring area in informal units - Years 1 & 2</p> <p>Plastic squares 1cm x 1cm for measuring area in square centimetres – Years 3 & 4 (hard to source but currently available from www.cleverpatch.com.au)</p> <p>paper squares and circles, plastic polygons (see Geometry Resources) for measuring and comparing area - K – 6</p> | <p>Large and small containers, for example, yogurt, spoons, butter, plastic cups, ice cream for measuring and comparing volume and capacity in informal units - K – 2 and in mL and L - Years 3 – 6</p> <p>Children’s blocks shaped as cubes, rectangular prisms, cylinders, triangular prisms, pyramids, and marbles for packing rectangular containers using informal units to identify cube is best - Year 1</p> <p>Cubes - 2cm x 2cm x 2cm for measuring and comparing capacity using informal units - Years 1 & 2</p> <p>Cubes - 1cm x 1cm x 1cm for measuring and comparing capacity using cubic centimetres - Years 3 & 4</p> <p>1 L measuring jugs in 50 mL increments starting at 50 mL for measuring volume and capacity using mL and L - Years 3 & 4</p> <p>50 - 70mL miniature measuring cups - in 5 mL increments starting at 5 mL - for measuring volume and capacity using mL, and for identifying the relationship between cubic centimetres and millilitres - Years 3 – 6</p> <p>Chenille sticks / pipe cleaners and straws (see Geometry resources) for constructing cubic metres - Year 5</p> | <p>Equal arm balances for comparing mass directly and indirectly in informal units - K – 2 and in g and kg - Years 3 – 6</p> <p>Scales for measuring mass in g and kg, and for identifying relationship between liquid volume & capacity and mass units - Years 4 – 6</p> | <p>Analog clocks with hands that move in sync – for reading time K – 3</p> <p>Stop watches for teacher for estimating duration in seconds, minutes and hours - Year 2 – for students for timing duration in seconds and minutes - Year 4</p> |

Plasticine/modelling clay for constructing lengths and for constructing objects to measure volume of using displacement - **K**

1cm grid maths books (see Number and Algebra resources) for recording length in centimetres - **Years 3 – 6**

Rulers with centimetres - 1 per student – Year 2

Rulers with centimetres and millimetres - 1 per student – Years 3 – 6

1 metre tape measures with cm and mm for measuring lengths, constructing square and cubic metres - **1 per student – Years 3 – 6**

Metre ruler or tape measure with cm and mm, and with alternate 10 centimetre blocks in black and white for relating metric length to multiplicative place value - **1 per class, Years 3 – 6**

Trundle wheels or device app for measuring length in metres and kilometres, area in hectares and square kilometres - **Years 5 – 6**

Small interlocking cubes, 1cm x 1cm x 1cm, (see Number and Algebra resources) for constructing models for finding volume, identifying relationship between cubic centimetres and millilitres - **Years 3 – 6**