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SCIENCE

Equipment List, Specifications and Tendering Guidance – Laboratory (LAB)

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Standards, Specifications and Conditions

There are six lists for science equipment, i.e. LAB, RES, BIO, CHE, PHY and AGR.
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 and stored in the Science preparatory room, which links every two laboratories.
iii) One Agricultural Science List – AGR – for each Agricultural Science provision (in addition to i) and ii) above).
iv) One Biology List – BIO – for each Biology provision (in addition to i) and ii) above)
v) One Chemistry List – CHE –for each Chemistry provision (in addition to i) and ii) above)
vi) One Physics List – PHY – for each Physics provision (in addition to i) and ii) above).
vii) Each laboratory is supplied with a LAB list plus one of the senior science lists (i.e. BIO/CHE/PHY/AGR).

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.

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.

Section 1: Basic laboratory			
Code **Quantity**	**Descriptions and Specifications**		**Cost** **€:**
LAB/100 1	Reel dispenser, wall mounted, for laboratory paper, galvanized		
	Manufacturer:	Catalogue No:	
LAB/101 2	Paper roll, 300 mm wide, to suit above		
	Manufacturer:	Catalogue No:	
LAB/102 24	Wash bottles, general purpose, HDPE, oval, capacity 250 cm^3		
	Manufacturer:	Catalogue No:	
LAB/103 48	Spatula, polypropylene, flat, tapered with chamfered ends, length 100 mm		
	Manufacturer:	Catalogue No:	
LAB/104 24	Retort clamp, cork-lined jaws, clamping tommy-bar screw-through swivels, mounted on 135 mm cast alloy rod		
	Manufacturer:	Catalogue No:	
LAB/105 8	Retort stand rings with boss heads suitable for fastening on rods of diameter 8 – 13 mm. External diameter 75 mm.		
	Manufacturer:	Catalogue No:	
LAB/106 24	Retort stand rods, aluminum, screwed M. 10, diameter 10 mm and length 400 mm, additional 12 rods length 1m		
	Manufacturer:	Catalogue No:	
LAB/107 24	Retort stand base, steel, 250 x 160 mm, rubber feet, tapped hole (10 x 1.5 mm metric thread) at one end for retort rod, corrosion resisting paint finish.		
	Manufacturer:	Catalogue No:	
LAB/108 24	Bossheads, cast alloy, two slots at right angles, for rods up to 16 mm diameter, 120 x 30 mm, length x diameter.		
	Manufacturer:	Catalogue No:	
LAB/109 12	Clamps to hold object up to 90 mm diameter, corrosion resistant.		
	Manufacturer:	Catalogue No:	
LAB/110 8	Stands, double funnel		
	Manufacturer:	Catalogue No:	
LAB/111 24	Stands, boiling tube, hard wood with polypropylene end supports, supplied as kit for assembly by user, 6 holes x 32 mm diameter		
	Manufacturer:	Catalogue No:	
LAB/112 24	Test-tube rack, polypropylene, 25 mm hole diameter, 6 holes, 6 pegs		
	Manufacturer:	Catalogue No:	
LAB/113 3	Burette storage racks, 10 slots		
	Manufacturer:	Catalogue No:	
LAB/114 2	Pipette Stand, 18 slots		
	Manufacturer:	Catalogue No:	
LAB/115 20	Pipette fillers, acid resistant plastic, for precision filling and dispensing from all standard pipettes, red 25 cm^3, complete with release valve for rapid pipetting		
	Manufacturer:	Catalogue No:	
LAB/116 24	Test-tube holders, with steel spring		
	Manufacturer:	Catalogue No:	

LAB/117 12	Crucible tongs, straight, length 150 mm		
	Manufacturer:	Catalogue No:	
LAB/118 12	Crucible tongs, bow, length 150 mm		
	Manufacturer:	Catalogue No:	
LAB/119 12	Tongs, bowed, for beakers 100 cm^3 – 500 cm^3		
	Manufacturer:	Catalogue No:	
LAB/120 12	Combustion spoons, steel with flange cap (diam. 90mm), overall length 400 mm		
	Manufacturer:	Catalogue No:	
LAB/121 24	Tripod stands triangular top, length of side arm 150 mm, height 200 mm, cast iron.		
	Manufacturer:	Catalogue No:	
LAB/122 24	Iron wire gauzes, ceramic centres, 125 x 125 mm		
	Manufacturer:	Catalogue No:	
LAB/123 24	Bunsen burner, heavy diecast base, integral inlet tube for 8 mm bore flexible gas tubing, base finished in chemical resistant acrylic paint. Suitable for use with LPG/natural gas, as required-height 124 mm, o.d. of tube 13 mm, with rotatable air regulator.		
	Manufacturer:	Catalogue No:	
LAB/124 24	Tubing, bunsen burners, neoprene rubber, reinforced ends, length 600 mm		
	Manufacturer:	Catalogue No:	
LAB/125 2	Trundle wheel, ABS plastic moulded trundle wheel, non-slip type, detachable handle for easy storage, 1 m circumference and marked every 5 cm with larger markings every 25 cm, adjustable clicker, complete with trundle wheel counter		
	Manufacturer:	Catalogue No:	
LAB/126 6	Balance, electronic, top-loading, capacity 5200 g, capable of weighing to a precision of 0.1g, LCD display, zero tare, stainless steel weighing pan, two year warranty		
	Manufacturer:	Catalogue No:	
LAB/127 6	Balance, electronic, top-loading, capacity 1200 g, capable of weighing to a precision of 0.01 g, LCD display, zero tare, stainless steel weighing pan, two year warranty.		
	Manufacturer:	Catalogue No:	
LAB/128 2	Balance, electronic, digital display, top-loading, with serial interface: 0 – 300 g $\times$ 0.001 g (i.e. to 3 decimal places = 1 mg), zero tare, stainless steel weighing pan, two year warranty		
	Manufacturer:	Catalogue No:	
LAB/129 12	Kettle, c. 1.7 L, cordless, automatic cut off, removable lid, spout fill facility, water level indicator, 230 V, two year warranty		
	Manufacturer:	Catalogue No:	
LAB/130 2	Steam generator kettle 3 pint		
	Manufacturer:	Catalogue No:	
LAB/131 12	Bench lamp complete with LED bulb (approx. 11W /850 lumen), flexible neck for angle-poise, with switch, base weighted for stability, inside of shade finished in white gloss, approximate working height 40 cm, complete with long mains cable.		
	Manufacturer:	Catalogue No:	
LAB/132 12	Small durable torch, LED		
	Manufacturer:	Catalogue No:	
LAB/133 24	Digital timer/clock/stopwatch, min. 10 mm LCD display, reading to 0.01 second, with memory, 24 hour capacity, with batteries.		
	Manufacturer:	Catalogue No:	

LAB/134 24	Digital thermometer, waterproof, electronic, max./min. memory function, 120mm stainless steel probe, complete with pocket case, range -50 to 150 degrees C x 0.1 degrees C		
	Manufacturer:	Catalogue No::	
LAB/135 24	Thermometer, spirit filled (red), range – 10 to 110 degrees C by 1 degrees C divisions, 305 mm length		
	Manufacturer:	Catalogue No:	
LAB/136 8	Thermometer, fever strip, graduated 36.5 to 40.5 degrees C x 0.2 degrees C		
	Manufacturer:	Catalogue No:	
LAB1/137 2	Thermometer, clinical, digital, range 32 to 42 degrees C with LCD temperature indication to 0.1 degrees C		
	Manufacturer:	Catalogue No:	
LAB/138 2	Thermometer, soil, spirit in glass, range –10 to 1100 degrees C, mounted in an aluminium tube 225 mm long with probe end for inserting into soil and a cut out front for reading the temperature		
	Manufacturer:	Catalogue No:	
LAB/139 1	Displacement vessel, with spout, 90 x 60 mm		
	Manufacturer:	Catalogue No:	
LAB/140 12	Displacement vessel with spout, approximately 100 x 65 mm		
	Manufacturer:	Catalogue No:	
LAB/141 48	Magnets, bar, triconal type, 150 mm length, complete with keepers		
	Manufacturer:	Catalogue No:	
LAB/142 3	Compass, plotting, 16 mm diameter, pack 10		
	Manufacturer:	Catalogue No:	
LAB/143 1	Connecting leads set, flexible PVC lead, plug and socket 4mm diameter, nickel-plated, fully insulated, comprising 48 x red 50 cm 48 x red 25 cm 48 x black 50 cm 48 x black 25 cm		
	Manufacturer:	Catalogue No:	
LAB/144 150	Crocodile clips with shank to accept 4 mm plugs, length 40 mm		
	Manufacturer:	Catalogue No:	
LAB/145 5	Filter paper, general purpose, grade 1, diameter 12.5 cm, box 100		
	Manufacturer:	Catalogue No:	
LAB/146 5	Filter paper, general purpose, grade 1, diameter 11 cm, box 100		
	Manufacturer:	Catalogue No:	
LAB/147 1	Chromatography paper, Whatman grade 1, or equivalent, 30 mm wide, reel 100 m		
	Manufacturer:	Catalogue No:	
LAB/148 4	Chromatography tank, thin-layer, to hold at least three plates, 10 cm x 20 cm with a heavy glass lid		
	Manufacturer:	Catalogue No:	
LAB/149 4	Stainless steel insert for TLC plates, to suit chromatography tank above		
	Manufacturer:	Catalogue No:	
LAB/150 3	Chromatography thin layer plates, flexible, 20 x 20 cm2, pack 25, to suit above tank		
	Manufacturer:	Catalogue No:	

LAB/1516	Syringe, plastic, 5 ml, pack 10		
	Manufacturer:	Catalogue No:	
LAB/15224	Tiles, polypropylene, white, 12 cavities		
	Manufacturer:	Catalogue No:	
LAB/15324	Tiles, plain, ceramic, flat, white, 100 x 100 mm		
	Manufacturer:	Catalogue No:	
LAB/15412	Mortar and Pestle, unglazed inside, external diameter 50 mm		
	Manufacturer:	Catalogue No:	
LAB/15512	Mortar & pestle set, diameter, 150mm		
	Manufacturer:	Catalogue No:	
LAB/15612	Crucibles, porcelain, low form, nominal capacity 25 cm3		
	Manufacturer:	Catalogue No:	
LAB/15712	Crucible lids for above		
	Manufacturer:	Catalogue No:	
LAB/15812	Pipeclay triangles, on iron wire, side length 65 mm		
	Manufacturer:	Catalogue No:	
LAB/1591	Rubber stoppers, solid, assorted sizes x 100 per pack. To BS 2775		
	Manufacturer:	Catalogue No:	
LAB/1601	Rubber stoppers – ‘One Holed’, assorted sizes (100 per pack)		
	Manufacturer:	Catalogue No:	
LAB/1611	Rubber stoppers – ‘Two Holed’, assorted sizes (100 per pack)		
	Manufacturer:	Catalogue No:	
LAB/1621	Cork borer set		
	Manufacturer:	Catalogue No:	
LAB/16312	Hoffman clip, internal opening 30 mm		
	Manufacturer:	Catalogue No:	
LAB/16412	Mohr clip, overall length, 50 mm		
	Manufacturer:	Catalogue No:	
LAB/1655	Tubing connectors, polypropylene, packs of 10, straight, for tubing bore 7-9 mm		
	Manufacturer:	Catalogue No:	
LAB/1665	Tubing connectors, polypropylene, packs of 10, T-shape, for tubing bore 7-9 mm		
	Manufacturer:	Catalogue No:	
LAB/1675	Tubing connectors, polypropylene, packs of 10, Y shape, for tubing bore 7-9 mm		
	Manufacturer:	Catalogue No:	
LAB/1682	Tubing cutter, for normal wall plastic and rubber tubing, up to 19 mm o.d., with spring loaded hardened steel blade, to be supplied with two spare blades		
	Manufacturer:	Catalogue No:	
LAB/16924	Scoop measuring PP 100 ml		
	Manufacturer:	Catalogue No:	
LAB/1703	S-shaped delivery tubes PK/5		
	Manufacturer:	Catalogue No:	
LAB/1711	Oven / Incubator, range 20 degrees C – 200 degrees C or nearest, capacity 50 L, number of movable shelves 2, wattage 1000, dimensions H x W x D 33 x 49 x 33 cm or nearest equivalent, 230 V a.c., complete with 2 m three-core cable (note: thermostat and heating elements must be easily replaceable)		
	Manufacturer:	Catalogue No:	

LAB/1721	Visualiser, min. 13 MP Lens, Up to 4K at 30 fps Video, Built-In Mic, coverage A3 + (533x330mm), USB Interface & Power Connection to a PC or other device which accepts standard video input, flexible swan neck on heavy base, two year warranty		
	Manufacturer:	Catalogue No:	
LAB/17324	Metre rules, horizontal reading, cm and mm, with vertical scale on rear		
	Manufacturer:	Catalogue No:	
LAB/17412	Pocket pH meter complete with electrode, range 0-14, accuracy 0.2, replaceable electrode, one year warranty		
	Manufacturer:	Catalogue No:	
LAB/1756	Set of Narrow range Universal Indicator pH test paper reels		
	Manufacturer:	Catalogue No:	
LAB/17624	Indicator pH test paper and litmus paper reels; each reel contains a paper strip 5 m long x 6 mm wide, supply as: - reel x universal indicator test paper pH 1-14 - reel x Litmus blue - reel x Litmus red		
	Manufacturer:	Catalogue No:	
LAB/17712	Scissors, general purpose, stainless steel, molded plastic handles, 200 mm long, mix of left and right hand grips		
	Manufacturer:	Catalogue No:	
LAB/17824	Chopping board, wooden		
	Manufacturer:	Catalogue No:	
LAB/1791	Very large chart, wall mounted, Periodic Table of the Elements, laminated, minimum 140 x 150 cm, displaying atomic number and mass number in decimals		
	Manufacturer:	Catalogue No:	
LAB/1805	Charts, five, as selected by the school: size approximately 100 x 75 mm or nearest equivalent, coloured, for example: Circulatory system in the body Male and female reproductive system Plant structure Human digestive system Genetics Working Scientifically Exothermic and Endothermic Reactions Energy Transfer and Efficiency *Irish Versions to be supplied as an option*		
	Manufacturer:	Catalogue No:	
LAB/18112	Carbon dioxide gas sensor, range 0-100,000 ppm CO_2 , accuracy 0-1,000 ppm, stored data points memory (logging), including 250 mL sample bottle *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/18212	Oxygen Gas Sensor, range 0 to 100% O2 concentration, 0 to 1,000,0000 ppm, accuracy ±1% O_2 at constant temp and pressure; ±5% O_2 outside operating range, operating temperatures 0 – 40 degrees C. *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1836	Hand Grip Heart Rate Sensor, range 0 to 240 beats per minute, Accuracy ± 1 beat per minute, maximum sample rate – every two seconds. *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	

LAB/1846	Exercise Heart Rate Sensor, range 0 to 240 beats per minute, Accuracy ± 1 beat per minute, maximum sample rate – every two seconds. *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1856	pH sensor, range 0-14 pH, accuracy ±0.01 pH with calibration, temperature range 5°C - 60°C, data logging, including probe storage bottle and pH sensor storage solution *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1861	Soil moisture sensor, wireless, data logging, 0 to 45% volumetric water content, accuracy ±5%, operating temp range -40 to 60°C *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1876	Temperature sensor, stainless steel probe, range -40ºC to 125ºC, accuracy 0.5ºC, Bluetooth, stored data points memory (logging) *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1886	Conductivity sensor, 0 to 20,000 µS/cm (0 to 10,000 mg/L TDS)		
	Manufacturer:	Catalogue No:	
LAB/1896	Ultrasonic motion detector (range approx. 0.4 to 6.0 m)		
	Manufacturer:	Catalogue No:	
LAB/1906	Light sensor, range 0-100,000 lux with medium, low and high illumination ranges, measures light level (lux), illuminance, UV Index, and colour intensity. *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1911	Relative humidity sensor (0% to 100% RH), measures absolute humidity (g/m3) and air temperature (°C) and calculates relative humidity and dew point, stored data points memory, data logging, range absolute humidity 0 g/m3 to 50 g/m3, accuracy ±2% (RH), range temperature -20° C to 55° C *Note: wireless sensor with Bluetooth technology as an option, if selected by the school*		
	Manufacturer:	Catalogue No:	
LAB/1926	Gas pressure sensor to measure absolute pressure, range approx. 0-210 kPa		
	Manufacturer:	Catalogue No:	
LAB/1936	Relative pressure sensor, 0.001 kPa resolution		
	Manufacturer:	Catalogue No:	
LAB/1946	Microphone, range c.20-1600 Hz		
	Manufacturer:	Catalogue No:	
LAB/1956	Force sensor (-50 to +50 N)		
	Manufacturer:	Catalogue No:	
LAB/1961	Buffer solution pH 7.0 1 litre		
	Manufacturer:	Catalogue No:	
LAB/1971	Buffer solution pH 8.0 1 litre		
	Manufacturer:	Catalogue No:	
LAB/1981	Buffer solution pH 9.0 1 litre		
	Manufacturer:	Catalogue No:	
LAB/1991	Buffer solution pH 10.0 1 litre		
	Manufacturer:	Catalogue No:	

Section 2: Basic Equipment			
LAB/2008	Thermal conductivity of metals set, 4 different metal strips (aluminium, brass, copper and iron) on wooden ring, cavity for wax on end of strip		
	Manufacturer:	Catalogue No:	
LAB/2018	Convection tube, glass, internal diameter 20 mm, rectangular structure with funnel on top		
	Manufacturer:	Catalogue No:	
LAB/2028	Ventilation apparatus, metal box, 22 x 10 x 10cm with removable glass front and two chimneys on top		
	Manufacturer:	Catalogue No:	
LAB/2036	Thermochromic sheet re-usable to indicate thermal conductivity and radiation, pack, 150mm x 150mm		
	Manufacturer:	Catalogue No:	
LAB/20412	Bimetallic strip fitted with handle		
	Manufacturer:	Catalogue No:	
LAB/2058	Ingenhausz apparatus, metal tank with legs, 210 x 75 x 75 mm with 7 inlets to take six rods mounted in corks with remaining hole for thermometer. To be supplied with: thermal conductivity rods (aluminium, brass, copper, lead, glass and iron), 250 x 3 mm, length x diameter		
	Manufacturer:	Catalogue No:	
LAB/20612	Electrostatics kit, elementary experiments in electrostatics, comprising polystyrene spheres, cotton cloth, woolen cloth, wooden clothes pegs, nylon filament, small paint brush, graphite in alcohol, insulators, pins, acetate and vinyl strip, instructions for use		
	Manufacturer:	Catalogue No:	
LAB/20724	Multimeters, robust with easy battery replacement, digital, auto ranging frequency measurement, capacitance measurement and transistor test. Voltage a.c.& d.c. – 5 ranges each from 200 mV x 100 µV to 600 V x 1 V. Current a.c. & d.c. – 4 ranges each from 2 mA x 1 µA to 10 x 10 mA. Resistance 6 ranges from 200 R x 0.01 R to 20 M x 10 k. Capacitance – 5 ranges from 2000 pF x 1 pF to 20 µF x 10 nF. Frequency – 5 ranges 2 kHz x 1 Hz to 20 MHz x 100 kHz. Diode Test. Continuity test. Transistor test NPN and PNP. Two year warranty.		
	Manufacturer:	Catalogue No:	
LAB/20812	Variable voltage power supply unit, variable 0-25V, regulated DC, overload protection, two year warranty, Performance (approx): No Load 8 A Load d.c. 0-25 V 24 V a.c. 0-25 V 24 V		
	Manufacturer:	Catalogue No:	
LAB/2093	Bulb holder, MES, socket E 10, pack 10		
	Manufacturer:	Catalogue No:	
LAB/2103	Flashlamp bulbs, MES cap, round, 2.5 V, 300 mA, socket E10, pack 10		
	Manufacturer:		
LAB/2113	Fuses, quick blow, 500 mA, pack 10		
	Manufacturer:	Catalogue No:	

LAB/2123	Fuses, quick blow, 1 A, pack 10		
	Manufacturer:	Catalogue No:	
LAB/2133	Fuses, quick blow, 2 A, pack 10		
	Manufacturer:	Catalogue No:	
LAB/2143	Fuses, quick blow, 5 A, pack 10		
	Manufacturer:	Catalogue No:	
LAB/2151	Fuse wire, tinned copper, 2 A, reel 100 g		
	Manufacturer:	Catalogue No:	
LAB/2161	Fuse wire, tinned copper, 5 A, reel 100 g		
	Manufacturer:	Catalogue No:	
LAB/21724	Buzzer, miniature transistor oscillator, 6 volt supply, mounted with 4 mm sockets		
	Manufacturer:	Catalogue No:	
LAB/2186	Light emitting diodes, standard, 5 mm, suitable for PCB or panel mounting, red, pack 5		
	Manufacturer:	Catalogue No:	
LAB/2196	Light emitting diodes, standard, 5 mm, suitable for PCB or panel mounting, green, pack 5		
	Manufacturer:	Catalogue No:	
LAB/2206	Light emitting diodes, standard, 5 mm, suitable for PCB or panel mounting, yellow, pack 5		
	Manufacturer:	Catalogue No:	
LAB/22124	Light emitting diode holder (soldering not required) complete with 200 mm leads and LED release tool		
	Manufacturer:	Catalogue No:	
LAB/2221	Large demonstration Hoffman Voltameter		
	Manufacturer:	Catalogue No:	
LAB/22312	Voltameter, Hoffmann, hand-held for student use, comprising of embedded platinum electrodes connected to 4 mm terminal connections, two small test tubes, overall construction of acid-proof plastic		
	Manufacturer:	Catalogue No:	
LAB/22412	Resistor, light dependent, cadmium sulfide cell LDR in glass case with clear end window		
	Manufacturer:	Catalogue No:	
LAB/2252	Resistor, carbon film resistors 0.5 W with maximum working voltage of 350 volts, 47 R, pack of 10.		
	Manufacturer:	Catalogue No:	
LAB/2262	Resistor, carbon film resistors 0.5 W with maximum working voltage of 350 volts, 100 R, pack of 10.		
	Manufacturer:	Catalogue No:	
LAB/2272	Resistor, carbon film resistors 0.5 W with maximum working voltage of 350 volts, 200 R, pack of 10.		
	Manufacturer:	Catalogue No:	
LAB/2283	Resistor, carbon film resistors 0.5 W with maximum working voltage of 350 volts, 1K, pack of 10.		
	Manufacturer:	Catalogue No:	

LAB/2294	Switches, rated 250 mA, 125 V a.c., pack 10		
	Manufacturer:	Catalogue No:	
LAB/2306	Transistor, general purpose, BC108 NPN power, pack 5.		
	Manufacturer:	Catalogue No:	
LAB/2316	Transistor, general purpose, ZTX 300 NPN audio, pack 5.		
	Manufacturer:	Catalogue No:	
LAB/2326	Transistor, general purpose, BFY51 NPN audio, pack 5.		
	Manufacturer:	Catalogue No:	
LAB/23324	Opisometer		
	Manufacturer:	Catalogue No:	
LAB/23412	Balances, Spring, Flat form, zero adjuster, overload protection, hook, in metal case, reading in Newton (N), 10 N x 0.2 N		
	Manufacturer:	Catalogue No:	
LAB/23512	Magnifiers, light weight, pocket size, two plano-convex lenses, lens mount folds into case, 1.5 cm (diameter) x 2 cm (depth), magnification x10.		
	Manufacturer:	Catalogue No:	
LAB/2362	Mirror, plane, glass 100 x 75mm, pack 10		
	Manufacturer:	Catalogue No:	
LAB/2372	Holder for plane mirror, above, hardwood cube with slot, per pack 10, for above		
	Manufacturer:	Catalogue No:	
LAB/2383	Magnifier, hand held, acrylic lens, frame and handle, magnification x 3.4, lens diameter 48 mm.		
	Manufacturer:	Catalogue No:	
LAB/2392	Pins, optical, pack 100		
	Manufacturer:	Catalogue No:	
LAB/24010	Lens and Mirror holder, V Shaped		
	Manufacturer:	Catalogue No:	
LAB/2411	Lenses biconvex glass 50mm - 150 mm focal length, Pk/20		
	Manufacturer:	Catalogue No:	
LAB/2421	Lenses biconvex glass 38mm - 300 mm focal length, Pk/20		
	Manufacturer:	Catalogue No:	
LAB/2431	Lenses biconcave glass 38mm - 200 mm focal length, Pack/20		
	Manufacturer:	Catalogue No:	
LAB/2441	Mirror, Concave 50 mm Focal length 100 mm Pack/10		
	Manufacturer:	Catalogue No:	
LAB/2451	Mirror, Concave 50 mm Focal length 200 mm Pack/10		
	Manufacturer:	Catalogue No:	
LAB/24610	Ray optics kit for reflection, refraction and colour mixing experiments. 12V 24 W lamp in mirrored raybox		
	Manufacturer:	Catalogue No:	
LAB/24748	Springs, steel, extension, 6mm diameter, closely wound, length 150, extension for 250 g load approx. 250mm		
	Manufacturer:	Catalogue No:	
LAB/24812	Scale pan, with cords and hooks		
	Manufacturer:	Catalogue No:	

LAB/2494	Vacuum/bell jar with plate, a vacuum system, which includes a transparent jar and a gasket vacuum plate, vacuum plate comes with a tubing adaptor		
	Manufacturer:	Catalogue No:	
LAB/2503	Generator, low frequency, converts d.c. into a.c. at frequencies up to 30 Hz		
	Manufacturer:	Catalogue No:	
LAB/2514	High quality air pump, pressure or vacuum, two riffled connections one each for vacuum and pressure, electric		
	Manufacturer:	Catalogue No:	
LAB/25212	Filter pumps, vacuum, water-jet, without pressure gauge, Polypropylene, with tapered side arm, maximum vacuum approx. 25 mm Hg at a flow rate of approx. 17 litre/minute.		
	Manufacturer:	Catalogue No:	
LAB/2531	Barometer		
	Manufacturer:	Catalogue No:	
LAB/25412	Newton's disc, 180 mm diameter (approx.), mounted on a metal stand and driven with a hand wheel		
	Manufacturer:	Catalogue No:	
LAB/2551	Set of STEM interconnecting solid plastic building blocks, made of non-toxic, BPA-free polyethylene		
	Manufacturer:	Catalogue No:	
LAB/25612	Molecular model set, atomic models (skeletal) containing 24 large spheres, 84 small spheres with flexible bonds		
	Manufacturer:	Catalogue No:	
LAB/25712	Gas preparation kit. Components supplied in a container with a snap-fit lid which is used to store the kit when not in use.		
	Manufacturer:	Catalogue No:	
LAB/25812	Apparatus to investigate conservation of mass (closed polypropylene system with two sections provided for reagents)		
	Manufacturer:	Catalogue No:	
LAB/2596	Bread Soda, 500g, household		
	Manufacturer:	Catalogue No:	
LAB/26012	Box vitamin C tablets, household		
	Manufacturer:	Catalogue No:	
LAB/26112	Boxes of antacid tablets, household		
	Manufacturer:	Catalogue No:	
LAB/2626	Vinegar, 500ml, household		
	Manufacturer:	Catalogue No:	
LAB/26324	Respiration apparatus, for tests on inhaled and exhaled air, comprising two test-tubes (150 x 19 mm) each with two-holed stoppers and two lengths of 5 mm glass tubing. One short and one long tubing piece is connected via PVC tubing to a mouth T-piece		
	Manufacturer:	Catalogue No:	

LAB/264 12	Dissecting kit, comprising: - 2 scalpel handles, nickel alloy, slotted to accept blades, size no. 4, length 100mm - Scalpel blades, surgical quality steel, for use with no. 4 handles, type no. 22, one pack of 5 blades, foil wrapped - Scalpel blades, surgical quality steel, for use with no. 4 handles, type no. 21, one pack of 5 blades, foil wrapped - 2 needles, aluminium handle - 1 seeker, aluminium handle - 1 stainless steel forceps, blunt, 125 mm - 1 stainless steel forceps, sharp, 125 mm - 1 stainless steel scissors, fine, 112 mm - 1 stainless steel scissors, blunt, 125 mm 1 instrument tidy roll, canvas or PVC, 13 pockets		
	Manufacturer:	Catalogue No:	
LAB/265 12	Microscope, monocular, 10x eyepiece, low voltage illumination 12 V/20 W built-in, 140 x 140 mm mechanical stage, 3 objectives 4x/0.1, 10x/0.25, 40x/0.65, triple nosepiece, lenses coated, separate coarse and fine focusing, built-in safety lock to protect slides. The 40x objective spring-loaded, condenser with iris diaphragm and centring ring, rack and pinion focusing, a.c., 230 V, 50 Hz supply, supplied with spare bulbs, fuses, plan/concave orientable mirror, dust cover. Inclines, rotatable viewing tube or conventional inclinable body, stage with side clips, two year warranty.		
	Manufacturer:	Catalogue No:	
LAB/266 4	Microscope slides, 75 mm x 25 mm, box 100, suitable for routine and student use		
	Manufacturer:	Catalogue No:	
LAB/267 12	Cover slips, box 100, square		
	Manufacturer:	Catalogue No:	
LAB/268 12	Prepared slide, aorta, human, T.S., stained with elastic fibres		
	Manufacturer:	Catalogue No:	
LAB/269 12	Prepared slide, Saccharomycetes *cerevisiae*, brewer's yeast, budding		
	Manufacturer:	Catalogue No:	
LAB/270 12	Prepared slide, chromosomes, male, human, normal		
	Manufacturer:	Catalogue No:	
LAB/271 12	Prepared slide, chromosomes, female, human, normal		
	Manufacturer:	Catalogue No:	
LAB/272 12	Prepared slide, artery and vein, stained, T.S.		
	Manufacturer:	Catalogue No:	
LAB/273 12	Prepared slide, blood smear, human		
	Manufacturer:	Catalogue No:	
LAB/274 12	Prepared slide, cancer cells		
	Manufacturer:	Catalogue No:	
LAB/275 12	Bacillus, coccus and spirillum, comparative slide		
	Manufacturer:	Catalogue No:	
LAB/276 12	Prepared slide, intestine, T.S.		
	Manufacturer:	Catalogue No:	
LAB/277 12	Prepared slide, spermatozoa, human sperm smear		
	Manufacturer:	Catalogue No:	
LAB/278 12	Prepared slide, ovary, T.S. mammal		
	Manufacturer:	Catalogue No:	
LAB/279 4	Agar plates, prepared, nutrient agar, pack 10, delay delivery until requested by the school		
	Manufacturer:	Catalogue No:	

LAB/280 12	Dissecting dish. Metal non-stick coated dissecting dish measuring approximately 320 x 260 x 40mm		
	Manufacturer:	Catalogue No:	
LAB/281 12	Bug Viewer with Grid and Magnifier		
	Manufacturer:	Catalogue No:	
LAB/282 12	Metal Quadrat with 25 grids		
	Manufacturer:	Catalogue No:	
LAB/283 12	Metal Quadrat with 100 grids		
	Manufacturer:	Catalogue No:	
LAB/284 12	Habitat identification keys, includes plant and animal identification, approximately 29x24cm laminated and folded, easy to wipe clean, providing easy identification using key questions that are easy to follow and clear illustrations, suitable to Irish habitat. A set of twelve for each of the five habitats: - woodland, pond, grassland, seashore and hedgerow		
	Manufacturer:	Catalogue No:	
LAB/285 24	Microbiological inoculating loop with handles, aluminium & nickel plated, brass collar, length 150 mm		
	Manufacturer:	Catalogue No:	
LAB/286 12	Microbiological inoculating wire, 50 mm, pack of 20		
	Manufacturer:	Catalogue No:	
LAB/287 12	Mini Digestive system, circulatory system and respiratory student models in several parts and in a storage box		
	Manufacturer:	Catalogue No:	
LAB/288 10	Gardeners packets of seeds, a range of varieties, suitable for early or year round germination (e.g. Pea, Cress, Broad bean, Lettuce, Barley, Maize, Oat, Radish, Mustard, Helianthus), ten packets of varieties selected by the school		
	Manufacturer:	Catalogue No:	
LAB/289 6	Funnel, Tullgren, supplied with coarse and fine meshes, glass collection dish, lamp and 1.5 m 3-core cable, for use on AC mains		
	Manufacturer:	Catalogue No:	
LAB/290 2	Rope, for line transect, coloured nylon, lightweight, roll 50 m long		
	Manufacturer:	Catalogue No:	
LAB/291 3	Surveying (Tent) pegs, plastic, pack 10		
	Manufacturer:	Catalogue No:	
LAB/292 12	Pooter, plastic, complete with mouth piece and collecting tubes		
	Manufacturer:	Catalogue No:	
LAB/293 1	PTC Taste Paper (Pack 100)		
	Manufacturer:	Catalogue No:	
LAB/294 24	Show-Me Boards, supplied with markers and erasers		
	Manufacturer:	Catalogue No:	
LAB/295 12	Clipboard		
	Manufacturer:	Catalogue No:	
LAB/296 1	Plasticine, multiple colours, min. 1kg in total		
	Manufacturer:	Catalogue No:	
LAB/297 2	Ball of string, cotton materials		
	Manufacturer:	Catalogue No:	
LAB/298 2	Tape measure, PVC coated fibre glass, width 13 mm, graduated one side every 10mm and figured every tenth of metre with metre figures in red, in an ABS plastic case with rewind handle, 50 m		
	Manufacturer:	Catalogue No:	
LAB/299 2	Gas lighter		
	Manufacturer:	Catalogue No:	

Section 3: Glass and Polypropylene ware			
LAB/30030	Gas jars, heavy glass, ground flange, 150 mm high x 50 mm internal diameter		
	Manufacturer:	Catalogue No:	
LAB/30130	Gas jar covers, circular sheet glass, 50 mm int. dia. jars, pk 10		
	Manufacturer:	Catalogue No:	
LAB/30224	Bottles, indicator, dispensing, clear glass, plastic stoppers, vinyl teat and graduated, 60 cm^3		
	Manufacturer:	Catalogue No:	
LAB/30312	Trough, pneumatic, heavy plastic, cylindrical, 250 × 125 mm (diam x height). Used in gas preparation		
	Manufacturer:	Catalogue No:	
LAB/3046	Glass rods, soda lime, diameter 8 mm, in lengths 1.5 m, bundle 5		
	Manufacturer:	Catalogue No:	
LAB/30548	Beaker, pyrex, 50 cm^3, graduated, with spout		
	Manufacturer:	Catalogue No:	
LAB/306100	Beaker, pyrex, 100 cm^3, graduated, with spout		
	Manufacturer:	Catalogue No:	
LAB/307100	Beaker, pyrex, 250 cm^3, low form, graduated, with spout		
	Manufacturer:	Catalogue No:	
LAB/30824	Beaker, pyrex, 400 cm^3, low form, graduated, with spout		
	Manufacturer:	Catalogue No:	
LAB/30930	Measuring cylinder, borosilicate glass with glass foot, graduated, 100 cm^3 x 1 cm^3 graduations, with spout		
	Manufacturer:	Catalogue No:	
LAB/31024	Measuring cylinder, borosilicate glass with glass foot, graduated, 250 cm^3 x 2 cm^3 graduations, with spout.		
	Manufacturer:	Catalogue No:	
LAB/31112	Measuring cylinder, borosilicate glass with glass foot, graduated, 500 cm^3 x 2 cm^3 graduations, with spout.		
LAB/31220	Measuring cylinder, borosilicate glass with glass foot, graduated, 10 cm^3 x 0.1 cm^3 graduations, with spout		
	Manufacturer:	Catalogue No:	
LAB/31312	Flask, conical, borosilicate, graduated, 100 cm^3		
	Manufacturer:	Catalogue No:	
LAB/31460	Flask, conical, borosilicate, , graduated, 250 cm^3		
	Manufacturer:	Catalogue No:	
LAB/31512	Flask, round bottom, borosilicate, 250 cm^3		
	Manufacturer:	Catalogue No:	
LAB/31648	Funnel, conical, plain plastic, 150 mm diameter.		
	Manufacturer:	Catalogue No:	
LAB/3174	Test-tubes, glass, borosilicate, medium wall, with rim, size 125 mm x 16 mm, pack 100		
	Manufacturer:	Catalogue No:	
LAB/3184	Boiling tubes, glass, borosilicate, medium wall, size150 mm x 24 mm, pack 100		
	Manufacturer:	Catalogue No:	
LAB/3191	Pipettes, disposable, graduated with integral bulb, translucent, length 155 mm, inert polythene, 3 x 0.5 cm^3 (capacity x graduation), pack of 500.		
	Manufacturer:	Catalogue No:	
LAB/32012	Stirring rod, glass, one end round, other flat, length 200 mm		
	Manufacturer:	Catalogue No:	
LAB/32112	Watch glasses, borosilicate, clear glass with ground edges, 100 mm diameter.		

	Manufacturer:	Catalogue No:	
LAB/3222	Dispenser, bottle top, suitable for aqueous solutions, dilute acids and strong alkaline solutions. Volume can be set and locked.		
	Manufacturer:	Catalogue No:	
LAB/32324	Evaporating basin, porcelain, semi-deep with spout, Capacity, 75 cm^3; 82 $\times$ 32 mm		
	Manufacturer:	Catalogue No:	
LAB/32424	Reagent bottles, clear glass, narrow mouth with interchangeable dustproof polythene stoppers with hexagonal heads, capacity 250 cm^3		
	Manufacturer:	Catalogue No:	
LAB/32512	Reagent bottles coated with plastic for sodium hydroxide, labelled, narrow mouth with interchangeable dustproof polythene stoppers with hexagonal heads or glass stopper, as appropriate, capacity 250 cm^3		
	Manufacturer:	Catalogue No:	
LAB/32624	Burette, soda glass, 50 cm^3 x 0.1, one way PTFE key stopcock		
	Manufacturer:	Catalogue No:	
LAB/3274	Pipette, graduated, type I, class B, calibrated for delivery from zero mark at top to graduation mark, face marked, 25 cm^3 capacity x 0.2 cm^3 divisions, pack 5		
	Manufacturer:	Catalogue No:	
LAB/32810	Funnel Buchner 200ml for 9cm paper		
	Manufacturer:	Catalogue No:	
LAB/32960	Dropping bottle, clear glass with polythene stoppers fitted with glass dropper and vinyl teat, nominal capacity 125 cm^3		
	Manufacturer:	Catalogue No:	
LAB/3302	Rods borosilicate glass 0.5m x 5mm diam		
	Manufacturer:	Catalogue No:	
LAB/33110	Burette poly PTFE stopcock 50ml		
	Manufacturer:	Catalogue No:	

Section 4: Safety and Cleaning			
LAB/40048	Laboratory coats, white, cotton, front snap fasteners, range of sizes 34-48, length approx. 105 cm, pockets		
	Manufacturer:	Catalogue No:	
LAB/40148	Safety glasses, with side protection, adjustable sizes type, to Standard EN 166		
	Manufacturer:	Catalogue No:	
LAB/4021	Dishwasher: Household Model: Maximum dimensions: 600 mm x 600 mm x 850 mm high, features to include half-load setting and quick wash time, energy efficiency Class A. 55 dB noise or lower, two year warranty.		
	Manufacturer:	Catalogue No	
LAB/4036	Brushes, flask, curved bristle head, 50 m diameter x 100 mm long, with hinged centre joint, wood handle		
	Manufacturer:	Catalogue No:	
LAB/40412	Brushes, test-tube, bristle fan shaped head, on wire handle, head diameter 10 mm		
	Manufacturer:	Catalogue No:	
LAB/4052	Draining rack and drainage pan, fitted with wall protecting back panel and fixing lugs to take 30 test-tubes and 12 flasks or beakers		
	Manufacturer:	Catalogue No:	
LAB/4061	Fire Blanket, glass fibre, 80 cm × 92 cm		
	Manufacturer:	Catalogue No:	
LAB/4071	First aid cabinet, c. 450 x 330 x 200 mm, metal, lockable, for wall mounting, complete with shelving, including shelving on inside of doors, to include plaster strip, antiseptic powder, burn shield, burn gauze, cotton bandages, triangular bandages, zinc oxide tape, cotton wool, cotton buds, tube gauze, CPR mouth piece, gauze swabs, antihistamine cream, antiseptic cream, burn cream, burn shield gel, eye pads, eye wash, iodine-based liquid antiseptic, scissors, forceps, safety pins, gloves, wound wipes, one shot eye wash, absorbent lint, ice pack, wound dressings, burn dressings, crepe bandage, ambulance pads, plasters.		
	Manufacturer:	Catalogue No:	
LAB/4086	Gloves, heat resistant, 230° for 15 s, 1 pair per pack, medium		
	Manufacturer:	Catalogue No:	
LAB/40910	Gloves, disposable, latex, small, pack 100		
	Manufacturer:	Catalogue No:	
LAB/41020	Gloves, disposable, latex, medium, pack 100		
	Manufacturer:	Catalogue No:	
LAB/41110	Gloves, disposable, latex, large, pack 100		
	Manufacturer:	Catalogue No:	
LAB/41230	Gloves, heavy duty, rubber, 30 pairs in range of sizes		
	Manufacturer:	Catalogue No:	
LAB/4131	Safety screen, polycarbonate panels (3) hinged, 610 mm high, outer panels, 230 mm wide, centre panel 300 mm wide, polypropylene bases for clamping/screwing to bench, provided with clamps		
	Manufacturer:	Catalogue No:	
LAB/4142	Eye wash station, complete with two 500ml saline eye was containers and saline solution		
	Manufacturer:	Catalogue No:	
LAB/4151	Spill disposal kit, 5 L capacity container kit, with absorbent mats, 1 kg particulate absorbent, plastic disposal bags, wrap ties,		

	scoop, brush, chemical resistant gloves and chemical goggles		
	Manufacturer:	Catalogue No:	
LAB/4161	Fire bucket, supplied with sand		
	Manufacturer:	Catalogue No:	
LAB/4171	Chart, hazard warning symbols for science laboratories		
	Manufacturer:	Catalogue No:	
LAB/4184	Scissors, general purpose, stainless steel, molded plastic handles, 200 mm long, mix of left and right hand grips		
	Manufacturer:	Catalogue No:	
LAB/4192	Scissors, heavy duty, scalloped blades		
	Manufacturer:	Catalogue No:	

Equipment for Science

Section	Code	Total Costs €:
Section 1	Basic Laboratory	
Section 2	Basic Equipment	
Section 3	Glass and Polypropylene ware	
Section 4	Safety and Cleaning	

Total (€)	
Add for VAT (€)	
Total amount for LAB List (€)	

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 byOfficers from the Department of Education.

It is essential that tenders for equipment for School Use shall:

i) Comply fully with the specifications and be durable and safe for School Use.
ii) Comply fully with the standards as detailed and shall comply fully with European (EN) standards, bothestablished and developing.
iii) Comply with European electrical standards and CE marking as appropriate.
iv) Fully comply with requirements in the Request for Tenders (RFT) document.
v) Be accompanied by documentation of sufficient detail for full evaluation.
vi) 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.

Certificate of Compliance with Standards, Specifications & 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: _____