



AN ROINN | DEPARTMENT
OIDEACHAIS | OF EDUCATION
AGUS SCILEANNA | AND SKILLS

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Room: Science Laboratories

Science Data Collection - DAT

**Equipment Lists and
Specifications**

There are six lists for science equipment, i.e. LAB, RES, DAT, CHE, PHY and BIO.

The provision of science equipment for science laboratories is as follows:

- i) One Basic Science List – LAB – for each science laboratory.
- ii) One Science Resource List– RES – for each **two** science laboratories.
- iii) One Data List – DAT, Part 1 - for each **two** science laboratories.
- iv) One Biology List – BIO – for each Biology provision (in addition to i) and ii) above) plus Part 2 of DAT List.
- v) One Chemistry List – CHE –for each Chemistry provision (in addition to i) and ii) above) plus Part 3 of DAT List.
- vi) One Physics List – PHY – for each Physics provision (in addition to i) and ii) above) plus Part 4 of DAT List
- vii) **Max.** no. of Senior Lists: 3 for up to 4 labs; 4 for 5 labs; 5 for 6 labs.

Note: Where the symbol ♣ is placed after a substance, a supplier who supplies a greater quantity than requested may be held responsible for removal and disposal of the excess.

Standards, Specifications and Conditions

All equipment shall be durable and safe for school use.
Equipment wholly or partly funded from public funds is subject to inspection by officers from the Department of Education and Skills.

It is essential that tenders and tenderers for equipment for school use shall:

- Comply fully with the specifications and be durable and safe for school use.
- Comply fully with the standards as detailed and shall comply fully with European Standards (EN), both established and developing.
- Comply with European electrical standards and CE marking as appropriate.
- Fully comply with requirements in the Request for Tenders (RFT) document.
- Be accompanied by documentation of sufficient detail for full evaluation.
- Include the completed and signed certificate of compliance.

Award of a contract is conditional on the production of a current tax clearance certificate.

Failure to comply with the above may result in the tender being deemed null and void.

PART 1: ¹Data Collection Equipment - Resource		
Code Quantity	Descriptions and Specifications	Cost €:
DAT/100 13	Data logger with minimum screen size 70 mm x 50 mm and resolution 320x240, with touch screen and/or integrated keyboard. Capable of monitoring in real time, collecting, analysing, displaying, graphing, storing data and also interfacing with and exporting multiple data sets to computer, to storage devices and to printer via USB port. Directly compatible with the sensors identified below and in Parts 1-4. Robust and suitable for both indoor and outdoor use, with and without computer. Capacity for upgrading. Rechargeable lithium battery or equal. All software for sensor use, computer use, real time analysis, data display, and export together with any cables/interfaces required for operation, to be included.	
	Two year warranty.	
DAT/101 12	Ultrasonic motion detector (range approx. 0.4 to 6.0 m)	
	Manufacturer: Catalogue No:	
DAT/102 12	Light sensor (0-100000 lux); with medium, low and high illumination ranges.	
	Manufacturer: Catalogue No:	
DAT/103 12	Temperature sensor (to 110°C)	
	Manufacturer: Catalogue No:	
DAT/104 1	Oxygen gas sensor (0-27%), complete with 250 cm ³ chamber	
	Manufacturer: Catalogue No:	
DAT/105 6	pH sensor (range 0-14, temperature 5-80°C)	
	Manufacturer: Catalogue No:	
DAT/106 1	pH sensor storage solution, to suit pH sensor above, 500 cm ³	
	Manufacturer: Catalogue No:	
DAT/107 12	Force sensor (-50 to +50 N)	
	Manufacturer: Catalogue No:	
DAT/108 12	Gas pressure sensor (range approx. 0-210 kPa)	
	Manufacturer: Catalogue No:	
DAT/109 6	Microphone (range c.20-1600 Hz)	
	Manufacturer: Catalogue No:	
DAT/110 6	Charge sensor (0.1 to 0.005 µC)	
	Manufacturer: Catalogue No:	
DAT/111 3	Conductivity sensor, 0-20000 µS/cm (0-10000 mg/L TDS)	
	Manufacturer: Catalogue No:	
DAT/112 6	Relative humidity sensor (0-95%)	
	Manufacturer: Catalogue No:	
DAT/113 6	Soil moisture sensor	
	Manufacturer: Catalogue No:	

¹ To be provided only where a RES List is being purchased.

PART 2: ²Data Collection Equipment - Biology		
DAT/200 6	Dissolved oxygen probe, built-in temperature compensation, complete with zero-oxygen solution, caps fitted with membranes, 100% calibration bottle and electrode filling solution, range 0-14 mg/L	
	Manufacturer:	Catalogue No:
DAT/201 1	Oxygen gas sensor (0-27%), complete with 250 cm ³ chamber	
	Manufacturer:	Catalogue No:
DAT/202 5	Membrane caps, replacements for dissolved oxygen probes, pack 2	
	Manufacturer:	Catalogue No:
DAT/203 1	EKG sensor/probes for data logging, to demonstrate contraction and repolarisation of the heart's chambers, including 100 disposable electrodes	
	Manufacturer:	Catalogue No:
DAT/204 12	Spirometer: sensor with differential pressure transducer and removable head for sterilisation/cleaning. [Order to include total of 50 disposable filters, 50 disposable mouth pieces and 50 disposable nose clips.]	
	Manufacturer:	Catalogue No:
DAT/205 12	Hand grip heart rate monitor complete with transmitter and receiver modules.	
	Manufacturer:	Catalogue No:
DAT/206 3	Gas sensor, CO ₂ , range 0-5 000 ppm	
	Manufacturer:	Catalogue No:
DAT/207 1	Flow rate sensor, range 0 to 3.5 m/s	
	Manufacturer:	Catalogue No:
DAT/208 1	Colorimeter, 3 wavelengths: c. 470 nm, 565 nm, 635 nm	
	Manufacturer:	Catalogue No:
DAT/209 1	Pack of 100 cuvettes for colorimeter above	
	Manufacturer:	Catalogue No:
DAT/210 1	Manual for Biology experiments	
	Manufacturer:	Catalogue No:

² To be provided only where a BIO List is being purchased.

PART 3: ³Data Collection Equipment - Chemistry		
DAT/300 2	Dissolved oxygen probe, built-in temperature compensation, complete with zero-oxygen solution, caps fitted with membranes, 100% calibration bottle and electrode filling solution	
	Manufacturer:	Catalogue No:
DAT/301 5	Membrane caps, replacements for dissolved oxygen probes, pack 2	
	Manufacturer:	Catalogue No:
DAT/302 2	Colorimeter, 3 RGB wavelengths, e.g. 470 nm, 565 nm, 635 nm	
	Manufacturer:	Catalogue No:
DAT/303 1	Pack of 100 cuvettes for colorimeter,	
	Manufacturer:	Catalogue No:
DAT/304 1	Manual for Chemistry experiments	
	Manufacturer:	Catalogue No:
DAT/400 1	Radiation monitor sensor, to measure alpha, beta and gamma radiation, suitable for use with data logging equipment. ONE ITEM ONLY PER SCHOOL – See PART 4	
	Manufacturer:	Catalogue No:

If specifically requested by school

³ To be provided only where a CHE List is being purchased.

PART 4: ⁴Data Collection Equipment - Physics		
DAT/400 1	Radiation monitor sensor, to measure alpha, beta and gamma radiation, suitable for use with data logging equipment. ONE ITEM ONLY PER SCHOOL, supply if specifically requested only – SEE PART 3	
	Manufacturer:	Catalogue No:
DAT/401 3 pairs	Photogate, suitable for use with data logging equipment	
	Manufacturer:	Catalogue No:
DAT/402 3	Pulley attachment for photogate DAT/401, above	
	Manufacturer:	Catalogue No:
DAT/403 3	Picket fence, 8 opaque bars silk-screened at intervals of 50 mm, for use with photogate, DAT/401 above.	
	Manufacturer:	Catalogue No:
DAT/404 6	Voltage and current probe system (min.c. 0.6 A, ± 6 V a.c./d.c.). Note: Single function probes acceptable (6 no. of each)	
	Manufacturer:	Catalogue No:
DAT/405 3	Barometric sensor, range approx. 0.8 to 1.05 atm, min. 10 bit resolution	
	Manufacturer:	Catalogue No:
DAT/406 1	Manual for Physics experiment	
	Manufacturer:	Catalogue No:

⁴ To be provided only where a PHY List is being purchased.

<p>Equipment for Science (Data Collection)</p> <p>Sections 1-4</p>
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Section	Code Quantity	Descriptions & Specifications:	Total Cost €:
PART 1	DAT/100 - DAT/113	Resource – Data Collection	
PART 2	DAT/200 - DAT/210	Biology – Data Collection	
PART 3	DAT/300 - DAT/400	Chemistry – Data Collection	
PART 4	DAT/400 - DAT/406	Physics – Data Collection	

Sub-total: €

Add for VAT: €

Total Amount for DAT List: €

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Certificate of Compliance with Standards, Specifications and Conditions

I/We certify that the equipment tendered complies in all respects with the Standards, Specifications and other requirements/conditions specified in this tender document and in the Request for Tenders (RFT).

I/We hold a current tax clearance certificate.

Company: _____

Signed: _____ **Date:** _____

Position: _____