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SCIENCE RESOURCE – PREPARATORY LABORATORY.

Equipment List, Specifications andTendering Guidance (RES)

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Planning & Building Unit,
Department of Education
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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 Equipment for the Preparatory Lab Room

Code Quantity	Descriptions and Specifications		Cost €:
RES/100 1	Adhesive Tape Dispenser		
	Manufacturer:	Catalogue No.:	
RES/101 4	Adhesive Tape, transparent, width 19 mm, in roll length 66 m.		
	Manufacturer:	Catalogue No.:	
RES/102 2	Blank labels, self-adhesive, white, circles 12 mm diameter, supplied in dispenser pack of 900 labels approx.		
	Manufacturer:	Catalogue No.:	
RES/103 2	Bench protector, roll, 46 cm x 50 m, or equal. Material is strong and tear resistant when wet or dry. Smooth white surface can be written on with ink or pencil and lies flat.		
	Manufacturer:	Catalogue No.:	
RES/104 1	Bags, disposal, Polyethylene, non-sterile, can be autoclaved at 121 °C, printed with biohazard symbol, size c. 610 x 760 mm, pack 100.		
	Manufacturer:	Catalogue No.:	
RES/105 1	Hazard warning label, self-adhesive vinyl roll, comprising 330 labels, 50 x 50 mm, on backing paper, text and symbols in black, Corrosive.		
	Manufacturer:	Catalogue No.:	
RES/106 1	Hazard warning label, self-adhesive vinyl roll, comprising 330 labels, 50 x 50 mm, on backing paper, text and symbols in black, highly flammable.		
	Manufacturer:	Catalogue No.:	
RES/107 1	Hazard warning label, self-adhesive vinyl roll, comprising 330 labels, 50 x 50 mm, on backing paper, text and symbols in black, oxidising agent.		
	Manufacturer:	Catalogue No.:	
RES/108 1	Hazard warning label, self-adhesive vinyl roll, comprising 330 labels, 50 x 50 mm, on backing paper, text and symbols in black, irritant.		
	Manufacturer:	Catalogue No.:	
RES/109 1	Hazard warning label, self-adhesive vinyl roll, comprising 330 labels, 50 x 50 mm, on backing paper, text and symbols in black, toxic.		
	Manufacturer:	Catalogue No.:	
RES/110 4	Paper roll, Milaroll or equivalent, green, 300 mm wide.		
	Manufacturer:	Catalogue No.:	
Res/111 2	Galvanised reel dispenser, wall mounted, Milaroll or equivalent, to suit above.		
	Manufacturer:	Catalogue No.:	
RES/112 2	Parafilm, two-way stretch, 100 mm wide, roll length 38 m long.		
	Manufacturer:	Catalogue No.:	
RES/113	Rubber bands, packet 100, various sizes		

10	Manufacturer:	Catalogue No.:	
RES/114	Rubber tubing, red. B.S. 2775, size N6.5 normal wall, 10 m length		
2	Manufacturer:	Catalogue No.:	
RES/115	Rubber tubing, red. B.S. 2775, size N8 normal wall 10 m length		
2	Manufacturer:	Catalogue No.:	
RES/116	Rubber tubing, red. B.S. 2775, size N5 normal wall, 10 m length		
2	Manufacturer:	Catalogue No.:	
RES/117	Rubber tubing, red. B.S. 2775, size H5 heavy wall, 10 m length		
2	Manufacturer:	Catalogue No.:	
RES/118	Silicone tubing, bore 6 mm x 10 mm o.d., coil 15 m		
1	Manufacturer:	Catalogue No.:	
RES/119	Silicone tubing, bore 8 mm x 12 mm o.d., coil 15 m		
1	Manufacturer:	Catalogue No.:	
RES/120	Tool kit: Comprising brush, forceps (fine point), assorted screw drivers, mains tester, 2 pliers, wire stripper, assorted Allen keys, spanner set, file, mirror, soldering iron and solder.		
12	Manufacturer:	Catalogue No.:	
RES/121	Cork borer set, nickel-plated brass, tube sizes 5 - 19		
1	Manufacturer:	Catalogue No.:	
RES/122	Cork, assorted, pack 150 approx		
2	Manufacturer:	Catalogue No.:	
RES/123	Craft knife with two packets of blades		
6	Manufacturer:	Catalogue No.:	
RES/124	Jug, polypropylene, graduated, capacity 1 litre		
24	Manufacturer:	Catalogue No.:	
RES/125	Draining rack complete with drip tray, fitted with wall protecting back panel and fixing lugs to take 30 test-tubes and 12 flasks or beakers		
2	Manufacturer:	Catalogue No.:	
RES/126	Weighing boats, polystyrene, disposable, 250 cm^3, pack of 500.		
2	Manufacturer:	Catalogue No.:	
RES/127	Weighing boats, polystyrene, disposable, 100 cm^3, pack of 250.		
2	Manufacturer:	Catalogue No.:	
RES/128	Taper, wax, box 60. for lighting candles and burners at a distance as the tapers measure		
2	Manufacturer:	Catalogue No.:	
RES/129	Wood splints, bundles of 1000 approx.		

1	Manufacturer:	Catalogue No.:	
RES/130	Bell jar, borosilicate glass, graduated with stopper on top. Height x diameter 300 x 200 mm.		
2	Manufacturer:	Catalogue No.:	
RES/131	Thermos vacuum flask or equivalent, 500 cm^3 capacity, silvered glass inner vessel, plastic outer container, screw stopper and cap		
6	Manufacturer:	Catalogue No.:	
RES/132	Electroscope, metal aluminium vane, 50 mm diameter charging disc mounted on metal casing with removable glass side panels.		
8	Metal Vane Electroscope housed in a metal (shielded) case with an earthing socket with viewing panels.		
	Manufacturer:	Catalogue No.:	
RES/133	Mini Hoffman Voltameter (PTFE) with electrodes , student inquiry set		
12	Manufacturer:	Catalogue No.:	
RES/134	Stranded wire, 7/0.2 mm copper conductor, overall diameter 1.4 mm, supplied in packs of 20 m (2 m each of 10 different colours), 1.4 A		
1	Manufacturer:	Catalogue No.:	
RES/135	Motor 6 V, d.c. with 4 mm sockets		
6	Manufacturer:	Catalogue No.:	
RES/136	Copper wire, uncovered, SWG 22 (*c*.0.64 mm), 250 g reel and 125g reel		
1	Manufacturer:	Catalogue No.:	
RES/137	Slotted weights, each of 0.1N, 0.2N, 0.5N.		
24	Manufacturer:	Catalogue No.:	
RES/138	Wormery Inquiry Activity Set		
12	A plastic jar, size 400 x 250 mm approx., complete with removable glass plates, including a bag of Sand, Soil, Gravel. Mini set to include sand, soil and gravel for one wormery inquiry activity by students working in pairs. To be supplied in sealed containers.		
	Manufacturer:	Catalogue No.:	
RES/139	Syringes, polypropylene, disposal, box of 100 each of , capacity 5ml,10ml, 20ml.		
1	Manufacturer:	Catalogue No.:	
RES/140	Empty petri dishes, sterile, polystyrene disposable, 90 mm x 12 mm, pack of 500.		
6	Manufacturer:	Catalogue No.:	
RES/141	Yeast, 500g.		
2	Manufacturer:	Catalogue No.:	
RES/142	Glass block, optically worked surfaces, for refractive experiments, 70 x 50 x 18 mm approx. Supplied with ray box.		
12	Glass block inquiry set: glass block, White sheet of paper, thumb pins, Laser, Protractor, Pencil, Eraser, Ruler		
	Manufacturer:	Catalogue No.:	

RES/143 1	Deioniser, on wall mounting bracket, with inlet valve and minimum of 1 m outlet tube, battery operated colour coded conductivity meter allowing instant monitoring of the treated water quality, cartridge output min. 200 litres with min. flow rate of 25 L/hour within range 1.0 to 0.1 µS/cm for moderately hard water. Complete with 2 spare cartridges.		
	Manufacturer:	Catalogue No.:	
RES/144 1	Refrigerator, min. 3-star, 600 mm x 600 mm x 1500 mm high, 50/50 fridge/freezer (50:50), c.180 litre capacity, with rust proof inner liner, auto defrost, 230 V, 50 Hz. (*Not for chemical storage*). Energy efficiency Class A.		
	Manufacturer:	Catalogue No.:	
RES/145 1	Microwave oven, 1000 W, electronic controls and digital displays, glass turntable, 20 L capacity approx. Energy efficiency Class A.		
	Manufacturer:	Catalogue No.:	
RES/146 1	Glasswasher, settings to 65 degrees C, stainless steel interior, 230 V 50 Hz, hot and cold water supplies. Size *c*.600x600x850 high mm. Energy efficiency Class A		
	Manufacturer:	Catalogue No.:	
RES/147 24	Gloves, heat resistant -230 for 15s 1 pair per pack		
	Manufacturer:	Catalogue No.:	
RES/148 24	Gloves disposable, not latex pack 100		
	Manufacturer:	Catalogue No.:	
RES/149 24	Gloves heavy duty, red PVC, medium		
	Manufacturer:	Catalogue No.:	
RES/150 1	Elder pith. Pack/10 SB36820		
	Manufacturer:	Catalogue No.:	
RES/151 12	Paint brush, small no. 5		
	Manufacturer:	Catalogue No.:	
RES/152 12	Strainer/Sieve All metal on handle		
	Manufacturer:	Catalogue No.:	
RES/153 2	Masking tape roll 25 mm		
	Manufacturer:	Catalogue No.:	
RES/154 1	Pen, Medium Permanent Black (Pack 10) SP06520		
	Manufacturer:	Catalogue No.:	
RES/155 1	Radish seeds (Pk/100), Cress seeds (Pk/200), Helianthus seeds, 250g Broad Bean Seeds (Pk/100)		
	Manufacturer:	Catalogue No.:	
RES/156 2	Petri dish rack to hold 60 petri dishes		
	Manufacturer:	Catalogue No.:	
RES/157	Filter paper, grade 1, qualitative general purpose, 9 cm, pack 100		

1	Manufacturer:	Catalogue No.:	
RES/158 1	Autoclave Classic (9 or 12 L capacity), supplied with basket		
	Manufacturer:	Catalogue No.:	
RES/159 6	Roll of autoclave tape		
	Manufacturer:	Catalogue No.:	
RES/160 1	Autoclave Bags (Pack of 200)		
	Manufacturer:	Catalogue No.:	
RES/161 1	Mendelian Genetics Kits: 15 monohybrid chips, female (red/yellow), 15 monohybrid chips, male (red/white), 15 dihybrid double dice, female (colored), 15 dihybrid double dice, male (clear), 15 plastic shaker cups. Suitable for students to work in pairs.		
	Manufacturer:	Catalogue No.:	

Section 2: Glass & Polythene			
RES/200 10	Flask, volumetric, glass with polypropylene stopper, ten of each size: 50, 100, 250 cm^3		
	Manufacturer:	Catalogue No.:	
RES/201 12	Flask, volumetric, glass with polypropylene stopper, 500 cm^3		
	Manufacturer:	Catalogue No.:	
RES/202 6	Flasks, volumetric, glass, with polypropylene stopper, 1000 cm^3		
	Manufacturer:	Catalogue No.:	
RES/203 1	Tubing , soda lime glass, external diameter 8mm, pack 10 x 1.5 m lengths		
	Manufacturer:	Catalogue No.:	
RES/204 1	Capillary tubing, soda lime glass, length 1.5 m, external diameter 8 mm, pack 278		
	Manufacturer:	Catalogue No.:	
RES/205 1	Tube, combustion, borosilicate glass, open at both ends, inner diameter 22 mm x 300 mm length		
	Manufacturer:	Catalogue No.:	
RES/206 20	Plastic pipette, graduated (0.2 cm^3), 25 cm^3 capacity, pack 5, to include bulb.		
	Manufacturer:	Catalogue No.:	
RES/207 1	Large Distillation apparatus (demonstration), jointed glass, comprising: 1 flask, 100 cm^3, pear shaped, socket/cone size 14/23; 1 Liebig condenser, socket 14/23, cone 10/13; 1 stopper, hollow glass, closed ends, size 14/23; 1 receiver, socket size 10/13, plain bend, short.		
	Manufacturer:	Catalogue No.:	
RES/208	Reagent bottles, clear glass, narrow mouth with interchangeable dustproof polythene stoppers with hexagonal heads, capacity 250 cm^3		

15	Manufacturer:	Catalogue No.:	
RES/2091	Bottles, sample, clear polypropylene, polyethylene screw cap, 250 cm^3 capacity, case 300		
	Manufacturer:	Catalogue No.:	

Section 3: Models and sets			
RES/3008	Model of the heart, two parts, front heart wall removed to reveal the chambers and valves inside, removable base and English key card.		
	Manufacturer:	Catalogue No.:	
RES/3011	Model of elbow joint, moveable, life size, on stand with ligaments, tendons and muscles.		
	Manufacturer:	Catalogue No.:	
RES/3021	Human eye model, enlarged x5 times, 8 parts, on a base		
	Manufacturer:	Catalogue No.:	
RES/3031	Replica human skeleton, plastic, full size, with connective tissues, fully articulated. Skull divisible into three, arms and legs detachable, complete with roller stand and dust cover, height 1.75 m approx.		
	Manufacturer:	Catalogue No.:	
RES/3041	Human torso, bisexual, interchangeable male and female genital organs, dissectible into parts, mounted on base, life size.		
	Manufacturer:	Catalogue No.:	
RES/3055	Mechanical STEM model kits. School to choose five mechanical kits. Each kit to have 12 sets. Each set provided in storage box with a sealable lid.		
	Manufacturer:	Catalogue No.:	
RES/3061	Life Size Human X-Rays Set and broken bones x-ray kit		
	Manufacturer:	Catalogue No.:	
RES/3071	4D Human Anatomy Ear Model		
	Manufacturer:	Catalogue No.:	
RES/3081	Liver Anatomy Model Set		
	Manufacturer:	Catalogue No.:	
RES/3091	Urinary Anatomy Model Set		
	Manufacturer:	Catalogue No.:	
RES/3101	Pregnancy Anatomy Model Set		
	Manufacturer:	Catalogue No.:	
RES/311	Hand and Foot Anatomy Model Set		

1	Manufacturer:	Catalogue No.:	
RES/312	Vertebrae Anatomy Model Set		
1	Manufacturer:	Catalogue No.:	
RES/313	Digestive System Anatomy Model Set		
1	Manufacturer:	Catalogue No.:	
RES/314	Illustrated periodic table charts, A1 size and laminated.		
24	Manufacturer:	Catalogue No.:	
RES/315	A set of laminated visual cards providing a visual exploration and investigation of atoms in the universe.		
1	Manufacturer:	Catalogue No.:	

Section 4: Chemicals and reagents			
RES/400	Agar, nutrient, all purpose, 500 g		
2	Manufacturer:	Catalogue No.:	
RES/401	Aluminium foil, 500 mm wide roll, 75 m long		
2	Manufacturer:	Catalogue No.:	
RES/402	Aluminium sulfate, 100 g		
1	Manufacturer:	Catalogue No.:	
RES/403	Ammonia solution, 0.88%, 2.5 L		
1	Manufacturer:	Catalogue No.:	
RES/404	Amylase, enzyme, 25 g		
1	Manufacturer:	Catalogue No.:	
RES/405	Anti-bumping granules, 250 g		
1	Manufacturer:	Catalogue No.:	
RES/406	Biuret reagent, 500 cm3		
4	Manufacturer:	Catalogue No.:	
RES/407	Benedict's reagent, qualitative, 2000 cm^3		
4	Manufacturer:	Catalogue No.:	
RES/408	Candles, medium size, pack 12		
2	Manufacturer:	Catalogue No.:	
RES/409	Chinagraph pencils, blue		
12	Manufacturer:	Catalogue No.:	
RES/410	Marker pencil for marking on glass, china, acetate, film and polished surfaces.		

2	Manufacturer:	Catalogue No.:	
RES/411 2	Copper(II) sulfate, 500 g		
	Manufacturer:	Catalogue No.:	
RES/412 1	Copper(II) sulfate, anhydrous, 1000 g		
	Manufacturer:	Catalogue No.:	
RES/413 1	Calcium carbonate, 1 kg		
	Manufacturer:	Catalogue No.:	
RES/414 1	Calcium chloride, 500 g, also calcium chloride anhydrous, 500g		
	Manufacturer:	Catalogue No.:	
RES/415 1	Calcium granules, 50 g		
	Manufacturer:	Catalogue No.:	
RES/416 1	Calcium hydroxide, 100 g		
	Manufacturer:	Catalogue No.:	
RES/417 1	Calcium sulfate, 500g		
	Manufacturer:	Catalogue No.:	
RES/418 1	Charcoal, granular, activated, 500 g		
	Manufacturer:	Catalogue No.:	
RES/419 1	Copper rivets, 100 g		
	Manufacturer:	Catalogue No.:	
RES/420 1	Copper turnings, 500 g		
	Manufacturer:	Catalogue No.:	
RES/421 4	Cotton wool, non absorbent, rolls 500 g		
	Manufacturer:	Catalogue No.:	
RES/422 1	Ethanoic (acetic) acid, 1 L		
	Manufacturer:	Catalogue No.:	
RES/423 1	Ethanol, 95% (industrial methylated spirits), 2.5 L		
	Manufacturer:	Catalogue No.:	
RES/424 1	Fehlings solution No. 1, 500 cm3		
	Manufacturer:	Catalogue No.:	
RES/425 1	Fehlings solution No. 2, 500 cm3		
	Manufacturer:	Catalogue No.:	
RES/426 10	Food dye, water soluble, blue, 100 cm3		
	Manufacturer:	Catalogue No.:	
RES/427 10	Food dye, water soluble, green, 100 cm3		
	Manufacturer:	Catalogue No.	
RES/428 10	Food dye, water soluble, red, 100 cm3		
	Manufacturer:	Catalogue No.:	
RES/429 1	Glucose, anhydrous, 500 g		
	Manufacturer:	Catalogue No.	
RES/430	Hydrochloric acid, conc. 2.5 L		

1	Manufacturer:	Catalogue No.	
RES/431 1	Hydrogen peroxide, 500 cm3, c.6% w/v.		
	Manufacturer:	Catalogue No.	
RES/432 1	Indicator pH Paper, 6 Reel Set, including two dispensers of full-range Indicator paper (pH 1-14) + one dispenser of each of the narrow range paper, pH 1-4, 4-6, 6-8, 8-10. Each paper reel 5 m long x 6mm wide.		
	Manufacturer:	Catalogue No.	
RES/433 1	Iodine, 10 g		
	Manufacturer:	Catalogue No.	
RES/434 1	Iodine solution, 500 cm3		
	Manufacturer:	Catalogue No.	
RES/435 1	Iron filings, fine, 250 g		
	Manufacturer:	Catalogue No.	
RES/436 1	Iron filings, coarse, 250 g		
	Manufacturer:	Catalogue No.:	
RES/437 1	Iron sulfate, 500 g		
	Manufacturer:	Catalogue No.:	
RES/438 1	Lithium (metal rods), 10 g		
	Manufacturer:	Catalogue No.:	
RES/439 1	Litmus paper, red, reel, 5 m long x 6 mm wide		
	Manufacturer:	Catalogue No.:	
RES/440 1	Litmus paper, blue, reel, 5 m long x 6 mm wide		
	Manufacturer:	Catalogue No.:	
RES/441 1	Litmus powder, 10 g		
	Manufacturer:	Catalogue No.:	
RES/442 1	Lime water, 500 cm3		
	Manufacturer:	Catalogue No.:	
RES/443 1	Magnesium oxide, 500 g		
	Manufacturer:	Catalogue No.:	
RES/444 1	Magnesium powder, coarse, 100 g		
	Manufacturer:	Catalogue No.:	
RES/445 1	Magnesium ribbon, 25 g		
	Manufacturer:	Catalogue No.:	
RES/446 1	Magnesium turnings, 500 g		
	Manufacturer:	Catalogue No.:	
RES/447 1	Manganese(IV) oxide, precipitated, 500 g		
	Manufacturer:	Catalogue No.:	
RES/448 1	Magnesium turnings, 500 g		
	Manufacturer:	Catalogue No.:	
RES/449 1	Marble chips, 500 g		
	Manufacturer:	Catalogue No.:	
RES/450 1	Methylene blue for microscopical staining, 25 g		
	Manufacturer:	Catalogue No.:	
RES/451 1	Oxalic acid (ethanedioic), 500 g		
	Manufacturer:	Catalogue No.:	

RES/4521	Phenolphthalein (pH indicator) 1% indicator solution in 50% ethanol, 250 cm3		
	Manufacturer:	Catalogue No.:	
RES/4531	Potassium, 10 g		
	Manufacturer:	Catalogue No.:	
RES/4544	Potassium iodide, 100 g		
	Manufacturer:	Catalogue No.:	
RES/4551	Potassium manganate(VII), 250 g		
	Manufacturer:	Catalogue No.:	
RES/4561	Sach's water culture set to demonstrate mineral deficiency in plants		
	Manufacturer:	Catalogue No.:	
RES/4571	Silica gel (self-indicating), 250 g		
	Manufacturer:	Catalogue No.:	
RES/4581	Sodium carbonate, anhydrous 500 g		
	Manufacturer:	Catalogue No.:	
RES/4591	Sodium chloride, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4601	Sodium hydrogen carbonate, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4611	Sodium hydrogen sulfite (metabisulfite), 100 g		
	Manufacturer:	Catalogue No.:	
RES/4622	Sodium hydroxide ampoules 1M, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4631	Sodium metal pellets, in paraffin, 10 g		
	Manufacturer:	Catalogue No.:	
RES/4641	Sodium thiosulfate, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4651	Starch, soluble, 200 g		
	Manufacturer:	Catalogue No.:	
RES/4661	Sucrose, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4671	Sulfur, fine powder, 250 g		
	Manufacturer:	Catalogue No.:	
RES/4681	Sulfuric acid, sp.gr. 1.84, 2.5 L		
	Manufacturer:	Catalogue No.:	
RES/4691	Steel wool, 500 g		
	Manufacturer:	Catalogue No.:	
RES/4701	Universal indicator solution, full range pH 1-14, 500 cm3		
	Manufacturer:	Catalogue No.:	
RES/4712	Universal indicator paper, full range (pH 1-14), 4 reel pack		
	Manufacturer:	Catalogue No.:	
RES/472	Visking tubing, 14 mm x 25 mm (inflated diameter x flat width), roll 5 m		

1	Manufacturer:	Catalogue No.:	
RES/473 1	Clips (for Visking tubing), to close end of tubing up to 29 mm inflated diameter, pack of 10.		
	Manufacturer:	Catalogue No.:	
RES/474 1	Wax, paraffin, 1 kg		
	Manufacturer:	Catalogue No.:	
RES/475 1	Zinc, granulated, 500 g		
	Manufacturer:	Catalogue No.:	
RES/476 1	Bromine		
	Manufacturer:	Catalogue No.:	
RES/477 1	Benzoic Acid Extra Pure 99.5%		
	Manufacturer:	Catalogue No.:	
RES/478 3	Deionised water, 1 L bottles.		
	Manufacturer:	Catalogue No.:	
RES/479 1	Calcium Carbonate, marble chips, a variety of different sized chips. 2-4mm (small), 5-9mm (medium), 9-12mm (large), 3kg bag of each size.		
	Manufacturer:	Catalogue No.:	
RES/480 2	Powdered, Calcium Carbonate, 1 kg bag.		
	Manufacturer:	Catalogue No.:	
RES/481 2	Pea seeds		
	Manufacturer:	Catalogue No.:	

Section 5: Digital technology			
RES/500 13	Tablet or laptop computer suitable to run sensor equipment and data logging devices, Wifi enabled, capable of data logging with minimum screen size 200 x 135 mm and minimum screen resolution 1024 x 768 with touch screen and/or integrated keyboard, 2 USB ports, directly compatible with the sensors listed in AGR, BIO, CHE, LAB and PHY. When connected to the sensors, via Bluetooth or USB, capable of monitoring in real time, collecting, analysing, displaying, graphing and storing data. Supplied with interfaces/cables for sensors and all software for sensor use, computer use, real time analysis and data display. Capable to connecting to a printer via Bluetooth, Wifi or USB. See the PDST Technical and Purchasing Considerations, technology in education available at https://www.pdsttechnologyineducation.ie/en/Technology/Purchasing-Frameworks/		
	Manufacturer:	Catalogue No.:	
RES/501 1	Printer, colour, Bluetooth, Wifi and USB enabled, A4. Supplied with 2 sets of black and coloured cartridges.		
	Manufacturer:	Catalogue No.:	

Section 6: Science inquiry Kits

Twenty student investigation inquiry kits to be chosen by the Science Department and the School Authorities.

Schools will choose twenty student investigation inquiry kits, guided by the indicative list below.

Each kit should supply sufficient materials for at least twelve pairs of students.

Each kit should have high quality, storage boxes with sealable lids.

Quantity: 20 kits in total

An Indicative List of Possible Inquiry Kits to be selected by the school

RES/600	Compass, map, oil filled rotating dial, luminous N needle and points, 60 x 125 mm approx. Compass kit for students to create and use their own compass to explore a habitat. The set should include: Lodestone Pieces, Cardboard Medallions, 2 Blank Compasses , Box of Paperclips, Bottle Cap & Needle, Tacky Glue, Necklace Cords		
	Manufacturer:	Catalogue No.:	
RES/601	Pompoms, beads and pipe cleaners modelling sets of the atoms on the periodic table. Each set with components in sealable bags and placed in storage boxes with sealable lids		
	Manufacturer:	Catalogue No.:	
RES/602	Modelling kit for Pathogens, Antibodies and Vaccines. A microbes and health student investigation kit to examine metabolism, cellular chemistry, and the role of bacteria in both disease and food microbiology using Koch's postulates to identify the causative agent for disease, isolate and culture yogurt-causing bacteria and allows students to learn microbiology skills and sterile technique.		
	Manufacturer:	Catalogue No.:	
RES/603	Electrical consumption in the home/school. To include a fridge/freezer thermometer, thermal leak detector, temperature and humidity meter, plug in energy monitor, radiator key and a stopwatch.		
	Manufacturer:	Catalogue No.:	
RES/604	Assessing biodiversity student investigation kit to include a mini Quadrat – a wire frame 0.25 m x 0.25 m, Key to plants, 1 Clipboard per pair, 1 dry erase marker per pair, 1 laminated, reusable Record sheet, 20m tape measure, Number cards, 20-sided dice, Pinboard, or sheet of cardboard (for step 1) with sticky tape or pins to attach plants to the board		
	Manufacturer:	Catalogue No.:	
RES/605	A set of 48 laminated scientific debate cards		

	Manufacturer:	Catalogue No.:	
RES/606	A Sun, Earth, Moon Orbital Model to study modelling. Scaled, moving, seasons, 12v light bulb, stand with months, years seasons for each hemisphere on the base.		
	Manufacturer:	Catalogue No.:	
RES/607	Different energy sources kit for wind, water and solar power sources student investigation kit. Supplied with four different interchangeable monitors to indicate electricity being generated: current indicator, flashing lights, a siren and moving cogs. Can be used in the classroom and/or outdoors. Battery back-up operation for when conditions are unfavourable. The interchangeable monitors are a buzzer, flashing indicator lights, voltage indicator and moving cogs to clearly indicate that power is being generated. Base unit dimensions: 17 x 13cm Height to the top of the pillar: 30cm The Wind Demonstrator height: 35cm, high when fully assembled Moving radius of the blades: 20cm The Solar Demonstrator, dimensions: 20 x 14cm.		
	Manufacturer:	Catalogue No.:	
RES/608	6 in 1 solar student investigation kit. Self-assembly kit providing an ideal introduction to how solar energy works. Enables 6 different solar powered models to be built: windmill, revolving plane, air boat, desktop plane, robotic dog and car. Kit includes full set of 26 snap-together parts, plus solar panel, micromotor and gears. A diagonal cutter is recommended but no glueing, screwing or other tools required. Can be easily reassembled into any of the 6 different models		
	Manufacturer:	Catalogue No.:	
RES/609	Conductivity student investigation kit.		
	Manufacturer:	Catalogue No.:	
RES/610	Melting and boiling points student investigation kits.		
	Manufacturer:	Catalogue No.:	
RES/611	pH student investigation kits		
	Manufacturer:	Catalogue No.:	
RES/612	Celestial objects student investigation kit.		
	Manufacturer:	Catalogue No.:	
RES/7613	Origin of the universe student investigation kit.		
	Manufacturer:	Catalogue No.:	
RES/614	Cycling of matter student investigation kit.		
	Manufacturer:	Catalogue No.:	
RES/615	Periodic table student investigation kit.		
	Manufacturer:	Catalogue No.:	
RES/616	Structure of the atom student investigation kit.		

	Manufacturer:	Catalogue No.:	
RES/617	Energy flow through the ecosystem biodegradability student investigation kit, 6 specially designed containers and a number of clips and cages to hold different materials in place. To include a quantity of metal, card and biodegradable plastic samples to experiment with. Container Dimensions: 145mm high x 12mm across corners, Substance classification student investigation kits. Physarum kit or similar to allow students follow through the life cycle observing the active plasmodial stage and the inactive sclerotial stage.		
	Manufacturer:	Catalogue No.:	
RES/618	Exothermic, endothermic and activation energy investigation kit		
	Manufacturer:	Catalogue No.:	
RES/619	Simple energy profile diagrams to illustrate energy changes inquiry kit Water rocket kit that self-releases at a pre-set pressure for repeatable experiments. Bottle and pump to be supplied. Foot Pump With Gauge Suitable for use.		
	Manufacturer:	Catalogue No.:	
RES/620	Exploring electrophoresis mini student investigation kit		
	Manufacturer:	Catalogue No.:	
RES/621	Design, build and test devices inquiry kits Rollercoaster set Rollercoaster Hardware kit		
	Manufacturer:	Catalogue No.:	
RES/622	Reproduction student investigation kits Cauliflower cloning kit to propagate small cauliflower plantlets from cauliflower curd. Each kit to supply enough materials for students to work in pairs.		
	Manufacturer:	Catalogue No.:	
RES/623	Evolution by natural selection inquiry kit		
	Manufacturer:	Catalogue No.:	
RES/624	Soil testing kit to test for pH, Nitrogen, Potassium (potash) and Phosphorous. Containing colour coded test tubes, reagents and colour cards.		
	Manufacturer:	Catalogue No.:	
RES/625	Classroom temperature charts		
	Manufacturer:	Catalogue No.:	
RES/626	Water monitoring student investigation kit To include Test tablets for brackish, fresh or sea water. Fingerprint student investigation kit. To include brushes, powders (both magnetic and brushing), gloves, apron and face mask.		
	Manufacturer:	Catalogue No.:	
RES/627	Solid material student investigation kits A selection of materials in the form of rectangular blocks to familiarise students with the appearance, feel, texture, hardness and density of a range of common substances		

	Manufacturer:	Catalogue No.:	
RES/628	Energy changes and dissipation inquiry kit. This kit provides students with a full range of apparatus for studying energy changes. Lamps, motors, rechargeable battery, capacitor, flywheel, pulleys and temperature detector are all included so that chemical, electrical, thermal, light and mechanical energy can all be interchanged and investigated. Everything is provided including battery pack but a simple multi-meter and set of slotted masses would need to be available. To be supplied in a storage tray.		
	Manufacturer:	Catalogue No.:	
RES/629	Electrostatic student investigation kit		
	Manufacturer:	Catalogue No.:	
RES/630	Renewable energy student investigation kit with sensors for voltage and current, students can explore the following concepts: Effect of angle, light intensity, and temperature of solar cell output. Calculating solar cell and wind turbine efficiency. The effect of number of blades, length, pitch, and shape on wind turbine power output. Energy transformation, power curves, and efficiency create a design for either solar or wind power that maximizes energy output under a given set of conditions.		
	Manufacturer:	Catalogue No.:	
RES/631	DNA necklace kit. A kit to isolate human genomic DNA and to create DNA necklaces they can actually wear. extract DNA by lysing their cheek cell sample, then watch as wispy white strands of their own DNA precipitate out of a solution containing ethanol. To include plastic micro-centrifuge tubes.		
	Manufacturer:	Catalogue No.:	
RES/632	Determining chemical formula kits. Models of a substance's empirical and molecular formulae; perform a combustion reaction to determine the substance's chemical composition and use that information to determine molecular formula and percent composition; and design experiments to determine the percent composition and/or molecular and empirical formulas for common substances. Determine the percent composition of substances and Use models to differentiate between empirical and molecular formulas		
	Manufacturer:	Catalogue No.:	
RES/633	Wind Tubine Kit. A working model of a real wind turbine. A twelve-month warranty against manufacturing defects. combinations of two, three or six blades, and the blade angles which can be easily adjusted too Three gearing options: to include a set of four cogs which can be easily interchanged to test three different gear combinations, offering ratios of 3:1, 1:1 and 1:3.		
	Manufacturer:	Catalogue No.:	
RES/634	Amino Acid Starter Kits. Models of the chemical properties of the 20 amino acid side chains using dynamic side chain models. dual-colouring schemes. To include a protein-folding activity/model.		
	Manufacturer:	Catalogue No.:	

RES/635	DNA extraction kit. Using a technique similar to the one used by scientists, students work in pairs to extract DNA from strawberry fruit and examine it. They also review plant cell structure, and learn cell wall and cell membrane composition.		
	Manufacturer:	Catalogue No.:	
RES/636	Murder Mystery STEM kit. Fingerprinting, Hair analysis (requires low-power microscope, not included), Tyre track impression analysis, Blood typing (using synthetic blood), Forensic entomology (with artificial fly larvae or maggots) and a laminated reusable Police log review.		
	Manufacturer:	Catalogue No.:	
RES/637	Molymod Atomic orbitals 14 Model Collection Kit. Atomic Orbital Set 14 Model Collection sufficient parts to make 14 easy to self-assemble atomic orbitals.		
	Manufacturer:	Catalogue No.:	
RES/638	Compact ramp kit. To include a variety of ramp surfaces and mini vehicles suitable for use in student investigations.		
	Manufacturer:	Catalogue No.:	
RES/639	Build your own electromagnet - kit of parts suitable for making 10 electromagnets which are ideal for use with the NARIKA Genecon or a single AA battery. Contains 10 cores, 0.35mm enamelled wire and 10 bobbins.		
	Manufacturer:	Catalogue No.:	
RES/640	Atom Model. An interactive atom that can be touched, felt, can be used to make their atoms, isotopes or ions. 2 bases to make the atoms on, 30 protons, 30 neutrons and 30 electrons. Allows the isotopes to be made. Use both surfaces to make atoms, let the atoms gently collide and move over the valence electrons by hand. To include stackable storage boxes.		
	Manufacturer:	Catalogue No.:	
RES/641	Rainmaker Water Kit. A rainmaker water cycle simulator. To include an ocean, salt water, vinegar, ice, food colouring, brown sugar, and switch on a lamp. Rainmaker clear lid to allow the water cycle to be observed. Trap for the raindrops, rivers and lakes so the water can be tested.		
	Manufacturer:	Catalogue No.:	

Section 7: Health and Safety			
RES/700 2	Fire blanket, glass fibre, c. 80 cm × 92 cm		
	Manufacturer:	Catalogue No.:	
RES/701 1	Face shield, lightweight with polycarbonate visor, adjustable head harness and brow guard		
	Manufacturer:	Catalogue No.:	

RES/702 1	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, rowa rolan, burn shield gel, 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, eye pads, optrex, dettol, 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.:	
RES/703 1	Safety screen, polycarbonate panels (3) hinged, approx. Dimensions: 610mm high, outer panels, 230 mm wide, centre panel 300 mm wide, polypropylene bases for clamping/screwing to bench		
	Manufacturer:	Catalogue No.:	
RES/704 2	Clamp, metal, 50 mm opening for use with safety screen above Pipette bulbs, acid resistant plastic, for precision filling and dispensing from all standard pipettes, from micro size to 25 cm^3, complete with release valve for rapid pipetting, for 25 cm^3 pipette		
	Manufacturer:	Catalogue No.:	
RES/705 2	Eye wash station, complete with two 500ml saline eye was containers and saline solution		
	Manufacturer:	Catalogue No.:	
RES/706 2	Storage Cabinets c.450x600x750 mm high – one for flammable and one for corrosive liquids (items SCF on Room Layouts).		
	Manufacturer:	Catalogue No.:	

Equipment for Resource – Preparatory Lab Room			
Section	Code Quantity	Descriptions and Specifications	Total Cost €
Section 1	RES/100 – RES/161	Basic Science Prep Room Equipment	
Section 2	RES/200 – RES/209	Glass and polythene	
Section 3	RES/300 – RES/315	Models and sets	

Section 4	RES/400 – RES/481	Chemicals and reagents	
Section 5	RES/500 – RES/501	Digital technologies	
Section 6	RES/600 – RES/641	Inquiry Kits – Indicative List	
Section 7	RES/700 – RES/706	Health and Safety Equipment	
		Sub-total: €	
		Add for VAT: €	
		Total Amount for RES 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 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.

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: _____