

# Scientrific

Science Education Resources



### Lab Essentials - Biology



# Key Experiments and new Qld Mandatory Experiments

Go to:

www.scientrific.com.au/curriculum to access our FREE Australian or Qld curriculum aligned Key Experiments or check these codes on our website:

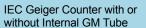
**KEPS24** - Crumple Zone Collisions. Analyses the motion of a cart down a ramp and the forces of impact under different conditions.

**KEBS3A** - Photosynthesis and Respiration Rates. Investigates changes in rates of photosynthesis under different light conditions.

#### **Physics - Chemistry**



### PHYSICS - Atomic Physics





AP1884-001 \$594 \$580 With AP1884-002 \$370 \$355 W/out

IEC Timer, Counter, Frequency Meter and Geiger Counter



LB4071-101 \$580 \$566 Mains powered

#### **IEC LED Geiger Counter** Mains Powered



AP1886-101 \$450 \$439 Bright LED display

#### Radioactive Sources Alpha, Beta or Gamma



PA2667-005 \$220 Alpha PA2667-010 \$220 Beta PA2667-020 \$220 Gamma

IEC Absorbers Set of 24 with Holder- Radioactivity



AP0030-001 <del>\$720</del> \$702 Absorbers are 60 x 60mm

IEC MX168 Geiger Tube, Holder and Cable



PA1885-050 <del>\$390</del> \$381 With BNC connector

IEC Wilson's Cloud Chamber without Source



AP4660-001 \$390 \$381 PA2667-025 \$220 Point Source

Radioactive Source Electronic, Simulated



AP2668-001 <del>\$198</del> \$175 Battery powered

**IEC Franck Hertz Experiment Set** 



AP1870-001 \$250 \$244 Instructions on reverse side

Millikan's Apparatus with Power Supply



AP2131-001 \$595 \$581 A classic experiment

IEC Photo Electric Effect Planck's Constant - SIMPLE



AP2343-001 \$92 \$89.70 New low cost model

Photo Electric Effect Planck's Constant



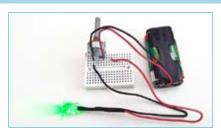
AP2341-002 \$495 \$483 New model

Clear LEDs that turn coloured with 200mm cable Pack of 10



SC33006C \$6 Turn red **\$C33007C \$6** Turn green

Scientrific Photon Energy - Planck's Constant Kit - Set of 5



SC1120-5 \$95 LEDs, potentiometer, breadboard, battery holder and batteries. Fully documented experiments from Scientrific

Clear LEDs that turn coloured with 200mm cable Pack of 10



As used in our Photon Energy Kit

**SC33008C \$6** Turn blue

IEC High Voltage Power Supply with Filament Supply



LB2621-001 \$129 \$126 Output: 100 - 200V DC & 6.3V AC

IEC Mass of Electron Apparatus and Air Cored Solenoid



Also requires a suitable power supply like those adjacent



**AP2120-001 \$110** \$108 Mass of electron Apparatus use with: EM0090-001 \$85 \$82.90 Air Cored Solenoid 700 turns

IEC Power Supply Mass of Electron - Constant Current



LB2622-001 \$420 \$399 Output: 25 & 250V DC / 12V AC

#### IEC Hodson Light Box and **Optical Set**



HL2060-001 \$111 \$95 or \$87 ea. for 5+

#### IEC Hodson Light Box Replacement Lamp



PA2043-002 \$2.40 For latest version of the Hodson Light Box

#### **IEC Spectrum Tube Power** Supply



HL3785-001 \$294 \$287 Tubes not included buy separately

IEC Spectrum Discharge Tubes Set of 6



HL3784-001 \$170 \$166 H, He, Hg, N, Ar, Ne tubes

Red and Green Laser Diffraction Kit



**SC16000 \$295** Developed by the ANU for Scientrific

Laser Ray Box in Storage Case



IF-583 \$575 In foam lined storage case

Helium Neon Laser in Clear Case - Can be Modulated



IF-HN08MCLEAR \$905 Allows internal light to be studied

MiniLab II Designed by the ANU



MINILAB II \$1195 Only available from Scientrific

Tyndall's Experiment - Light Through A Liquid



IF-514 \$91 Use water as a light guide

IEC LaserView Lenses Kit



Light paths in bars

HL1985-001 <del>\$130</del> \$127 6 lenses and two bars in a case

Laser Dot - Laser Voice Transmitter and Receiver



SC6070 \$290 With 9 volt batteries

X-Y Pattern Generator Twin Lasers



IF-XYP \$525 \$299 Lasers create Lissajous Figures & more

Mercury Lamp High Pressure



**SC3401 \$345** Mains operated, very limited stock

**LED Light Source** 



SC17003 \$17 RGB | FDS with removable slotted end caps

**IEC Spectral Lamp Power** Supply & Holder without Lamp



HL3794-101 \$245 \$239 NO lamp. Buy lamps separately

Laser Diffraction Kit



**\$C3652 \$270** 18 Slits/gratings **\$C3651 \$128** 9 Slits/gratings

#### IEC Spectroscope - Popular Student Model



Student Spectroscope 25x115mm



Spectroscope Direct Vision 22x97mm



Keyring Laser Pointer Less than 1mW



SC5201 \$13 Class 2 Laser Pointer complying with AS2211

### PHYSICS - Optics

#### IEC Stroboscope Xenon Digital 240V AC XE



IEC Stroboscope Digital LED SAVE LB3806-001 \$260 \$25 Runs off 12V









Glass Mounted Transmission







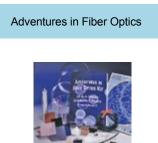


Diffraction Grating 3 in 1

High Quality







Quality grating from the UK

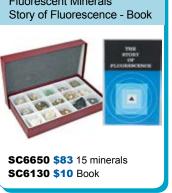




















#### Hydro Electric Generator or Dynamo



**SCHEG \$345** Made in the USA

#### Hydro Electric Power Lab Dynamo



HEPL001 \$160 \$149 Water generator with lamp and motor

#### Large Hand Driven Motor and Generator AC/DC



EM1443-01 \$150 With motor, lamp and 4mm terminals

Cranked AC/DC SAVE EM1758-001 \$110 \$108

**IEC Motor Generator Hand** 

Australian made product

### Inductive Braking Kit



IEC Induction - Rhumkorff Coil



EM3450-001 <del>\$310</del> \$303 25mm spark requires 12V DC

IEC Electromagnetic Induction **Apparatus** 



EM1740-001 <del>\$222</del> \$217 Requires up to 12 Volts DC



Scientrific Magnet Tube Kit -Resonance Tube - Lenz's Law



neodymium magnet

IEC Magnetic Field Demonstrators Set of 3



EM2067-001 \$112 \$110 Spiral, round & rectangular coils

**IEC Mutual Induction** Apparatus Set



Two coils & removable iron core

IEC Electromagnet



Requires up to 12 Volts DC

#### Magnetic Field Demonstrators Oil filled or Plain



**SC7195 \$22** Filings in oil SC7192 \$14 Connecting plates

Alnico Major Magnet -Incredibly Strong



SC6040 \$450 88x83x60mm (HWD) gap between poles 54mm

Scientrific Magnet and Remagnetiser



SC1008 \$35 Quickly remagnetise iron magnets

3D Compass Set of 10



999 010 \$96.20 Size: 80x5x27mm

Alnico Magnets - Australian



Super Magnets Neodymium PAIR, 19 dia. x 28.2mm



SC5882 \$23 pair. For safety we only sell sleeved magnets

Super Magnets Neodymium PAIR, Sleeved, 22 dia. x 10mm



SC4401SP \$22 or \$20 pair for 10+, sleeved for safety

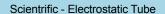
Scientrific - Magnet Tongs



SC1009 \$26 To suit our SC4401SP magnets



### PHYSICS - Electrostatics - Electrical Test Equipment - Accessories





SC1066 \$24 Rub to make the balls dance

Scientrific - Van de Graaff Accessory Kit



SC1002 \$129 Use with Van de Graaff generators

IEC Electronic Electroscope, Coulomb Meter



EM1100-001P \$95 \$92.70 Electronic electroscope

# IEC Electroscope Metal Vane SAVE EM1810-001 \$44.50 \$43.40 Traditional electroscope

Alligator Clips to Oscilloscope (BNC) Cable



428-4227 \$8 Quickly connect circuits to an oscilloscope

25MHz Dual Trace Digital Storage Oscilloscope



**\$C2250 \$499** Supplied with two leads and probes

**IEC Student Power Supply** 2 to 12 volts AC/DC to 5 amps



LB2629-001 \$150 \$115 5+ \$105 LB2629C \$160 \$125 5+\$115

IEC Student Power Supply 2 to 12 volts AC/DC to 5 amps



LB2634-001 \$158 \$126.50 \$115 each for 10+

Alligator Clips - IEC Pack of 10



PA0160-001 \$6 Plain PA0160-101 \$6 Black PA0160-201 \$6 Red

IEC Cable 600mm with Stackable 4mm Banana Plugs



PA0700-001 \$5 Black PA0700-004 \$5 Red

IEC Cable 300mm with Stackable 4mm Banana Plugs



lengths on website

PA0695-001 \$4.40 Black PA0695-004 \$4.40 Red

Also see

Cable with Alligator Clips Pack of 10



**IEC Contact Key** 



EM1010-001 \$14.50 with 4mm banana sockets

IEC Electricity Kits Supplied in Sturdy Aluminium Case with Compartments



EM1763-001 \$980 \$956 AC/DC Theory Standard Kit EM1763-020 \$1140 \$1112 Advanced Electricity Kit EM1763-010 \$1273 \$1241 Advanced Electricity Kit

Alligator Clip Leads

Pack of 10



SC5502 \$10 or \$9.70 ea. 5+ SC5501 \$6.30 or \$5.80 ea.5+

#### Light Bulbs MES Pack of 10



MES Lampholder Base Pack of 10



SC92005 \$12 \$8 Pack 10

Knife Switches

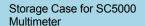


SC13858 from \$1.80 (5+) SPST SC13867 from \$3.70 (5+) DPDT

LEDs with 200mm cable Pack of 10



SC33001 \$6 Red **\$C33002 \$6** Green SC33003 \$6 Blue





**\$C2260 \$5.70** Suits small multimeters and similar items

#### Multimeter - Digital - Best Selling



SC5000 \$9.50 \$8.60 each or \$6.80 for 10+

#### **IEC Digital Voltmeter** Australian Made - DURABLE



LB2123-001 \$66 \$64.40 No knobs or fuses, 'unbreakable'

Australian Made - DURABLE

**IEC Ammeter Digital** 



LB2122-001 \$66 \$64.40 No knobs or fuses, 'unbreakable'

#### Voltmeters DC Triple and Single Range



SC13078 \$18 3V, 15V, 30V SC13093 \$18 0 to 15V

Voltmeter Single Range Quality Korean/Japanese



**SC7523 \$42** 0 - 20 volts DC (similar to pictured ammeter)

Ammeter and Voltmeter



SC13150 \$35 0.1, 1, 10, 50V and  $100\mu A$ , 100mA, 1A, 5A

Ammeters DC Dual and Triple Range



SC13099 \$18 1A and 5A SC13096 \$22 50mA, 500mA, 5A

**Environment Meter and** Multimeter



SC5039 \$117 \$110 Volts. amps, ohms, humidity, lux, temp,

SAVE

Multimeter Analogue with Holster



SC5005 \$26 With holster and audible continuity, limited stock

True RMS Auto-ranging Multimeter



SC2263B \$35.50 Holster. auto off, carry bag, thermocouple

IEC AC Circuits Experiment



EM0050-001 \$990 \$966 Resistors, capacitors, inductors

#### Genecon Hand-held Cranked Generator



SC179015 \$20 or \$18 ea 10+ Use 2 as a motor - generator set

**IEC Induction Kit** 



EM1973-001 \$226 \$221 For motor and transformer lessons

IEC Electronics Kit Basic



EM1764-001 \$780 \$761 With Experiment Manual

IEC Electric Motor Kit - Hodson Self Build Pack of 2



\$32.40 each for 5+

IEC Dissectible Transformer



IEC Helmholtz Coils Pair 150mm Diameter



Measures magnetic fields

IEC Current Balance Kit



Use with an Air Cored Solenoid

**IEC Resistor Sets** 











































#### Horizon Bio-Energy Discovery Science Kit



FCJJ-22 \$214 \$171 Convert ethanol to electricity

#### Horizon Super Capacitor Science Kit



FCJJ-35 \$249 \$218 Hand dynamo, super capacitor, meter

#### Horizon Micro Fuel Cell Science Kit



FCJJ-44 \$251 \$220 Metal hydride storage, fuel cell and fan

### Horizon Thermal Power Science Kit



FCJJ-38 \$281 \$246 Thermal difference creates electricity

#### Horizon Wind to Hydrogen Science Kit



Horizon EduStak Junior



FCSU-32 \$2043 \$1788 4 watt, feed air and hydrogen to the stack to produce electricity for powering your models, robots, phones etc.

#### Horizon Electric Mobility **Experiment Kit**



FCJJ-30 \$329 \$288 Fuel cells, solar panel, dynamo & car

### Horizon Electrolysers - Pack

wind energy into hydrogen



FCSU-010 \$267 \$214 Convert water to hydrogen and oxygen

### Horizon Energy Box



FCJJ-40 \$1740 \$1523 A range of fuel cells to compare: a PEM hydrogen fuel cell, the salt water fuel cell and a direct ethanol fuel cell

#### Horizon Renewable Energy Monitor



FCJJ-24 \$245 \$196 Monitor and export data to Excel

#### Horizon Renewable Energy **Education Lab**



FCJJ-33 \$631 \$552 Includes **Energy Monitor** 

### Stirling Engine - Convert Sunlight to Mechanical to Electrical Energy





620325 \$220 \$195 A great STEM activity with 64 page coloured book

#### Horizon PEM Electrolysers / Fuel Cells Pack of 5



Reversible fuel cells

#### Horizon H-Racer 2.0



FCJJ-23 \$200 \$160 Solar panel, fuel cell and hydrogen car

#### Horizon Hydrostik Pro



#### Horizon Ethanol Fuel Cell Science Kit



FCJJ-42 \$243 \$212 Convert ethanol to electricity to power fan

#### Plastic Fan Blade 1.9mm Bore Pack of 10



motor (SC33021) not included

### PHYSICS - STEM - Wind - Solar Energy

#### KidWind Basic Wind **Experiment Kit**



KW-BWX \$240 Mechanically lift weights or generate electricity

#### KidWind Visual Voltmeter



**KWH0024** \$25.20 An ideal alternative to traditional voltmeter

### KidWind Sound and Light



KW-SLB \$19 Connect to solar panel to play music or light LEDs

## KidWind Science Project



KWA0024 \$110 Investigate generators, pumps, gears & more

#### KidWind GENPack



**KW-GP \$97** Build your own generator, attach to motors etc

#### KidWind MINI Wind Turbine



**KW-MWT \$86** Build a desktop wind turbine. With output board

#### KidWind MINI Wind Turbine with Blade Design



KW-MWTBD \$130 Build a wind turbine & design your blades

KidWind Solar Energy **Exploration Kit** 



KW-SEEK \$154 Learn about solar panel output efficiency

KidWind Windwise: Wind Module #2



KWA0056 \$100.70 Includes materials and teacher resources

KidWind Windwise: Windmills Module #3



**KWA0057 \$152** Includes materials and teacher resources

KidWind Windwise: Generators Module #4



**KWA0058 \$142.60** Includes materials and teacher resources

KidWind Windwise: Set Complete Curriculum Binder



**KWF0093 \$118.70** Includes materials and teacher resources

KidWind Simple Hand Generator Kit



**KWA0051 \$75** An easy to build AC generator or motor

KidWind Wind Turbine Hub



**KW-WTH3 \$43** Pack 3 **KW-WTH10 \$141** Pack 10

KidWind Dowels 100 Pack



KW-D100 \$19 Use with KidWind Hub, size: 125x6.4mm

KidWind Generators with long



KW-GEN \$15 Power, low RPM

#### KidWind Basic Turbine **Building Parts**



**KW-BTPART \$31** Generator, hub & dowels to build a turbine

KidWind Blade Pitch Protractor



**KW-BPP \$9** Precisely measure the pitch (angle) of turbine blades

KidWind Airfoil Balsa Blade Sheets



KW-ABBS10 \$41 10 sheets of pre-shaped turbine blades

KidWind Balsa Blade Sheets



**KW-BBS10 \$26** 10 sheets of balsa suitable for turbine blades

#### IEC Electric Motor - Generator



EM1759-001 \$53.70 4mm sockets, 12V DC, 123x88x68mm

#### **Electric Motor and Gearbox**



**SC5755 \$11** 3 volt motor 6 step gearbox

#### Dynamo or Motor, Handcranked



**SC5237 \$15** Join two as a motor generator set

#### Electric Motors Pack of 5



SC33021 \$8.50 \$7.50 Requires 3 volt 25mA

#### Dynamo Torch - LED



SC92018 \$8 or \$7 each for 10 or more

#### Heavy Duty Electric Motor



SC5750 \$12.50 12 volts DC, 13,000 RPM, 3.175 mm shaft

### Solar Motor with Connecting



SC52410 \$5.50 Special \$4 or \$2 each for 20+

#### **IEC Electric Motor Generator**



EM1760-001 <del>\$31</del> \$30.30 Ideal for energy conversion

Peltier Modules - Hot one side, cold the other



SC5450 \$22 Requires 12-15 volts at 4 amps

Solar Panels with Alligator Clip Terminated Leads



SC0033-01 \$10.90 \$8.90 2V **\$C0035-01 \$23.70 \$17.30** 6V



SC0034-01 \$13.50 \$12.50 3V SC0036-01 \$88.20 \$56.80 12V

KidWind Solar Thermal Exploration



**KW-STXK \$108** Study how solar hot water works

KidWind Sun Angle Science Kit with 3 Solar Panels



KWC0024 \$57.60 Examine solar panel variables

IEC Solar Fan on Base



EM3732-001 \$41 With fan shroud

**IEC Solar Demonstrator** 



EM3730-001 \$144 With storage capacitor & loads

KidWind Solar Battery Charging Kit



KWA0030 \$61.20 Charge AA & AAA batteries etc

Solar Racer - Laser Cut Plywood



BDGSR \$56 Geared with solar panel, limited stock

Solar Power and Energy Transformation Kit



In plastic storage jar, great value

**Educational Solar Energy** 



SC52400 \$22 \$15.50 each or \$11 each for 20+

Solar Educational Kit **Basic** 



SC52405 \$15.40 \$9 each or \$7 each for 20+

### Molymod - Molecular Models



The molymod® VSEPR (Valence Shell Electron Pair Repulsion) kit makes 14 different shapes, including: linear (BeCl<sub>2</sub>), trigonal planar (SO<sub>3</sub>), see-saw (SF<sub>4</sub>) and t-shaped (CIF<sub>3</sub>).

MKO-VSEPR-14 \$45

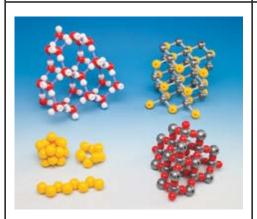


Molecular Orbital Organic Structures Set: Ethane, Ethene and Ethyne and Benzene. MOS-900-4 \$69



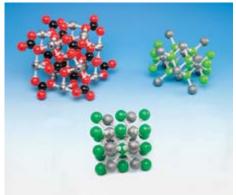
Buckminster Fullerene Graphite MKO-102-60 \$37 MKO-101-45 \$36 Diamond MKO-100-30 \$26

(Text refers to pictures viewed from top left in clockwise direction)



Ice 26 water units Zinc sulphide Silicon dioxide Sulphur S8

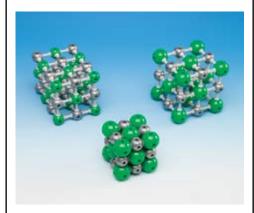
MKO-123-26 \$36 MKO-125-45 \$35 MKS-137-66 \$34 MKS-103-24 \$20



These 3 kits come pre-assembled.
Calcium carbonate
Calcium fluoride
Caesium chloride

MKO-132-30 \$34

MKO-133-30 \$45



Sodium chloride (36 atoms)

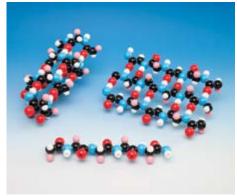
Sodium chloride (27 atoms pictured open)

Sodium chloride (27 atoms pictured compact)

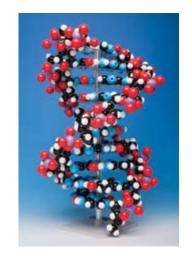
MKO-127-27 \$32 (27 atoms pictured compact)



Fat (glyceryl tristearate) MKS-114 \$54
Glucose MKS-115-2 \$26
Sucrose MKS-116 \$27
Starch or Cellulose MKS-118-3 \$37



Alpha helix 15 peptides MKS-121-15 \$47
Protein beta-pleated sheet MKS-120-15 \$47
5-unit polypeptide chain MKS-120-5 \$24



DNA 10-layer self-assembly kit Compact model, 640 parts & stand MKS-122-10 \$355



Original dual-scale, genuine, molecular and atomic models

Open / Ball & stick 2.5cm / Ångstrom Closed / semi-space filling 1.5cm / Ångstrom

#### Atom-parts:

Range from 17mm to 23mm diameter.

#### Bonds:

Single bonds are represented by 19mm medium links and multiple bonds by longer, 30mm flexible links. For compact models, bonds are represented by 2mm short links

#### Valence:

Is represented by the number of holes: I hole (I), 2 holes (II), 3 holes (III), 4 holes (IV), 5 holes (IV), 6 holes (VI).

Please contact us for details of our full range.

#### Important Notice:

These products are not toys, they are designed for educational use and are only suitable for students 12 years of age and over. All products featured on these pages contain small parts.



WARNING CHOKING HAZARD - small parts. Not for children under 3 years.

### Organic (Student) Set 50 atoms

Supplied in a 4 compartment plastic box.



20 Hydrogen (I), 12 Carbon (IV), 6 Oxygen (II), 4 Nitrogen (III, IV), 2 Sulphur (IV, VI), 1 Phosphorus (IV), 4 Halogen (I), 1 Metal (I), Links: 26 Medium grey, 12 Long flexible and 26 Short.

#### MMS-008 \$36

#### Inorganic Organic Teacher Set 108 atoms

Supplied in a large plastic box.



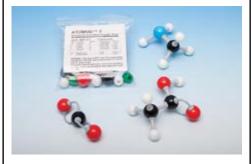
14 Hydrogen (I, II), 20 Carbon (IV, V), 22 Oxygen (II, IV), 10 Nitrogen (III, IV), 13 Sulphur (II, IV, VI), 7 Phosphorus (III, IV, V,), 8 Halogen (I), 14 Metal (I, II, III, IV, VI), 18 Lone pair 2D paddles (6 pink, 6 purple, 6 beige),

Links: 38 Medium grey, 12 Medium purple, 36 Long flexible

MMS-004 \$66

#### Atomod™ Organic Pack 19 atoms

Supplied in a re-sealable plastic bag.



10 Hydrogen (I), 4 Carbon (IV), 2 Oxygen (II), 1 Nitrogen (III), 2 Halogen (I), Links: 20 Medium grey, 4 Long flexible.

#### MMP-AT2 \$13

**Inorganic Organic Student Set 52 atoms** 

Supplied in a 4 compartment plastic box.

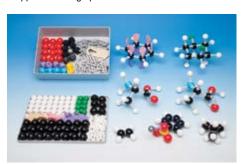


14 Hydrogen (I), 6 Carbon (IV), 7 Oxygen (II, IV), 3 Nitrogen (III, IV), 2 Sulphur (II, VI), 2 Phosphorus (III, V), 6 Halogen (I), 8 Metal (I, II, III, IV, VI), 1 Boron (III), 3 Brown (IV, V, VI), 3 Lone pair 2D paddles (beige), Links: 20 Med. grey, 5 Med. purple, 12 Long flexible.

#### MMS-009 \$36

#### **Organic Teacher Set 111 atoms**

Supplied in a large plastic box.

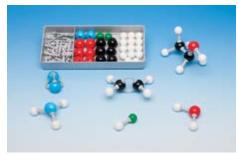


40 Hydrogen (I), 38 Carbon (II, III, IV, V), 12 Oxygen (II), 4 Nitrogen (IV), 2 Sulphur (II, IV), 4 Phosphorus (IV), 8 Halogen (I), 3 Metal (I, II), 18 Lone pair 2D paddles (6 pink, 6 purple, 6 beige), 1 Link remover, Links: 55 Medium grey, 25 Long flexible and 60 Short.

MMS-003 \$66

#### **Elementary Organic Set 30 atoms**

Supplied in a narrow 2 compartment plastic box.



14 Hydrogen (I), 6 Carbon (IV), 6 Oxygen (II), 2 Nitrogen (IV), 2 Halogen (I), Links: 20 Medium grey, 4 Long flexible.

#### MMS-015 \$21

#### **Advanced Chemistry Set 64 atoms**

Supplied in a 4 compartment plastic box.



18 Hydrogen (I), 8 Carbon (IV), 7 Oxygen (II, IV), 6 Chlorine (I), 6 Fluorine (I), 4 Nitrogen (III, IV), 3 Sulphur (II, IV, VI), 2 Boron (III, IV), 4 Phosphorus (III, IV, V, VI), 6 Metal (II, III, IV, VI), 3 Lone pair 3D lobes (beige), Links: 26 Med. grey, 5 Med. purple,12 Long flexible.

#### MMS-002 \$39

#### **Biochemistry Teacher Set 262 atoms**

Supplied in two large plastic boxes.



100 Hydrogen Atom-links (molydome), 10 Hydrogen (II), 68 Carbon (II, III, IV), 40 Oxygen (I, II), 34 Nitrogen (II, III, IV), 2 Sulphur (II), 6 Phosphorus (IV), 2 Metal (IV, VI), 2 Link remover tools,

Links: 150 Non-vis colourless links, 10 'V' links.

MMS-007 \$126



Original dual-scale, genuine, molecular and atomic models

### • LAB ESSENTIALS



































**14** May 2018







### IEC Hot Plate Simmerstat



240 volts, best to boil water

IEC Hot Plate Thermostat Plain Top



CH1922-001 \$350 \$342

240V, best temperature control

# IEC Hot Plate Simmerstat



CH1921-001 \$305 \$298

240 volts, easy clean PTFE

IEC Magnetic Stirrer Hot Plate Thermostat 240 volts



CH2092-001 \$480 \$430 Plain CH2093-001 \$510 \$460 PTFE

# IEC Magnetic Stirrer Hot Plate Simmerstat Plain Top



IEC Magnetic Stirrer Hot Plate Simmerstat PTFE Top



CH2091-001 \$445 \$425 Non-stick top 240V AC

IEC Simmerstat or Thermostat?

### **Helpful Information** regarding IEC Hotplates:

Accuracy of the temperature control is the main difference between a thermostat and simmerstat

A thermostat is more accurate but the simmerstat is better for getting a higher temperature e.g. for boiling water.

Classic Media Steam Steriliser - Autoclave



SC210048 \$2089 12L SC210047 \$1644 9L

IEC Oven Fan-circulated Digital



CH2251-001 \$1180 \$1151

Stainless steel interior

IEC Water Bath Tank use with IEC Hot Plate and/or Controller



Tank on NOT included Controller and Hotplate

CH4240-001 \$215 \$210 Stainless steel tank only

IEC Water Bath Temperature Controller



CH4240-101 \$160 \$156 Controller use with Tank (left)

#### Vernier Magnetic Stirrer



STIR \$287 Illuminated base. stir bar, power supply

Tube (Feather & Guinea Tube)



SC1045 \$78 Paper/metal are dropped down an evacuated tube



LB3900-001 \$186 Surface Plate for use with a Bell Jar



**\$C1047 \$319** Very durable, made by Scientrific

Vacuum Pump Electric



SC8012 <del>\$495</del> \$395 35 litres per minute

### Silicon Mat - Large NEW



Beaker not included.

**SC7606 \$21** 300 x 400mm, smooth surface both sides



**SC7600** \$6 \$4 150 x 150mm SC7605 \$10.50 \$8.50 250mm

Silicon Hand Safety Grip



Safely handle hot objects

Silicon Bunsen Tubing



Flexible non-roll silicon tubing

### LAB ESSENTIALS

### Beakers Borosilicate



SC7103 \$2.40 50ml SC7104 \$3.00 100ml

### Beakers Borosilicate Glass



LW0148-01 \$3.90 300ml SC7109 \$5.20 600ml

### Beakers Borosilicate Glass



SC7106 \$3.80 250ml SC7107 \$4.00 400ml SC7108 \$4.90 500ml

#### Glass Measuring Cylinder



LW1847-01 \$4.80 10ml/0.2ml **LW1867-01 \$5.90** 25ml/0.5ml

#### **Retort Stands**



Retort Stands



SC7324 \$34.50 315x200mm

Test Tube Holder Packs of 10



**\$C14296 \$67** Brass prongs **SC14284 \$10** Wooden peg



**SC14320 \$25** Set of 6 SC14323 \$58 Set of 12

Retort Clamps



**SC92007 \$8** Cork Lined **LW1666-01 \$8** 3 Prongs

Stainless Steel 150 x 150mm



SC92011 \$17.50 or \$16.20 for 10 or more

Scientrific's Stainless Steel Tripod and S/S Mesh Mats



**\$C92004 \$64** 5 Tripods & mats **\$C92002 \$17.50** Five mats

Scientrific's Stainless Steel



SC92000 \$10 200mm high. extremely durable







Thermometer Tray with or without 10 Thermometers



**SC1220 \$23** Waterproof tray SC1221 \$53 With thermometers

Digital Water Resistant Thermometer



**SC6526 \$39** -10 to 200°C max and min temperature recall

Infra Red Thermometer -Professional Non-contact



Range -50 to 1000°C

Glass Alcohol Burner



**SC7001 \$6** 125ml SC7005 \$4 Pack 10 Wicks



LW1507-01 \$20 50ml with TPX/PTFE stopcock









































### BIOLOGY Microscopy - Dissection - Cameras

#### LED Microscope with 400X Lens



Very impressive optics!

### Monocular Microscope with LED Lighting



MMLED **\$285** or \$250 each for 5 or more

Stereo Microscope 20X & 40X Magnification with LED Light



MS24LED \$346 or \$324 each for 6 or more

Biological Microscopes LED Lighting with Camera



B204T-5M \$1368 \$1155 Trinocular with 5MP Camera

**USB Digital Camera** Microscope 5MP

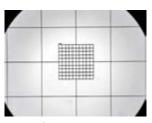


Glass Calibration Slide 1mm cross with 100 divisions



TS-TCM-H \$48.40 Divisions from 0.01mm

Slide Minigrid 1 to 0.1mm divisions



K2210 \$12.50 Viewed through microscope

ProScope HR2 Hand-held Digital Camera with 50X Lens



BT-HR2-50 \$594 Capture high resolution images

Set of 10 Anatomy Slides plus 5 Blank Slides



SC92038 \$26 See website for details

Set of 20 Mixed Slides plus 40 Blank Slides



SC92040 \$45 See website for details

Set of 25 Botany Slides



SC92041 \$65 See website for details

80 Anatomy, Biology, Botany, Chemistry and Zoology Slides



SC92042 \$115 High quality slides

Slide Boxes - Plastic



SC14548 \$6 Holds 50 slides

Microscope Cleaning Kit Lens Pen



SC4578 \$39 Cleaning Kit SC7731 \$13.50 Lens Pen

Chemistry and Dissection Tray with Replaceable Mat



TRAY \$18 or \$16 ea for 10+ MAT \$28.50 Pack of 12 mats

Dissection Kit



140760 \$44.60 Nine tools in a plastic storage case

ProScope Micro Mobile for iOS and Galaxy



PMM-IP5K \$252 See website for iPhone4/4S/5/6/6+ Galaxy S4

ProScope Micro Mobile for iPad 2, 3, 4 or iPad Mini



**PMM-IPADK \$252** for iPad 2/3/4 PMM-IPMINIK \$252 iPad Mini

ProScope Micro Mobile Base Illuminated Lens System



PMM-BASE \$218 Fit to any sleeve eg iPhone, iPad, Galaxy etc

Microscope Lamp 240 volt 25 watt



**LB2161-001 \$37 \$36.10** Blue LB2160-001 \$36 \$35.10 Clear

### BIOLOGY Environmental Monitoring - Human and Plant Physiology 💽

#### **Environment Meter and** Multimeter



SC5039 \$117 \$110 Volts. amps, ohms, humidity, lux, temp

SAVE

#### Wireless Weather Station Touch Screen



SC5169N \$172 \$158 Electronic, connects to PC

#### Thermometer Anemometer



**SC5034 \$108** Measures Air Temp. to 50°C and Wind Speed

#### IEC Inclinometer Clinometer



LB1950-001 <del>\$28</del> \$27.30 New design

#### **IEC Reaction Time Tester**



LB2669-001 \$168 \$164 Two hand or foot operated switches

Thermometer and Relative **Humidity Meter** 



SC5010 \$22 Large LCD display

**Anemometer Thermometer** with Tripod Stand



SC5033 \$63.60 \$53 Windspeed, wind chill, air temperature

Wet and Dry Bulb Thermometer



GE2795-01 \$18 Uses safe red alcohol

BioChamber



BC-2000 \$41 Two litre with holes for Vernier/other sensors

Cellular Respiration Phials -Set of 6



022 001 \$20

Berlese Funnel



024 013 \$28.60 Works with Sieves to right

Set of 6 Sieves



034 001 \$85.20 Works with Berlese Funnel to left

#### Bony Fish Chart / Poster Raised Relief



7504RR \$34

Giant Dicotyledon Flower Model



0824-50 \$341 7 parts

**Biology Charts Posters Set 35** On tripod stand



1990-41 <del>\$1,599</del> \$999

Plant Cell Chart / Poster



7502-08 \$28

**Plastomount** Crustacea Types



K1298 \$88 Barnacle, Goose, Acorn, Hermit/Rock Crabs, Yabbie

**Plastomount** Club Mosses



K1222 \$80 Isoetes Lycopodium Selaginella and

**Equisetum Fruiting Bodies** 

Plastomount Cockroach Life Cycle



Indicative image only

**K1310** \$88 Phylum Hexopa, Class Insecta, Cockroach, development

**Plastomount Insect Orders** 



K1308 \$104 Mantid, Earwig, Stonefly, Alderfly, Scorpion Fly, Lacewing, Caddis Fly, Cockroach

### BIOLOGY Water and Environmental Monitoring

#### Mystrica Wireless Colorimeter



SC9070 \$237 or \$199 each for 6 or more

#### IEC Colorimeter - Digital 9 Volt **Battery Operated**



CH1003-001 \$390 \$381 Transmission and absorption

#### Water Quality Backpack



3817BP \$780 \$750 Complete water quality testing

#### Soil Quality Backpack



**3896BP \$780 \$754** Nitrogen, Phosphorous, Potassium, pH

### Hanna Dissolved Oxygen Test



Hi3810 \$141 No warm up, no calibration, no filling solution

#### Vernier Spectrometer - Self Contained with FREE Software



- Requires no interface.
- Use with FREE Spectral Analysis 4 for Mac, Windows,
- Connect via compatible Bluetooth, can also connect via USB
- Collects a full spectrum to explore chlorophyll absorption, food dyes, chemical equilibrium, forensics, water nitrates and more

#### Hanna Nitrate Test Kit



HIL3874 \$78 100 nitrate tests with cuvette & colour cube

#### Moisture Meter



SC2285 \$32 Measure moisture in wood and hard materials

- Chromebook, iOS devices (Android coming), LabQuest 2LE.
- for Mac and Windows computers and LabQuest 2.

GDX-SVISPL \$908

#### Hanna Phosphate Test Kit



Hi3833 \$42 50 tests with beaker and colour cube

#### EuTech Waterproof pH Tester ±0.1 pH accuracy



**SC6546 \$126** With automatic temperature compensation

EuTech Waterproof pH Tester ±0.01 pH accuracy



**SC6556 \$209** With automatic temperature compensation

EuTech pH, Conductivity, TDS/ Salinity, Temperature Tester



SC6559 \$307 With auto temperature compensation

Hanna Conductivity and TDS



Hi98312 \$215 EC and TDS

#### Red or Blue Litmus Paper Pack of 100



SC14263 \$1.40 Blue 55x8mm SC14269 \$1.40 Red 55x8mm

4, 7 & 10 pH Capsules and



PH-BUFCAP \$64 10 capsules of 4, 7 and 10 pH Buffers

EuTech pH Buffers 10 Tablets in Foil



SC6537 \$10.40 pH10 SC6536 \$10.40 pH7

TDS and Conductivity **Calibration Solutions** 



**SC6545** \$45 TDS 1000ppm SC6540 \$45 Con. 12.88mS

SC6535 \$10.40 pH4

website

### CHEMISTRY - Electro-chemistry - Properties of Materials •





IEC Electrodes - Plates

See website: Tin, lead, zinc, copper, carbon in various sizes

# IEC Electrodes - Stainless Steel 2 Rods

EM1792-001 \$20 Beaker not included



IEC Electrodes Stainless Steel

Beaker not included

#### IEC Electrodes - Norwood



from Safe Acrylic

Hofmann's Voltameter - Made



**\$C7312 \$227** With stand and platinum electrodes

**IEC Platinum Electrodes** 



**\$C7091 \$89.50** Pair with stainless steel terminals

Airtight Reaction Chamber



011 002 \$164.80 Size: 80 x 80 x 205mm

**IEC Spectral Lamps** Sodium Mercury + others



PA3797-101 \$127 Mercury PA3797-102 \$127 Sodium

IEC Flame Emission Spectrometer with new Software



**CH3792-001** \$1500 \$1463 Study flame and atomic absorption spectroscopy. Requires a light source like the CH3792-125 (right)

IEC Sodium Lamp for AA and **Spectrometer Experiments** 



Includes sodium lamp

**IEC Linear Expansion Apparatus** 



**IEC Tensile Test Machine** 



MF4665-001 \$271 \$265 With dial indicator and wires

Memory Wire - Nitinol



**SC7098 \$15** Examine the properties of Nitinol

**IEC Kinetic Theory of Gas** Model - Electric



Periodic Table of Elements

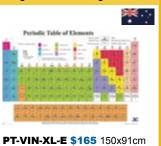
#### Periodic Table of the Elements - Illustrated



Periodic Table of Elements A4 and A5 Pack of 10



Large and Extra large



PT-POL-XXL-E \$200 183x111cm

Balls, Elastic - Inelastic / Happy - Sad



SC7064 \$13 Pair

# Science Kits









































#### Magnet Tube Kit 5 Solar Battery Charging Kit 11 Electromagnet 5 Index Electronic Balances 14 Mass of Electron Apparautus 2 Solar Boat and Boat 22 Electronics Kit 7 Measuring Cylinder 16 Solar Car 24 Absorbers Set (Radioactive) 2 Electroscopes 6 Memory Wire - Nitinol 21 Solar Demonstrator 11 Adventures In Fibre Optics 4 Electrostatic Tube 6 Mercury Lamp 3 Solar Energy Exploration Kit 10 Air Burst Rocket 17 Energy Box - Horizon 9 Metals Kit - Cubes and Rods 17 Solar Energy Kit 11 Air Cored Solenoid 2 Energy Transformation 11 Meters - Multimeters 7 Solar Fan 11 Air-Stream Machines 22 Engine - Stirling 9 Microscope Cleaning Kit 18 Solar Mechanics 22 Microscope Lamp 18 Environment Meter 7,19 Air Tracks and Air Source 8 Solar Motors 11 Alcohol Burner 16 Ethanol Fuel Cell Kit 9 Microscopes 18 Solar Panels 11 Alligator Clips and Cables 6 Microwave Apparatus 8 Solar Racer 11 Alnico Magnets 5 Millikan's Apparatus 2 Solar Thermal Exploration 11 Fan Blade 9 Ammeters 7 Minigrid - Slide 18 Sound And Light Board 10 Fibre Optic Cable and Kits 4 MINI Wind Turbine 10 Space and Rocket Science 22 Anemometer 19 Flame Spectrometer 21 Apron Lightweight 14 Spectral Lamps 21 Moisture Meter 20 Fluorescent Minerals 4 Audio Oscillator 8 Molymod 13-14 Spectrometer & Colorimeter 21 Franck Hertz Experiment 2 Autoclave - Steriliser 15 Motor and Generators 5 Spectrometer - Vernier 20 Free Fall Apparatus 8 Motors and Generators 22 Spectroscopes 3 В Fuel Cells 9 Multimeter 19 Spectrum Discharge Tubes 3 Ball and Ring 17 Spectrum Tube Power Supply 3 Multimeters 7 Balls, Elastic - Inelastic 21 Mutual Induction Apparatus 5 Speed of Light Kit 4 Gauze Mat 16 Balsa Blade Sheets 10 Spring Balances 14 Geiger Counters and Tube 2 Bar and Gauge 17 Spring Set Long Helical and Slinky 8 Generator Handheld 7 Battery Charging Kit - KidWind 11 Nitrate Test Kit 20 Stainless Steel Electrodes 21 Generators - Turbines 10 Beakers 16 Stainless Steel Tripod 16 Genetics and DNA 22 Berlese Funnel 19 Steriliser - Autoclave 15 Giant Dicotyledon Model 19 Oscilloscope 6 Biochamber 19 Stirling Engine 9 Glass Tubing Cutter 17 Oven - Digital - Fan 15 Bio-Energy Kit 9 Stopwatch 14 Glove Dispenser 14 Biology Charts 19 Stroboscopes 4 Gloves - Vinyl and Latex 14 Blade Pitch Protractor 10 Peltier Modules 11 Sun Angle Science Kit 11 Gyroscope Wheel & Platform 8 Blue Digital Imaging 24 PEM Electrolysers 9 Super Capacitor Kit 9 Bony Fish Chart 19 Pendulum Bobs 8 Super Magnets Neodymium 5 Brass Slotted Weights 14 Hand Generator Kit - Simple 10 Periodic Table 21 Switches - Knife 6 Bunsen Burners 14 Hand Safety Grip 15 Petri Dishes 14 Burette Acrylic 16 Hanna Water & Soil Testers 20 T pH Capsules - Buffers 20 Buzzers 8 TDS Testers 20 Happy - Sad Balls 21 Phosphate Test Kit 20 Tensile Test Machine 21 Heat Conductivity Ring 17 Photo Electric Effect 2 C Test Tube Holders 16 Photon Energy 2 Helmholtz Coils 7 Cables 6 High Voltage Power Supply 2 Photosynthesis Light Kit 24 Test Tube Racks 14 Calibration Slide 18 Thermal Power Kit 9 Hofmann Voltameter 21 pH Testers 20 Calibration Solutions 20 Hooke's Law Springs 17 Thermometer 19 Physics Pro 22 Calorimeter - Joule's 17 Horizon H-Racer 2.0 9 Thermometer Anemometer 19 Planck's Constant - Simple 2 Camera - Digital 18 Thermometer - Humidity Meter 19 Horizon Kits and Fuel Cells 9 Plant Cell Chart 19 Cellular Respiration Phials 19 Thermometers 16 Hot Plate 15 Plastomounts - mixed 19 Chemistry and Dissection Tray 18 Thermometer Tray 16 Hydro Electric Generators 5 Plate Electrodes 21 Circuits Experiment Set 7 Ticker Tape Recording Timer 8 Platinum Electrodes 21 Circular Motion Kit 8 Transformer - Dissectible 7 Power Supplies 6 Clear LEDs - turn coloured 2 Inclinometer Clinometer 19 Tripod Stainless Steel 16 Power Supply - Constant Current 2 Collision Trolley 8 Induction Apparatus 5 Trolley Stainless Steel 14 ProScope Digital Camera 18 Colorimeter - Wireless 20 Induction Tube 5 Turbines - Wind Power 10-12 ProScope Micro Mobiles 18 Colour Wheel 4 Inductive Braking 5 Tyndall's Experiment 3 Pulleys 17 Compass - 3D 5 Infra Red Thermometer 16 Compound or Bi-metal Strip 17 Isostasy Model 24 Conductivity and TDS Testers 20 Radioactive Sources 2 UV Beads and Torches 4 Contact Key 6 Radioactive Source - Simulated 2 Joule's Calorimeter 17 Cork Borers 16 Reaction Chamber 21 Vacuum Free Fall 15 Current Balance Kit 7 Reaction Time Tester 19 Vacuum Jar 15 Remagnetiser 5 KidWind GENPack 10 Vacuum Pump 15 Remote Control Machines 22 KidWind Kits and Building Parts 10 Dabco Unitray and UniTube 14 Vacuum Surface Plate 15 Renewable Energy Education Lab 9 KidWind Windwise Modules 10 Data Transmission, Fibre Optic 4 Van de Graaff Accessory Kit 6 Renewable Energy Monitor 9 Kinetic Theory of Gas Model 21 dB Sound Meter 8 Van de Graaff Generator 24 Resistor Sets 7 Knife Set 17 Diffraction Gratings and Kit 4 Vibrator For Vibrating Strings 8 Kundt's Apparatus 8 Retort Clamps 16 Digital Camera 18 Voltmeters 7 Retort Stands 16 Digital Imaging System - Blue 24 Voltmeter - Visual 10 Digital Storage Oscilloscope 6 Lampholder 4 W Dissection Kit 18 Lampholder - MES 6 Safety Glasses 24 Water Bath 15 Dissolved Oxygen Test Kit 20 Safety Glasses Storage 24 Lasers and Laser Dot 3 Water Bath Controller 15 Dowels 10 Sail Car STEM Kit 24 LaserView Lenses 3 Water Quality Backpack 20 Drinking Bird 17 Salinity Tester 20 Latex Gloves 14 Wave Lab Signal Generator 8 **Dynamics Cart 8** Scewdriver - Pocket 17 LED Light Source 3 Wave Motion Apparatus 8 Dynamo and Dynamo Torch 11 Science Kits 22 LEDs 6 Weather Station - Wireless 19 Science Project Kit 10 Light Box 3 Ε Wet/Dry Bulb Thermometer 19 Sieves 19 Light Bulbs 6 Electricity and Magnetism 22 Wilson's Cloud Chamber 2 Linear Expansion Apparatus 21 Signal Generator 8 Electricity Kits 6 Windmill - MacGyver 24 Litmus Paper 20 Silicon Bunsen Tubing 15 Electric Mobility Experiment Kit 9 Wind to Hydrogen Kit 9

Loud Speakers 8

Magnetic Stirrer 15

Magnet Tongs 5

Magnetic Field Demonstrators 5

Lux Meter 4

Electric Motor and Gearbox 11

Electric Motor - Generator 11

Electric Motor Kit 7

Electrodes and Lamp 21

Electrodes 21

Electrolysers 9

Silicon Mats 15

Slide Boxes 18

Slinky Spring 8

Sodium Lamp 21

Slides - Microscope 18

Soil Quality Backpack 20

Wind Turbine Hub 10

X-Y Pattern Generator 3

Young's Slits 4

X

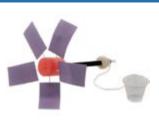
Υ

Email orders to: info@scientrific.com.au

PO Box 420, Yamba NSW 2464 Phone: 02 6645 8111 Fax: 02 6645 8125 ABN 55 056 072 694







MacGyver Windmill

STEM Kit for 10 Windmills

Solar Car - Set of 8



Photosynthesis - Solar Cell LED Lighting Kit with Filters



SC1127 \$41

Safety Glasses - Polysafe



SC2050N \$4.95 or \$3.90 each for 100+

SC4955 \$3.80 or

\$3.50 each for 12+

Safety Glasses - Unisafe

Safety Glasses - Hanging Storage Blue PVC

SC1160-10 \$85



Holds 20 pairs of glasses

Isostasy Model



911 075 \$22.30 Water Gel

Vernier Blue Digital Imaging



**BL-DBS \$1710** Illuminate your gels, camera and blue light

IEC Van de Graaff Generator Variable Speed



#### Website Teacher Resources

We have created FREE fully documented procedures for:

Key Experiments aligned to the Australian Curriculum by strand and topic and also to Queensland Senior Science Mandatory and Suggested Experiments. You will also find links to relevant experiment documents on the base of many product pages.

To access documents go to www.scientrific.com.au then Curriculum and follow the appropriate link or type in: https://www.scientrific.com.au/curriculum.php

Alternatively check out the sample documents below (required search term is in BOLD).

KEBS2

Water Quality Testing

KECS13

**Rates of Chemical Reactions** 

Sail Car and select from year

4, 7, 8 at base of page

KEPS20A

Electrical Energy and Power