# 2024 SCIENCE RESOURCES CATALOGUE

## **RESOURCES YOU CAN TRUST**

ABACUS

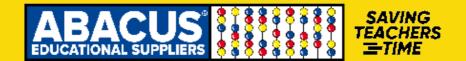
Serving Australian schools for over 37 years



## abacused.com.au

49 Guthrie Street, Osborne Park, WA, 6017

P:08 9445 7133



#### WHY OUR CUSTOMERS CHOOSE ABACUS EDUCATIONAL SUPPLIERS

- When you contact our office, you speak to our friendly team, not an automated call system
- Orders are completed and promptly dispatched
- A wide range of thoroughly researched maths and science kits are regularly updated
- Abacus is a national distributor of Dr Paul Swan titles, Junior Learning and Beanstalk books
- Abacus works in partnership with Oz Harvest to distribute cooking kits Australia wide

#### **TERMS AND CONDITIONS**

#### **PRICES**

All prices exclude GST which will be added to invoices. The GST amount is clearly isolated on all invoices to simplify refund claims by schools when GST returns are lodged. Prices are correct at the time of printing. Every effort will be made to maintain these, however any unavoidable price changes will be confirmed on placement of the order and will be indicated on the invoice sent with the goods.

#### **HOW TO ORDER**

#### Place your order online

- Visit us at www.abacused.com.au
- For school orders to be supplied on a 30-day account invoice, you need to be logged in to your school's account. Please phone us on 08 9445 7133 if you need your account details.
- For **personal orders** you can set up your own account or check out as a guest. Upfront payment is required for these orders.

#### Fax or Email your order

- Fax to: 08 9445 7199
- Email to: mail@abacused.com.au

We accept Visa and Mastercard.

#### **BACK ORDER POLICY**

Any items temporarily out of stock will automatically be placed on a back-order. These items will be noted on your original invoice and will be despatched as soon as they become available. Our delivery charges will be apportioned between your original order and the subsequent back-order.

#### **RETURNS POLICY**

All items being returned **MUST** have a Return Authorisation form included. Orders returned to Abacus without a Return Authorisation will NOT be accepted. To obtain a Return Authorisation, please contact us on 08 9445 7133. You must quote the invoice number for the item you want to return. Our customer service staff will advise you of the details on how to return your order.

Please choose carefully as Abacus is under no obligation to provide refunds where you have changed your mind or made a wrong selection. We recommend you carefully preview any orders before proceeding with your order.

#### **GOODS DAMAGED IN TRANSIT**

Please notify us within 7 days of receipt of your goods if there are any damaged or faulty items on 08 9445 7133. Our customer service staff will advise you on appropriate procedures to rectify the issue.

#### **FREIGHT AND HANDLING**

Capped shipping Australia-wide	\$14.00 + GST
Storage Frames and Trolleys	\$150.00 + GST

**PLEASE NOTE:** The above charges may vary if you have ordered large/heavy items or if you require delivery to a remote or off-shore location. Schools will be informed of freight options before orders are processed.

#### **ACKNOWLEDGEMENTS**

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#### Science SUPER SCIENCE TROLLEY



around your school maximises its potential.

The Super Science Trolley comprises:

- Class Sets of stopwatches, safety glasses, mirrors and bar magnets
- Electronic components, thermometers, test tubes, measuring tapes and containers
- A wide range of model making requirements is also included

Measures: W 1020mm x D 435mm x H 1030mm (with handles)

# For more details on the Super Science Trolley or to purchase individual kits please visit **abacused.com.au**



15 KITS

WITH THE

TROLLEY

#### Science SUPER SCIENCE KITS



#### Science SUPER SCIENCE KITS



# Science SUPER SCIENCE KITS

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DEEP Trav

#### **ELECTRONICS COMPONENTS KIT** 2B254

Everything you need to teach simple electronics and circuits to your class or a handy top up set for the science storeroom.

- 30x Alligator clips and leads
- 16x Circuit wire pack
- 15x Electric motors with pulleys
- 20x Motor mounts
- 15x Dual AA battery holders
- 15x Slide switches
- 10x Fahnstock switches
- 20x 1.5v globes
- 20x 2.5v flashing globes
- 20x Metal base bulb holders
- 20x Plastic base bulb holders
- 15x Electric buzzers
- 40x AA batteries
- 1x Wire stripper
- 1x Multi-meter

#### **MINI VOLUME KIT** 1H2O2

- 5x Stackable beakers
- 5x Funnels
- 1x Measuring cups (set of four)
- 1x Measuring spoons (set of four)
- 1x Litre jug

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• 3x Measuring jug (375mL)



#### **TEST TUBES KIT** 1H163

AUTO-MATIC

BACUS WHINKI CON 2

ELECTRONIC

- 5x Test tube brush
- 2x Test tube rack
- 24x Test tubes (150 x 24mm)
- 5x Test tube metal holder
- 6x Jumbo test tube with stand



For bu	Ilk quantities visit www.abacused.c	om.au
ABSORBENT CLOTHES (20) 2P076	ALLIGATOR CLIPS (10) 2B150	ALLIGATOR CLIPS WITH LEADS (10) 2B151
BAGS - PLASTIC RESEALABLE (100) 2P004	PRIMARY BUCKET BALANCE 1k005	BALLOONS - ROUND (45) 2P005
BALLS - TABLE TENNIS (6) 2P098	BALLS - TENNIS (4) 2P099	BAROMETER 2H001
BATTERY 2B001 AA (4) 2B006 AAA (2)	BATTERY 2B002 C (2) 2P006 D (2)	BATTERY HOLDER 2B010-5 AAA (5) 2B011-5 C (5) 2B012-5 D (5)
BLACKLIGHT UV TORCH 2C155	BEADS - UV 2C152	BUCKET - COLLAPSIBLE 11L 2P127
BULB HOLDERS - METAL BASE (10) 2B060	BULB HOLDERS - PLASTIC BASE 2B061-10	BULB HOLDERS - FAHNSTOCK BASE 2B063
BULBS - 2P035 1.5V (10) 2B050 2.5V (10)	BULBS - 2.5V FLASHING (10) 28052	BULBS - LED 10mm (4) 2B053
BUZZER (3V-15V) 2B154	CANDLES - TEALIGHT (30) 2P121	CARDS A4 300gsm (10) 2P134



For bu	Ilk quantities visit www.abacused.c	om.au
CHALK 2P111	ELECTRIC CIRCUIT KIT 2B251	COAT HANGER WIRE (10) 2P011
COLOUR MIXING GLASSES 2E007	COLOUR PADDLES 2C151 Set of 18	COMPASS - MAGNETIC 35mm 2P012-30 Box of 30
COMPOST CONTAINER 2H100	CORD - 100m SPOOL 2P163	CORKS - PKT (10) 2P013
COTTON BALLS - PKT (120) 2P016	COTTON REELS - BAG OF 120 3B150	CUPS - PAPER 2P020
CUTTING KNIFE 3A010	CUTTING MAT - A3 3A012	DETERGENT LIQUID 2P144
DIGITAL MULTIMETER 2B350 Dimensions (mm) 125 x 68	ELASTIC - DRESSMAKER'S 2P200	EYE DROPPERS 2P027
EYE DROPPERS JUMBO 2L011	FEATHERS - PKT 2P204	FILM CANISTER WITH LID
FISHING LINE - 200m 2P028	FOIL - ALUMINUIM 2P030	FOIL TRAYS - SMALL (5) 2P119 Dimensions w x h (mm) 145 x 195





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# SCIENCE ROOM ESSENTIALS



ABACUS



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# **SCIENCE ROOM ESSENTIALS**



For bu	Ik quantities visit www.abacused.c	om.au
TORCH - STUDENT LED 2P087	TRUNDLE WHEEL 1G200	TUBING 3B118 3mm x 1m 3B119 6mm x 1m
TUNING FORKS 2C105 Set of 8	TWEEZER – METAL 130mm 2K005	TWEEZER - EASY GRIP 152mm 2K006 Set of 12
WEIGHTS - METRIC 1K213 58 pieces	WEIGHTS - STACKING 1K215 Set of 80	WIRE - CIRCUIT 2B171 Pack of 8
WIRE - INSULATED 25mm 2P091-R 2P091-B	WIRE - FLORIST 2P189	WIRE - MODELING 2P164
WIRE - STRIPPER 2B156	WOODEN DOWEL (100) 3D005 300mm	WOOL 2P092 100gm

For our full range of science room essentials, please visit **abacused.com.au** 



**b** abacuseducation

abacuseducationalsuppliers

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#### Science LABORATORY SUPPLIES



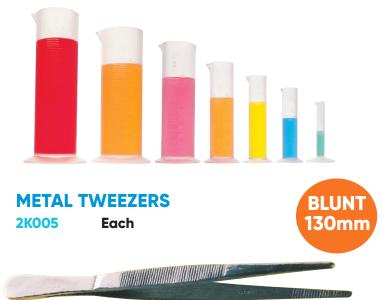
#### STACKABLE BEAKERS 1H011

Made of unbreakable plastic, these stackable beakers have a capacity range of 50mL to 1000mL with clear graduations on each beaker. One each of 50, 100, 250, 500 and 1000mL.



#### GRADUATED CYLINDERS 1H019 Set of 7

Tough polypropylene cylinders in calibrations of 10mL, 25mL, 50mL, 100mL, 250mL, 500mL and 1L.



FUNNELS 1H156-5 Set of 5



## PETRI DISH

Set of 20



EYE DROPPERS 2P027 Pack of 10

2P027-30 Class set of 30



Dimensions (mm) 100 long

**Dimensions (mm)** 

160 long

PIPETTES 2L001-50

Packet of 50

3mL disposable plastic pipettes. 0.5mL graduations. Ideal for comparing volume of small capacity containers.



#### **TEST TUBES**

0

1H161 1H152

1H162 1H154 Test Tube 150mm x 25mm (24) Test Tube Brush Test Tube Holder — Wire Type Test Tube Rack



#### Science LABORATORY SUPPLIES

#### PRIMARY SCIENCE SET 2L010 Set of 12

• Ten double-sided Activity Cards (cover science process skills, living and non-living things, physical science, senses and more)

- 1x Beaker
- 1x Magnifying glass
- 1x Funnel
- 1x Eyedropper
- 1x Flask
- 1x Tweezers

- 1x Goggles
- 1x 150mm test tube with lid and stand
- 2x Small test tubes with lids and stand
- 1x Activity Guide

What to do: Put a promy in each small :

Pour some lemon luice in the of yellow lid on the test tube.

Use the evedropper to transfer water from the beaker one of the test tubes. Put the crange lid on the hest tub

Tools

**Shiny Pennies** 

#### PRIMARY SCIENCE JUMBO EYE DROPPERS 2L011 Set of 6

Extra-large droppers are ideal for developing fine motor skills while learning primary science.

• 6x L 115mm Jumbo droppers

• 1x 110 x 110mm Storage stand

#### LARGE PIPETTES

2L005 Set of 3

Dimensions (mm) 220 long



#### PRIMARY SCIENCE JUMBO TEST TUBES WITH STAND 2L012 Set of 6

The tubes feature calibration marks (25, 50, 75 and 100mL). The multicoloured lids are write-on-wipe off making it easy to label and are safe at temperatures from -10° to 95°C.

- 1x Sturdy Rack
- 1x Activity Guide
- 150mm high x 40mm diameter

SYRINGES 2L002-10 10mL

2L002-10 1011L 2L003-10 20mL



• 12x 150mm tweezers stores in resealable bucket

1x Activity Guide

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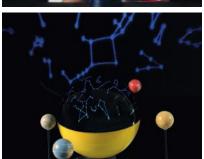
#### THE SUN, EARTH AND THE MOON ORBITER MODEL 4A015

You can investigate the following:

- · How the Earth's rotation causes day and night.
- How the Earth's revolution around The Sun and the tilt of its axis causes seasons.
- Why The Sun rises in the east and sets in the west
- Why there are eclipses and more
- $\cdot$  The Sun, Earth and The Moon revolve around one another on this gear driven model.

Includes teachers activity guide. Requires 2x AA batteries (not included). Measures L 410 x H 300mm and the Sun measures 150mm diameter.





## GEOSAFARI<sup>®</sup> MOTORISED SOLAR SYSTEM 4A012

It's two-in-one astronomy fun! Set up and observe the rotating solar system just like they do in space.

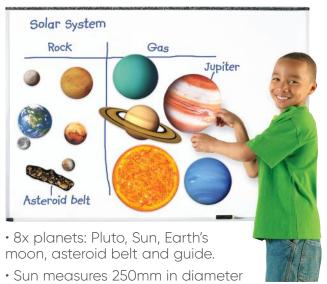
- Base with 8 rotating planets and LED light-up sun
- Constellation dome turns any ceiling into a planetarium
- Night-light feature with auto shut-off
- Requires 4 AA batteries (not included)



#### GIANT INFLATABLE SOLAR SYSTEM 4A010

- Planets measures 130-580mm
- Activity guide
- A convenient foot pump

## GIANT MAGNETIC SOLAR SYSTEM 4A011





#### **MEDIUM ELECTRIC MOTOR**





#### **MOTOR PULLEYS**

2B101-10 Pack of 10 2B101-50 Pack of 50

The motor pulley fits tightly onto the motor shaft to provide direct drive.



#### **UNIVERSAL MOUNT CLIP**

#### 2B104-10 Pack of 10

This versatile clip can be used with a medium motor. Supplied with adhesive foam mounting pad.

\*\*Motor not included

motors

- Storage Box

#### **BULB HOLDERS**

2B060	Metal base (Pack of 10)
2B061	Plastic base (Each)
2B061-10	Plastic base (Pack of 10)
2B061-50	Plastic base (Box of 50)
2B063	Fahnstock (Each)
2B063-10	Fahnstock (Pack of 10)

#### **BULBS**

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2P035	1.5V (Pack of 10)
2P035-5	1.5V (Pack of 50)
2B050	2.5V (Pack of 10)
2B052	2.5V Flashing (Pack of 10)

#### **HIGH INTENSITY LIGHT EMITTING DIODES (LEDS)** 2B053 Set of 4

These LEDs are 10mm in diameter and are all water clear. When powered they will light up to the specified colour.



#### A miniature vibration motor with a coreless design. Rated at 3V nominal and 14000 rpm, this motor is ideal for use in applications such as robotics.

2B102

Pre-wired with 90mm red & black leads and measuring only 12mm long x 6mm diameter.

MINIATURE VIBRATION MOTOR

#### **ELECTRIC MOTOR BOX** 2B105

• 10x medium torque

- 10x pulleys
- 10x motor mount clips

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\*\*Screw type fittinas

## Science ELECTRICITY AND ENERGY

#### **LEADS AND CLIPS**

2B150	Alligator clips
	(Packet of 10)
2B151	Alligator clips with leads
	(Packet of 10)
2B152	Snap connectors with
	leads (Packet of 10)
2B149	Banana Leads (Pair)

#### **CIRCUIT WIRE**

2P091-R	25m circuit wire - Red
2P091-B	25m circuit wire – Black
2B171	Circuit wire pack 8 x L 2m



#### **SWITCHES**

2B157	
2B158-!	5
2B159	

Knife switch Slide switch (Packet of 5) Latching push switch



#### MINI PIEZO BUZZER 3-16V

2B154	Each
2B154-10	Pack of

This mini piezo buzzer offers medium to loud sound output (max 90dB), low current consumption and is extremely durable.

10

Measures 22mm diameter and 12mm high.



#### FAHNSTOCK SWITCH

2B160 2B160-10

2B159

Each Pack of 10 ۲

2B156

Automatic wire stripper

The Fahnstock switch has special connectors so you can connect the switch into a circuit without having to solder the wires.

> UNIQUE AND EASY WAY TO COMPLETE A CIRCUIT WITHOUT SCREWS









## ELECTRONICS COMPONENTS KIT 2B254

- 30x Alligator clips and leads
- 16x Circuit wire pack
- 15x Electric motors with pulleys
- 20x Motor mounts
- 15x Dual AA battery holders
- 15x Slide switches
- 10x Fahnstock switches

- 20x 1.5v globes
- 20x 2.5v flashing globes
- 20x Metal base bulb holders
- 20x Plastic base bulb holders
- 15x Electric buzzers
- 40x AA batteries
- 1x Wire stripper
- 1x Multi-meter

#### ELECTRICITY STARTER KIT 2B250

- 1xStorage container (12 compartment)
- 2x AA battery holders
- 4x AA batteries
- 10x Alligator clips
- 4x Alligator clips plus leads
- 8x 2m lengths of coloured wire
- 1x Slide switch & 1x Push switch
- 1x Single knife switch & 1x Fahnstock switch
- 3x Electric motors and pulleys
- 3x Motor mounting clips
- 1x Buzzer
- 2x Snap connectors
- 10x 1.5V bulbs
- 3x Flashing bulbs
- 10x Bulb holders (economy)
- 3x Bulb holders (plastic base)
- Assorted split pins, paper clips and drawing pins
- Introduction to Electricity Booklet



#### **ELECTRIC CIRCUIT KIT**

 2B251
 Each

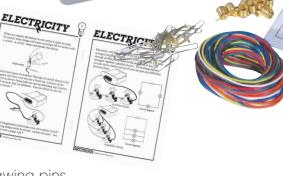
 2B251-12
 Carta

 2B260
 Bulk

- Carton of 12 Bulk Kit
- 2x Batteries
- 1x Battery holder
  2x Bulb (differing sizes) and bulb holder
- 1x Motor, pulley, and holder
- 1x Switches
- 1x Buzzer
- 2x Wires with clips, additional wires
- 1x Ideas sheet
- 1x Storage box



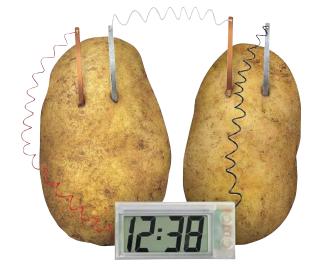
ELECTRICITY



#### POTATO CLOCK 2B180

You can generate enough electricity to run a digital clock by plugging electrodes into common potatoes!

- Highly accurate digital clock module
- Metal electrodes, wire
- Instructions and fluid beakers
- Clock dimensions: W 65 x H 30 x D 12 mm



#### **BATTERIES**

2B006 AAA Battery (Pack of 2)
2B001 AA Battery (Pack of 4)
2B002 C Battery (Pack of 2)
2P006 D Battery (Pack of 2)
2B003 9V Battery (Each)
2B008 CR2032 Button Battery (Each)

#### **TEACHING TIP**

THE RIGHT AMOUNT OF POWER

AAA, AA, C and D batteries are all rated at 1.5V. For use with a 2.5V bulb it is recommended to use 2 x 1.5V batteries so as not to destroy the bulbs. You can use more voltage for the bulbs to make them glow brighter but this will shorten its life expectancy.

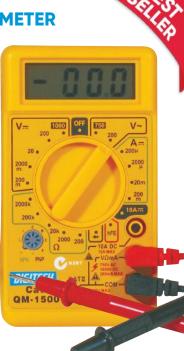


#### **DIGITAL MULTIMETER**

#### 2B350

Full feature meter with plug-in 4mm probes and transistor tester.

- 12.5mm high LCD display
- Transistor test
- Diode test
- 10amp current
- Plug-in leads



#### **BATTERY HOLDERS**

2B010-5 2B011-5 2B012-5 Dual AA Battery holder (Pack of 5) C Battery holder (Pack of 5) D Battery holder (Pack of 5)







INCLUDES LEADS



#### 1.5V 400MA SOLAR CELL MODULE

2B204 Each 2B204-8 Set of 8

This high efficiency polycrystalline photovoltaic solar cell is suitable for a wide range of applications or projects.

Resin encapsulated, fitted with hightemperature silicon 200mm red and black connecting wires.

These modules can be connected in series or parallel to obtain the desired voltage or output current.

Dimensions I x w x h (mm) 90 x 60 x 3

#### 6 IN 1 SOLAR EDUCATIONAL ROBOT KIT 2B211

#### DUAL POWER KIT 2B253

Demonstrate how a 1.5v solar panel can replace a battery with the correct amount of solar energy. This kit comprises enough equipment for 5 students or 5 small groups.

CODE 2B253

A discussed cars an

- 5x 1.5v solar panels with leads
- 5x AA batteries and battery holders
- 5x pairs of alligator clips and leads

ACUS HINHIN MISIM

**DUAL POWER** 

KIT

• 10x 1.5v bulbs and holders

- Construct up to six different projects
- Snaps together for easy assembly
- Solar powered so no batteries are required

**lirboat** 

#### SOLAR CELL MOUNTED KIT 2B229

Wow your students by showing them how light energy can produce an electrical current using this kiit.

• 1x Mounted Solar Cell

• 2x Connecting leads

(one red and one black)

1x Mounted Motor

#### 6 IN 1 EDUCATIONAL SOLAR KIT 2B209

- Windmill
- Car
- Dog
- Plane
- Airboat
- Revolving Plane

 The solar cell measures 100mm x 90mm x 130mm and the mini motor measures 75mm x 90mm x 70mm





#### Science HUMAN BODY

#### HALF SIZE SKELETON 2K001

Plastic skeleton is supplied with its own stand.

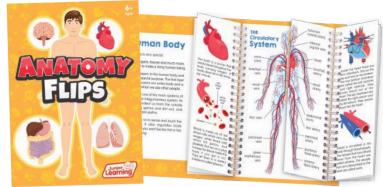
Helps students understand the principles of bones within the body.

Measures 850mm tall.

#### ANATOMY FLIPS JL647 Flip Book

Learn about the major parts of the body and how they work together. This innovative flip book enables students to explore the different systems that work inside the human body.

Includes skin, muscular, digestive, circulatory, respiratory nervous and skeletal systems. Ages 6+

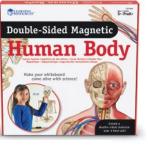


#### DOUBLE-SIDED MAGNETIC HUMAN BODY 2K124 17 Pieces

Twice the learning-skeletal system on one side and major organs and muscle groups on the other!

Realistically detailed pieces combine to create a body over 920mmH. Includes Activity Guide with reproducible diagrams. Ages 5+.







#### HUMAN ANATOMICAL TORSOS

These dissectable anatomical torso consist of realistically coloured and detail body parts in the correct proportion and location. They include a photocopiable key to parts, ideal for pupils to learn about the major organs and the physical relationship between them. Available separately.

#### **QUARTER-SCALE ANATOMICAL TORSO**

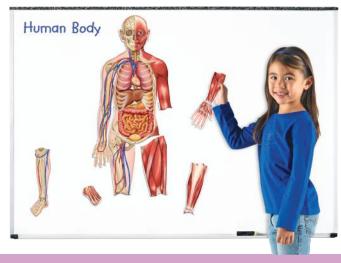
2K125 8 Pieces



HALF-SCALE ANATOMICAL TORSO 2K126

11 Pieces





7272



#### BRAIN ANATOMY MODEL 2K105 31 Pieces

Features cerebellum, frontal, parietal, temporal, and occipital lobes; corpus callosum, brain stem, hippocampus, ventricles, insula, corpus striatum, internal capsule, and lentiform nucleus. 31-Piece model measures 100mmH when assembled.

in Anatomy Mode

#### HEART ANATOMY MODEL 2K104 29 Pieces

uman Anatomy Model

Features superior and inferior vena cava, right and left atria, tricuspid valve, right and left ventricles, pulmonary artery, mitral valve, aortic valve, and aorta. Opens when assembled so students can explore from the inside. 29-Piece model measures 127mmH when assembled.



2K003 Standard Bowles

#### HUMAN EYE 4X LIFE SIZE 2K108 6 Pieces

Classic model of the human eye with accurate and detailed colourful components. Dissects into: a two part sclera with cornea and eye muscle, both halves of the choroid with iris and retina, lens and vitreous humour. Photocopiable key to parts is included.

Measures 205 x 130 x 150mm



Colourful representation of the outer, inner and middle ear including: removable eardrum with hammer and anvil, 2-part labyrinth with stirrup, cochlea and auditory/ balance nerve. Photocopiable key to parts is included.

> Measures 340 x 160 x 190mm

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#### LED LIGHT BOX & OPTICAL SET 2C055

Comprehensive light and optics set which includes a 3 beam ray box (each beam available in dual colours - white or red) and an array of lenses and prisms, teacher's notes and 9 pupil work cards.

3x AAA batteries required.

Recommended for students from 8 years.





#### **DECA PRISM SET** 2C054

The set contains ten 25mm thick optical acrylic prisms stored in a foam lined box: Equilateral triangle Semicircular Equilateral triangle Biconvex Isosceles 90° Biconcave Scalene 90° Plano - convex Plano - concave

Rectangle

Size of prism: approx 75mm.

#### **PRISMS - GLASS**

#### 2C056 Set of 7 prisms

7 prisms in a wooden storage box. Highly polished 13mm thick glass.

- Equilateral Triangle 76mm
- Triangular Prism 50 x 25 x 13mm
- Triangular Prism 50 x 25 x 19mm
- Semi-circle 89mm
- Trapezoid 89 x 33mm
- Double Convex Prism 89mm with 95mm outer radius

 Double Concave Prism -89mm with 95mm inner radius

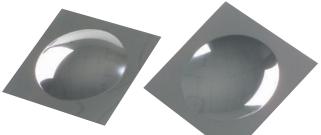




#### **UNBREAKABLE PLASTIC CONCAVE/CONVEX MIRRORS** 2D006

Pack of 10

ALL MAN



One side concave and the reverse side, convex. Interior mirror 70mm diameter. High quality mirror finish.

Measures 100mm square.





## LIGHT, COLOUR AND SOUND

#### **UV BEADS AND TORCH**

2C155	UV Torch 🛛 💦 🏹
2C152	Box of 500 UV Beads
2C156	Box of 1000 UV Beads and UV Torch
2C158	Box of 200 UV Beads, UV Torch and Laces

UV Light Detecting Beads contain a pigment that changes colour when exposed to UV light from the Sun or other sources like hand-held UV torch. The beads also glow in dark after charging with UV.

The torch measures 95mm x 30mm diameter.



GLOW IN THE DAR

#### **COLOUR MIXING GLASSES** 2E007

 Easy-to-change lenses.

• 2 each of red, yellow, blue and distortion lenses.

 Combine 2 lenses per side to teach colour mixing.

• Single lenses teach primary colour identification.

 Colour-mixing guide.

**TUNING FORKS** 2C105 Set of 8

**STUDENT TORCH** 2P087 Each 2P087-12 Box of 12

**PERCUSSION SET** 2P1381

Set of 10

#### • Pair of maracas

- Pair of castanets
- Tambourine
- Triangle and beater
- Pair of claves

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- Rhythm-clapper
- Single tone guiro and beater

N

- Pair of finger cymbals
- Wooden shaker pot
- 13 bell jingle stick

- Includes AA batteries
- Measures 160 x 33mm

#### **COLOUR PADDLES** 2C1512 Set of 18

Transparent 150mm paddles in 6 colours, and three textures.





#### PLASTIC CASED BAR MAGNETS

2P039	80 x 22 x 10mm Pair
2P040	Class Set

- · Colour coded to easily identify each pole
- 30x plastic cased bar magnets measuring 80 x 22 x 10mm
- 2x demonstration bar magnets measuring 130 x 40 x 10mm

#### **BAR MAGNETS KIT** 2P039-KIT

- 20x bar magnets measuring 80 x 22 x 10mm
- 1x demonstration bar magnet measuring 130 x 40 x 10mm



Netic N

#### **COLOURED PLASTIC MAGNETIC MARBLES**

2A030 Tub of 100



• Each marble measures 15mm diameter

#### **MAGNETIC WANDS** 2A010 Set of 6

Set of six 190mm wands in a rainbow of colours.

MAGNETS CLASS SE

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#### **METAL RING COUNTERS** 2A012 Bag of 100

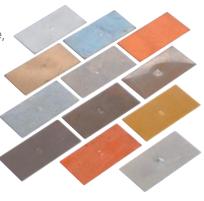
These transparent plastic counters with a metal edge are a useful addition to any experiment using magnets.

**NON-MAGNETIC** Not for whiteboard us

#### **METAL STRIPS** 2A015 Set of 12

- Stamped strips (brass, copper, bronze, nickel silver, mild steel, stainless steel, galvanised steel, zinc and aluminium)
- Very useful for predicting the magnetic qualities of metals

• Measures 50mm



Gratnells

HALLOW Tray

FOAM

**INSERT** 



#### SUPER MAGNETS (PAIR) 2A022

Housed in tough colour coded (Red - North and Blue - South) outer cover the design allows children to safely experience first hand the force of Neodymium – currently Earth's strongest permanent magnet!



#### GIANT HORSESHOE MAGNET 2A024

Giant colourful magnet capable of lifting large objects.

#### MAGNET -HORSESHOE SET OF 3 2A023

The set of magnets: small – 75mm, medium – 100mm, and large – 125mm.

Explore fundamental themes of force and magnetism, by combining these horseshoe magnets with other resources, such as iron fillings, to design engaging experiments.





#### CHUNKY HORSESHOE MAGNET 2A006

Measures 120 x 120 x 20mm

#### IRON FILING BUBBLE 2A250 Each 2A250-5 Set of 5

Iron filings encased in a plastic bubble allow students to observe the effects of invisible magnetic fields easily and cleanly. Measures 85mm diameter.



IRON

Fine

225a

27

**FILINGS** 

2P037

MAGNETIC COMPASS 35mm

2P012 Each

f

2P012-30 Box of 30



H 210mm



## DELUXE MAGNET KIT 2A102

• 1x 12cm horseshoe magnet

NEATLY

PACKED

GRATNELLS

SORTING

TRAY

Gratnells

HALLOW Tray

- Set of 6 magnetic wands
- Floating ring set
- 10 plastic bar magnets
- 20 magnetic marbles
- 100 magnetic counters
- Iron filing bubble
- 250gm iron filings
- Magnetic compass
- Pack of 6 magnetic pins



#### MAGNETISM MATERIALS TESTING SET 2A106

LUXE MAGNE

- 20x magnetic and non magnetic objects sealed in clear plastic pots
- 2x magnetic wands to test for magnetism
- Materials include: Sea shells, wood, plastic beads, washers, string, chalk, foam, paper clips, brass screws, cloth, paper, drawing pins, pebbles, aluminium foil, polystyrene, feathers, copper clips, nails, stainless steel and rice.





#### MAGNETS 'N' MORE SCIENCE KIT 2A107

- 2x plastic cased bar magnets
- 1x iron filing bubble
- 20x magnetic counters
- 4x florist wire Ideas sheet

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#### FLOATING RING MAGNET SET 2A008-N Set of 4

- 1x stand
- Colourcoded
- Marked with North/South poles
- Ring size: 100 x 20mm









#### MAGNIFIERS KIT 2P102

5x Bug
viewer
1x Two way
bug viewer
30x Fine
detail
magnifiers
class set
5x Magnifier
75mm



#### • Magnifying glass

- 75mm diameter
- 2.5x magnification
- Individually packed

#### 75mm MAGNIFIER 2P093 Each

2P093-10 Box of 10

#### 2P093-30 Box of 30

#### OPTIMAX KIT 2E010

- 5x Dual view bug magnifiers
  10x Fine detail magnifier)
- 3x 75mm magnifier



ABACUS MIMIN

2P047-30

Box of 30

INEMELLI

ABACUS MINING ON CANAD

MAGNIFIER

Robust student magnifier with a built-in fine detail lens.

CUS HIN

The dual lenses offer increased magnification.



#### KIDNOCULARS 2E201

- 1x Pair of 'Kidnoculars' binoculars (14 x 18cm)
- 1x 76cm attachable neck strap

• 1x Hand placement guide



Dimensions d (mm) 75 x 50

## TWO WAY BUG VIEWER 2E052



Dimensions I x h (mm) **190 x 130** 

f



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**BUG VIEWER** 

Observe creatures in

this viewing pot with

2x magnification lid and 3.5x magnification

Clear base with micro ruler.

**Dimensions (mm)** 

75 x 55

2E006

viewer.



#### **1.5m ALL METRIC TAPE MEASURE**

2P082	Each
2P082-10	Packet of 10
2P082-30	Class set of 30

150cm L x 2cm W FRONT – actual size (Colour change every 10cm) <u>∽ 150cm ≥</u> <u>∽</u> harten harten harten harten harten anten harten h 150cm L x 2cm W **EXCLUSIVE TO ABACUS REVERSE** – actual size ♀ 150cm ♀ 8 6

#### **5m TAPE MEASURE**

**3A029** Each 3A029-10 Box of 10

5m x 19mm measuring tape, with blade lock.



#### **10m FIBREGLASS TAPE MEASURE**

1G004 Each 1G004-10 Box of 10

- 10m x 13mm
- Vinyl coating
- Long-lasting
- Water resistant
- Easy to read markings on both sides



#### **30m CASED TAPE MEASURE** 1G002 30m

This easy wind-up tape is clearly marked in mm and cm. Durable casing for years of use.

#### **MINI LENGTH KIT** 1G211

- 1x Fibreglass tape measure, 10m x 13mm
- 27x Rolls of ticker tape, 15mm 10m
- 1x Trundle wheel packed separately,
- L 430mm x W 320mm x H 60mm
- 10x Tape measure 1.5m
- 3x Tape measure 5m
- 6x Transparent metre rulers
- 1x Roll of string 75m
- 1x Shallow Gratnells Tray with lid







ROPE 2P163 100m spool





# Science MEASURING LENGTH

#### **TRUNDLE WHEEL - WITH COUNTER**

1G200	Each
1G200-12	Set of 12

Our lightweight trundle wheel makes measuring long distances easy with its non-slip rubber tyre, its multiple adjustment length handle (adjusts to four different lengths) and its optional counter which can also be reset.



#### **TICKER TAPE**

#### 1G005

Packet of 54



- Measure around parts of body
- 10mm L x 15mm W

#### **MAGNETIC METRE RULER**

1Q178	Each
1Q178-4	Set of 4
<b>1Q178-8</b>	Set of 8
1Q178-30	Set of 30

- For use on whiteboards
- Magnetic backing prevents slipping
- Shows the connection between cm and mm

500mn

Bevelled edges prevent pen smudge

11111

500m

• 1000mm x 50mm x 10mm

YOU CAN DRAW STRAIGHT LINES ON YOUR WHITEBOARD WITHOUT RULER SLIPPING

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#### LABORATORY IMMERSION THERMOMETER

2P084 Each 2P084-10 Box of 10

• Calibrated -10°C to 110°C. A plastic top connector ensures safe immersion.

Stored in a plastic case.

Dimensions w x h (mm) 5 x 295



#### DIGITAL PROBE THERMOMETERS

**2J001** 



• Wide range temperature, from -50°C to +300°C (-58°F to +572°F)

• Accuracy of +/-1°C for temperatures up to 200°C

• 1x AAA Battery (included)

#### THERMOMETERS CLASS SET 2P085

• 4x Classroom thermometer

• 1x Digital dual temperature thermometer

• 10x Boiling point thermometer

1x Laboratory immersion thermometer

• Gratnells storage tray with lid

#### CLASSROOM THERMOMETER 2P083

Indoor and outdoor use

• Range -40°C to 50°C and -40°F to 120°F

Dimensions w x h (mm) 75 x 380

#### DIGITAL DUAL TEMPERATURE THERMOMETER 2J011

• Records both indoor and outdoor temperature (Celsius and Fahrenheit) at the same time.

• Includes a 2.7m temperature probe for recording outdoor temperature.

• Powered by 1x AAA battery (included)

TY GLASSES



Gratnells

-HALLOW T

BOILING POINT THERMOMETERS 2J014

#### Box of 10

• Thermometers measure from -30°C to 120°C and from -22°F to 240°F

• Made of plastic and mercury-free



## SAFETY GLASSES CLASS SET3A038-30Box of 30

- Side splash protection
- No more messy hair from goggle straps
- Arms measure: 110mm
- Glasses measure: 120 x 50mm
- Packed in a sturdy Gratnells tray with lid



Gratnells

DEEP Tra

Sand timers are perfect for use in games, accurate timing and experiments. Also ideal for students who need to develop time limits for certain activities. Large sand timers are a great calming resources for some children. Our sand timers are colour coded, meaning those of the same colour provide the same length of time, regardless of size.

#### MIDI SAND TIMERS – SET OF 5 1J130

Set contains one each of 30s, 1min, 3min, 5min and 10min sand timers.

#### LARGE SAND TIMERS

Red - 30 second 1J210 1J211 Green - 1 minute 1J213 Yellow - 3 minute



Blue - 5 minute

- 1J214 Orange - 10 minute 1**J**216
- 1**J**218 Set of 5 (30 sec, 1 min, 3 min, 5 min, 10 min)



Dimensions w x h (mm) 70 x 160

Dimensions w x h (mm)

25 x 100

#### MAGNETIC COUNTDOWN **CLASSROOM TIMER** 1**J**187

This 60-minute magnetic timer has a builtin stand for placing on a desk or can easily be attached to your magnetic whiteboard, file cabinet, or any other metal surface in vour classroom.

The timer shows a red disk which indicates the time remaining and includes a ringing bell (3 different volumes to choose from) to clearly define when time has ended.

Requires 2x AA batteries.

**Dimensions Diameter** 180mm



### **ELECTRONIC TIMER**

2P094 Electronic - 24 hr 2P094-5 Set of 5

Digital Quartz 24 hour timer and clock. Battery operated, clear LCD readout. Timer functions up to 24 hours, able to count down from preset time or count up from zero.

Battery included.

Dimensions w x h (mm) 85 x 85



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#### Science MEASURING TIME

## **Student Electronic Timer**

#### **STUDENT ELECTRONIC TIMER**

 1J127
 Each

 1J127-5
 Set of 5

 1J127-32
 Class Set of 32

• The highest time this can go to is 99 minutes and 59 seconds

• Comes with a small stand that allows it to be propped up anywhere in the classroom

- $\cdot$  On the back of the timer is a magnet that allows it to be stuck to the whiteboard
- On/off button restricts battery use
- Powered by 1x AAA battery (included)



Dimensions w x h (mm) 650 x 700



## Jumbo Timer

## JUMBO TIMER

Large clear digital display, times up or down in 1 second increments. Integral stand and magnet mount, on/off switch.

- Requires 1x AAA battery
- Size of display: 75 x 53mm

Dimensions w x h (mm) 100 x 105



#### **Stopwatches**

#### SIMPLE STOPWATCH

1J151 Each 1J151-5 Set of 5

• Features only 3 buttons—green for go, red for stop, and yellow for clear

• Shows minutes, seconds and 1/100 seconds on an easy-to-read display

• Requires one 1.5V button-cell battery, included



## MULTI-PURPOSE STOPWATCH

1J150	Each
1J150-10	Box of 10
1J150-30	Class Set of 30

This water-resistant digital stopwatch features a large display, times up to 30 minutes in 1/100 second, then up to 24 hours in 1/10th second, single event and split timing, month, date and day.



Dimensions w x h (mm) 50 x 80



## Science MEASURING VOLUME & CAPACITY

#### **MEASURING VOLUME KIT** 1H201

- View thru geometric solids (set of 14)
- Graduated cylinders (set of 7)
- 3x 1L jug
- 5x Measuring spoons (set of 4)
- Measuring cups (set of 4)
- Stackable plastic beakers (set of 6)
- Litre cube
- 5x Funnels
- Free ideas booklet to teach measurement





#### **MINI VOLUME KIT** 1H202

- 5x Stackable beakers
- 5x Funnels
- 1x Measuring cups (set of four)
- 1x Measuring spoons (set of four)
- 1x Litre jug
- 3x Measuring jug (375mL)
- 3x Large pipette
- 3x Coloured measuring jugs
- 1x Gratnells Deep Tray with lid

**11L FOLD AWAY** 

Waterproof

BUCKET

2P127

MEASURING CUP 2P045

250mL capacity, marked every 25mL.

#### **COLOURED MEASURING JUGS** 1H062 Set of 3

Jugs are designed to nest inside of the largest one making storage easy. 250mL, 500mL & 1000mL, 3pcs in a set.



**1 LITRE** 1H061

1H061-5 Set of 5

JUG

Each

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243 x 270

#### MEASURING WEIGHT KIT 1K251

- 1x 5kg all metric kitchen scale
- 58 piece metric weight set
- 1 x 3kg digital scale
- 1x primary bucket balance
- 6x push and pull spring scales
- 1x stacking weights class set
- Free ideas booklet to teach measurement

#### STACKING WEIGHTS CLASS SET

1K215 Set of 80

PREBOXED

FOR EASY

STORAGE

- 40x 1g
- 20x 5g
- 10x 10g
- 10x 20g
- Storage container

#### DIGITAL -BATHROOM SCALE 1K114

Easy to read large digital display and is great for activities involving weighing students or items weighing up to 150kg.

- Glass surface
- Platform
- 300mm x 310mm
- Graduation 500g
- Battery included
- Auto cut-off, auto zero

#### Dimensions w x h (mm) **310 x 300**

#### MECHANICAL -BATHROOM SCALE 1K101

- Large easy to read dial
- 1kg graduation
  & 130kg capacity

Dimensions w x h (mm) 265 x 250





#### 58 PIECE METRIC WEIGHT SET 1K213 Set of 58

Set contains twenty each of 1g and 5g, ten 10g, four 20g, two 100g, and one each of 500g and 1000g weights. Stackable, colour-coded weights

> 58 Piece Metric Weight Set

> > 60<sup>m</sup>

come in a plastic storage box.







#### METRIC SCALE (5kg)

1K122 Each Set of 10 1K122-10

Measure liquids and solids in removable pans. Easy to read, accurate metric/ imperial scales have 5kg capacity.

Dimensions w x h (mm) 180 x 240



(Counters not included)

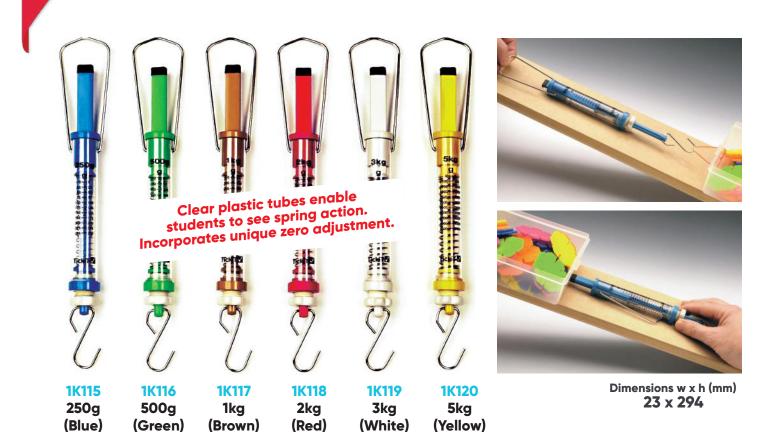
PUSH AND PULL SPRING SCALES

#### ELECTRONIC SCALE (3kg)

1K108	Each
1K108-4	Set of 4

- Capacity 3kg
- Graduation 1g
- Clear digital display
- Tare weighing function
- Automatic power off function
- Batteries included





#### **PUSH AND PULL SPRING SCALES SET** 1K121 Box of 6

Includes one of each 250g, 500g, 1kg, 2kg, 3kg and 5kg.

**BOXED SET OF 6 ASSORTED SPRING SCALES** 

377

#### NESTING PAN BALANCE COMPACT DESIGN FITS PERFECTLY IN TODAY'S CROWDED CLASSROOM

#### 1K008 Pan Balance - Set of 4

This Nesting Pan Balance encourages children to explore measurement and weight. It features an efficient, compact design. Equivalency markings allow students to assign less than, greater than, or equal to symbols to their balance setup so they can demonstrate mass equivalency.

- · Includes Getting Started Guide.
- Assembles and disassembles in 3 steps for quick and easy setup and clean-up
- 4 bright colours can be mixed or matched
- · Convenient storage/ carrying base with handles

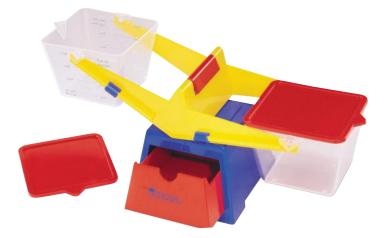
#### **PRIMARY BUCKET BALANCE**

1K005 Each 1K005-12 Set of 12

Removable calibrated clear buckets hold solids or up to 400ml of liquid. Easy pour spout makes measuring liquids easy.

Lids can be used as platforms and the built-in drawer is perfect for storing weights.

• 410mm x 160mm x 150mm





44mm

## SPACE SAVING STORAGE BASE



#### **PAN BALANCE**

1K007 Each 1K007-15 Set of 15



- 1x Pan Balance
- (with 2x 1000ml pans)
- 5x 5g masses
- 5x 10g masses
- Activity guide
- Measures L 385mm x W 280mm
- Package weighs 600g



## Science MICROSCOPES

#### STEREO MICROSCOPE 2E050

Designed for observation of various types of 3D specimens and objects. Precision optics provide a wide field of view with good depth of field and high resolution. Rugged metal construction assures years of service.

The head can be raised or lowered on the post to accommodate various sized specimens. Versatile illumination system offers incident or transmitted lighting through the frosted glass stage plate. • Stand with 45° inclined binocular stereo head

• Pair of 10x widefield eyepieces with rubber eye guards

• Dual focusing knobs, rack & pinion mechanism

• 2x & 4x Objectives for 20x/40x magnification

• Incident (top) & transmitted (lower) 10W halogen illumination

• 4 way switch allows top light, bottom light, both or off

• Frosted glass stage plate 95mm diameter with clips

• 1 Year warranty

Vinyl dust cover

#### PETRI DISH 2L004 Set of 20

90mm diameter





#### STUDENT BIOLOGICAL MICROSCOPE 2E066

Entry level student with the basic features for educational use in primary and middle school.

- Monocular viewing head
- LED illumination brightness adjustable
- Detachable AC power adaptor
- Optical glass lenses
- 10x Widefield eyepiece
- 3 Achromatic objective lenses 4x, 10x and 40x
- Plain stage with slide clips 110 × 120mm
- Coaxial coarse and fine adjustment
- Quality construction, metal frame
- 5 years warranty







#### A2111 - DINO-LITE BASIC MICROSCOPE 2E055

- Capture picture,video and time-lapsed video
- Resolution: 640 x 480pixels (VGA)
- Magnification: 10x~50x, 200x (Digital) - Continuous without switching lenses
- Built-in white-light 4 LED's illumination
- Frame rate: up to 30fps
- Interface: USB2.0
- Dimension: 10cm (H) x 3.2cm (R)
- Weight: 95g
- DinoCapture v2.0 Software (Included)





#### AM411T - DINO-LITE PROMICROSCOPE 2E056

- · Capture picture, video and time-lapsed video
- $\cdot$  Includes microtouch snapshout (PC only) to take photos directly from the device
- Resolution: 1280×1024 (SXGA 1.3M Pixel)
- Built-in white-light 8 LED's illumination
- Frame rate: up to 30fps
- Magnification: 10x~50x, 200x (Digital) Continuous
- without switching lenses
- Interface: USB2.0
- Dimension: 10cm (H) x 3.2cm (R)
- Weight: 95g
- DinoCapture v2.0 Software (Included)

#### MS-08B DINO-LITE MINI STAND 2E067

• Made to fit all Dino-Lite microscopes and can be adjusted for height and rotation

• Great for hands-free focusing

• Measures L 100mm x W 75mm x H 150mm

\*\*Microscope not included

#### GEOSAFARI® ROCKS & MINERALS COMPLETE SET 2E063

- 5 individual sets: Sedimentary Rocks, Metamorphic Rocks, Igneous Rocks, Minerals and Fossils
- 9 fossils and 12 each of minerals, sedimentary rocks, metamorphic rocks and igneous rocks
- Each set features full-colour identification chart, labels and useful storage tray. Includes activity guide



## Science MICROSCOPES



## **PREPARED SLIDE SET**

#### 2E060 Set of 40 slides

- Wicked Wings
- Blood and Guts
- Creepy Crawlies
- Incredible Edible
- Plants
- Flower Power • Fun Guys

• Ordinary

• Extraordinary

• Lily Pad Leap

## **BUG BLOCK SET C - ANIMAL KINGDOM**

#### Set of 20 2E092

- Leech
- Cuttlefish
- Spider
- Crab
- Long Horned Fish
- Beetle
- Cricket
- Cockroach
- Wasp
- Stink Bug

- **MINI BUG BLOCKS 2E093** Set of 8
- Chafer Beetle
- Tiger Beetle
- Bamboo Weevil
- Ladybird

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Dimensions (mm) 44 x 28 x 15



- Scorpion
- Antler Horned Beetle
- Crab
- Locust



#### Centipede Dragonfly Stick Insect

- - Froa
  - Turtle
  - Bird
- Mouse







## MINI BEASTS FROG LIFE CYCLE 2E096

- 1x Eggs
- 3x Tadpole (0-6, 6-9, 9-12 weeks)
- 1x Froglet
- 1x Adult Frog

All blocks measure L 6cm x W 3.5cm





#### MINI BEASTS INSECTS AND SPIDERS - SMALL (SET OF 6) 2E094

- 1x Praying Mantis
- 1x Cockroach
- 1x Shield Bug
- 1x Cricket
- 1x Goliath Scarab Beetle
- 1x Spiny Spider

#### **Measurements:**

- Shield bug, cricket, spring spider, goliath scarab beetle: L 4.5cm x W 3cm
- Cockroach: L 7.5cm x W 4cm
- Praying mantis: L 11cm x W 4.5cm
- CLEAR LABELS OF EACH CREATURE'S NAME

## MINI BEASTS BUTTERFLY LIFE CYCLE 2E097

• 1x Butterfly

- 1x Egg specimen 1x Caterpillar
- 1x Chrysalis
- Measurements:
- Eggs, chrysalis, caterpillar: L 7.5cm x W 4cm
- Butterfly: L 7.5cm x W 7.5cm



#### MINI BEASTS INSECTS AND SPIDERS -LARGE (SET OF 15) 2E095

1x Scorpion

• 1x Tarantula

• 1x Ant

• 1x Wasp

• 1x Termite

1x Wasp Spider1x Ghost Spider

- 1x Unicorn Beetle
- 1x Blue Leaf Beetle
- 1x Green Rose Chafer Beetle
- 1x Spotted Red Bug
- 1x Grasshopper
- 1x Grass Cicada1x Honey Bee
- 1x Butterfly

#### Measurements:

• Grass cicada, honey bee, ant, wasp, termite, blue leaf beetle, spotted red bug, green rose chafer

• beetle: L 4.5cm x W 3cm

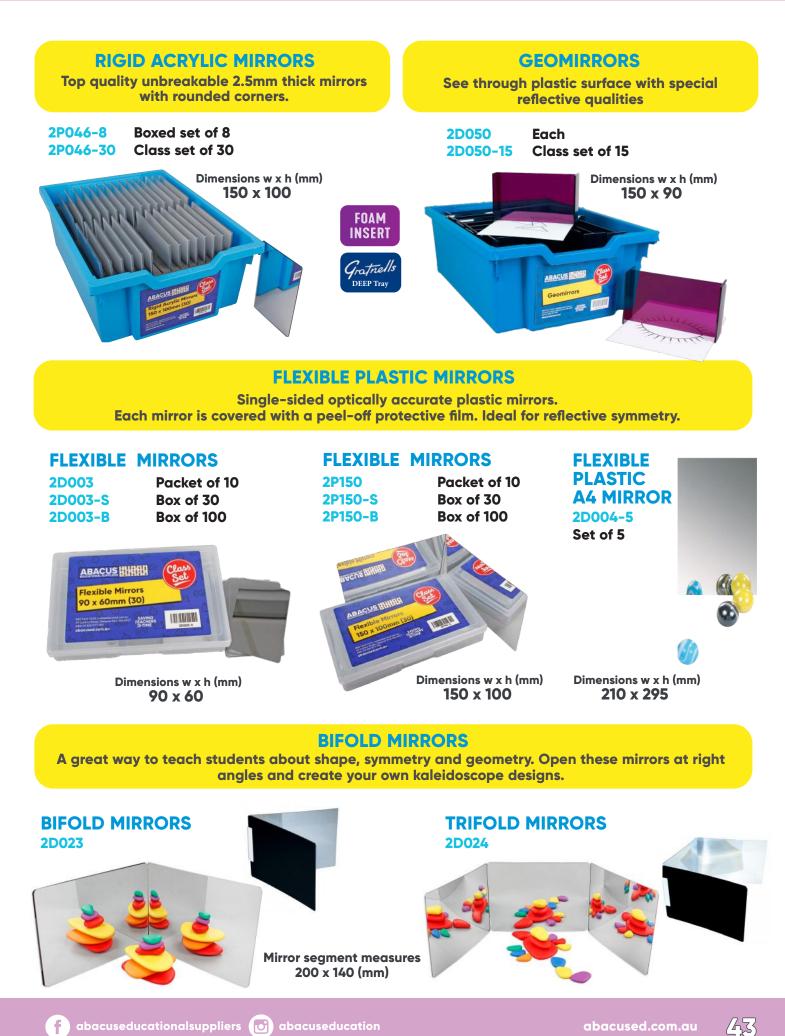
• Unicorn beetle, grasshopper, wasp spider, golden scorpion, tarantula, ghost spider: L 7.5cm x W 4cm

• Butterfly: L 7.5cm x W 7.5cm







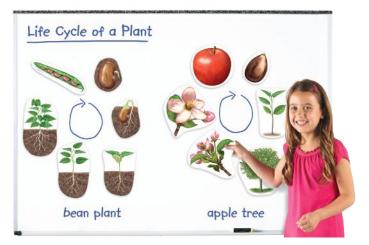


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#### GIANT MAGNETIC PLANT LIFE CYCLE 2K074 Set of 12

Enlarged for demonstration on the whiteboard. Feature realistic illustrations to model up to 6 stages in the life cycle of a bean plant and apple tree. Two life cycles in one! Label-free for versatility. Largest piece measures 225 x 175mm.



#### GIANT MAGNETIC BUTTERFLY LIFE CYCLE 2K073 Set of 9

Enlarged for demonstration, magnets featuring realistic illustrations model up to 9 stages in the butterfly life cycle. Label-free for versatility. Largest piece measures 225 x 175mm.

#### SEE THROUGH COMPOST CONTAINER 2H100

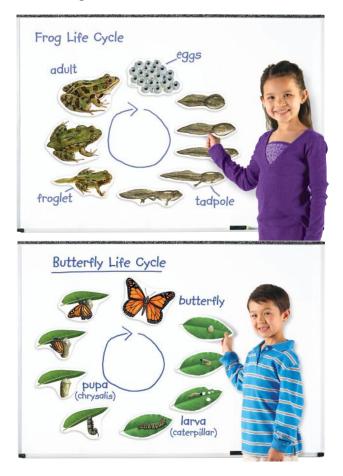
Three aerated compartments enable children to view the entire decomposition process clearly and make side-by-side comparisons among different materials. A great way to teach decomposition, composting, life cycles and environmental education. Ages 4+



### **GIANT MAGNETIC FROG LIFE CYCLE**

#### 2K075 Set of 9

Realistically detailed jumbo magnets are designed for demonstration. Model up to 9 stages in the frog life cycle. Largest piece (adult frog) measures L 200mm x H 200mm.



#### HYDROPONICS LAB 2H010

• 3x shatter-proof plastic test tubes

- 3x stands
- 3x support rod tops
- 3x support rod bottoms
- 3x seed baskets
- Activity Guide
- Ages 5+











### POLYDRON ENGINEER CLASS SET

#### 1A015 250 pieces

- 4x Baseboard
- 5x Hole linkage (various)
- 8x Cam
- 18x Gear (various)
- 12x Pulley (various)
- 2x 'O' Ring (410mm)
- 2x Handle
- 15x Strut (90mm, 180mm, 330mm)
- 26x Stub axle and connector
- 44x Square (various)
- 4x Octagon
- 76x Squares and rectangles
- 32x Triangles
- 2x Cord
- Work cards
- 1x Gratnells Deep Tray with lid measuring
- L 427mm x W 312mm x H 150mm





## POLYDRON STEM SET

#### 1A016 486 pieces

- 4x Baseboards
- 4x Octagons
- 110x Triangles (various)
- 188x Squares and rectangles (various)
- 4x Hexagon (various)
- 21x Struts (90mm, 120mm, 180mm, 250mm, 320mm)
- 23x Gears (various)
- 8x Pulleys (various)
- 3x O Rings (200mm, 270mm, 317mm)
- 11x Hole linkages (various)
- 14x Wheels (various)
- 25x Stub axles and connectors
- 6x Cam
- 2x Handle
- 2x Propellor
- 60x Chain link
- 1x String (3m)
- Work cardsTeacher guide
- 1x cardboard box measuring L 465mm x W 300mm x H 140mm











**Draw Bridge** 



**Cantilever Bridge** 





#### **POLYDRON BRIDGES** 1A005 322 pieces

- 132x triangles (68 equilateral, 4 large equilateral, 56 right angle, 4 isosceles)
- 114x squares (70 standard, 44 solid fill, 4 with single hole)
- 24x rectangles (14 standard, 2 with holes, 8 with square holes)
- 13x struts (8 long 330mm, 2 medium 110mm, 3 short 80mm)
- 15x plinths
- Attachments (4 pulleys, 2 handles, 2 hinges, 6 eyelets, 4 string, 2 suspension string)
- Work cards and lesson plans
- Gratnells Jumbo Tray with lid

Individual square pieces measure 73mm x 73mm.



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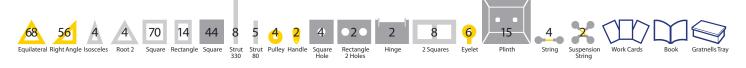


**Suspension Bridge** 



**Howe Truss Bridge** 







## Science PULLEYS AND FORCE



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#### **INCLINED PLANE** 2F040

This wooden machine is elegantly designed and easy for students to use. It comes with a built in mass but the cart has a shallow indent for addina additional mass if needed. Student can study several different simple machine concepts off of this one apparatus. Teachers guide included.

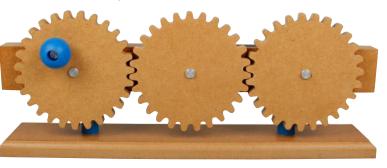


#### **SIMPLE MACHINES - GEAR TRAIN 1A304**

The sturdy base that sits flush with the tabletop, ensuring stability and safety when being used to demonstrate how moving parts interact.

• 1x Simple Machines – Gear Train is included, measuring L 413mm x W 89mm x H 165mm

1x Teachers Experiment Guide



#### SIMPLE **MACHINES** -PULLEY 2F041

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The pulley system stands on a secure base and is made up of solid wooden and particle board components. The apparatus lends itself to safe, inquiry-based learning.

• 1x Pulley L 165mm x W 89mm x H 410mm

 1x Teachers **Experiment Guide** 

#### **FORCES PUSH** AND PULL KIT 2L020

• 5x 10mL syringes

- 5x 20mL syringes
- 2x airline connector packs
- 10x 250mm tubing
- Teaching notes



#### SIMPLE MACHINE SET 2F018

Contains enough pieces to build a lever, pulley, inclined plane, wheel and axle and a wedge at the same time.

Modify machines with 4 included weights (two 5g and two 10g) and 8 included rubber bands to explore effort, force, load, motion and distance. Includes activity







#### **PULLEYS** 2F031 Box of 15

5 of each single, double and triple pulleys.





## Science WEATHER STUDIES

#### COMPACT ANEMOMETER 2J051

Use to show students that it's possible to calculate wind speed using this simple tool, by counting revolutions (using the red cup for reference).

An instructional guide included with the apparatus provides further detail on how to utilise the resource.

Dimensions w x h x d (mm) 220 x 180 x 105





## DIGITAL ANEMOMETER

It is a light weight device and is equipped with the latest magnetic sensing technology which can directly display the air flow speed on the LCD display.

It is a perfect tool for wind measurement, navigation, HVAC, and other areas.

Accuracy: Wind speed: ±5%rdg+0.5

Temperature: ±2°C

Power requirement: 3x AAA (not included)

Dimensions w x h x d (mm) 160 x 50 x 28

#### BAROMETER 2H001

This is a 300 degree analogue barometer calibrated in millibars of mercury. It also has the classicl markings of "Storm", "Change", "Fair",

mounting template and scrwes.

etc. Comes with instruction booklet template,

DIGITAL DUAL TEMPERATURE THERMOMETER 2J011

• Records both indoor and outdoor temperature (Celsius and Fahrenheit) at the same time.

• Includes a 2.7m temperature probe for recording outdoor temperature.

• Powered by 1x AAA battery (included)

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## Dimesions:

- Face: 95mm
- Flange: 120mm
- Depth: 37mm

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## CODING



**1. Get Started** Pick an Activity Card with a maze and start building



Use coding cards to help create a step-by-step path



Enter the sequence of steps into Colby the mouse

- CODE & GO<sup>™</sup> ROBOT MOUSE **ACTIVITY SET 3E100** 83 pieces
- 1x Colby the mouse
- 1x Cheese wedge
- 16x Maze grids
- 22x Maze walls
- 3x Tunnels
- 30x Double-sided coding cards
- 10x Double-sided activity cards
- 1x Activity guide



4. Get the Cheese Watch Colby race to find the cheese

• The mouse measures L 102mm • This set requires 3x AAA batteries (not included) res 🥞 🌀 



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2Q250 Foundation

20252 Year 2

2Q253 Year 3

2Q254 Year 4 20255 Year 5

2Q256 Year 6

Year 1

2Q251

### SCIENCE STEM APPROACH

Prepare your students for the roles of the future!

Minds will be challenged and imaginations unleashed as students develop skills such as innovation, creativity, reasoning and problemsolving; and technical science skills such as questioning, observing, systematic experimentation, and analysis and interpretation of data.

- Self-assessment
- to

STEM curriculum links
• Easy to follow lesson plan format, with term overview
start of each unit

· Assessment sheets provided for science knowledge

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### **AUSTRALIAN CURRICULUM SCIENCE**

Guide your students through their science inquiry with the newly revised Australian Curriculum Science series. It is fully aligned to V9.0 of the curriculum, so you'll be ready to teach, with this easy-to-follow series that also incorporates science literacy.

Students are introduced to each topic through a text with accompanying comprehension questions, and then engage in a hands-on activity or experiment.

- updated and refined content, with a range of engaging new lessons
- scope and sequence charts for the Australian Curriculum, Version 9.0 and an access link to a digital planning tool
- All years cover the science areas of Biological, Physical, Chemical, Earth and Space science

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2Q270	Foundation
<b>2Q271</b>	Year 1
2Q272	Year 2
2Q273	Year 3
2Q274	Year 4
2Q275	Year 5
2Q276	Year 6



\*\*Please note that plastic products are currently banned in Western Australian. If your shipping address is in this state, the Science Kits may differ from the images. Kindly check abacused.com.au for more details.



## Science ABACUS SCIENCE KITS



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Gratnells School Trays have won an international award for their special design for education. They are ideal for storing maths, science and construction kits.

The trays are made of extra strong 20% talc filled polypropylene and can be nested or stacked by reversing.

Available in six colours and three sizes. You can purchase the inserts and lids separately.

	CHALLOW/	DEEP	
	SHALLOW Dimensions (mm) H75 X W312 X L427	DEEP Dimensions (mm) H150 X W312 X L427	<b>JUMBO</b> Dimensions (mm) H300 X W312 X L427
	11/3 × W312 × L42/	11130 × 11312 × L427	11300 X W312 X L427
			T
Blue			
	5B001-B	5B002-B	5ВОО3-В
Red			
	5B001-R	5B002-R	5B003-R
Yellow			
	5B001-Y	5B002-Y	5B003-Y
			T
Light Blue			
	5B001-LB	5B002-LB	5B003-LB
			T
Lime Green			
	58001-LG	5B002-LG	5B003-LG
Translucent			
mananavent			
	5B001-T	5B002-T	5B003-T



**ABACU** 

TEACHERS



## **ADJUSTABLE FRAMES**

#### TALL STORAGE

Gratnells tall frames are the key to successful storage. The tall frames are complete with tops, adjustable feet, and back diagonal bars for additional rigidity.

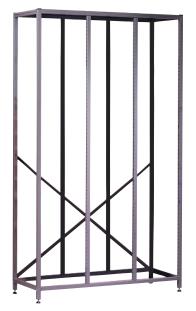
This frame is designed to hold standard Gratnells trays in a variety of configurations. Clip-on lids can be fitted to trays if required.

DESIGN YOUR STORAGE AT ABACUSED.COM.AU & ENQUIRE ABOUT OUR COMPLIMENTARY LABELLING SERVICE









**CONFIGURE YOUR REQUIREMENTS** 

5B076

**5B079** 

Treble Column Frame 1055mm (w) x 420mm (d) x 1850mm (h) Steel Tray Runners (pair)

### **INCLUDES RUNNERS AND TRAYS IN YOUR COLOUR CHOICE**

5B089	Combination Frame (16 shallow trays, 9 deep trays, 5 jumbo trays)
5B086	Deep Treble Frame (27 deep trays)
5B088	Jumbo Treble Frame (15 jumbo trays)

All frame packages are available in the following tray colours:



## Storage **CALLERO DOUBLE COLUMN TROLLEYS**

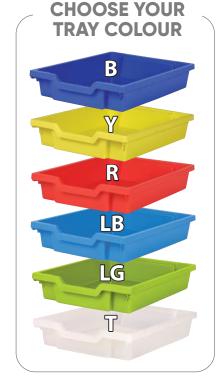
Callero double width units are ideal for smaller spaces. Each storage unit comes complete with trays in your choice of colour and both castors and feet so you can choose static or mobile use in your classroom. StopSafe runners are supplied as standard with Callero so you can pull the trays outward without worrying about them dropping.

#### ADD A LID! TRAYS WITH LIDS WILL FIT INTO ALL TROLLEYS 5B010 CLIP ON LID



#### Callero Double Trolley – SS Unit

Width - 690mm Depth - 435mm Height - 860mm (1030mm with handle)





5C060 Callero Double Trolley – DD Unit



5C062 Callero Double Trolley – SD Unit



5C063 Callero Double Trolley – SJ Unit



5C064



5C061 Callero Double Trolley – DJ Unit Callero Double Trolley – JJ Unit



### **CALLERO TROLLEYS**

The whole range of stylish Callero trolleys feature high curved tubular handles, which means books and other materials can be safely stocked without falling off.

Trolleys are supplied with both wheels and feet so they can be used as a moveable trolley or a stationary frame.

5C015-B

Dimensions are the same for all trolleys:

Width - 1020mm Depth - 435mm Height - 860mm (1030mm with handle)

### SINGLE COLOUR CONFIGURATIONS



5C010-LG Callero Treble Trolley – SSS Unit



5C018-Y Callero Treble Trolley – JJJ Unit



5C016-R Callero Treble Trolley – DDJ Unit



\*All trolley configurations are available with translucent trays.

Callero Treble Trolley – DDD Unit



5C012-Y Callero Treble Trolley – SDD Unit



5C017-LB Callero Treble Trolley – DJJ Unit







# •Maths • Science • Literacy • Storage



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