

# TERM 4 CLOSE-UP

#### Please forward to science or design & technology coordinators

#### **BATTERY TESTER**

This all-in-one handy unit will test all types of batteries currently out there on the market including standard AA/ AAA/C/D/9V batteries, button cells and

lithium batteries such as those used in digital cameras. The LCD display indicates the level of capacity.





#### **FLASHING 3MM LEDS** WITH ATTACHED BATTERY **HOLDER**

- Two 3mm LEDs with preset changing flashing light sequence, attached to a battery holder with ON/OFF switch by 150mm (approx.) leads.
- 2 x AA batteries required (sold separately).



#### LED RAY BOX WITH USB CABLE

5V Ray box with bright cool white LED and On/Off switch on top of unit for easy operation. Supplied with USB cable to connect up to your laptop for power, making this unit very mobile. Comes with a slit

plate and cylindrical lens.

PH0600USB \$67.50



RESART10

\$290

RESART20

#### **BENCH MAT**

200 x 200mm calcium silicate. Heat resistant with well finished edges. Pk/10.

CH0101C \$31.95



#### THERMOMETER CLIPS - METAL

Metal thermometer clips used to hold thermometer in beaker. Pack of 10.

LW1676-10

\$64.50



CH0126HPK6

\$30

#### **RESIN ART CLOCK PROJECT**

The RESIN ART CLOCK is a Materials & Technologies Specializations focused project which allows students to create a personalized clock face using coloured Epoxy Resin. Student's can mix, pour and manipulate the resin into the desired patterns to create a unique clock face, of their own design. This Clock making project is suitable for students in years 8 to 12 in a supervised environment

More information is available in the Overview.

Two Class packs sizes are available:

For 10 Students

This kit contains enough 25cm clock faces, movements, hands, hangers and numerals for 10 clocks. It includes 1.0L of resin and 6 x 10g colour packs.

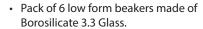
The colours are: Dark Blue; Light Blue; White; Black; Gold; Green



For 20 Students \$560 This kit contains enough 25cm clock faces, movements, hands, hangers and numerals for 20 clocks. It includes 2.0L of resin and 8x 10g colour packs. The colours are: Dark Blue; Light Blue; White; Black; Gold; Purple; Green; Red

Prices include GST.

#### **BEAKERS - BOROSILICATE GLASS -**400ML - LOW FORM (PACK OF 6)



White graduations every 50ml, 12231. Spout for easy pouring. Uniform walls provide excellent strength against breakage.

Beaker stands at approx. 109mm tall, and has an inner diameter of 77.5mm and an outer diameter of 80mm.

- Heat tolerances:
- Strain Point -515°C
- Annealing Point 565°C
- Softening Point 820°C.



**BEAKERS - BOROSILICATE GLASS -**600ML - LOW FORM (PACK **OF 6)** 

CH0126JPK6 \$55



**BEAKERS - BOROSILICATE GLASS -**800ML - LOW FORM (PACK CH0126J8PK6 **OF 6)** 

\$**8**1





# Quality Electronic Balances from Scorpio Technology





Luna Analytical
80mm pan

### **Luna Precision**

120mm pan External (e) or Internal (i) Calibration



Core 120mm pan



**Dune** 145mm pan Battery / Mains (Included)



**CB** 130mm pan Battery / Mains (Optional)



Highland 120mm pan

ACCURACY	CAPACITY	STYLE	MODEL	PRICE
0.0001g	80g	Luna	LAB84e	\$2380.00
			LAB84i	
0.0001g	120g	Luna	LAB124e	\$1745.00
			LAB124i	
0.0001g	210g	Luna	LAB214e	\$2570.00
0.0001g	210g	Luna	LAB214i	\$2790.00
			LAB254e	
			LAB254i	
0.005g	150g	Highland	HCB153	\$620.00
0.001g	420g	Luna	LPB423e	\$1644.00
0.001g	420g	Luna	LPB423i	\$2070.00
0.001g	120g	Highland	HCB123	\$689.00
0.05g	1500g	Highland	HCB1502	\$620.00
0.02g	600g	Highland	HCB602	\$620.00
0.01g	200g	Core	CQT202	\$418.00
0.01g	300g	Highland	HCB302	\$620.00
0.01g	600g	Highland	HCB602H	\$664.00
0.01g	1000g	Highland	HCB1002	\$733.00
0.1g	200g	Dune	DCT201	\$139.00
0.1g	250g	Core	CQT251	\$235.00
0.1g	500g	CB	CB501	\$127.00
0.1g	600g	Core	CQT601	\$273.00
0.1g	1000g	CB	CB1001	\$152.00
0.1g	1500g	Core	CQT1501	\$385.00
0.1g	2600g	Core	CQT2601	\$443.00
0.1g	3000g	Highland	HCB3001	\$620.00
0.1g	6000g	Highland	HCB6001	\$689.00
1.0g	2000g	Dune	DCT2000	\$139.00
1.0g	2000g	Core	CQT2000	\$242.00
1.0g	3000g	CB	CB3000	\$127.00
1.0g	5000g	Core	CQT5000	\$260.00
CB mains ac	dapter 6v 200	mA (optional) .	700400121	\$46.00

#### Adam Highland Portable Precision Balances

Highland® balances are well-suited for lab work, field use, and many industrial applications. The Highland features HandiCal® internal calibration with a built-in mass, and ShockProtect® as a safeguard against shock loading and accidental overload. Features include:

- Vivid, backlit LCD & 14 weighing units
- Programmable backlight can be set to "always on," "always off" or "light only when weighing"
- Can be stacked efficiently (120mm pan size only)
- Colour-coded keys for guick recognition of the most frequently used buttons
- Dual tare keys
- Large, grade 304 stainless steel and removable 132 x 90mm draught shield
- · Solid durable ABS housing
- Three-point ShockProtect® feature helps prevent overload damage to internal components
- Hook included for weighing below the balance
- Internal calibration
- USB and RS-232 interfaces
- Audible overload alarm warns when capacity has been exceeded
- Memory accumulation totals results
- Zero-tracking feature ensures display returns to zero reading
- AC adapter included
- Rechargeable battery
- Programmable auto power-off
- 3 year manufacturer's warranty



Find out more about the Highland Series Shock Protection on this video: https://www.youtube.com/watch?v=42U65Z4QxaY

\*\*BULK PRICES APPLY FOR 6+ UNITS - CONTACT US FOR PRICES

#### A SAMPLE OF EQUIPMENT, TOOLS AND TEACHING ASSETS FOR YOUR SCIENCE OR DESIGN & TECHNOLOGY LABS

#### **HOT PLATE, SIMMERSTAT CONTROL**

Hot Plate, general purpose laboratory hot plate, 240V.AC. 600 watts.

Rectangular 200x180mm area, with high temperature alloy plate for even plate temperature. 'Simmerstat' temperature control CH1920-001 \$412

provides heat adjustment from zero to full over a scale from 1 to 10. At the setting of 10, maximum plate temperature is approx 450deg.C.

Ideal for general laboratory use.



#### **IEC MAGNETIC STIRRER / HOTPLATE** SIMMERSTAT

- · Heavy Duty
- Stirrer speed 150-1200rpm
- Surface temperature 420°C Full
- Adjustable 0-10 Scale



Beakers sold separately.

#### WATER BATH FOR USE WITH IEC **HOT PLATE**

A general purpose stainless steel water bath designed to rest on and be heated by an IEC Hotplate, as pictured (CH1920-001 model recommended).

Two IEC test tube racks CH3989-401 or CH3989-601 fit snugly inside.

CH4240-001 Bath only ......\$278 CH4240-101 Temp controller...\$207



**Excellent Quality** 

#### **IEC DIGITAL STUDENT OVEN**

#### With fast acting thermostat

- Small with fan
- Exterior 310x330x435mm

CH2251-001 \$1640





#### **IEC NON-DIGITAL STUDENT OVEN**

- Small with fan
- Exterior 310x330x435mm

CH2250-001 \$1310

#### **LIGHT BOX & OPTICAL** SET, 'HODSON', 12V (STD)

#### (GENUINE IEC PRODUCT)

- · The comprehensive kit of parts permits many experiments in basic optics and colour blending.
- The banana plugs on the cables are stackable and moulded to the cable.
- The lens adjuster cannot be removed by
- The mirrors are efficient and are virtually



#### **POWER SUPPLY - GENERAL PURPOSE** LB2633-001

 Popular educational model

2-12V, 5A

\$230

**BUY IN BULK AND SAVE** 



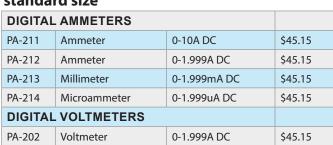
HL2060-001

<sup>\$</sup>121

#### **DIGITAL BENCH METERS USE ALSO AS A GALVANOMETER** (+)(-)

- Extra strong, plastic case, (14cms x 10cms)
- 13 mm LCD display
- Simple to use
- Simplifies electric circuit studies

#### standard size



ANALOGUE BENCH METERS			
PA-6	Ammeter	0-1A/0-5A in 20mA/100mA DC	\$23.65
PA-10	Ammeter	Range 0-10A in 200mA	\$23.65
PA-111	Voltmater	Range 0-3V/15V/30V DC in 0.1V/1V/1V	\$23.65
PA-14-1	Galvanometer	500 -0-500uA in ± 20uA	\$23.65
PA 221	Dual	Voltmeter / Ammeter	\$45.00





#### **SAFETY PVC STIRRING RODS**

250 x 10 mm, Unbreakable plastic. Pack of 12.





Prices include GST.

#### **DIGITAL MULTIMETER 1527 SET**

MULTIM1527SET consists of the Multimeter 1527, a soft, foam lined zip up case, a pair of leads with banana plugs at both ends, and both insulated and plain shank alligator clips to add onto the banana plugs for greater versatility. MULTIM1527SET





#### SLOTTED SET OF BRASS MASSES WITH **HANGERS**



- · High quality with high accuracy
- •9 Standard slotted weights
- Carrier with hook

Total Weight: 500g - 50g masses, 50g carrier.....MF4300-001 ...

Total Weight: 1000g - 100g masses, 100g carrier... MF4301-101... \$84.00

Total Weight: 100g - 10g masses, 10g carrier.....MF4303-001... \$45.00

#### **HOOKED WEIGHTS SET - STAINLESS STEEL**

Stainless Steel Hooked weights. Set of 9 weights, 10-1000 g in wooden block. Stainless Steel hooks at both ends. Recessed bottoms to enable the weights to be hooked together. The bottom is flat

PH0037DSS \$175



#### **HOOKED WEIGHTS SET-**STAINLESS STEEL - 1KG & 500G IN **STEEL**

Same as PH0037DSS but with

weights of 1 kg and 500 g in steel.

PH0037DSSECO

\$175

#### \$10.65 EACH **TUBULAR SPRING BALANCES**

Plastic, Tubular Newton Spring Balances. Each Range Is Color Coded For Convenience, And Is Scaled In Both Grams And Newton's

	,		
	Capacity	Newton	Sub-division
PH0033A	100 gm	1 N	2gm.
PH0033B	250 gm	2.5 N	5gm.
PH0033C	500 gm/	5 N	10gm.
PH0033D	1 Kg	10 N	20 gm.
PH0033E	2 Kg	20 N	40 gm.
PH0033F	3 Kg	30 N	60 gm.
PH0033G	5 Kg	50 N	100 gm.
PH0033SET	One of each capacity \$66.00		



#### **Alligator Clips with Wire**

Pack of 12. With 250mm wires. Set of 6 different colours (black, red, blue, yellow, green & white). **ALLIWIRES12** 

- \$13.32 ea (1 4 pks)
- \$12.78 ea (5 19 pks)
- \$12.25 ea (20+ pks)



#### LIQUID CONDUCTIVITY METER

A very simple and easy unit to compare conductivity of different solutions, acids or salts. Dip the probes, press the button and note. The conductivity can be compared in 10 levels. Green LED gives a quick visual comparison.

Approximate size: 150 x 40 x 15mm.





QM1670

\$99

- HAND HELD pH METER · A simple and accurate device
- Features:
- 1 14 pH range / 0.1 pH resolution
- 0° 50°C operating temperature
- Replacement pH solution available
- Calibration tool
- Storage case

#### SLOTTED SET OF BRASS MASSES

Set of brass discs with shaped slots. Accuracy greater than 1%.

Set of 3 - Total weight: 35g - 5g, 10g, 30g - 30mm diameter ... MF4304-101 .....\$11.00



Set of 5 - Total weight: 200g - 1 x 10g, 2 x 20g, 1 x 50g, 1 x 100g - 30mm dia. MF4304-001......\$20.90

#### **WEIGHT SET 1990GM**

Set of weights mounted on sturdy plastic storage tray, useful for a variety of experiments.

Contains the following weights: 1 x 1000gm, 1 x 500gm. 1 x 200gm, 2 x 100gm, 1 x 50gm, **WTSET1990** 1 x 20gm, 2 x 10gm.

\$29



#### STEEL SPHERES

High quality steel ball bearings. Can be used for a variety of mechanics experiments including collision simulations, kinetic & potential energy experiments.

3mm - Pk/50 PHO203AA 6mm - Pk/50 PH0203AB

10mm - Pk/10 PH0203AC \$11.20 25mm - Pk/5 PH0203AG \$14.45



#### STEEL BALLS - SET OF 60 - 20 OF EACH **OF DIFFERENT SIZES** HSSTB20

Set of 60 steel ball bearings. 20 each of 13mm, 16mm & 20mm. Come in storage jar.

\$34.15

\$7.05

\$10.45



SOLDTLKIT

<sup>\$</sup>57

#### PRO TOOL KIT WITH 30W SOLDERING IRON

Tool kit contains: 30W soldering iron with fine tip 2mm chisel tip for the soldering iron Soldering iron stand Solder sucker Tube of lead free solder Multimeter with test leads with probes (batteries not included – uses 2 x AA batteries) Jewellers screwdriver set

120mm sidecutters Tweezers.



# **Contact Key**

#### Tap To Connect

Comprising a plated spring strip arm with thumb-press knob, a contact stud, plated connecting strip and a

pair of 4mm terminals, all mounted on a moulded plastic base.

**SWCONKEY** \$11.46



#### **SPORTS TIMER**

Basic quartz sports timer 1/100th second stopwatch Split / lap time

Day, date, month





Hours, minutes, seconds (Colour of item supplied may vary)

STOP \$1.69

#### THERMOMETER STAND

- Made of sheet aluminium, rectangular Z-shaped.
- Supports 18 thermometers.

Baseplate has foam cushions to protect the thermometer bulbs.





(Thermometers are not included with stand)

#### **TEST TUBE RACK**

High density polypropylene, ideal for storing or drying test tubes. Suitable for high temp washing and use with IEC water bath. Strong, Autoclavable 16 & 10mm tubes ....... CH3989-401 .....\$20.35 25mm tubes ......CH3989-601 .....\$20.35



# LW4417-01

'Z' shape, made from 18 gauge aluminium sheet, 8x13mm / 6x19mm / 5x29mm



This unique multipurpose tray for chemistry, biology labs. Complete with dissection mat. Non-stick rubber feet.

**GENERAL PURPOSE TRAY** 

Protects bench from any spillage making contact with students. Supplied with one disposable dissecting mat.

Light weight, easy to clean - working area: 340x290mm

**SPARE MATS** 

Pk of 12

PA1398-01 \$35.20

**NEOPRENE TUBING FOR BUNSEN BURNER-60CM** 

CH0100A

\$12.65

LW0055-01 \$25.30

Reinforced at both ends, this 600mm flexible long hose is designed for connecting to a standard 8-10mm diameter gas inlet jet to basic, flame

stabilizing, Bunsen, Tirrill, Meker and other laboratory burners.



GE5578-01

\$27.50

### TEST TUBE STAND ALUMINIUM

'Z' SHAPE

anodized and 3 tier.



#### TEST TUBE RACK "COMBI"

The Universal Combi Rack is designed to hold a variety of tube sizes. it is very sturdy and versatile! The rack may be rotated to any of the four positions.

- 40 place /12mm tubes
- 8 place/30mm dia. tubes (50ml capacity tubes)
- 24 place/17mm d tubes (15ml capacity tubes)
- 20 place/20mm tubes



LW440801 \$20.90

#### **BUNSEN BURNER**

Blue (Natural Gas) or red (LGP) epoxy coated zinc casted base with air regulator.

140mm (h) x 13mm Nickel plated tube. Jet size: 0.7mm (NG) / 0.45mm (LPG)

Barb diameter: 8.9mm

Natural Gas .....\$22.55 .....\$22.55



\$16.50

ID (tube): 7mm (approx.)

OD (tube): 12mm (approx.)

# **DRAINING BASKETS**

It can be used with LPG, butane or natural gas.

Wide net like structure on all sides. Ideal for draining different laboratory apparatus. Made of polypropylene, this basket can be repeatedly autoclaved.

140 x 120 x 110 mm LW0017-01 \$8.80 180 x 170 x 160 mm, with lid LW0037-01 \$13.20 230 x 230 x 230 mm, with lid LW0047-01 \$26.40



**FLASK STAND** 

High quality Polypropylene. Can hold round bottom flask up to 10 ltr. capacity. 160mm diameter. Stackable and can be steam autoclaved.

LW4707-01 \$14.30

(Colour may vary).

#### **TRIPOD STANDS - TRIANGULAR -**200 X 125MM

General purpose 200mm high x 125mm wide tripod used for supporting beakers or other glassware on gauze mats, while they are cooling

or being heated over a Bunsen burner.

LWLTRI125/200 \$14.50

<sup>\$</sup>51



**Bulk prices apply** 

400 x 400 x 100 mm

# TRIPOD STANDS - STAINLESS STEEL - 150MM SIDES

Triangularl, height 200mm. Rubber feet. Safely holds equipment over Bunsen burner.





#### RETORT CLAMP

4 Prong, Steel, cork lined. 25cm long. Jaws open up to 75mm dia.



#### **BOSSHEAD**

Die Casted in black. With metal thumb screw. For rods upto 16mm.





#### Prices include GST.

#### **RETORT STAND - SET**

4pc Set-Powder coated pressed steel 20 x 12.5cm stand, 59cm stainless steel rod, 7.5cm dia. support ring & 4-prong clamp with cork

# MTST1

#### **RETORT STANDS**

Pressed steel base 250 x 155mm, Rod 600mm ..... CH0652SET.....\$30.00

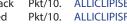
Depressed sheet metal base 200 x 125mm, MIId Steel Nickel Plated Rod 500mm .... LW2071480-2SET....\$17.20

Pressed steel blue base 200 x 125mm, Mild Steel Nickel Plated Rod 500mm . .. .... LW2071600-2SET ...\$25.50

#### ALLIGATOR CLIPS - INSULATED \$9.21

4mm Insulated Shank, Black Pkt/10. ALLICLIPISB 4mm Insulated Shank, Red **ALLICLIPISR** 





#### **ALLIGATOR CLIPS - PLAIN SHANK \$8**

4mm Plain Shank/Screw Pkt/10 ALLICLIPPS



BAPLPBBK4 Basic-4mm Stem, Black...... **BAPLPBR4** Basic-4mm Stem, Red.....





#### TROLLEY RUNWAY & PAIR OF DYANMIC TROLLEYS SET

This package includes the trolley runway and pair of wooden dynamic trolleys (Code: PH0350). The runway is designed to provide a smooth flat easily inclinable surface for dynamic experiments using the trolleys. Made of wood, Size 1.5 x 0.3 meters. With wooden sides rails and plastic feet.

The pair of identical wooden trolleys are 300 mm long each and mounted on 3 wheels. A spring loaded

rod is fitted to give impulse when released and have 5 slots for different level of spring compression. It has a provision for stacking the trolleys on top of each other with removable pins.

Supplied complete with springs, 4 pins (for stacking) and 2 rubber corks.

PH0352SET \$205



#### HALL'S CAR - SINGLE

For use with inclined plane, weights & pulleys.Used to study energy & work relationship.

One piece moulded body with central well to hold additional masses.

Moulded wheels with sleeve bearings. Hole in one end of body to attach cords.

PH0351HCS

<sup>\$24</sup>







# **DISPOSABLE GLOVES**

Latex,Ultra Fresh,P/Free,Clear,X-Small	468405XSPK/100\$15.40
Latex,Ultra Fresh,P/Free,Clear,Small	468405SPK/100\$15.40
Latex,Ultra Fresh,P/Free,Clear,Medium	468405MPK/100\$15.40
Latex,Ultra Fresh,P/Free,Clear,Large	468405LPK/100\$15.40
Latex,Ultra Fresh,P/Free,Clear,X-Large	468405XLPK/100\$15.40
Nitrile,Ultra Touch,P/Free,Blue,X-Small	468417XSPK/100\$16.50
Nitrile,Ultra Touch,P/Free,Blue,Small	468417SPK/100\$16.50
Nitrile,Ultra Touch P/Free,Blue,Medium	468417MPK/100\$16.50
Nitrile,Ultra Touch,P/Free,Blue,Large	468417LPK/100\$16.50
Nitrile, Ultra Touch, P/Free, Blue, X-Large	468417XLPK/100\$16.50
Vinyl,Ultra Fresh,P/Free,Clear,Small	468402SPK/100\$9.90
Vinyl,Ultra Fresh,P/Free,Clear,Medium	468402MPK/100\$9.90
Vinyl,Ultra Fresh,P/Free,Clear,Large	468402LPK/100\$9.90
Vinyl,Ultra Fresh,P/Free,Clear,X-Large	468402XLPK/100\$9.90

#### **DISPOSABLE GLOVES - BIODEGRADABLE**



Nitrile,Ultra Feel,P/Free,Blue,Small	4684945	PK/100	\$17.60
Nitrile,Ultra Feel,P/Free,Blue,Medium	468494M	PK/100	\$17.60
Nitrile,Ultra Feel,P/Free,Blue,Large	468494L	PK/100	\$17.60
Nitrile,Ultra Feel,P/Free,Blue,X-Large	468494XL	PK/100	\$17.60

#### HALL'S CAR EXPERIMENTS (PAIR)

Used with inclined plane, weights & pulleys to study relationship between energy & work. Low friction wheels.

Oil free sleeve adjustment - never needs adjustment.

PH0351A-PL \$36.50

#### **BENCH TOP SAFETY SCREEN**

High quality clear Polycarbonate. Very stable and perfect for doing those tricky unpredicatable demos.

Why take the risk? Always use this screen. For teachers and students alike.

600 x 600mm

GE3956-01 \$154



#### **RUBBERISED LABORATORY APRONS - BLACK**

Perfect for the lab or even the art department. Built for durability and protection. Waterproof, chemical resistant. Won't stain and easy to wipe clean.

Small ......\$19.80 Medium ..LW0001-02 ...... 107 x 69cm .......\$19.80 Large ...... LW0001-03 ..... 106 x 92cm ...... \$19.80

Prices include GST.

#### **BENCH MAT**

200 x 200mm calcium silicate. Heat resistant with well finished edges.

Pack of 10.



CH0101C

\$31.95

#### **BENCH MAT - CEMENT SHEET**

Asbestos free. Heat resistant. 6mm thick. 100 x 100mm...LW3152-01..\$5.28 300 x 300mm...LW3153-01..\$9.24



#### **BENCH MAT - SILICONE RUBBER**

Hard wearing, Long lasting, Heat resistant (220°C). Non-slip. 2.3mm thick. Grey.

150 x 150mm LW3154-01 \$6.60 LW3155-01 250 x 250mm \$13.20 400 x 300mm LW3156-01 \$23.10

