

SCIENCE

Posters

The posters are colourful and informative. Using the posters in the classroom, noticeboards, science labs and corridors makes learning fun and interesting and teaching becomes easy and effective too. They can also be used during events. E.g Science Week, etc.

Reasons for using posters

1. About one third of students in an average classroom are visual learners.
2. Visual learners respond well to **colour**.
3. Images, photographs and diagrams are helpful learning aids for visual learners.
4. Words linked to pictures help visual learners grasp and remember new concepts.
5. Posters help reinforce important concepts and can be referred to regularly.
6. Posters can act as reference for students instead of asking the teachers.
7. Posters can keep your classroom/school fresh and **stimulating**.

Posters – Materials & Their Properties



Scientific Enquiry (A1 size)
Code: SC 22



Apparatus (A1 size)
Code: SC 23



Solids, Liquids, Gases (A1 size)
Code: SC 24

CMN Enterprise

19 Soo Chow View Singapore 575411

Tel: 90600089 Fax : 65199196, Email: cmn@live.com.sg

Posters – Materials & Their Properties



Solids (A1 size)
Code: SC 25



Liquids (A1 size)
Code: SC 26



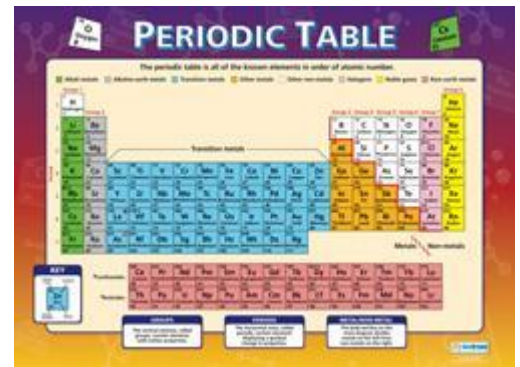
Gases (A1 size)
Code: SC 27



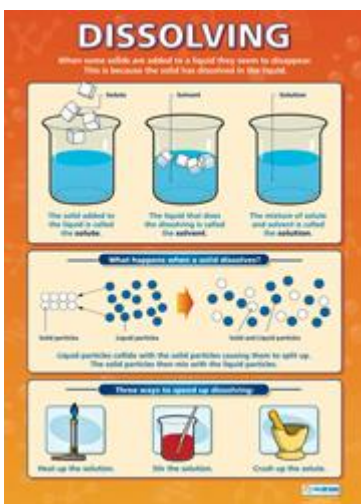
Changing Materials (A1 size)
Code: SC 28



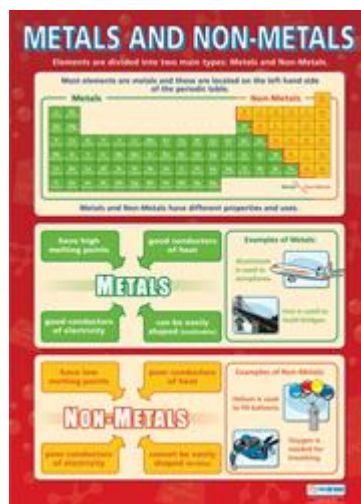
Separating Mixtures (A1 size)
Code: SC 30



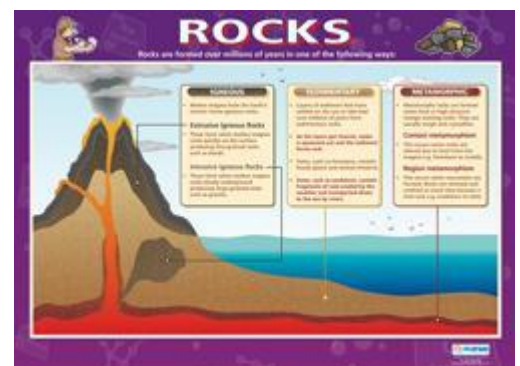
Periodic Table (A1 size)
Code: SC 31



Dissolving (A1 size)
Code: SC 55



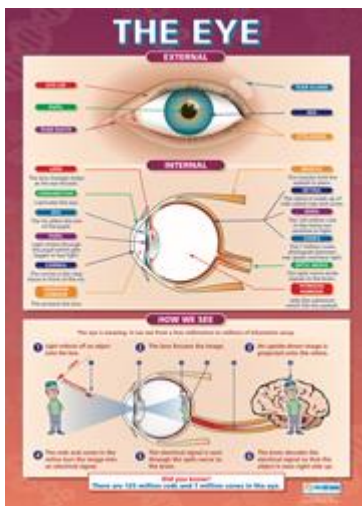
Metals & Non-metals (A1 size)
Code: SC 56



Rocks (A1 size)
Code: SC 32

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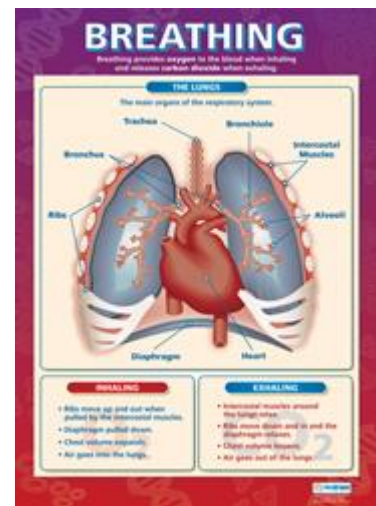
Posters – Life Processes & Living Things



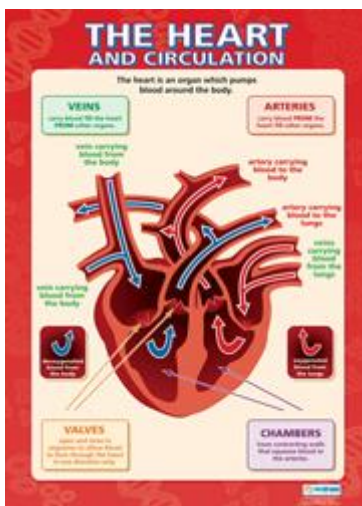
The Eye (A1 size)
Code: SC 01



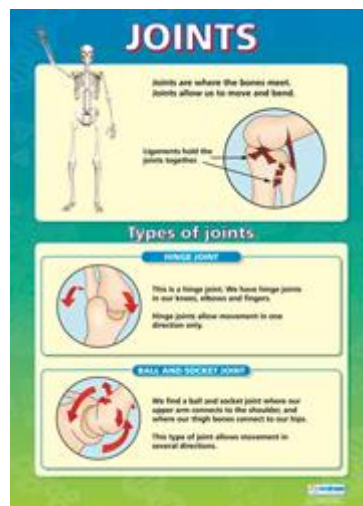
Body Organs (A1 size)
Code: SC 03



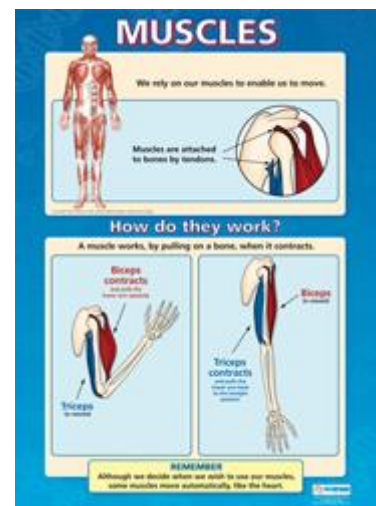
Breathing (A1 size)
Code: SC 04



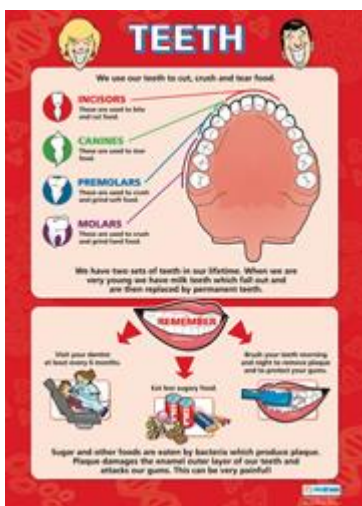
The Heart (A1 size)
Code: SC 05



Joints (A1 size)
Code: SC 06



Muscles (A1 size)
Code: SC 07



Teeth (A1 size)
Code: SC 08



Digestion (A1 size)
Code: SC 09



The Human Skeleton (A1 size)
Code: SC 10

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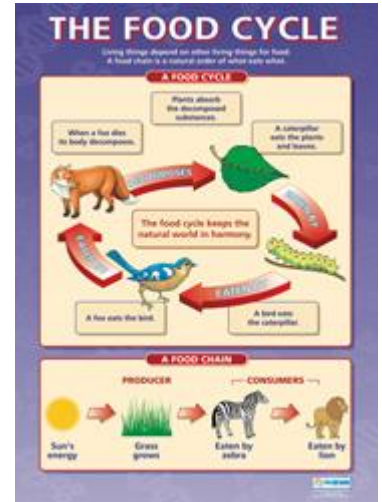
Posters – Life Processes & Living Things



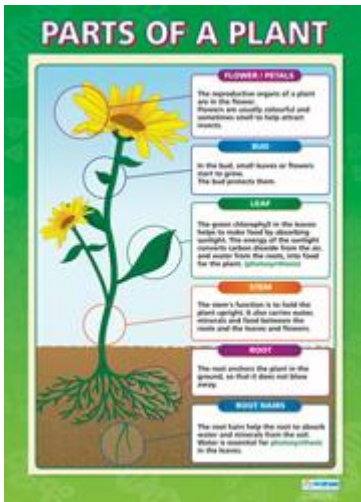
The Food Pyramid (A1 size)
Code: PE 29



Food Chains (A1 size)
Code: SC 12



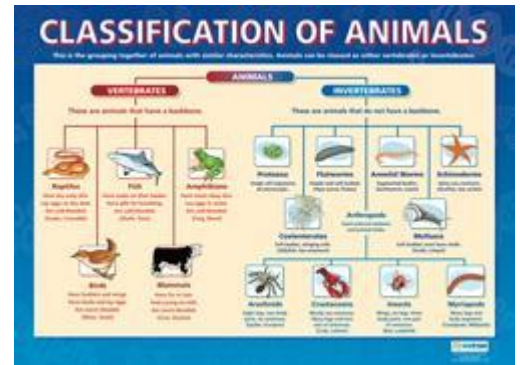
The Food Cycle (A1 size)
Code: SC 13



Life Cycle of a Plant (A1 size)
Code: SC 15



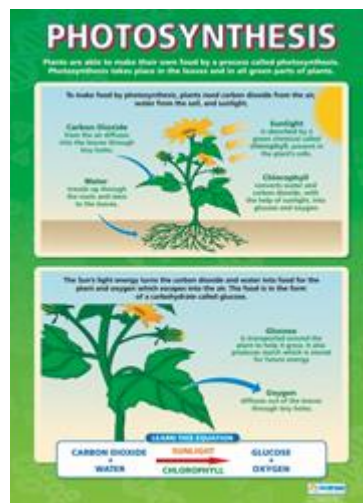
Parts of a Plant (A1 size)
Code: SC 16



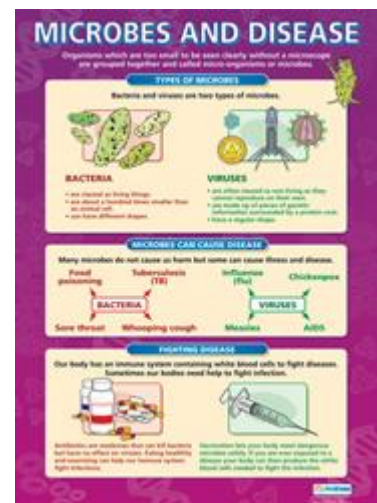
Classification Of Animals (A1 size)
Code: SC 51



Habitats (A1 size)
Code: SC 52



Photosynthesis (A1 size)
Code: SC 53



Microbes & Disease (A1 size)
Code: SC 54

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Posters – Physical Processes

PHYSICAL UNITS

	QUANTITY	NAME	SYMBOL
	ENERGY	Joules	J
	MOMENTUM	Newton-metres	Nm
	SPEED	metres per sec	m/s
	TIME	seconds	s
	WEIGHT	Newtons	N
	AREA	Square metres	m ²
	DISTANCE	metres	m
	MASS	kilograms	kg
	VOLUME	cubic metres	m ³
	DENSITY	kg per m ³	kg/m ³
	FORCE	Newtons	N
	PRESSURE	Pascals	Pa (N/m ²)
	CURRENT	Ampères	A
	POTENTIAL DIFFERENCE	Volts	V
	RESISTANCE	Ohms	Ω
	TEMPERATURE	degrees Celsius	°C

Physical Units (A1 size)
Code: SC 33

ELECTRICAL CIRCUITS

Electric current is the flow of charge around a circuit.

CIRCUIT
Electric current can only flow if there is a complete circuit and you can't stop the current flowing.

SERIES CIRCUIT
The electricity in computers, printers and television control series circuits.
 • The current takes only one path.
 • The current is constant at all points in the circuit.
 • Switches can be turned on or off to control the flow of current through the whole circuit.

PARALLEL CIRCUIT
The main electricity in a house is a parallel circuit allowing appliances to be used independently.
 • The current takes more than one path.
 • The current is constant from the beginning to the end of a path.
 • Switches can be turned on or off to allow or restrict the flow in one or more paths of the circuit.

Electrical Circuits (A1 size)
Code: SC 34

ELECTRICITY & MATERIALS

ELECTRICAL CONDUCTORS
Electricity can pass through some materials. We call these electrical conductors. Most good conductors are metals.

Copper, Tin foil, Coin, Key, Spanner, Water, Nail

ELECTRICAL INSULATORS
Electricity cannot pass easily through some materials. We call these electrical insulators. Electrical insulators are non-metals.

Plastic, Wood, Glass, Paper, Brick, Rubber, Cork

Electricity & Materials (A1 size)
Code: SC 35

CIRCUIT SYMBOLS

Electrical circuit diagrams use conventions that can be confusing. Here is an explanation of the most commonly used symbols.

	Cell	A cell is a source of electrical energy.	
	Battery	A battery contains numerous cells connected in a way that they produce more electrical energy.	
	Bulb	A bulb will light up only when it is in a circuit that is complete.	
	Switch	A switch can be turned on or off to let current flow or prevent it from flowing.	
	Motor	A motor turns electrical energy into motion, for example, in a fan.	
	Resistor	A resistor limits current.	
	Ammeter	An ammeter is used to measure current.	
	Fixed Resistor	A fixed resistor controls the amount of current in a circuit.	
	Variable Resistor	A variable resistor can be adjusted to control the amount of current in a circuit.	

Circuit Symbols (A1 size)
Code: SC 36

FORCES

Forces are pushes or pulls. Forces always have a direction in which they act. The direction force is measured in.

The man pushes the trolley away from him.
The force on the paper clip is towards the magnet.
Balanced forces = no motion. Unbalanced force = acceleration.

What other forces are in these diagrams?
 • Friction
 • Gravity
 • Air resistance
 • Normal force

REMEMBER FORCES MAKE THINGS...
 • Move slower
 • Change direction
 • Change shape

Forces (A1 size)
Code: SC 37

FRICTION

Friction occurs when two surfaces meet and rub against each other. Friction slows a moving object, but can help control the movement.

ROUGH SURFACES
Rough surfaces create more friction. Friction slows a moving object, but can help control the movement.

HEAT
Friction produces heat. Building your hands together produces heat. Building your palms against each other produces heat.

AIR RESISTANCE
Air resistance can affect motion. It can slow things down. The air pushes up on the paper plane. The air pushes up on the paper plane. The air pushes up on the paper plane.

Friction (A1 size)
Code: SC 38

ELECTRONICS

Electronics involves the generation, distribution, control and application of electricity.

EXAMPLES OF ELECTRONICS
We rely on electronics for communication, entertainment and the lighting and heating of our homes. Most of the products that we use on a daily basis incorporate electronics.

INPUT, PROCESS AND OUTPUT
All electrical systems require an input, a process and an output.

INPUT: Switch, PROCESS: Timer, OUTPUT: Buzzer

CIRCUITS
In electronics, circuit diagrams are used to show how a circuit works. Symbols are used to represent the components.

PRINTED CIRCUIT BOARDS (PCBs)
 • A PCB supports and connects electronic components.
 • PCBs are non-conductive boards that contain copper tracks that link holes where electrical components can be inserted.
 • On traditional PCBs, copper tracks are placed on one side of the board, and components are placed on the reverse side.
 • On modern PCBs, components are attached (surface mounted) onto either side of the board.
 • Components are small and have short or no leads. This allows for smaller packaging and greater functionality.

Electronics (A1 size)
Code: DT 17

ELECTRONIC COMPONENTS

LED
Light Emitting Diode. LEDs are the most common optical device in electronics. Most LEDs are used in signs and displays.

RESISTOR
Resistors reduce the current in a circuit. The colored bands indicate the value, measured in Ohms (Ω).

CAPACITOR
Capacitors store an electrical charge. Measured in Farads (F).

TRANSISTOR
Transistors can be used as amplifiers of current or as switches.

BATTERY OR CELL
Batteries provide the power source for most electronic circuits.

SWITCH
Switches provide a contact point, they have both positive and negative leads.

Electronic Components (A1 size)
Code: DT 18

RESISTORS

Resistors reduce or limit the current in a circuit. Resistance is measured in Ohms (Ω). Resistors come in hundreds of different values.

HOW DO THEY WORK?
The band shows the tolerance.

BAND 1	BAND 2	BAND 3
BLACK	0	0
BROWN	1	0
RED	2	0
ORANGE	3	0
YELLOW	4	0
GREEN	5	0
BLUE	6	0
VIOLET	7	0
PURPLE	8	0
GOLD	±5%	0
SILVER	±10%	0

EXAMPLES
 VALUE BY COLOUR: 3 3 0 Ω (330 Ω)
 VALUE BY VALUE: 470 Ω

Resistors (A1 size)
Code: DT 19

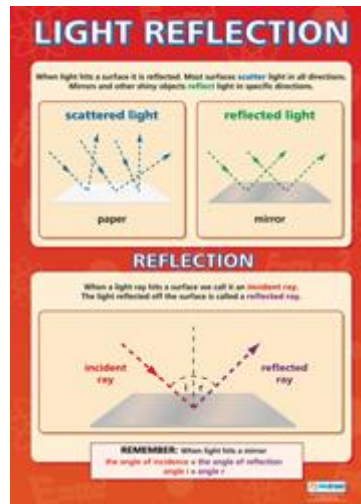
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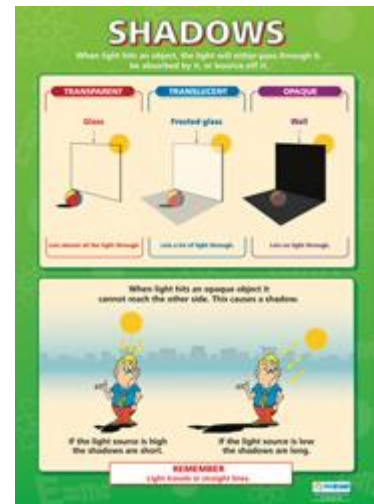
Posters – Physical Processes



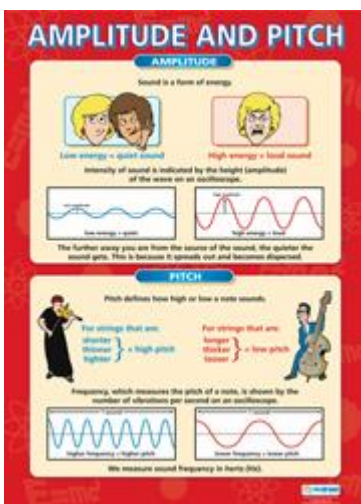
Light (A1 size)
Code: SC 40



Light Reflection (A1 size)
Code: SC 41



Shadows (A1 size)
Code: SC 42



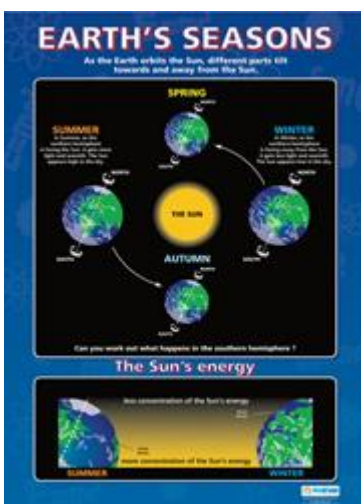
Amplitude & Pitch (A1 size)
Code: SC 43



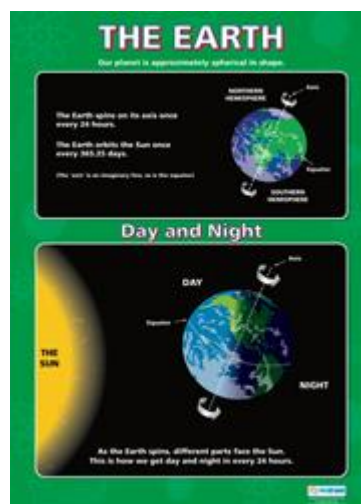
How We Hear (A1 size)
Code: SC 44



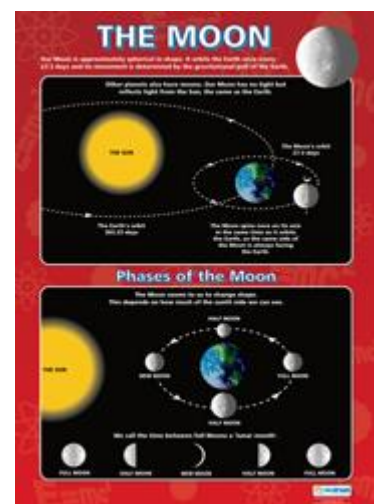
Sound (A1 size)
Code: SC 45



Earth's Seasons (A1 size)
Code: SC 46



The Earth (A1 size)
Code: SC 47

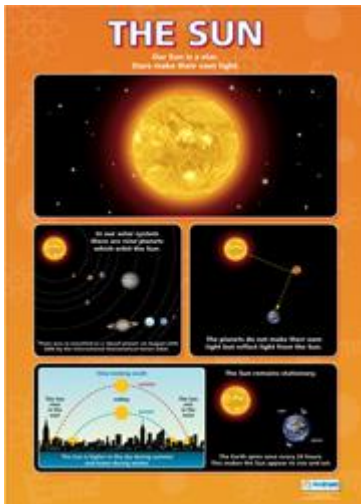


The Moon (A1 size)
Code: SC 48

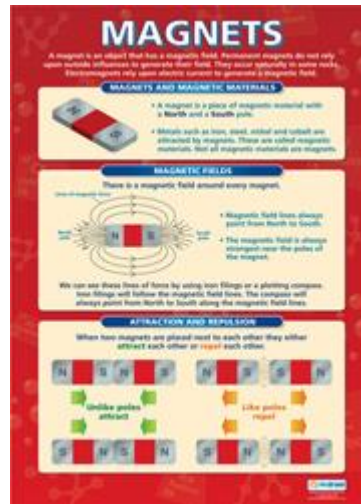
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Posters – Physical Processes



The Sun (A1 size)
Code: SC 50



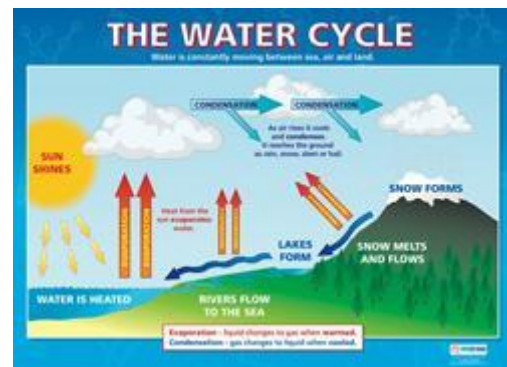
Magnets (A1 size)
Code: SC 57



Energy Resources (A1 size)
Code: SC 58



The Solar System (A1 size)
Code: SC 49



The Water Cycle (A1 size)
Code: SC 29

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Posters – Snap Frames

Snapframes are designed for quick and hassle free changeover of posters. They are sold fully assembled and ready to use, with clear PVC cover sheet to protect your poster. The frames are light enough to wall-mount with 4 screws.



All four sides of the Snap Frames can be easily snapped open. Just lift up four sides of frame by hand, insert your poster, place protective sheet on top and then snap frames to close without tools, as easy as 1-2-3!

Features & Benefits of Snap Frame

- Simple - access on all sides of the frame, simply flip open and change posters!
- Good visibility - clear and non-reflective PVC cover
- Durable - made of lightweight yet strong aluminium
- Instant - requires no assembly and arrives ready to use.
- Quick - Change poster from the front, no tools required!
- Eye catching - attracts attention of customers walking past
- Stable - Easy and quick wall mount with use of screws or poster hooks

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**Colour makes the
world of difference**

ORDER FORM

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Free delivery for order above \$150.

Description	Code	Unit Price	Qty	Total
Materials & Their Properties				
Scientific Enquiry	SC 22	28.00		
Apparatus	SC 23	28.00		
Solids, Liquids, Gases	SC 24	28.00		
Solids	SC 25	28.00		
Liquids	SC 26	28.00		
Gases	SC 27	28.00		
Changing Materials	SC 28	28.00		
Separating Mixtures	SC 30	28.00		
Periodic Table	SC 31	28.00		
Dissolving	SC 55	28.00		
Metals & Non-metals	SC 56	28.00		
Rocks	SC 32	28.00		
Life Processes & Living Things				
The Eye	SC 01	28.00		
Body Organs	SC 03	28.00		
Breathing	SC 04	28.00		
The Heart	SC 05	28.00		
Joints	SC 06	28.00		
Muscles	SC 07	28.00		
Teeth	SC 08	28.00		
Digestion	SC 09	28.00		
The Human Skeleton	SC 10	28.00		
The Food Pyramid	PE 29	28.00		
Food Chains	SC 12	28.00		
The Food Cycle	SC 13	28.00		
Parts of a Plant	SC 15	28.00		
Life Cycle of a Plant	SC 16	28.00		
Classification Of Animals	SC 51	28.00		
Habitats	SC 52	28.00		

Description	Code	Unit Price	Qty	Total
Photosynthesis	SC 53	28.00		
Microbes & Disease	SC 54	28.00		
Physical Processes				
Physical Units	SC 33	28.00		
Electrical Circuits	SC 34	28.00		
Electricity & Materials	SC 35	28.00		
Circuit Symbols	SC 36	28.00		
Electronics	DT 17	28.00		
Electronics Components	DT 18	28.00		
Resistors	DT 19	28.00		
Forces	SC 37	28.00		
Friction	SC 38	28.00		
Light	SC 40	28.00		
Light Reflection	SC 41	28.00		
Shadow	SC 42	28.00		
Amplitude & Pitch	SC 43	28.00		
How We Hear	SC 44	28.00		
Sound	SC 45	28.00		
Earth's Seasons	SC 46	28.00		
The Earth	SC 47	28.00		
The Moon	SC 48	28.00		
The Sun	SC 50	28.00		
Magnets	SC 57	28.00		
Energy Resources	SC 58	28.00		
The Solar System	SC 49	28.00		
The Water Cycle	SC 29	28.00		
<i>Snap Frame (A1 size, silver matt)</i>	SF1	85.00		
<i>Frame Mounting Service (min 5 pcs)</i>	-	10.00		
Lamination service (A1 size)	-	20.00		
<i>Delivery(for orders < \$150)</i>		15.00		

Please fax form to 65199196. An e-mail will be sent to confirm stock availability. Please allow 3-8 weeks for delivery.

Grand Total

Confirmed & Signed by: Name: E-mail: Contact No:

Signature & Organisation Stamp School : Address: Date: