1. Mindsets SEP Energy Meter

Building on the success of the original SEP energy meter, this USB version boasts datalogging and an improved specification:

- Current range: ±7A (current can flow in either direction)
- Voltage range: ±25V
- Log memory: 2500 samples
- Log sample period: 1, 2, or 4 seconds
- The meter can be powered over USB or using a 5V mains adaptor (included)

The SEP energy meter can still be used without a computer. Designed to be simple enough for KS3 students to use, and flexible enough for more advanced use at KS4 and beyond. It just requires a supply and a load to be plugged into the meter, for example, a solar panel and a motor, and the meter will display the values of the power and the energy transferred. For simplicity, the instrument automatically adjusts the display to show suitable units and an appropriate number of decimal places so that it can deal with a very wide range of values (e.g. for energy, from 100nJ up to 1.75MJ).

Code	Pack	Price
★ SESEP044	Each	£79.89

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2. Lascells Energy Meter

The energy meter provides an all-in-one solution to teaching specific heat capacity. With real-time read out of voltage, current, time and temperature, all measurement parameters are provided on the display screen for students to calculate specific heat capacity from first principles. Energy and charge measurements are also displayed, in watt-hours and amp-hours respectively. Intended for use with calorimeter blocks, a detachable probe is provided for fast response temperature measurements. With extended voltage range, the energy of lower voltage devices can be recorded, allowing it to be used for measuring efficiency of energy transfer, and measuring power in electronic circuits. As the frequency of the generator is varied the first harmonic can be found and then all the others up to the 7th or 8th. The string length can be easily varied if required by moving the end peg and the main arm can be detached if required to facilitate storage.

Code	Pack	Price
PHY1050	Each	£62.77

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3. IPC Irwin Joule & Watt Meter

Capable of making direct measurement of electrical energy or power supplied to a load and is therefore a valuable tool for pupil based work as well as simplifying many demonstrations. The direct readings mean that the need for voltmeter, ammeter, stop watches and calculators is eliminated and fast accurate results can be obtained. The understanding can therefore be gained from scientific investigations rather than mathematical manipulation, making it ideal for pupil based investigations at GCSE, Standard Grade level and A-level. Its many uses include experiments with an electrical heater, determination of energy stored in a capacitor, calculating the power supplied by a DC source to a resistive load and measurement of the specific latent heat of steam.

The meter is capable of measuring energies from 1mJ to 9999J or power from 1mW to 200W in AC or DC circuits. Two ranges selected by a switch labelled mJ/mW and J/W are available. The auto-ranging four digit display will give direct readings of energy or power. The maximum current input is 10A. All electrical connections are via 4mm sockets.

Code	Pack	Price
EL10409	Each	£243.55

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PREMIUM