



# SCHOOL CHEMISTRY BIOLOGY AND PHYSICS LABORATORY CATALOGUE



### SCHOOL CHEMISTRY BIOLOGY and PHYSICS LABORATORY Summary List

ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
	CHEMISTRY			
1	4716.10	Hoffmann's voltameter Set	pcs	1
1a	4716.12	Platinum electrode	pcs	2
1b	4716.13	Carbon electrode	pcs	4
2	2219.70	Electronic Balance	pcs	1
3	5404.51.SET	Universal Retort Stand Set The set comprises one each of the following:	set	5
3.1	5404.51	Retort stand base, pressed steel		
3.2	5416.20	Extension clamp with rod		
3.3	5401.16	Bosshead		
4	5533.10	Tripod Stand	pcs	5
5	5414.04	Test Tube Rack, 12 pegs, wooden	pcs	2
6	5414.21	Pipette Stand, 20 pipettes	pcs	3
7	5414.64	Stand, for Surette, Wooden - Double	pcs	3
8	5414.54	Stand, for Funnel filtration, Wooden - Double	pcs	3
9	5431.05	Mohr clip	pcs	4
10	5416.62	Surette Clamp - Double	pcs	4
11	5430.10	Crucible Tongs	pcs	4
12	8262.84	Scissors	pcs	2
13	8261.30	Tweezer, metal	pcs	2
14	21005.003	Bunsen Burner set Complete with:	set	5
14.1	5511.10	Bunsen burner with screw gas cock.		
14.2	5449.95	Gas burner tubing		
15	5438.00	Test Tube Brushes Set The set, composed of 10 pieces, comprises:	pack	1
15.1	5438.02	Test tube brush (4 pieces) length 150 mm		
15.2	5438.04	Test tube brush (3 pieces) length 200 mm		
15.3	5438.06	Test tube brush (3 pieces) length 250 mm		
16	5460.32	Double Ended Spatula	pcs	2
17	5534.25	Wire Gauze, with Round Ceramic Centre	pcs	15
18	5535.04	Pipeclay Triangle	pcs	15
19	5449.13	Red Rubber Tubing, bore 5 mm, dia 7 mm - pack 30m	pack	1
20	5449.16	Red Rubber Tubing, bore 8 mm, dia 10 mm - pack 30m	pack	1
21	8340.08	Filter Paper - dia. 110mm - box 100 pieces	pack	5
22	8340.09	Filter Paper - dia. 125mm - box 100 pieces	pack	5



23	8340.11	Filter Paper - dia. 180mm - box 100 pieces	pack	5
ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
24	7601.15	Model of Atoms	box	5
25	5453.10	Stoppers, (Cork) - Set (20 pcs)	set	2
26	5450.00	Solid red rubber stopper set	set	2
27	5450.32	Red rubber with one hole stopper set	set	2
28	5450.54	Red rubber with two holes stopper set	set	2
29	5453.82	Cork Borer, set of 6	set	3
30	5453.94	Cork Press	pcs	1
31	5455.00	Deflagration Spoon	pcs	2
32	1948.05	Beehive Shelf, diameter 100 mm	pcs	3
33	1951.10	Mortar with Pestle, capacity 250 ml	pcs	1
34	33004.259	Plastic spoon	pcs	1
35	1927.30	Crucible, tall form	pcs	3
36	1920.15	Basin, evaporating	pcs	4
37	1250.25	Crystallizing dish (Basin)	pcs	5
38	5415.04	Ring with Clamp	pcs	2
39	1208.00	Condenser Liebig	pcs	4
40	33004.260	Still head with side tube	pcs	4
41	5430.15	Beaker Tongs	pcs	3
42	5423.00	Test Tube Holder	pcs	6
43	33006.401	Test Tube	pcs	300
44	1467.09	Glass Tube L shape	pcs	8
45	1217.07	Tubing Connector, T shape	pcs	4
46	1220.07	Tubing Connector, Y shape	pcs	4
47	1223.07	Tubing Connector, U shape	pcs	8
48	1310.20	Boiling Flask, 100ml	pcs	6
49	1310.35	Boiling Flask, 250ml	pcs	6
50	1310.45	Boiling Flask, 500ml	pcs	6
51	1546.10	Boiling Flask, Round Bottom, 2 joints	pcs	4
52	1308.35	Boiling Flask, 250 ml	pcs	5
53	1307.45	Boiling Flask, 500 ml	pcs	5
54	1322.10	Conical Flask, 150 ml	pcs	5
55	1322.20	Conical Flask, 250 ml	pcs	5
56	1625.10	Washing Bottle	pcs	5
57	1118.20	Beaker, 100 ml	pcs	5
58	1118.35	Beaker, 250 ml	pcs	5
59	1118.50	Beaker, 500 ml	pcs	5
60	1380.00	Gas collecting cylinder	set	6
		The set is composed by:		



60.1	1379.05	Gas Collecting Jar		
60.2	1383.20	Gas Jar Cover; diameter 60 mm		
61	1226.20	Cylinder, graduated, 250ml	pcs	7
ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
62	1226.25	Cylinder, graduated, 500 ml	pcs	7
63	1489.15	Watch Glass	pcs	10
64	1347.00	Long stem funnel set	set	1
64.1	1346.10	• 3 pieces: Long stem funnel, diameter approx. 75 mm		
64.2	1346.15	• 3 pieces: Long stem funnel, diameter approx. 90 mm		
65	1344.00	Short stem funnel set	set	1
65.1	1343.15	<ul> <li>2 pieces: Short stem funnel, diameter approx. 75 mm, stem length approx. 75 mm</li> </ul>		
65.2	1343.25	• 2 pieces: Short stem funnel, diameter approx. 120 mm, stem length approx. 120 mm		
65.3	1343.30	• 2 pieces: Short stem funnel, diameter approx. 150 mm, stem length aoorox. 150 mm		
66	1337.10	Volumetric flask capacity 50 ml with PE stopper	pcs	2
67	1337.15	Volumetric flask capacity 100 ml with PE stopper	pcs	2
68	1337.20	Volumetric flask capacity 250 ml with PE stopper	pcs	2
69	1355.35	Thistle Funnel	pcs	6
69.1	33004.500	Cellophane	pcs	6
70	1361.10	Separating Funnel	pcs	4
71	1187.10	Surette with glass Stopcock	pcs	6
72	1439.06	Bulb Pipette, 10ml	pcs	3
73	1439.12	Bulb Pipette, 25 ml	pcs	5
74	5448.10	Rubber pump pipette filler, 3 way	pcs	5
75	1253.20	Petri dish, diameter 120mm	pcs	3
76	33004.261	Developing chamber for chromatography	pcs	1
77	33004.262	Chromatography paper, pack of 25 sheets	pack	3
78	33004.263	Test tube for chromatography	pcs	1
79	33004.264	Square type developing chamber for chromatography	pcs	1
80	33004.265	pH paper strips, pack of 100 strips	pack	2
81	33004.266	Aluminium spouting jar	pcs	1
82	4840.13	pH sensor	pcs	1
83	2162.10	Vinyl gloves multi-purpose, Pack of 100	pack	5
84	2139.10	White coat	pcs	8
85	2184.20	Goggles (safety)	pcs	8
86	2180.03	Safety Shield	pcs	4
87	5424.52	Grease Silicon for Glassware	pcs	1
88	33006.410	REAGENT SET	set	1
		Acetic acid glacial, 250 ml	Bottle	1
		Acetone, 250 ml	Bottle	1
		Ammonia Solution, 30%, 100 ml	Bottle	1



		Ammonium Chloride, 250 g	Bottle	1
		Calcium Carbonate, 50 g	Bottle	2
		Calcium oxide, 100g	Bottle	1
ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
		Calcium hydroxide, 100 g	Bottle	1
		Copper sulphate, 100g	Bottle	1
		Copper carbonate, 100g	Bottle	1
		Copper nitrate, 100 g	Bottle	1
		Ethanol 96°, 100 ml	Bottle	1
		Magnesium Sulphate, 250 g	Bottle	1
		Fehling's solution A 50 ml	Bottle	1
		Fehling's solution B 50 ml	Bottle	1
		Hydrochloric acid 36%, 100 ml	Bottle	2
		Hydrogen Peroxide, 3%, solution, 100ml	Bottle	1
		lodine,100 g	Bottle	1
		Cobalt chloride 100g	Bottle	1
		Magnesium oxide, 100 g	Bottle	1
		Magnesium ribbon, 25g	Bottle	1
		Methylene blue solution, 50 ml	Bottle	1
		Potassium iodide, 100g	Bottle	1
		Potassium hydroxide 100g	Bottle	1
		Potassium manganate (VII) (permanganate), 100g	Bottle	1
		Potassium carbonate, 100g	Bottle	1
		Silver nitrate, 50 g	Bottle	1
		Sodium bicarbonate, 250 g	Bottle	1
		Sodium chloride, 250 g	Bottle	3
		Sodium metal in mineral oil or paraffin, 100 g	Bottle	1
		Sodium hydroxide, 250 g	Bottle	2
		Starch, 50 g	Bottle	1
		Sucrose (pure), 50 g	Bottle	2
		Sulphur powder, 50 g	Bottle	1
		Iron powder, 50 g	Bottle	1
		Sulphuric acid 96%, 100 ml	Bottle	2
		Nitric acid (cone) 100 ml	Bottle	1
		Zinc sulphate, 100g	Bottle	1
		Methyl orange, 50 ml	Bottle	1
		Phenolphthalein, 50 g	Bottle	1
		Bromine water brome 250 ml	Bottle	1
		(AI-CU-Zn-S) small in bottles contains 50g each	Pack	1
89	8884.60	Litmus paper (red) in sets of 100 strips	set	1
90	8884.62	Litmus papers (blue) in sets of 100 strips	set	1
91	33004.265	pH paper strips, pack of 100 strips	pack	1



92	1118.15	Beaker low form 50 ml, borosilicate glass	pcs	2
93	1226.00	Graduated cylinder, tall form with spout, capacity 10 ml, Borosilicate glass	pcs	1
ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
94	1277.00	Drying tube U shape with side tubes	pcs	1
95	1323.10	Conical flask, wide mouth, capacity 150 ml, borosilicate glass	pcs	1
96	1323.20	Conical flask, wide mouth, capacity 250 ml, borosilicate glass	pcs	1
97	1337.15	Volumetric flask, polyethylene, capacity 100 ml, borosilicate Qlass	pcs	1
98	1361.05	Separating funnel	pcs	1
104	1014-167.SA	Teacher's bench	set	1
105	1716-065/P	Teacher swivel arm chair	pcs	1
106	1670-200.T	Portable fume hood	pcs	1
107	1120-254/L	Student Bench, worktop laminated	pcs	1
108	1810-90	Laboratory cupboard	pcs	1
109	1890-90	Ventilated cupboard for chemicals	pcs	1
110	1716-021	Student stool	pcs	24
111	1790-200	White Board, 2000x1000 mm.	pcs	1
112	33004.269	Glass Basin with spout.	pcs	1
113	33004.270	Graduated Pipette 3 Sizes 5,10,25 ml	set	1
115	33004.271	Thin Layer Chromatography		1
115	BIOLOGY		pack	1
116	8542.12	Microscope	nce	4
117	8260.25	Tripod MaQnifier	pcs PCS	1
118	4182.55	Osmotic Pressure Apparatus	PCS	3
119	1388.00	Microscope Slide	box	50
120	1397.05	Cover Glass	box	50
121	1120-254/L	Student Bench, worktop in laminated	pcs	1
122	1810-90	Laboratory cupboard	pcs	1
123	2123.20	First Aid Kit	pcs	2
124	6090.01	Human Digestive System, 3 parts	pcs	1
125	9010.15	Slide Projector	PCS	1
126 127	6140.18	Human Urinary System	PCS	1
127	6140.06 6070.07	Kidney, 3 times enlarQed Human Circulatory System - 1/2 natural size	PCS	1
120	6220.09	Human Ear	pcs pcs	1
130	6210.01	Eye, 6 parts	pcs	1
131	6231.01	Plant Cell	pcs	2
132	6231.02	Animal Cell	pcs	2
133	6000.58	Muscular body	PCS	1
134	6310.07	Dicot Root Section	PCS	1
135	6270.01	Amoeba model	PCS	1
136	6090.28	Structure of stomach wall	pcs	1
137	6310.04	Monocot Stem Section	pcs	1
138	6310.09	Dicot leaf model Page 5of9	pcs	1



139	6180.01	Fetal Development	PCS	1
140	6180.03	Female Pelvis 3 Parts	pcs	1
ITEM		DESCRIPTION	Unit	Q.TY /
11 - 141	Code		01110	lab
141	6180.04	Male pelvis 4 parts	pcs	1
142	6120.02	Human Respiratory System with Magnified Alveolus	pcs	1
143	6300.15	Corn Seed Model, 2 parts	pcs	1
144	6310.06	Hermaphrodite dicot flower	PCS	1
145	33004.027	Lunq demonstration apparatus	PCS	1
146	4840.18	Liqht sensor	PCS	1
147	4840.42	Temperature sensor	pcs	1
147.1	4840.36	Blood Pressure sensor	pcs	1
	<b>Prepared Mi</b>	croscope Slides		
148	7285.010	Spider, w.m.	pcs	5
149	7182.030	Onion Bulb Epidermis, w.m.	pcs	5
150	7365.030	Human Blood, smear H&E stain	PCS	5
151	7280.050	Daphnia, w.m.	PCS	5
152	7040.000	Euqlena Verides, w.m.	PCS	5
153	7178.120	Helianthus Older Stem, c.s. Sunflowers	pcs	5
154	7178.000	Tilia One-Year Stem, c.s.	pcs	5
155	7020.000	Paramecium, w.m.	pcs	5
156	7280.040	Cyclops, w.m.	pcs	5
157	7184.000	Zea Mays Leaf, c.s. Corn	pcs	5
158	7001.030	Typical bacteria, coccis in chains, streptococci, smear	PCS	5
159	7294.000	Butterfly Proboscis, w.m.	PCS	5
160	7255.031	Earthworm, I.s.	PCS	5
161	7340.030	Feather Composition, w.m.	pcs	5
162	7296.030	Apis mellifera Composition, w.m.	pcs	5
163	7200.000	Zea Mays Corn Grain, I.s.	pcs	5
164	7173.091	Vicia faba Old Root, c.s.	pcs	5
165	7173.092	Vicia faba Lateral Root Origin, c.s.	pcs	5
166 167	7385.015 8564.34	Medium Sized Artery and Vein, c.s.	pcs	5
167.1	33004.501	Slide Storage Box Dialysis Tubing	pcs	20
167.1	9010.10	Overhead Projector	pcs	20
169	9010.10	Wall screen for overhead projector	pcs PCS	1
100	Trasparency		FC3	
170-	8700.00	Complete Teaching coloured Transparency Program for	set	1
183	0.00.00	Biology using Overhead Projector	361	
170	8700.01	Animal Cell - Plant Cell	pcs	2
171	8700.02	Kind of Bacteria - Morphology	pcs	2
172	8700.03	Section of Skin Generalized	pcs	2
173	8700.04	Human Ear Generalized	pcs	2
174	8700.05	Human Eye Generalized	PCS	2
175	8700.06	Human Brain Generalized	PCS	2
176	8700.07	Human Heart External And Internal	PCS	2
177	8700.08	Human Respiratory System Generalized	pcs	2
178	8700.09	Human Excretory System Generalized	pcs	2
179	8700.10	Human Kidney External and Section	pcs	2



180	8700.11	Cockroach - Life Cycle	pcs	2
181	8700.12	Pediculus Humanus - life cycle	pcs	2
ITEM	Code	DESCRIPTION	Unit	Q.TY /
	Code			lab
182	8700.13	Flower - Generalized	pcs	2
183	8700.14	Functional Heart Model Transparency	pcs	2
100	PHYSICS		p00	
184	2241.33	Thermometer, Maximum and Minimum	pcs	4
185	2245.15	Alcohol Thermometer	pcs	10
186	4610.50	Pair of Metallic Bars	set	2
187	4611.45	Pair of Bar Magnets	set	2
188	4611.72	Horseshoe Magnet (with Keeper)	pcs	2
189	4612.12	Iron Filings (package of 300 g)	pes	3
190	4200.10	Ball and Ring - Gravesande	PCS	2
191	4840.14	Force Probe	PCS	1
192	4110.38	Plastic Spring Balance (Dynamometer)-Range: 1000g	pcs	2
193	4110.36	Plastic Spring Balance (Dynamometer)-Range: 500g	pcs	2
194	2241.95	Medical thermometer.	pcs	3
195	4180.12	Pascal Law Apparatus (Pressure Syringe)	pcs	1
196	4180.42	Spouting Jar	pcs	1
197	4840.17	Gas Pressure Sensor	PCS	1
198	2231.24	Stopwatch	PCS	2
199	21001.050	Set of Cylindrical Masses with Double Hook: 50 q	set	2
200	21001.025	Set of Cylindrical Masses with Double Hook: 25 g	set	2
201	21001.010	Set of Cylindrical Masses with Double Hook: 10 g	set	2
202	4840.12	Motion Sensor	pcs	1
203	4001.50	Set of Solid Models	set	1
204	4200.15	Bar and Gauge	pcs	2
205	4200.60	Compound Bar	pcs	2
206	4317.40	Pair of LA3 Tuning Forks	set	2
207	33006.405	Power Supply Unit 0-30V AC/DC, 2A	pcs	1
208	2510.06	Toggle Switch	PCS	2
209	2531.52	Crocodile Clips red colour	PCS	5
210	2531.53	Crocodile Clips black colour	PCS	5
211	4635.15	Copper Electrode	pcs	2
212	4635.17	Zinc Electrode	pcs	2
213	2505.10	Lamps on Holder set comprises:	set	4
213a	2505.00	Lamp holder (1 piece)		
213b	2505.64	Lamp bulb (6 pieces)		
214	22004.001	Set of Resistors (1 pcs each)	set	2
	4693.69	Resistor, 10 ohm		
	4693.73	Resistor, 100 ohm		
	4693.81	Resistor, 10 kOhm		
	4693.85	Resistor, 100 kOhm		
215	2522.08	Banana plug lead, 50 cm, black	pcs	2
216	2522.03	Banana plug lead, 50 cm, red	pcs	2
217	2522.07	Banana plug lead, 25 cm, black	pcs	2
218	2522.02	Banana pluq lead, 25 cm, red	PCS	2



219	22001.001	Mounted Electric Voltmeter Set, AC / DC	set	2
		Composed as follow:		
	2266.30V	AC. Voltmeter, range 0 - 30 V		
ITEM	Code	DESCRIPTION	Unit	Q.TY / lab
	2264.25V	D.C. Voltmeter, range 0 - 25 V		
220	22002.001	Mounted Electric Ammeter Set, AC / DC	set	2
220	22002.001	Composed as follow:	301	2
	2266.05A	AC. Ammeter, range 0 + 5 A		
	2267.15A	D.C. Ammeter, range 0 + 1A and 0 + 5 A		
221	4840.16	Voltaqe & Current Sensor	set	1
221.1	4840.19	Microphone Sensor	pcs	1
222	4739.20	Generator Model	pcs	2
223	4694.21	Sliding Contact Rheostat- 100, Max 5 A	pcs	2
224	21003.003	Convex Spherical Mirror Set	set	10
	4435.02	- Convex mirror, focal length 100 mm		
	4435.03	- Convex mirror, focal length 150 mm		
	4435.04	- Convex mirror, focal length 200 mm		
225	21003.002	Concave Spherical Mirror Set	set	10
	4431.02	- Concave mirror, focal length 100 mm		
	4431.03	- Concave mirror, focal length 150 mm		
	4431.04	- Concave mirror, focal length 200 mm		
226	4450.14	Equilateral Prism	pcs	5
227	T1609.52	Newton's Disc	pcs	2
228	1226.20	Cylinder, graduated	pcs	4
229	4652.10	U-shaped electromagnet	pcs	3
230	2510.08	Reversing Switch	pcs	3
231	4350.33	Demostration Model of Telephone set.	set	2
		The set comprises one each of the following		
	4350.40	Telephone receiver		
222	4350.42	Telephone transmitter		2
232	2211.15	Flexible steel rule, length 5 m	pcs	2
233	2211.50	Tape measure, length 10 m	pcs	2
234 235	1120-254/L 1810-90	Student Bench, worktop in laminated Laboratory cupboard	pcs	1 1
235	T1735.73	Laptop	pcs pcs	1
230	T1735.95	Printer LaserJet	PCS	1
238	T1735.71	Data Show Projector	PCS	1
239	33002.449	Gear Transmission device	PCS	1
240	33002.460	Irradiance Measuring Apparatus	pcs	1
241	T1527.24	Sun Earth Moon Model	pcs	1
242	33002.463	Fuse Tester	pcs	1
243	33004.258	Battery holder 1,5 - 3 - 4,5 - 6 V	pcs	1
244	T1735.93	Electric Screwdriver	pcs	1
245	T1735.91	Renewable Energy Sources	set	1
		Magnetic Display Board	PCS	1
246	4114.30		100	
246 247	4114.30 4114.35	Mechanics accessories Set	set	1
247	4114.35	Mechanics accessories Set	set	1

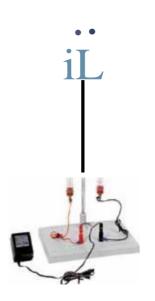


251	T1735.85	Mass, 1kq	PCS	1
253	2231.52	Digital Chronometer	pcs	1
ITEM	Code	DESCRIPTION	Unit	Q.TY /
				lab
254	4429.51	Plane mirrors, set of 2	set	1
255	4315.62	Electric bell	pcs	1
256	T1735.83	Set of Resistors (10 pcs each)	set	1
257	T1735.81	Battery, 9V	PCS	2
258	2275.10	Multimeter, diQital	PCS	1
259	T1735.79	Battery, 12V	PCS	1
260	T1735.77	Fuse, set	set	1
261	4315.00	Wave form helix	pcs	1
262	4623.20	Van de Graaff Generator, Electric	pcs	1
263	1462.00	Rectangular borosilicate glass basin	pcs	1
264	T1735.75	Spring With Holder and Base Length 18 Cm	pcs	1
265	4402.30	Rav Box Complete with Set of Filters. Slits and Mirrors	PCS	1
266	4715.00	Electrical Safety Simulator	PCS	1



#### CODE: 4716.10

## Hoffmann's voltameter Set



4716.10 Comprises a sturdy shock resistant plastic base. Dimensions 250x180x20 mm approx. with 0 4 mm. terminals and suitable wire connections. Iron chrome-plated rod with clamps and graduated glass unit. Stopcock and reservoir at apex of outer tubes and inner tube respectively. A scale from 0 to 60 cm<sup>3</sup> etched on the outer limbs allows direct reading of the amounts of gas generated at the electrodes. Supplied with two carbon electrodes and two platinum electrodes, inserted in rubber stopper and power supply. Without chemicals.

ITEM: 1A

Platinum electrode

Platinum electrode with rubber stopper. Spare.

#### ITEM: 1B

CODE: 4716.13

CODE: 4716.12

### **Carbon electrode**

Carbon electrode with rubber stopper. Spare.

#### ITEM: 2

CODE: 2219.70

## **Electronic balance**



Standard features and Equipment

- Calibration lockout
- Security loop in rear
- Capacity: 500 g
- Readability: 0.1 g
- Linearity and Repeatability : +/- 1 g Display: LCD
- Weigh below hook
- A/C adapter included
  - Weighing units: grams, newton
  - Keyboard: 3 button



CODE: 5404.51.SET

## **Universal Retort Stand Set**



The set comprises one each of the following:

#### CODE: 5404.51

This pressed steel stand, 5 mm thick, is provided with a threaded chromeplated rod. The base is coated with heatresistant, antiscratch epoxy powder, which ensures total protection against oxidation. Particularly suitable for use with ring supports, burette clamps or other similar supports. Dimensions approx 140 x 167 mm, complete with steel rod 500 x 10 mm diameter approx

#### CODE: 5416.20

Extension clamp with rod Painted aluminium, with opening varying from a minimum of 5 mm to a maximum of 80 mm. Clamps with cork-lined jaws that make

them particularly suitable when holding glassware. Rod approx. 130 x 10 mm diameter.

#### CODE: 5401.16

#### Bosshead

Made of aluminium, enamel-finished. Allows clamping of two rods up to 15 mm in diameter.

ITEM: 4



## **Circular top tripod stand**



Tripod Stand Circular top, chrome plated iron. The legs can be screwed into the top. Inside diameter 100 mm, Outside diameter 150 mm, Height 200 mm.



**Test Tube Rack** 



With 12 holes 20 mm diameter and 12 pegs approx. 55 x 10 mm diameter. Dimensions approx. 420 x 65 x 90 h mm.

ITEM: 6

**Pipette Stand** 

CODE: 5414.21

CODE: 5414.04



Wooden, vertical, for 20 pipettes. Holes diameter 20 mm, Dimensions approx. 80 x 360 x 360 hmm.

ITEM: 7



## Stand for Burette, Wooden - Double



Funnel Stand, wooden, double with wooden clamps and 4 rubber feet. Dimensions: approx. 300 x 150 x 480 h mm. Base dimensions: 300 x 150 x 18 mm.



CODE: 5414.54

## Stand for Funnel filtration, Wooden - Double



Stand, for Funnel filtration, Wooden - Double Funnel Stand, wooden, double, with wooden clamps and 4 rubber feet. Dimensions: approx. 300 x 150 x 480 h mm Base dimensions: 300 x 150 x 18 mm

### ITEM: 9

Mohr clip





For compressing flexible tubing. Nickel-plated iron, spring type, with round-shaped finger grips. Length approx. 50 mm.



## Burette Clamp - Double



Burette Clamp - Double. In painted aluminium alloy die-casting with plastic rolls.

CODE: 5416.62

### ITEM: 11

**Crucible Tongs** 

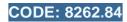


CODE: 5430.10

Crucible tongs with handles and serrated tips. Stainless steel. Length approx. 200 mm.



**Scissors** 





Round tips, in stainless steel. Length approx. 150 mm.

### ITEM: 13

**Tweezer** 



Stainless steel, blunt type.

CODE: 8261.30

Total length approx. 150 mm.



### **Bunsen Burner set**



#### CODE: 21005.003

The set is composed by:

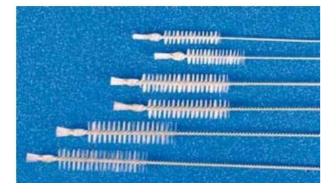
5511.10 Bunsen Burner This multigas burner, manufactured according to safety norms UNI-CIG 71-40, is equipped with a rubber holder with two different diameters that allows connection with either the pipe for methane gas (bore 13 mm.) and for liquid gas (bore 8 mm.). In nickel-plated brass on a stable chromiumplated steel base. With gas control stopcock and air regulator. Head diameter 18 mm. Overall height approx. 150 mm

5449.95 Gas burner tubing Gas burner tubing for butane/propane gas, bore 8 mm. Length 1 meter.

### ITEM: 15

## Test tube brush set





Nylon brush with bristle end on galvanized wire stem. The set, composed of 10 pieces, comprises:

- 5438.02 Test tube brush (4 pieces) length 150 mm, head 50 x 12 mm. diameter.
- 5438.04 Test tube brush (3 pieces) length 200 mm, head 75 x 16 mm. diameter.
- 5438.06 Test tube brush (3 pieces) length 240 mm, head 75 x 20 mm. diameter.



## **Double Ended Spatula**



Length approx. 150 mm. Made of stainless steel, one end flat, other end bent up.



Wire Gauze



CODE: 5460.32



Galvanized steel wire. Square for use in tripod stands. Side 160 mm. with round ceramic centre.

### ITEM: 18

**Pipeclay Triangle** 



CODE: 5535.04

Pipeclay Triangle. Iron galvanized wire. Pipeclay tubes. Length of side approx. 60 mm.



CODE: 5449.13

## Red Rubber Tubing, bore 5 mm



Red Rubber Tubing, bore 5 mm. Diameter 7 mm. - pack 30 m. Tube made out of high quality natural rubber for piping of gases, liquids and medium concentration acids under no pressure. Bore 5 mm. Outside diameter 7 mm. 30 metres pack.

ITEM: 20

CODE: 5449.16

## Red Rubber Tubing, bore 8 mm



Red Rubber Tubing, bore 8 mm., Diameter 10 mm. - pack 30 m Tube made out of high quality natural rubber for piping of gases, liquids and medium concentration acids under no pressure. Bore 8 mm. Outside diameter 10 mm. 30 metres pack.



CODE: 8340.08

## Filter Paper, diameter 110 mm



Standard student qualitative filter paper (grade 1), medium speed, suitable for basic requirements. Diameter 110 mm. In pack of 100.

CODE: 8340.09

### ITEM: 22

## Filter Paper, diameter 125 mm

Standard student qualitative filter paper (grade 1), medium speed, suitable for basic requirements. Diameter 125 mm. In pack of 100

### ITEM: 23

### CODE: 8340.11

## Filter Paper, diameter 180 mm

Standard student qualitative filter paper (grade 1), medium speed, suitable for basic requirements. Diameter 180 mm. In pack of 100



## **Model of Atoms**



#### CODE: 7601.15

To show the structure of molecules of organic chemistry. It is composed of coloured small balls to represent hydrogen, oxygen, nitrogen, carbon, sulphur and chlorine, in plastic case. The kit comprises:

- 12 white balls, 30 mm diameter (hydrogen)
- 9 red balls, 39 mm diameter (oxygen)
- 2 blue balls, 39 mm diameter (nitrogen)
- 4 black balls, 39 mm diameter (carbon)
- 1 green ball, 48 mm diameter (chlorine)
- 1 yellow ball, 50 mm diameter (sulphur)

Plastic box dimensions 220 x 170 x 50 hmm.

### ITEM: 25

### CODE: 5453.10

## Stoppers, (cork) - Set (20 pcs)



The set comprises 4 pieces for each of the following diameters:

- A) 9,5/11,5 height 10 mm.
- B) 11/14 height 12 mm.
- C) 17/22 height 15 mm.
- D) 22/27 height 20 mm.
- E) 37/40 height 20 mm.



#### CODE: 5450.00

## Solid red rubber stopper set



Temperature range -40 to + 70°C. Withstand most chemical agents in normal laboratory use. The 21 pieces set comprises 3 pieces for each of the following diameters:

1) 16/12\*20 mm. 2) 22/17\*25 mm. 3) 27/21\*30 mm. 4) 32/26\*34 mm. 5) 41/30\*43 mm. 6) 42/35\*43 mm. 7) 46/39\*45 mm.

ITEM: 27

### CODE: 5450.32

## Red rubber with one hole stopper set



Red rubber with one hole stopper set. Temperature range -40 to + 70°C. Withstand most chemical agents in normal laboratory use. The set comprises one each of the following stoppers:

diameter 22/17\*25 mm, one diameter 8 hole.
 diameter 28/21\*30 mm, one diameter 8 hole

ITEM: 28

#### CODE: 5450.54

### Red rubber with two holes stopper set



Red rubber with two holes stopper set. Temperature range -40 to + 70°C. Withstand most chemical agents in normal laboratory use. The set comprises one each of the following stoppers:

diameter 32/26\*34 mm, two diameter 5 holes.
 diameter 41/30\*43 mm, two diameter 5 holes.



CODE: 5453.82

## Cork Borer, set of 6



Cork Borer. Set of 6. Cutting tube mounted on handle. Size numbered consecutively from 1 upwards. Nickel-plated brass. Diameters approx. 5 to 10 mm. with rod for clearing borer.

ITEM: 30

**Cork Press** 





Used for softening corks. Made of cast iron on wooden base. Dimensions approx. 120 x 370 mm.

CODE: 5455.00

**ITEM: 31** 

## Deflagration Spoon



Deflagration Spoon. Stainless steel cup and rod held by rubber stopper in a dished brass cap. Length approx. 280 mm. Diameter of cap approx. 60 mm. Diameter of cup approx. 20 mm.



CODE: 1948.05

## Beehive Shelf, diameter 100 mm.



Glazed Porcelain. Height approx. 44 mm. Diameter approx. 100 mm.

ITEM: 33

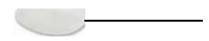


## Mortar with Pestle, capacity 250 ml.

Glazed porcelain Capacity approx. 250 ml. Mortar dimensions approx.: Diameter 130 mm Height 62 mm. Pestle dimensions approx.: Diameter 32 mm. Length 125 mm.

### **ITEM: 34**

**Plastic spoon** 



Plastic spoon for laboratory use.

CODE: 33004.259



## **Crucible with lid, tall form**



Glazed porcelain, complete with lid. Capacity 40 ml. Diameter approx. 42 mm. Height approx. 54 mm.

CODE: 1927.30

ITEM: 36



## **Porcelain evaporating basin**



Basin; evaporating; Round bottom with spout; Glazed; Material: Porcelain; Capacity 50 ml. Diameter 70 mm. Height approx 30 mm.



## **Crystallizing dish {Basin}**



Without spout. Material: Borosilicate glass. Top diameter approx. 250 mm. Height approx. 120 mm.

CODE: 1250.25

### ITEM: 38

## **Ring with Clamp**





With clamp at stem-end to allow firm clamping on a support rod. Diameter max. 16 mm. Painted iron. Internal diameter of ring 77 mm. Total length 200 mm.



## Liebig Condenser



Borosilicate glass. With fused inner tube. Total length approx. 480 mm. Jacket length approx. 300 mm. Diameter approx. 32 mm.

### ITEM: 40

## Still head with side tube





Borosilicate glass to fit to Liebig condenser.





**Beaker Tongs** 



Stainless steel, with insulated coated jaws. Used to safely grip and carry beakers containing high temperature liquids. Total length approx. 280 mm.

CODE: 5430.15

### ITEM: 42

### **Test Tube Holder**



Nickel plated Spring steel, for tubes up to 45 mm diameter. Length 115 mm.

CODE: 5423.00



### **Test Tube with rim**



### CODE: 33006.401

Material: Borosilicate glass. Diameter 16 mm. Length 160 mm.

### ITEM: 44

## L shape Glass Tube





Material: Borosilicate glass. Length 200 x 200 mm. Diameter 9 mm.





### T shape tubing connector



Material: Borosilicate glass. Diameter 7 mm. Length 100 mm. Branches L. 50 mm.

CODE: 1217.07

ITEM: 46

### CODE: 1220.07

## Y shape tubing connector



Material: Borosilicate glass. Diameter 7 mm. Length 100 mm. Branches L: 50 mm.



CODE: 1223.07

## U shape tubing connector



Material: Borosilicate glass. Diameter 7 mm. Length 100 mm. Branches L. 50 mm.



CODE: 1310.20

Round bottom, long neck boiling flask

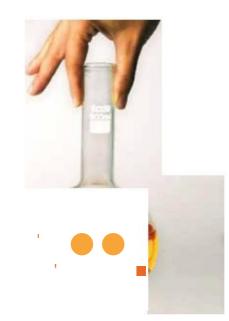


Round bottom, long narrow neck. Material: Borosilicate glass. Capacity 100 ml. Height 120 mm. Bulb diameter 63 mm. Neck diameter 21 mm.

ITEM: 49

### CODE: 1310.35

## Round bottom, long neck boiling flask



Round bottom, long narrow neck. Material: Borosilicate glass. Capacity 250 ml. Height 165 mm. Bulb diameter 88 mm. Neck diameter 25 mm.



CODE: 1310.45

## Round bottom, long neck boiling flask



Material: Borosilicate glass. Capacity 500 ml. Height 210 mm. Bulb diameter 110 mm. Neck diameter 30 mm.



**ITEM: 51** 



## **Boiling Flask, Round Bottom, 2 joints**





Material: Borosilicate glass. Capacity 500 ml. Socket 24/29 Side Socket 14/23



CODE: 1308.35

## Flat bottom, short narrow neck boiling flask



Material: Borosilicate glass. Capacity 250 ml. Height 115 mm. Bulb diameter 88 mm. Neck diameter 25 mm.

ITEM: 53

CODE: 1307.45

## Flat bottom, long narrow neck boiling flask





Material: Borosilicate glass. Capacity 500 ml. Height 210 mm. Bulb diameter 110 mm. Neck diameter 30 mm.



CODE: 1322.10

## **Conical flask, narrow mouth**





Material: Borosilicate glass. Capacity 150 ml. Height 120 mm. Base diameter 70 mm. Neck diameter 25 mm.

### ITEM: 55



## Conical flask, narrow mouth



Material: Borosilicate glass. Capacity 250 ml. Height 144 mm. Base diameter 83 mm. Neck diameter 30 mm.



## **ITEM: 56** Washing Bottle



### CODE: 1625.10

Material: PE - polyethylene. Capacity 500 ml. Diameter 74 mm. Height 165 mm.

### ITEM: 57

## Beaker, low form





Low form with spout and graduations. Material: Borosilicate glass. Capacity 100 ml. Height 72 mm. Diameter 52 mm.



## **ITEM: 58** Beaker, low form

CODE: 1118.35



Low form with spout and graduations. Material: Borosilicate glass. Capacity 250 ml. Height 94 mm. Diameter 69 mm.

### ITEM: 59

## Beaker, low form





Low form with spout and graduations. Material: Borosilicate glass. Capacity 500 ml. Height 115 mm. Diameter 87 mm.



#### CODE: 1380.00

## Gas collecting cylinder



The set is composes as follows:

1379.05 Gas Collecting Jar Material: Borosilicate glass. Height. 200 mm. Diameter 60 mm.

1383.20 Gas Jar Cover Diameter 60 mm.

ITEM: 61

**Graduated cylinder** 





Tall form, with spout. Material: Borosilicate glass. Capacity 250 ml. Grad.: 2 ml. Tolerance: ± 1.4 Height 320 mm. Diameter 40 mm.



## **Graduated cylinder**

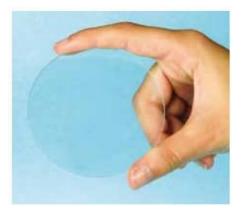


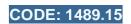
Tall form, with spout. Material: Borosilicate glass. Capacity 500 ml. Grad.: 5 ml. Tolerance: ± 2.6 Height 360 mm. Diameter 54 mm.

CODE: 1226.25

#### ITEM: 63

#### Watch Glass





Ground edges. Material: Borosilicate glass. Diameter: 80 mm.



## Long stem funnel set



Borosilicate glass. Stem length approx. 150 mm. The set comprises 3 each of the following:

- 1346.10 Long stem funnel, diameter approx. 75 mm.
- 1346.15 Long stem funnel, diameter approx. 90 mm.

CODE: 1347.00

ITEM: 65

#### CODE: 1344.00

### Short stem funnel set



Borosilicate glass, The set comprises 2 each of the following:

- 1343.15 Short stem funnel Diameter approx. 75 mm. Stem length approx. 75 mm.
- 1343.25 Short stem funnel Diameter approx. 120 mm. Stem length approx. 120 mm.
- 1343.30 Short stem funnel Diameter approx. 150 mm. Stem length approx. 150 mm.



30

Volumetric Flask with polyethylene stopper. Material: neutral glass. Capacity 100 ml. Tolerance ± 0.16 Height: 182 mm. Bulb diameter 59 mm.

CODE: 1337.15

Volumetric Flask with polyethylene stopper. Material: neutral glass. Capacity 50 ml. Tolerance ± 0.10 Height: 140 mm. Bulb diameter 46 mm.

CODE: 1337.10

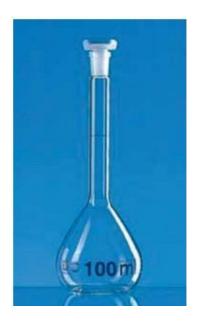
## **ITEM: 66** Volumetric flask





ITEM: 67

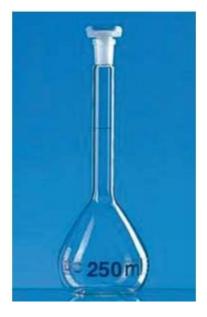
Volumetric flask







## **Volumetric flask**



 CODE: 1337.20

Volumetric Flask with polyethylene stopper. Material: neutral glass. Capacity 250 ml. Tolerance± 0.24 Height: 225 mm. Bulb diameter 80 mm.



Thistle Funnel. Straight. Material: Borosilicate glass Diameter 40 mm. Length 350 mm.



#### ITEM: 69.1

Cellophane



CODE: 33004.500

Semipermeable Cellophane, roll dimensions: 50 cm x 5 m long

#### ITEM: 70

CODE: 1361.10

## Separating Funnel, pear shape



Pear shape with stopper and stopcock. Material: Borosilicate glass. Capacity 250 ml. Body diameter 74 mm. Length 290 mm. Stem diameter 8 mm.



CODE: 1187.10

## **Buretta with glass Stopcock**



With glass key, clear glass. Material: Borosilicate glass. Capacity 50 ml. Grad.: 0.1 ml. Tolerance  $\pm 0.10$ Diameter 13 mm. Length 750 mm.



## **ITEM: 72** Bulb Pipette

CODE: 1439.06

One mark. Material: Borosilicate glass. Capacity 10 ml. Length 450 mm. Tolerance ± 0.04.



1 25 11



One mark. Material: Borosilicate glass. Capacity 25 ml. Length 530 mm. Tolerance ± 0.06.



## ITEM: 74CODE: 5448.10Pipette Filler - 3 way Rubber Pump



Moulded rubber bulb. approx. 60 ml capacity. with three glass ball valves which can be controlled by finger pressure. There are no metal parts to corrode and the filler can be used with all liquids except those that attack rubber. Can be used on bulb or cylindrical pipettes from 2 to 50 ml.

#### ITEM: 75

#### Petri dish



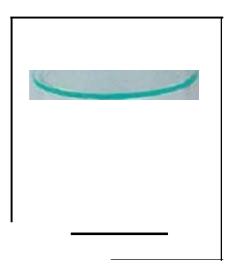


Material: borosilicate glass. Bottom diameter 120 mm. Cover diameter 130 mm. Height 25 mm.



CODE: 33004.261

## **Developing chamber for chromatography**



Standard cylindrical developing chamber. Neutral glass, with lid. Dimensions 200 x 100 mm.

ITEM: 77

CODE: 33004.262

## Chromatography paper, pack of 25 sheets



General chromatography paper. Cellulose. Size 200 x 200 mm. Pack of 25.



CODE: 33004.263

### Test tube for chromatography



Test tube for chromatography. Diameter 25 mm. Length 180 mm. Supplied with rubber stopper.

ITEM: 79

CODE: 33004.264

#### Square type developing chamber for chromatography



Standard developing chamber. Flat base. Supplied with lid. Neutral glass. Dimensions 200 x 200 mm.



pH paper strips

CODE: 33004.265



pH paper strips. Each box contains 100 strips and 1 test chart.

ITEM: 81

## Aluminium spouting jar



CODE: 33004.266

With Spout. Aluminium, anodized. 125 mm x 75 mm (Height x Diameter).



## pH Sensor



#### CODE: 4840.13

Offers accurate readings in a convenient format Collect data for pH of solutions, general solution preparation, study of biological buffers, soil analysis, water analysis, and more.

Range 0-14 pH Accuracy ±0.2 pH Resolution 0.01 pH Sample Rate maximum 10 samples/second Includes batteries, quick reference guide, USB drive for collecting data, and electrode storage solution.

Connectable to interactive whiteboard. Stand alone probe with commands given on touch-screen by an icon based minimal language.

#### ITEM: 83

### Vinyl gloves multi-purpose





Vinyl gloves multi-purpose. For handling chemical substances. Pack of 100.



### White coat



#### CODE: 2139.10

High quality 100% cotton Sizes L/XL

#### ITEM: 85

## **Goggles (safety)**





Eyes protection from chemical reagents. With wide-angle polycarbonate lenses in a flexible clear PVC frame for all-round vision. High quality for laboratory use.



## ITEM: 86 Safety Shield





Facial protection for hazardous substances. The safety shield is made of high quality, clear acrylic; is free standing, stable and fitted with non skid feet. Dimensions: 300 x 300 hmm. Thickness 6 mm.

#### ITEM: 87



## **Grease Silicon for Glassware**



For sealing and lubricating ground glass joints Stopcocks, plastic or metal connections. Working temperature range:- 40°C to +220°C. Supplied tube of 50 g



CODE: 33006.410

## Reagent set



Acetic acid glacial, 250 ml	Bottle	1
Acetone, 250 ml	Bottle	1
Ammonia Solution, 30%,100 ml	Bottle	1
Ammonium Chloride, 250 g	Bottle	1
Calcium Carbonate, 50 g	Bottle	2
Calcium oxide, 100g	Bottle	1
Calcium hydroxide, 100 g	Bottle	1
Copper sulphate, 100g	Bottle	1
Copper carbonate, 100g	Bottle	1
Copper nitrate, 100 g	Bottle	1
Ethanol 96°, 100 ml	Bottle	1
Magnesium Sulphate, 250 g	Bottle	1
Fehling's solution A 50 ml	Bottle	1
Fehling's solution B 50 ml	Bottle	1
Hydrochloric acid 36%, 100 ml	Bottle	2
Hydrogen Peroxide, 3%, solution, 100ml	Bottle	1
lodine,100 g	Bottle	1
Cobalt chloride 100g	Bottle	1



#### continue ITEM: 88

#### CODE: 33006.410

Magnesium oxide, 100 g	Bottle	1
Magnesium ribbon, 25g	Bottle	1
Methylene blue solution, 50 ml	Bottle	1
Potassium iodide, 100g	Bottle	1
Potassium hydroxide 100g	Bottle	1
Potassium manganate (VII) (permanganate), 100g	Bottle	1
Potassium carbonate, 100g	Bottle	1
Silver nitrate, 50 g	Bottle	1
Sodium bicarbonate, 250 g	Bottle	1
Sodium chloride, 250 g	Bottle	3
Sodium metal in mineral oil or paraffin, 100 g	Bottle	1
Sodium hydroxide, 250 g	Bottle	2
Starch, 50 g	Bottle	1
Sucrose (pure), 50 g	Bottle	2
Sulphur powder, 50 g	Bottle	1
Iron powder, 50 g	Bottle	1
Sulphuric acid 96%, 100 ml	Bottle	2
Nitric acid (cone) 100 ml	Bottle	1
Zinc sulphate, 100g	Bottle	1
Methyl orange, 50 ml	Bottle	1
Phenolphthalein, 50 g	Bottle	1
Bromine water brome 250 ml	Bottle	1
(AI-CU-Zn-S) small in bottles contains 50g each	Pack	1



CODE: 8884.60

## Litmus paper (red) in sets of 100 strips



Range pH 5-8, colour change red to blue. Box of 100 strips.

ITEM: 90

CODE: 8884.62

## Litmus paper (blue) in sets of 100 strips



Range pH 5-8, colour change red to blue. Box of 100 strips.



### pH paper strips

CODE: 33004.265



pH paper strips. Each box contains 100 strips and 1 test chart.

#### ITEM: 92

CODE: 1118.15

## Beaker low form 50 ml, borosilicate glass



Low form with spout and graduations. Material: Borosilicate glass. Capacity 50 ml. Height 58 mm. Diameter 46 mm.





CODE: 1226.00

## Graduated cylinder, capacity 10 ml



Tall form, with spout. Material: Borosilicate glass. Capacity 10 ml. Grad.: 0,2 ml. Tolerance:  $\pm 0.1$ Height 150 mm. Diameter 13 mm.

ITEM: 94



## Drying tube U shape with side tubes



Borosilicate glass with side tubes and glass stoppers. Diameter approx. 13 mm. Length approx. 100 mm.



## **ITEM: 95** Conical Flask, capacity 150 ml





Conical Flask. Wide mouth. Graduated. Material: Borosilicate glass. Capacity 150 ml.

CODE: 1323.10

CODE: 1323.20

## **ITEM: 96** Conical Flask, capacity 250 ml



Conical Flask. Wide mouth. Graduated Material: Borosilicate glass Capacity 250 ml. Height 140 mm. Base diameter 85 mm. Neck diameter 46 mm.



## ITEM: 97 CODE: 1337.15 Volumetric flask, capacity 100 ml



Volumetric Flask. With polyethylene stopper. Material: neutral glass Capacity 100 ml. Tolerance  $\pm$  0.16 Height 182 mm. Bulb diameter 59 mm.

**Separating Funnel** 





Separating Funnel. Pear shape. With stopper and stopcock. Material: Neutral glass. Capacity: 125 ml. Body dia.: 67 mm. Length: 260 mm. Stem dia.: 7 mm.



CODE: 1014-167.SA

#### **Teacher's bench**



Teacher's bench, worktop in medium density fibreboard (MDF). Overall dim. approx 1650 x 750 x 850 mm.

Work top made of water proof MDF, approx 22-25 mm thick covered with anti-acid, fire-proof, scratch-proof plastic laminated, with rounded melamine borders. The bench includes two tanks made of acid resistant material one tank of water, the second for waste, each tank with a capacity of 10 liters. An electrical pump can be activated from the electrical control panel allowing the water to be drawn from the water tank, the tap sink is made of stainless steel, the sink hole have a cover for the waste to be used when needed. The bench is supplied with the following accessories:

- 1 Under bench open space with footrest
- 1 Service cabinet with inspection door and inside waste bin
- 1 Water tap one way made of stainless steel
- 1 Sink in polypropylene 30 x 30 cm with one acid resistant drain trap, drainage system and a cover

Supplied with electrical heater.



#### CODE: 1716-065/P

## **Teacher swivel arm chair**



Steel frame with nylon base Height's adjustable by gas spring. Seat and back upholstered of fireproof covered. Height adjustable from 44 cm to 58 cm



#### **ITEM: 106 Portable fume hood**

#### CODE: 1670-200.T



#### Portable fume hood

• Overall Dim. approx. 1000 x 750 x 2000 mm h

• The structure is realized in varnished steel and panels are made in mild steel oven painted using special paint resistant to the chemicals, scratch and fire.

• Front glass double hung counterweight, 3+3 mm thick laminated glass shatterproof.

The fume cupboard must be supplied with the following accessories:

1 Aspiration system without outdoor air emission, including:

- 1 Exhaust fan air delivery, 200 mc/h, main power 220V, 50 Hz single-phase;
  - Filtration box with active carbon filter for chemicals
     Electronic clogged filter signaling device with flashing light and acoustics alarm;

1 Electric board with 2 switches (for lamp and fan motor) and 1 socket 220V-15A with safety cover, IP55 protection degree;

1 Fluorescent lamp 20W

1 Gas tap powered by internal gas cylinder able to contain a 10 Kg buthane gas;

 Water tap powered by internal water tank and discharging into a second tank, by an electric immersion water pump
 Sink in anti-acid reinforced polypropylene dim 15 x 30 cm
 under-top service cabinet with 1 door, to contain the gas cylinder and the water tanks.



CODE: 1120-254/L

## Student Bench, worktop in plastic laminated



Overall Dim. 2540 x 940 x 850 hmm.

Construction according to attached general structural characteristics, complete of the following fittings and accessories:

- no. 1 Modular steel structure made in 30 x 30 mm, 1.5 mm thickness tubular steel, coated with anti-acid epoxy paint
- no. 1 Worktop made of water proof MDF 22 -25mm thick, covered with anti-acid, fire proof, scratch-proof plastic laminated, with rounded melamine borders.

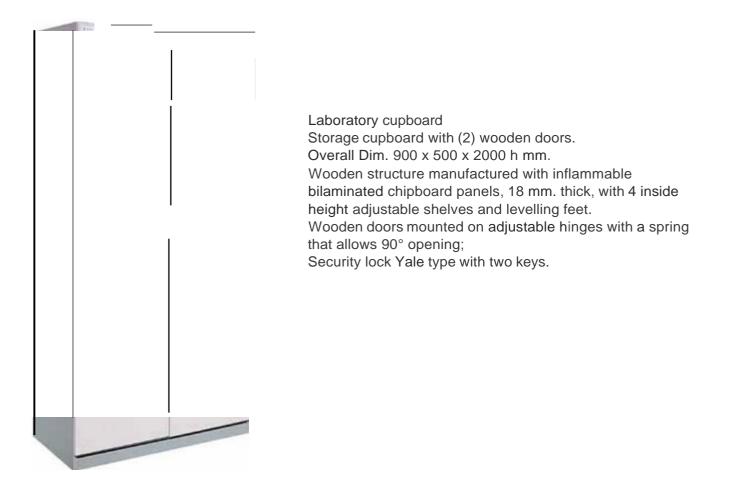
Complete with the following fittings:

- no. 2 Under bench open space with footrest
- no. 2 Electric towers, each with 2 220V/15A sockets with safety cover



CODE: 1810-90

## Laboratory cupboard





CODE: 1890-90

## Ventilated cupboard for chemicals



Ventilated cupboard for chemicals Minimum overall Dim. 900 x 500 x 2000 hmm. Manufactured in acid resistant special wood, complete of the following accessories:

- Wooden body made of wooden waterproof MDF panels on which a coating made of fire-retardant phenolic laminated plastic is placed, total thickness 18 mm.
- 4 inside shelves with adjustable height;
- Wooden doors with plastic air grids and security lock Yale type;
- Suction system with outdoor air emission, complete of 1
   exhaust fan motor, main power 220 V, 50/60 Hz



## Student stool

CODE: 1716-021



The stool has a five spokes base with levelling feet made of reinforced nylon. The seat is manufactured in stratified beech wood (thickness: 15 mm), painted with polish natural colour.

The seat is fixed by a metallic bracket to a metal structure made of steel tube and painted and welded metal sheet.

Overall dimensions: 550 x 550 x 600 h mm. Diameter of the seat: 330 mm.

#### ITEM: 111

#### White board





Surface material: painted magnetic steel sheet of white color 0,3 mm. thick

- Back material: galvanized sheet iron
- Thickness approx. 10 mm.
- Frame Aluminium approx. 25 x 20 x 25 mm.
- Corner of frame: plastic.
- Installation accessories.
- Dimensions: 2000 x 1000 mm.
- Included 5 packs of markers for white board (3 pcs/ pack) and 3 eraser.



CODE: 33004.269

## **Glass Basin with spout**



Glass Basin with spout. Diameter approx. 250 mm. Height 120 mm. Flat Bottom

#### ITEM: 113

#### **Graduated pipette set**



#### CODE: 33004.270

Graduated pipette set , composed of one of each of thefollowing:

- 1436.40 Graduated Pipette. Class B. Graduated to extreme tip. Zero at the jet. Material: Neutral glass. Capacity: 5 ml. Graduated interval: 0.05 ml. Tolerance: ± 0.02.
- 1436.42 Graduated Pipette. Class B. Graduated to extreme tip. Zero at the jet. Material: Neutral glass. Capacity: 10 ml. Graduated interval: 0.10 ml. Tolerance: ± 0.04.
- 1436.44 Graduated Pipette. Class B. Graduated to extreme tip. Zero at the jet. Material: Neutral glass. Capacity: 25 ml. Graduated interval: 0.20 ml. Tolerance: ± 0.06.



## TLC plates



CODE: 33004.271

TLC Silica gel. Dim. 200 x 200 mm. Thickness from 0,2 mm. to 0,5 mm.

#### ITEM: 116

#### Monocular microscope

CODE: 8542.12



Microscope with eyepiece 1OX and 16X. Objectives 1OX. 40X. 60X. Stage with clips. Pre-drilled stage for use with mechanical stage. Separate coarse and fine focus adjustment. Single lens condenser with disk diaphragm with five holes of different sizes. Built-in illumination adjustable in brightness with incandescent lamp 220 V, 15 W. Rubber non slip feet fitted on base. Rugged cast metal construction. Supplied with 2 spare lamps and fuses. Supplied in wooden case. CE marked. Supplied with detailed instruction manual.



## Tripod Magnifier

CODE: 8260.25



For examination of large specimens and dissection work. The plane convex lens, 100 mm. diameter, is mounted in a hexagonal enamelled aluminium frame on three legs that are free to pivot in circular paths. Adjustable working height on telescopic legs.

#### ITEM: 118

CODE: 4182.55

#### **Osmotic Pressure Apparatus**



Simple apparatus complete with longstem funnel, two osmotic membrane dimensions 120 x120 mm, and plastic conical container, graduated, capacity approx. 250 ml.



59

Cover Glass. Material: Neutral glass. Size: 20 x 20 mm. Thickness: 0.13-0.17 mm. In 100 pieces box

CODE: 1397.05

ITEM: 120

## **Cover Glass**





#### Microscope Slides: Precleaned, with flat surface and smooth ground.dimensions 76 x 26 mm. Thickness 1-1.2 mm. In 50 pieces box

CODE: 1388.00

ITEM: 119

## **Microscope Slide**





CODE: 1120-254/L

## Student Bench, worktop in plastic laminated



Overall Dim. 2540 x 940 x 850 h mm.

Construction according to attached general structural characteristics, complete of the following fittings and accessories:

- no. 1 Modular steel structure made in 30 x 30 mm, 1.5 mm thickness tubular steel, coated with anti-acid epoxy paint
- no. 1 Worktop made of water proof MDF 22 -25mm thick, covered with anti-acid, fire proof, scratch-proof plastic laminated, with rounded melamine borders.

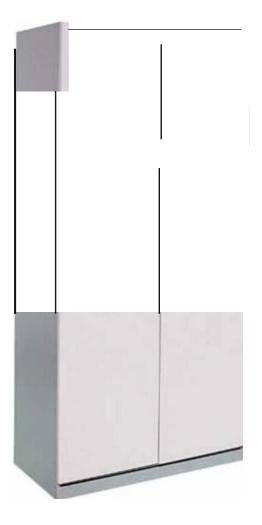
Complete with the following fittings:

- no. 2 Under bench open space with footrest
- no. 2 Electric towers, each with 2 220V/15A sockets with safety cover



CODE: 1810-90

### Laboratory cupboard



Laboratory cupboard Storage cupboard with (2) wooden doors. Overall Dim.: 900 x 500 x 2000 hmm. Wooden structure manufactured with inflammable bilaminated chipboard panels, 18 mm. thick, with 4 inside height adjustable shelves and levelling feet. Wooden doors mounted on adjustable hinges with a spring that allows 90° opening; Security lock Yale type with two keys.



First aid kit

# EZ CO MAR

CODE: 2123.20



Provided with the products required in a lab. In conformity with CE safety laws. All the material is included in a strong plastic case.

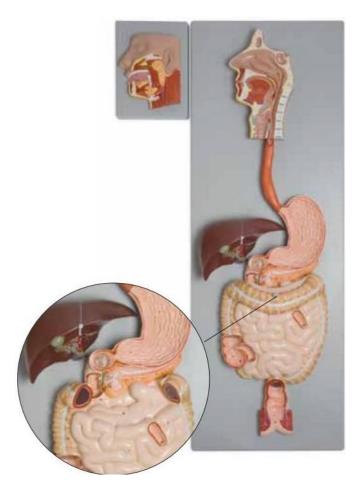
Supplied with:

- 5 pairs of disposable gloves
- 1 bottle of lodine disinfectant
- 1 bottle of alcohol
- 2 packs of sterile gauzes
- 5 stainless steel tweezers
- 1 pack of cotton wool
- 2 disposable masks
- 3 stainless steel scissors
- 4 packs of bandages
- 3 packs of elastic net
- 2 packs of ice ready to use
- 2 reels of bandages
- 1 reel of sticking plaster



CODE: 6090.01

# Human Digestive System, 3 parts



Mounted on board. Size: 900 x 320 x 140 mm. Weight: approx. 2200 g Supplied with instruction card. (Arabic+ English Language)

This life size model shows the human digestive tract from mouth cavity to rectum. The oral cavity, the pharynx and the first part of the esophagus are dissected along the medial sagittal plane.

Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.

The liver is shown together with the gall bladder and the pancreas is dissected to expose internal features.

The stomach is open along the frontal plane; the duodenum, caecum, part of the small intestine and the rectum are open to expose the interior.

The transverse colon is removable. An additional relief model of the head shows the anatomy of the mouth with salivary glands.



CODE: 9010.15

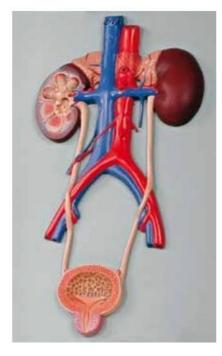
# **Slide projector**



Focusing: Remote control with wire. Magazine: 36 frame straight magazine. Cooling: Induction fan. Film frame: 50 x 50 mm. - 24 x 36 mm./film. Projection lamp: 24 V 150 W halogen lamp. Lens: 1:2.8/85 mm. Using environment: -5/+40 Dimension: approx. 135 x 250 x 270 mm. (HxWxD) Spare lamps for slides projector. Set of four 24 V, 150 W, halogen lamps. Components: 1 pc of fuse and 1 pc of belt.



# **Human Urinary System**



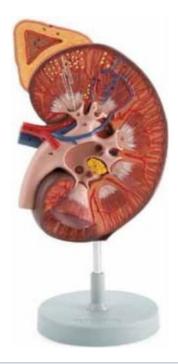
CODE: 6140.18

Natural size. Made of unbreakable high quality polyvinyl resin and hand painted with nontoxic colours in a scientifically correct manner. The right kidney, the bladder and the prostate are opened. In one piece. Mounted on a sturdy shock resistant plastic board. Length approx. 420 mm. Width approx. 300 mm. Thickness approx. 50 mm. Supplied with instruction card. (Arabic+ English Language)

ITEM: 127

### CODE: 6140.06

# Kidney, 3 times enlarged



This model shows a frontal section of the human kidney enlarged 3 times. The kidney is shown with the renal capsule. Additional structures include: the cortex, medulla, pyramids with papillae, partially dissected renal pelvis, renal calices, ureter, blood vessels, supra renal gland with cortex and medulla. A schematic representation of the renal corpuscle with the system of collecting tubules is included. Mounted on base with stand. Size: 400 x 150 x 80 mm. Weight: approx. 1200 g. Supplied with instruction card. (Arabic+ English Language).



## CODE: 6070.07

# Human Circulatory System, 1/2 natural size



The model represents a general view of the human circulation. Made of unbreakable high quality polyvinyl resin and hand painted with nontoxic colours in a scientifically correct manner. It includes the heart (2 parts), lungs, liver, spleen, kidneys and relevant connections with the pulmonary and systemic circulatory pathways. Mounted on a board. Size: 320 x 900 x 120 mm Weight: approx. 4200 g. Supplied with instruction card. (Arabic+ English Language).

Human Ear, 3X





3X life size.

Made of unbreakable high quality polyvinyl resin and hand painted with nontoxic colours in a scientifically correct manner.

The model shows the external, middle and inner ear. The eardrum with malleus, incus and stapes are removable. The other removable parts are composed of: cochlea and labyrinth with vestibular and cochlear nerves, 2 bone sections that define the middle and inner ear. Mounted on base.Size: 330 x 230 x 225 mm. Weight: approx. 2000 g

Supplied with instruction card.

(Arabic+ English Language).



## **Eye 6 Parts**



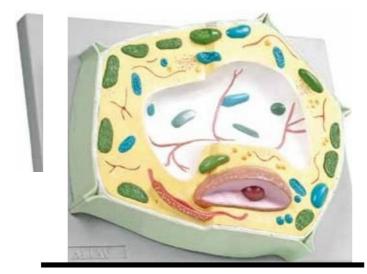
#### CODE: 6210.01

#### 6X life size.

Made of unbreakable high quality polyvinyl resin and hand painted with nontoxic colours in a scientifically correct manner. The model can be dissected on the horizontal plane to show internal details. Cornea, iris, lens and vitreous body can be removed. Muscular attachments on the sclera and part of the choroid are also shown. Mounted on base with stand. Size: 150 x 170 x 270 mm Weight: approx. 850 g. Supplied with instruction card. (Arabic+ English Language).

## ITEM: 131

## Plant cell

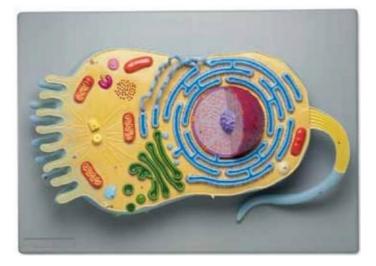


## CODE: 6231.01

This model, enlarged 20.000 times, shows the significant structures of a plant cell, including the cell wall, nucleus, vacuole, Golgi apparatus, mitochondrion, chloroplast, chromoplast, leucoplast, endoplasmic reticulum. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. Mounted on board. Size: 420 x 300 x 100 mm. Weight: approx. 2100 g. Supplied with instruction card. (Arabic+ English Language).



## **Animal cell**



### CODE: 6231.02

This single-piece model, magnified approximately 20,000 times, is a very useful tool to study the cytology of an eukaryotic cell. The typical structures, such as microvilli, flagellum, mitochondria, nucleus, rough and smooth ER, are reproduced with great detail and accuracy. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. The model comes with an accompanying multilingual k-card identifying 24 structures. Mounted on base. Size: 550 x 380 x 150 mm. Weight: 2050 g. Supplied with instruction card.

(Arabic+ English Language)



# ITEM: 133 Muscular body



This 1/4 life-size model is a useful tool to study human superficial musculature. Significant structures are numbered and referenced on the accompanying k-card. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. Size 200 x 150 x 425 mm. Supplied with instruction card. (Arabic+ English Language)



# ITEM: 134 Dicot Root Section



#### CODE: 6310.07

This 3-part model, enlarged 400X life size, shows the structure of a dicot root in a cross and longitudinal section.

Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. All significant structures are well represented in great detail. The model is divided in 3 segments include the following: the first part describes the root tip with cap, the second one illustrates the distension zone and the last one part shows the meristematic mature region. Mounted on base. Size: 330 x 230 x 540 mm Weight: approx. 3850 g Supplied with instruction card.

(Arabic + English Language).

## ITEM: 135

## Amoeba model





Relief model 30 model. Enlarged 1000 times respect to the real size of the organism. It shows all the main structure including the internal organelles through a cut out window. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. Size approx. 300 x 250 x 100 mm. Supplied with instruction card. (Arabic+ English Language).



#### CODE: 6090.28

# Structure of stomach wall



This one-piece model, 150X life size, is an important tool to study the histology of the most important organ of the digestive system: the stomach. All the different layers from the epithelium to the serous coat are represented with great accuracy and detail. The principal structures, including different cellular types, capillary and lymphatic vessels are numbered and identified on the accompanying k-card (included). Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.

Supplied with instruction card. (Arabic+ English Language)

ITEM: 137

## **Monocot Stem Section**





This model, enlarged 400X life size, shows a cross and longitudinal section through a monocot stem.

Epidermis, cortex, central vascular cylinder and all the significant internal structures are well represented.

Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.

Mounted on base.

Size: 330 x 230 x 75 mm. Weight: approx. 1000 g Supplied with instruction card. (Arabic+ English Language)



## **ITEM: 138** Dicot leaf model



## CODE: 6310.09

CODE: 6180.01

The structure of a dicot leaf is well represented in this 600X life-size model; the cross and the longitudinal section describes all the main structures and the different cellular types through the upper page, mesophyll and lower page. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. Mounted on base. Size: 330 x 230 x 360 mm. Weight: 3500 g Supplied with instruction card. (Arabic+ English Language)

## ITEM: 139

# **Fetal Development**



This model shows the process of fetal development from the unfertilized ovum to the 9th month of gestation. The model consists of five parts. The first shows the developmental stages: ovulation; fertilization, zygote formation and uterine implantation that take place in ovary, fallopian tube and uterus. The other parts show the fetus at 4 weeks, 8 weeks, 12 weeks and 9 months of development. Mounted on board. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner. Size: 500 x 400 x 50 mm. Weight: approx. 1750 g Supplied with instruction card. (Arabic+ English Language)



## **Female Pelvis 3 Parts**





Mounted on base. Size: 300 x 200 x 275 mm. Weight: approx. 1670 g Supplied with instruction card. (Arabic+ English Language)

This life size model, composed of 3 parts, shows an open dissection through the median sagittal section of the pelvis. Internal structures of the female urogenital system are portrayed in great detail. Removable parts include half of the female reproductive system with the uterus opened to reveal medial and transverse sectional views. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.

ITEM: 141

CODE: 6180.04

CODE: 6180.03

## **Male Pelvis 4 Parts**



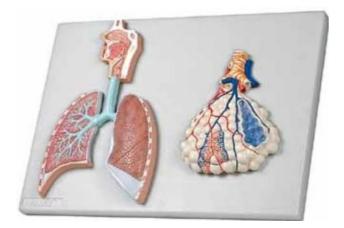
Mounted on base. Size: 300 x 200 x 275 mm. Weight: approx. 1670 g Supplied with instruction card. (Arabic+ English Language)

This life size model, composed of 4 parts, presents an open view through a median sagittal section of the pelvis. Internal structures of the male urogenital system are represented in fine detail. The removable parts include a half penis divided into medial and transverse sections, and half of the male reproductive system with an open dissection of a testis showing details of the internal structure. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.



CODE: 6120.02

# Human Respiratory System with Magnified Alveolus



Mounted on base. Size: 400 x 260 x 80 mm. Weight: approx. 850 g Supplied with instruction card. (Arabic+ English Language)

Relief model of the respiratory system, including the oronasal cavity, larynx and trachea, primary bronchi and bronchial tree. The upper respiratory tract is sectioned along the medial sagittal plane. An alveolus with blood vessels (about 150X life size) is shown with excellent internal detail. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.

ITEM: 143

# Corn Seed Model, 2 parts



CODE: 6300.15

Mounted on base. Size: 400 x 260 x 215 mm. Weight: approx. 1500 g. Supplied with instruction card. (Arabic+ English Language)

This model is 40X life size; it shows the corn seed in longitudinal section with excellent details of the seed coat and endosperm. The seed embryo can be removed for closer examination of its internal features. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.



CODE: 6310.06

# Hermaphrodite dicot flower



Mounted on base with stand. Size: 330 x 230 x 400 mm. Weight: 515 g. Supplied with instruction card. (Arabic+ English Language)

This three-piece model, enlarged to 14X life size, describes with great accuracy and detail the anatomy of a typical hermaphrodite dicotyledonous flower.

Thanks to the crosssection, the anatomy of the internal structures, such as stamens, stigma, style and ovary with eggs can be easily studied. External structures, including petals and sepals, are also well represented.

The main structures are numbered and referenced on the accompanying k-card. Made of unbreakable high quality polyvinyl resin and hand painted with non-toxic colours in a scientifically correct manner.





# Lung demonstration apparatus



This device uses a bell jar to represent the thoracic cavity, a rubber dam as the diaphragm, a Y-shaped tube as the trachea and bronchial tubes, and two balloons as lungs. Manipulation of the diaphragm causes the balloons to inflate and deflate. Lightweight, break-resistant plastic bell jar may be handled safely by the entire class.



# Light Sensor



#### CODE: 4840.18

Detecting movement in the visible light range, this light sensor emulates the human eye in spectral response.

Chemistry, physical science, life science, and environmental science experiments involving light intensity, inverse-square law experiments, reflectivity, solar energy, and polarization are all possible to support with easy, accurate data. Includes batteries, quick reference guide, and a USB drive for collecting data. Range: 0-30,000 lux Resolution: 0.5 lux Sample Rate: max 1,000 samples/second Connectable to interactive whiteboard. Stand alone probe with commands given on touchscreen by an icon based minimal language.

## ITEM: 147

## **Temperature Sensor**



### CODE: 4840.42

Investigate phase of matter, exothermic and endothermic reactions, effects of environmental conditions on temperature, insulation experiments, lessons related to weather and seasons, and solar energy with accurate data.

The sensing element in this sensor is a Pt-100 contained in a stainless steel shaft. Collect measurements in Celsius, Fahrenheit, or Kelvin. Range: -200 - +800°C

Accuracy:  $\pm 3^{\circ}$ C or 3% whichever is greater. Resolution: 0.1°C

Connectable to interactive whiteboard. Stand alone probe with commands given on touchscreen by an icon based minimal language. Sample Rate: max 10 samples/second Sensor comes with batteries, quick reference guide, and USB drive for storing data.



ITEM: 147.1

CODE: 4840.36

## **Blood Pressure Probe**



Designed to measure human blood pressure and pulse rate with rapid accuracy.

Get clear and easy readings of both systolic and diastolic blood pressure rates, displayed boldly on the unit's digital screen. One-button operation and easy out-of-box setup ensure a user-friendly experience in the classroom.

Includes a long-lasting rechargeable brick battery with charger, USB for data storage, and quick reference guide. A sphygmomanometer is also available.

Range: O mm Hg to 250 mm Hg; accuracy: ±10% of reading; resolution: ±1 mm Hg.



## ITEM: from 148 to 166

# **Prepared Microscope Slides**



ltem	Code	Description	Unit	Pcs
148	7285.010	Spider, w.m.	pcs	5
149	7182.030	Onion Bulb Epidermis, w.m.	pcs	5
150	7365.030	Human Blood, smear H&E stain	pcs	5
151	7280.050	Daphnia, w.m.	pcs	5
152	7040.000	Euglena Verides, w.m.	pcs	5
153	7178.120	Helianthus Older Stem, c.s. Sunflowers	pcs	5
154	7178.000	Tilia One-Year Stem, c.s.	pcs	5
155	7020.000	Paramecium, w.m.	pcs	5
156	7280.040	Cyclops, w.m.	pcs	5
157	7184.000	Zea Mays Leaf, c.s. Corn	pcs	5
158	7001.030	Typical bacteria, coccis in chains, streptococci, smear	pcs	5
159	7294.000	Butterfly Proboscis, w.m.	pcs	5
160	7255.031	Earthworm, I.s. <i>Showing a section of esophagus and nerve</i> ganglion	pcs	5
161	7340.030	Feather Composition, w.m. <i>Contour, down, fi/oplume</i>	pcs	5
162	7296.030	Apis mellifera Composition, w.m. Showing anterior and posterior wing, third legs with pollen sac, stinger and poison sac	pcs	5
163	7200.000	Zea Mays Corn Grain, I.s. Near Median Section	pcs	5
164	7173.091	Vicia faba Old Root, c.s.	pcs	5
165	7173.092	Vicia faba Lateral Root Origin, c.s.	pcs	5
166	7385.015	Medium Sized Artery and Vein, c.s. Human	pcs	5

78

CODE: 33004.501

referenced with corresponding index card.

High Impact plastic, virtually unbreakable, 50 places. The slots are well spaced for easy

Each slot is clearly numbered and can be cross

## ITEM: 167

ITEM: 167.1

**Dialysis Tubing** 

# Slide storage box









Dialysis tubing is a type of semi-permeable membrane tubing used in separation techniques that facilitates the removal or exchange of small molecules from macromolecules in solution based on differential diffusion.

Dimensions: approx 2.5 cm dia x 1m long



handling of 76 x 26 mm slides.





## **Overhead Projector**



Metallic body case. Overheating protection. Foldable, easy to handle. 360° head rotation.

CODE: 9010.10

360° head rotation.Double lamp changer.Power supply can be shut off when top cover is opened.Spare lamps (6 pcs)Marking watercolor pen, set of 6 pieces.

# ITEM: 169 Wall screen

•

## CODE: 9010.16

Wall screen for overhead projector. Dimensions 1500 x1500 mm.



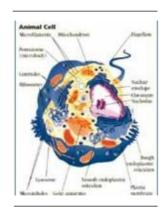
ITEM: from 170 to 183

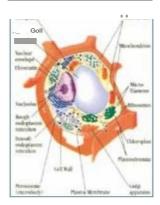
CODE: 8700.00

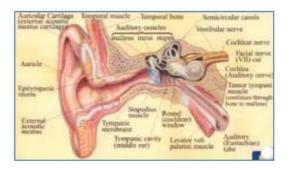
# **Transparency Set**

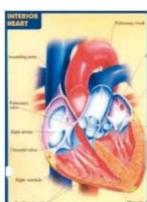
Transparency System: a Complete Teaching Program for Biology Using The Overhead Projector

ltem	Code	Description	Unit	Pcs
170	8700.01	Animal Cell - Plant Cell	pcs	2
171	8700.02	Kind of Bacteria - Morphology	pcs	2
172	8700.03	Section of Skin Generalized	pcs	2
173	8700.04	Human Ear Generalized	pcs	2
174	8700.05	Human Eye Generalized	pcs	2
175	8700.06	Human Brain Generalized	pcs	2
176	8700.07	Human Heart External And Internal	pcs	2
177	8700.08	Human Respiratory System Generalized	pcs	2
178	8700.09	Human Excretory System Generalized	pcs	2
179	8700.10	Human Kidney External and Section	pcs	2
180	8700.11	Cockroach - Life Cycle	pcs	2
181	8700.12	Pediculus Humanus - life cycle	pcs	2
182	8700.13	Flower - Generalized	pcs	2
183	8700.14	Functional Heart Model Transparency	pcs	2













CODE: 2241.33

# Thermometer, Maximum and Minimum



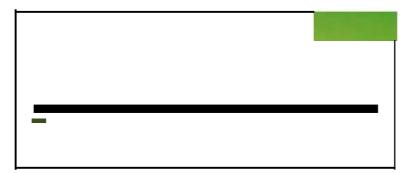
Thermometer, Maximum and Minimum - 40°C/+60°C On moulded plastic case. Simple push button to reset the max/min indicators.

ITEM: 185



CODE: 4610.50

# **Alcohol Thermometer**



Alcohol Thermometer No-toxic solution Range from -10°C to 110°c

ITEM: 186

# **Pair of Metallic Bars**



Pair of Metallic Bars Dimensions of each bar: approx. 60 x 20 x 5 mm.



## **Pair of Bar Magnets**



Pair of Bar Magnets In a plastic case. Dimensions approx. 60 x 13 x 5 mm. (Made of **AINi)** 

CODE: 4611.45

## ITEM: 188

## **Horseshoe Magnet**





Horseshoe Magnet (with Keeper) Flat- 100 mm Painted, with keeper, in plastic case. Specifications Material: chrome steel Size: 100 x 50 x 5 mm.

# ITEM: 189 Iron Filings





Iron Filings (package of 300 g)



# **Ball and Ring - Gravesande**



A concrete demonstration of the cubic thermal expansion of a solid. Ring and ball on chain with 2 wooden handles. Length of the bar 130 mm, length of the chain 100 mm. The ball passes through the ring when cold but will not pass through after being heated.

CODE: 4200.10

## ITEM: 191

## **Force sensor**



Can be used for studies of friction, simple harmonic motion, collision studies, weight determination with a spring scale, buoyancy, the usefulness of levers and pulleys, and more. The force sensor can be easily mounted in a variety of experimental

configurations using metal support rods that screw into the sensor head.

Range: ±50 N

Accuracy: ±1%

Resolution: 0.02 N.

CODE: 4840.14

Sample Rate: max 1,000 samples/second. Connectable to interactive whiteboard. Stand alone probe with commands given on touch-screen by an icon based minimal

language. Sensor comes with batteries, quick reference guide, a USB drive for collecting data, rubber bumper attachment, and metal hook attachment.



CODE: 4110.38

# Plastic Spring Balance - 1000g



Plastic Spring Balance (Dynamometer) Range: 10009 In tubular transparent plastic case, with load hook and suspension ring. The spring mechanism is clearly visible and zero adjustment is incorporated. Protection against overload.

ITEM: 193



# Plastic Spring Balance - 500g



Plastic Spring Balance (Dynamometer) Range: 5009. In tubular transparent plastic case, with load hook and suspension ring. The spring mechanism is clearly visible and zero adjustment is incorporated. Protection against overload.

ITEM: 194



## **Medical thermometer**



Medical thermometer. Digital, length approx. 100 mm., in plastic case. Range: +35°C to +42°C.



CODE: 4180.12

# **Pascal Law Apparatus**



Pascal Law Apparatus (Pressure Syringe). Cylinder is made from plastic and has educational aim for the verification of Pascal's law. The whole apparatus is mounted on a sturdy base made of shock resistant plastic 150 x 200 mm.

# **Spouting Jar**





The jets of liquids from the 3 orifices at different heights of the container demonstrate the characteristics of the pressure exerted by a liquid on the walls of its container. Jar height approx. 510 mm., on a sturdy shock resistant plastic base approx. dimensions 250 x 180 mm. Supplied with Mohr clips.



#### CODE: 4840.17

## **Gas Pressure Sensor**



Gas pressure probe acquires a signal proportional to the pressure of a gas.

The acquired value is shown on the main screen in the units selected by the user in the following set: Bar - Psi - kPa - atm.

The maximum sample rate is 100 samples per second and the range is from Oto 200 kPa.

Connects to smartboard.

Touchscreen commands.

Storage of data through USB drive.

Supplied with USB drive.

Permanent cord tethered probe.

Supplied with curriculum and activity guide CE and CSA certification standards compliant.

## ITEM: 198

## **Stopwatch**





Stopwatch Simple to use, analogue stopwatch. The stopwatch is useful in laboratory experiments. Specification Range: O - 60 min. Accuracy: 1 sec



## ITEM: 199 - 200 - 201

# Set of Cylindrical Masses with Double Hook



#### CODE: 21001.050

Set of Cylindrical Masses with Double Hook: 50 g In brass, with two brass hooks, accuracy  $\pm 0.5\%$ The set comprises six cylindrical masses, 50 g. each.

#### CODE: 21001.025

Set of Cylindrical Masses with Double Hook: 25 g In brass, with two brass hooks, accuracy  $\pm$  0.5% The set comprises six cylindrical masses, 25 g. each.

#### CODE: 21001.010

Set of Cylindrical Masses with Double Hook: 10 gIn brass, with two brass hooks, accuracy  $\pm 0.5\%$ The set comprises six cylindrical masses, 10 g. each

## **ITEM: 202**

## **Motion Sensor**





The motion probe computes the distance of a body measuring the time elapsed from the emission and the receiving of a signal. The maximum sample rate is 50 samples per second and the full range is starting from 0.15 m to 6 m.

Connects to smartboard. Touchscreen commands. Storage of data through USB drive. Supplied with USB drive. Permanent cord tethered probe.



# **ITEM: 203** Set of Solid Models

CODE: 4001.50



Containing: 2 spheres approx. diameter 70mm., 2 cylinders approx. dimensions 70 x 140 mm. diameter x height, 2 cones approx. dimensions 70 x 140 mm. diameter x height, 2 cubes length of each side approx. 70 mm, 2 pyramids approx height 140 mm, 2 parallelepipeds approx dimensions 70 x 70 x 140 mm. The solids have different colours.

## ITEM: 204

# **Bar and Gauge**



#### CODE: 4200.15

For demonstration of solids expansion. Steel bar 110 x 12 mm., length x diameter, on rod with wooden handle, overall length approx. 200 mm.

U-shaped gauge, sliding fit over ends of bar, with holes 12 mm. bore.

## ITEM: 205

## **Compound Bar**





Demonstrates how the unequal expansion of different metals may be used for practical applications (principle of bimetallic thermostats, switches, etc.). With wooden handle, total approx. length 300 mm.



# **Pair of LA<sup>3</sup> Tuning Forks**



#### CODE: 4317.40

Frequency 440 Hz, on resonance boxes, with sliding masses on prongs for minor adjustment of frequency.

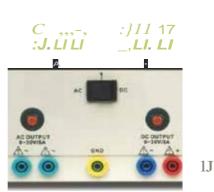
Among the most effective experiments with this pair of tuning forks are those dealing with resonance, interference, and beats. Complete with hammer.

ITEM: 207

## CODE: 33006.405

# Power Supply Unit 0-30V AC/DC, 2A

77777711







Specifications:

- Input Voltage: 220-240 VAC, 50Hz
- Output Voltage: O to 30 VAC/DC, continuously variable
- Output Current: 2A max
- LED meters for both voltage and current
- Safety and separated sockets for AC and DC output



**Toggle Switch** 

## CODE: 2510.06

Single pole. On sturdy shock resistant plastic base approx. 90 x 57 x 20 mm., with 4 mm. sockets. To be use at voltage up to 50V.

ITEM: 209 - 210

**Crocodile Clips** 



#### CODE: 2531.52

Crocodile Clips red colour Plastic sleeved, with spring-loaded serrated jaws, screw to clamp end of lead and 4 mm. socket for connection to plugs.

#### CODE: 2531.53

Crocodile Clips black colour Plastic sleeved, with spring-loaded serrated jaws, screw to clamp end of lead and 4 mm. socket for connection to plugs.

ITEM: 211 - 212

**Electrodes** 



## CODE: 4635.15 Copper Electrode

For electrochemistry experiments. Dimensions approx. 1 x 30 x 100 mm, with 0 4 mm socket. Spring design for application on jar edge.

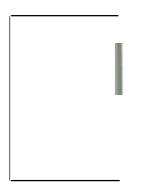
### CODE: 4635.17

Zinc Electrode For electrochemistry experiments. Dimensions approx. 1 x 30 x 105 mm, with 0 4 mm socket. Spring design for application on jar edge.



CODE: 2505.10

# Lamps on Holder set



The set comprises:

#### CODE: 2505.00

 Lamp holder (1 piece) For screw-base spotlight bulbs E10 (M.E.S.). In plastic housing, 90x60x20 mm, with 4 mm. sockets.

#### CODE: 2505.64

• Lamp bulb (6 pieces) 6V 0.3A, with E10 (M.E.S.) screw base.

## ITEM: 214

## **Set of Resistors**



CODE: 22004.001

In plastic housing dimensions 57x90x20 mm with 4 mm sockets.

With imprinted symbol and resistance value. Max power 2 W,

accuracy: 5%.

The set comprises one each of the following:

- CODE: 4693.69 Resistor 10 O
- CODE: 4693.73 Resistor 100 0
- CODE: 4693.81 Resistor 10 k 0
- CODE: 4693.85 Resistor 100 k 0



## ITEM: 215-216

# Banana plug lead



#### CODE: 2522.08

Banana plug lead, 50 cm, black. These flexible leads allow rapid connection with low contact resistance between laboratory equipment. Fitted at each end with 4 mm stackable plugs. Current Capacity 10 A maximum.

#### CODE: 2522.03

Banana plug lead, 50 cm, red These flexible leads allow rapid connection with low contact resistance between laboratory equipment. Fitted at each end with 4 mm stackable plugs. Current Capacity 10 A maximum.

## ITEM: 217-218

## Banana plug lead



### CODE: 2522.07

Banana plug lead, 25 cm, black These flexible leads allow rapid connection with low contact resistance between laboratory equipment. Fitted at each end with 4 mm stackable plugs. Current Capacity 10 A maximum

#### CODE: 2522.02

Banana plug lead, 25 cm, red These flexible leads allow rapid connection with low contact resistance between laboratory equipment. Fitted at each end with 4 mm stackable plugs. Current Capacity 10 A maximum



CODE: 22001.001

# Mounted Electric Voltmeter Set, A.C. - D.C.



Mounted Electric Voltmeter Set, A.C. - D.C. Moving coil type, class 1.5, on high impact plastic housing, for measurement on low voltage circuits (max 50 V). Input via 4 mm sockets. Scale approx. 60 mm long. Dimensions: 135 x 100 x 55 hmm. Composed as follow: A.C. Voltmeter, range 0 - 30 V D.C. Voltmeter, range 0 - 25 V

ITEM: 220

## CODE: 22002.001

# Mounted Electric Ammeter Set, A.C. - D.C.



Mounted Electric Ammeter Set, A.C. - D.C. Moving coil type, class 1.5, on high impact plastic housing, for measurement on low voltage circuits (max 50 V). Input via 4 mm. sockets. Scale approx. 60 mm. long. Dimensions:  $135 \times 100 \times 55$  h mm. Composed as follow: A.C. Ammeter, range 0 + 5 A D.C. Ammeter, range 0 + 1A and 0 + 5 A



CODE: 4840.16

# Voltage & Current Sensor



Voltage & Current Sensor. It is a combined sensor. The maximum sample rate is 50000 samples per second. Connects to smart board. Touchscreen commands. Storage of data through USB drive. Supplied with USB drive. Permanent cord tethered probe. Supplied with curriculum and activity guide. CE and CSA certification standards compliant.

## ITEM: 221.1

## **Microphone Sensor**



#### CODE: 4840.19

This high-quality microphone can be used to display and study the waveforms of sound from a human voice and musical instruments. It is also ideal for speed of sound experiments. Range: 0-100 (normalized values). Sampling rate: up to 50,000 samples/second. Sensor includes Li-Ion rechargeable battery, wallcharger, quick reference guide, and a USB drive for storing data.



**Generator Model** 





Bicycle dynamo on plastic base dimensions 120 x 120 mm., complete with a E10 (MES) bulb on bulb holder, and two 4 mm sockets for the dynamo output. The dynamo is driven by a crank, transmission ratio 1:4. Complete with spare bulb.

ITEM: 223

CODE: 4694.21

# Sliding Contact Rheostat - 10 N, Max 5 A



ITEM: 224

## **Convex Spherical Mirror Set**



Sliding Contact Rheostat - 10 0, Max 5 A 10 0, maximum current 5 A continuous. Ceramic formers with constant an windings, oxidized to give perfect insulation.

Enclosed in metal case, finished in oven baked enamel, to ensure a safe classroom use.

Graduated cursor scale with 100 divisions.

The rheostat has three 4 mm sockets for connection as fixed resistance, variable resistance, or potentiometer. Dimensions: 280 x 100 x 80 mm.

### CODE: 21003.003

In optical glass with back surface silvered. Diameter 50 mm and can be assembled into a plastic frame. The set comprises one each of the following:

- CODE: 4435.02 Convex mirror, focal length 100 mm.
- CODE: 4435.03 Convex mirror, focal length 150 mm.
- CODE: 4435.04 Convex mirror, focal length 200 mm.



## CODE: 21003.002

# **Concave Spherical Mirror Set**



In optical glass with back surface silvered.

Diameter 50 mm and can be assembled into a plastic frame The set comprises one each of the following:

- CODE: 4431.02 Concave mirror, focal length 100 mm.
- CODE: 4431.03 Concave mirror, focal length 150 mm.
- CODE: 4431.04 Concave mirror, focal length 200 mm.

ITEM: 226

## **Equilateral Prism**





**Newton's Colour Disc** 

Crown glass, optically worked. Length of triangle side approx. 42 mm, height approx. 42 mm.

## ITEM: 227

CODE: T1609.52



Newton Colour Disk with Motor Driven Rotator. For the verification of the additive mixture of the spectral colours.

Disc on stout card, 200 mm diameter, with two sets of spectrum colours and when placed in rapid rotation, causes the viewer to perceive the disc as white.

Motor driven rotator on sturdy shock resistant plastic base



Cylinder, graduated



Cylinder, graduated; Tall form, with spout; Material: Borosilicate glass; Capacity: 250 ml Grad.: 2 ml Tolerance: ± 1.4; Height: 320 mm Diameter: 40 mm

ITEM: 229



CODE: 1226.20

# **U-shaped electromagnet**



Complete with keeper and hooks. Resistance: approximately 30 0. Impedance at 50 Hz: approx. 50 O without keeper. Electrical supply: 400 mA max.



# Reversing Switch

CODE: 2510.08

RCVERS
'40!UW.

Double pole (inverter). On a sturdy shock resistant plastic base approx.  $90 \times 57 \times 20$  mm, with 4 mm sockets. To be use at voltage up to 50V AC and 75V DC

## ITEM: 231

CODE: 4350.33

# **Demonstration Model of Telephone set**



The set comprises one each of the following:

### CODE: 4350.40

Telephone receiver. In plastic case. Impedance 800 0.

Complete with two-core cable and banana plugs.

Cable length 10 m at least from receiver to the center.

#### CODE: 4350.42

Telephone transmitter.

Carbon type, in plastic case with two-core cable and banana plugs.

Cable length 10 m at least from transmitter to the center.



## Flexible steel rule



Flexible steel rule, length 5 m Break proof plastic case, positive lock, automatic rewinding. Enamelled steel tape, width 19 mm

#### ITEM: 233

## Tape measure, length 10 m

CODE: 2211.50

CODE: 2211.15



Tape measure, length 10 m ABS case and metal rewinding handle. Tape in fibre glass 16 mm width, not sensitive to humidity, completely washable. Numbered every 10 cm with 1 cm divisions.



#### CODE: 1120-254/L

## Student Bench, worktop in plastic laminated



#### Overall Dim. 2540 x 940 x 850 hmm.

Construction according to attached general structural characteristics, complete of the following fittings and accessories:

- no. 1 Modular steel structure made in 30 x 30 mm, 1.5 mm thickness tubular steel, coated with anti-acid epoxy paint
- no. 1 Worktop made of water proof MDF 22 -25mm thick, covered with anti-acid, fire proof, scratch-proof plastic laminated, with rounded melamine borders.

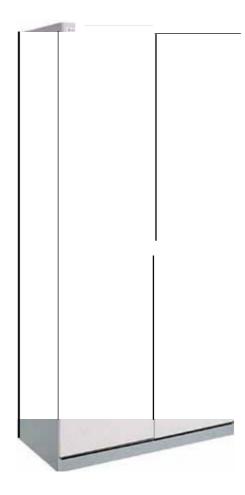
Complete with the following fittings:

- no. 2 Under bench open space with footrest
- no. 2 Electric towers, each with 2 220V/15A sockets with safety cover



#### CODE: 1810-90

## Laboratory cupboard



Laboratory cupboard Storage cupboard with (2) wooden doors. Overall Dim. 900 x 500 x 2000 h mm. Wooden structure manufactured with inflammable bilaminated chipboard panels, 18 mm. thick, with 4 inside height adjustable shelves and levelling feet. Wooden doors mounted on adjustable hinges with a spring that allows 90° opening; Security lock Yale type with two keys.



Laptop





Latest version with standard software, 15' screen at least

## ITEM: 237

## **Printer LaserJet**

CODE: T1735.95

Laser color jet Printer latest version



CODE: T1735.71

## **Data Show Projector**



Data Show Projector latest version

ITEM: 239

## **Gear Transmission device**



CODE: 33002.449

It is conceived for studying concepts such as gear ratios, power ratio, speed ratio. In a bicycle if the front gear is smaller than the back gear then the cycle is said to have power ratio and the cycle moves easily up the hill. On the other side, if the front gear is larger than the back gear then it has speed ratio and this enables the cycle to go downhill easily. Length = 250 mm. Width= 180 mm. Thickness= 22 mm.



CODE: 33002.460

## **Irradiance Measuring Apparatus**



A light source irradiates energy that causes temperature to go up. The energy transfer is smaller as we shield the light source by using a glass shield. Compare the temperatures read through the two thermometers placed at the same distance from the light source after few minutes. Bench length= 600 mm. Light source to be powered 12V DC

ITEM: 241

## Sun Earth Moon Model





A durable hand-operated model that demonstrates the orbital relationship of movement of Sun, Earth and Moon throughout the year and shows solar, lunar and annular eclipses, moon phases and seasons.

The sun sphere is lighted with a battery lamp.



## **Fuse Tester**



#### CODE: 33002.463

It enables to verify whether a fuse works or is permanently damaged. Length= 120 mm. Width= 120 mm. Thickness= 22 mm.

#### ITEM: 243

## **Battery holder**





Battery Holder 1.5 - 3 - 4.5 - 6 V CC Based on sturdy plastic base with dimensions 250 x 180 x 22h mm., 4 holders type D are connected through five 4 mm. bush panel isolated. Easily a voltage of 1.5 or 3 or 4.5 or 6

V can got by the apparatus.

#### ITEM: 244

**Screwdriver** 





Electric Screwdriver. With rechargeable battery and a complete set of different drills. Transformer included



#### CODE: T1735.91

## Renewable Energy Sources

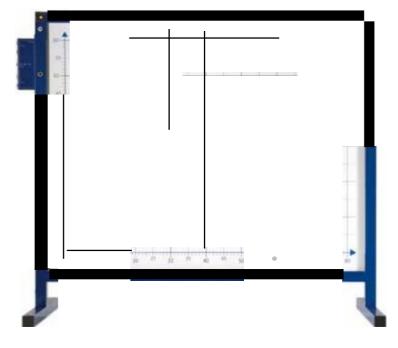


The Renewable Energy Sources System provides all the equipment needed to perform several experiments to study renewable energies, such as solar, hydraulic and wind power. Main Components:

- Solar panel
- Wind turbine
- Hydraulic turbine

#### ITEM: 246

## **Magnetic Display Board**



#### CODE: 4114.30

The Magnetic Display Board provides an excellent sturdy support for class demonstration of a wide variety of experiments. Consisting of a large white magnetic board, all components in the Upgrade kits are fitted with a strong magnet which allows easy attachment to the board. The board is printed with a graduated x-y axis to allow each experiment to be easily quantified and measured. It can be free standing or affixed to a wall with enclosed wall brackets. An integrated power supply is also included to allow attachment to accessories, such as a laser for example.

#### Specifications

Size: 950 x 810 x 410 mm Approx weight: 12 kg Embedded power supply: Output 3,3 V - 5 V -12 V DC, 1A



#### CODE: 4114.35

## Mechanics accessories Set





Together with the magnetic board, the Mechanics Accessories Set allows working demonstrations on: equilibrium, inclined plane, levers, pulley systems, simple machines and much more.

Main components:

- Cart
- Inclined Plane
- Weinhold's Disk
- Tubular Spring Balances
- Pulley with Hook
- Triple-In-Line Pulley
- Triple-In-Axis Pulley
- Goniometric Circle
- Protractor 0-60°
- Rule 25 cm
- Steel Spring with Pointer
- Cylindrical Masses
- Magnetic Pin (long)
- Set of 3 Geometric Objects

## **ITEM: 248** Weighing scales

#### CODE: T1735.89



Weighing scales, analogical. Up to 150 kg.



CODE: 2213.10

**Vernier Calliper** 



Supplied in wooden case. Range: 0-160 mm. Sensitivity: 0.05 mm.

ITEM: 250

CODE: T1735.87

## **Balance**, mechanical



Four beam type. Capacity 311 g Readability 0.01g Beam (dial) 200 x 100g, 100 x 10g, 10 1 g, 1 x 0.01 g. Platform diameter approx. 90 mm.

ITEM: 251 Mass, 1kg



CODE: T1735.85

With ring or hook.



109

#### Electric bell 4-6 V, on a solid base.

CODE: 4315.62



Plane mirrors, set of 2

CODE: 4429.51

- The set comprises two each of the following: - Plane mirror in glass, back surface silvered
- Dimensions minimum: 120 x 100 x 2.5 mm.
- Plastic holder, with slot for holding mirror

Manual stopwatch with memory function. Accuracy: 0.01 sec.



## **Digital Chronometer**

Plane mirrors, set of 2





ITEM: 254



ITEM: 255 **Electric bell** 





CODE: 2231.52





## Set of Resistors



ITEM: 257

Battery, 9V



Battery, 9V Type PP3, no rechargeable.



## Multimeter, digital



CODE: T1735.83

Type carbon film. Set is composed as follow: 100 Ohm - 10 pcs 150 Ohm -10 pcs 220 Ohm - 10 pcs 1k Ohm - 10 pcs 4.7k Ohm - 10 pcs





Designed according to IEC - 1010, Cat II, Pollution 2, this multimeter is capable of performing functions such as:

- DC and AC voltage and current measurement
- Resistance, capacitance measurement
- Diode, transistor and audible continuity test
- Frequency and temperature measurement.

AC: 20 mA, 200 mA, 10 A-2 V, 20 V, 200 V, 700 V DC: 2 mA, 20 mA, 200 mA, 10 A- 200 mV, 2 V, 20 V, 200 V, 1 kV Ohm: 200 0, 2 kO, 20 kO, 200 kO, 2 MO, 20 MO, 200 MO Farad: 2 nF, 20 nF, 200 nF, 2 µF, 20 µF



Battery, 12V





Battery, 12V Type acid Rechargeable 12V 1.2Ah

#### ITEM: 260

Fuse, set





Fuse, set Three type of fuse at least 5 pcs each

# ITEM: 261







Wave form helix. Spring slinky type, diameter 80 mm. Stretched up to 5 m



## Van de Graaff Generator



The Van de Graaff Generator is considered an important and powerful apparatus to perform electricity experiments. Its great appeal and dramaticity attracts students into the amazing world of physics. Historically developed to accelerate particles in high energy physics experiments, our Van de Graaff Generator has been redesigned to perform demonstrations and experiments in schools.

#### ITEM: 263

**Glass Basin** 





Rectangular borosilicate glass basin. With ground top edge. Dimension approx. Height 100 mm. Length 200 mm. Width 100 mm

CODE: 4623.20



# Spring With Holder and Base



Spring With Holder and Base Length 180 mm.

CODE: 4402.30

CODE: T1735.75

ITEM: 265

**Ray Box Complete** 







List of Equipment Supplied:

- Light Box
- Mirrors System for add colours (2pcs)
- •12V 20W Halogen Lamp
- Set of Eight Colour Filters
- Single Double Slit Screen
- Triple Multiple Slit Screen
- Large Slit Screen
- Screen For Projector 64,5x60x2 (2pcs)
- Screen For Projector 60x49.5x2
- Transformer

Made of plastic for ray tracing and color mixing experiments. In rectangular box, it has a fixed condenser lens for providing parallel rays. Fixed mirrors are used to reflect light. Dimensions of light box: about 175 x 80 x 65 mm. Complete with: 3 tightly diaphragms, 2 diaphragms with 1-2 slots and 3-5 slots (width of slots 1 mm), 1 halogen filament lamp 12 V, 20 W. Set of eight colour filters: one each: red, green, blue, cyan, violet, yellow, orange, magenta.

Supplied with Transformer output 12 V. In plastic case. Power requirements: 220 V / 240 V



CODE: 4715.00

## **Electrical Safety Simulator**



The apparatus simulate the typical problems of a house electrical system: short circuit, current leakage, overload. The system gives the opportunity to feed different electrical devices, commonly present in our houses and buildings and enables students to understand how dealing with electrical systems in a safe way. A switch to separate the circuit breaker from the whole device could be available. Housed in aluminum case with cushioned foam.

Dimensions approx. 360 x 340 x 100 mm.