

AKAL ACADEMY

English Medium, Day Boarding,
Co-Educational Public School
Affiliated to C.B.S.E.

Affiliation No.:- 1631334, School code: 21376

Ph.9875987443

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Village Navan Quilla, PO- Karma Tehsil
Guruaharsahai, District Ferozepur(Punjab) (152023)
Managed by : The Kalgidhar Trust, Baru Sahib(HP)

List of Materials Available in Bio Lab

| S. No. | Name of Items | Quantity |
|--------|---|----------|
| | Charts | |
| 1 | Blood Groups | 1 |
| a | Colour Blindness | 1 |
| b | Digestive System in Human | 1 |
| c | Respiratory System in Human | 1 |
| 2 | Circulatory System in Human | 1 |
| 3 | Dissecting Microscopes | 1 |
| 4 | Excretory System in Human | 1 |
| 5 | Homologous and Analogous Organs in Plants | 1 |
| 6 | Plant and Animal Cell | 1 |
| 7 | Skeletal System (Chart) | 1 |
| 8 | Tongue | 1 |
| 9 | T.S of Testis and Ovary | 1 |
| | Models | |
| 10 | Brain | 1 |
| 11 | Eye | 1 |
| 12 | Ear | 1 |
| 13 | Heart | 1 |
| | Permanent Slides | |
| 14 | Animal Tissues (Striped, Unstriped & Cardiac Muscles) | 1 |
| 15 | Blood Smear | 1 |
| 16 | Binary Fission in Amoeba | 1 |
| 17 | Budding in Yeast | 1 |
| 18 | Bacteria | 1 |
| 19 | Dicot & Monocot Root | 1 |
| 20 | Entamoeba | 1 |

| | | |
|----|---|------------|
| 21 | Hydra | 1 |
| 22 | Miosis & Mitosis | 1 |
| 23 | Mitosis | 1 |
| 24 | Meiosis | 1 |
| 25 | Nerve Cell | 1 |
| 26 | Plant Cell | 1 |
| 27 | Plant Tissues (Parenchyma & Sclerenchyma) | 1 |
| 28 | Phloem | 1 |
| 29 | Plasmodium | 1 |
| 30 | Pollen Germination | 1 |
| 31 | Rhizopus | 1 |
| 32 | Ringworm | 1 |
| 33 | Spinal Cord | 1 |
| 34 | Spirogyra | 1 |
| 35 | T.S Blastula | 1 |
| 36 | Xylem | 1 |
| | Scientist Portraits | |
| 37 | Charles Darwin | 1 |
| 38 | Har Gobind Khorana | 1 |
| 39 | Louis Pasteur | 1 |
| 40 | Watson & Crick | 1 |
| | Wooden Charts | |
| 41 | DNA | 1 |
| | Reagents | |
| 42 | Acetocarmine (Stain) | 100 ml |
| 43 | Benedict Reagent | 500 ml |
| 44 | Boric Acid | 100 gm |
| 45 | Compound Microscopes | 2 |
| 46 | Clamp Stands | 1 |
| 47 | Chromatographic Paper (Whatman No.1) | 01 Sheet |
| 48 | Cover Slip | 1 Pkt. |
| 49 | Calcium Nitrate | Small Pack |
| 50 | Cavity Slide | 1 Box |
| 51 | Dropping Bottles | 3 |
| 52 | Distilled Water | 05 ltr. |

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|----|-------------------------------------|---------|
| 53 | Ethanol (Ethyl Alcohol) | 500 ml |
| 54 | Equisetum (Speciman) | 1 |
| 55 | Fehlings's Solution 1 | 500 ml |
| 56 | Fehlings's Solution 2 | 500 ml |
| 57 | Glycerin Solution G- 11029 | 500 ml |
| 58 | Micro Cover Slips (Small) | 03 Pkt. |
| 59 | Methyl Blue Solution M- 31971 | 125 ml |
| 60 | Medicine Dropper | 5 Pcs. |
| 61 | Methyl Alcohol (CH ₃ OH) | 250 ml |
| 62 | Petri Dish (Medium) | 5 |
| 63 | Petri Dish (Small) | 5 |
| 64 | PhPaper | 1 Box |
| 65 | Slides | 03 Pkt. |
| 66 | Safranine Solution M- 30271 | 125 ml |
| 67 | Sucrose | 200 gm |
| 68 | Scalpel | 1 |
| 69 | Vallisnaria (Speciman) | 1 |

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List of Materials Available in Chemistry Lab

| S. No. | Name of Items | Quantity |
|--------|---|----------|
| 1 | Acetaldehyde | 500 ml |
| 2 | Acetic Acid (Glacial) | 500 ml |
| 3 | Acetone | 500 ml |
| 4 | Aluminium Chloride | 500 gm |
| 5 | Aluminium Sulphate | 500 gm |
| 6 | Ammonium Sulphate | 500 gm |
| 7 | Ammonium Chloride | 500 gm |
| 8 | Ammonium Carbonate | 500 gm |
| 9 | Ammonium Phosphate | 250 gm |
| 10 | Ammonium Acetate | 500 gm |
| 11 | Ammonium Hydroxide (NH ₄ OH) | 2 Ltr. |
| 12 | Aluminum Metal | 250 gm |
| 13 | Analytical Balance (Manual) | 1 |
| 14 | Barium Chloride | 500 gm |
| 15 | Benzaldehyde | 250 ml |
| 16 | Benzoic Acid | 250 gm |
| 17 | Beaker (250 ml) | 10 |
| 18 | Beaker (500 ml) | 10 |
| 19 | Benzene | 500 ml |
| 20 | Burettes 50 ml (Plastic) | 10 |
| 21 | Boiling Tubes | 50 Pcs. |
| 22 | Bromine Water | 250 ml |
| 23 | Calcium Chloride | 500 gm |
| 24 | Calcium Oxide | 500 gm |
| 25 | Calcium Nitrate | 500 gm |
| 26 | Capillary Tubes 1-2 mm (Diameter) | 80 gm |

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| 27 | Carbon Disulphide | 500 ml |
| 28 | Centrifugal Machine (Complete Set) | 1 |
| 29 | Ceramic Crucible (Heating Crucible) | 5 |
| 30 | Charcol Blocks | 10 |
| 31 | Chemical/ Reagent Bottle (500 ml) | 20 |
| 32 | Chemical/ Reagent Bottle (250 ml) | 30 |
| 33 | China Dish (Medium) | 10 pcs. |
| 34 | China Dish (Small) | 10 pcs. |
| 35 | Chromatography Paper | 3 Dozen |
| 36 | Conical 250 ml | 10 |
| 37 | Conical 500 ml | 10 |
| 38 | Copper Sulphate | 500 gm |
| 39 | Copper Filling | 250 gm |
| 40 | Cork (Different Size) | 100 Nos. |
| 41 | dinitrophenylhydrazone (2, 4-DNP) | 25 gm |
| 42 | Delivery Tubes | 2.5 kg |
| 43 | Diethyl Ether | 500 ml |
| 44 | Dropper | 10 |
| 45 | Dimethyl Glyoxime | 100 gm |
| 46 | Disodium Hydrogen Phosphate | 250 gm |
| 47 | Diphenylamine | 250 ml |
| 48 | Ethanol | 500 ml |
| 49 | Ferrous Sulphate | 500gm |
| 50 | Ferrous Ammonium Sulphate (Mohr's Salt) | 500 gm |
| 51 | Ferrous Sulphide Sticks | 2 kg |
| 52 | Filter Paper | 5 Pkt |
| 53 | Fractional Weight | 1 Box |
| 54 | Funnel Plastic (3") | 10 pcs. |
| 55 | Funnel Stand | 10 |
| 56 | Fusion Tubes | 70 |
| 57 | Furfural Solution | 250ml |
| 58 | Gas Jar with lid | 5 |
| 59 | Glass Jar (2 ltr.) | 02 Pcs. |
| 60 | Glass Rods | 10 pcs. |
| 61 | Glycerine | 500 ml |

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| 62 | HCL Concentrated | 2.5 ltr. |
| 63 | HNO ₃ Concentrated | 2.5 ltr. |
| 64 | Iodine Resublimed | 100 gm |
| 65 | Iron Filling | 1 kg |
| 66 | Kipp's Apparatus (Plastic) | 01 Pcs. |
| 67 | Lead Acetate | 500 gm |
| 68 | Lead Nitrate | 500 gm |
| 69 | Lead Sulphide | 250 gm |
| 70 | Lead (II) Chloride | 500 gm |
| 71 | Liquid Paraffin | 500 ml |
| 72 | Litmus Solution (Red) | 250 ml |
| 73 | Litmus Solution (Blue) | 250 ml |
| 74 | Lucas Reagent | 250 ml |
| 75 | Manganese Chloride | 500 gm |
| 76 | Manganese Sulphate | 250 gm |
| 77 | Magnesium Carbonate (MgCO ₃) | 250 gm |
| 78 | Magnesium Sulphate | 500 gm |
| 79 | Magnesium Ribbon | 300 gm |
| 80 | Manganese Dioxide (MnO ₂) Pyrolusite | 250 gm |
| 81 | Marble Chips | 500 gm |
| 82 | Measuring Cylinder (100 ml) | 3 |
| 83 | Measuring Cylinder (250 ml) | 3 |
| 84 | Modern Periodic Chart (Large) | 1 |
| 85 | Molisch Reagent | 100 ml |
| 86 | Mouth Blow Pipe | 5 |
| 87 | Naphthalene (Solid) | 250 gm |
| 88 | Oxalic Acid | 500 gm |
| 89 | PH Paper | 02 Pkt. |
| 90 | Phenol | 250 gm |
| 91 | Pipette (10 ml) | 10 |
| 92 | Pot Nitrate | 250 gm |
| 93 | Potash Alum | 500 gm |
| 94 | Potassium Permanganate | 500 gm |
| 95 | Potassium Sulphate | 500 gm |
| 96 | Potassium Ferrocynide | 250 gm |

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| 97 | Potassium Sulphocynide | 100 gm |
| 98 | Potassium Dichromate | 250 gm |
| 99 | Potassium Chromate | 250 gm |
| 100 | Potassium Iodide | 250 gm |
| 101 | Potassium Bisulfite (KHSO_3) | 250 gm |
| 102 | Platinum Wire | 3 |
| 103 | Phenolphthalein Solid (Small Pack) | 2 |
| 104 | Sand Bath | 3 |
| 105 | Schiff Reagent | 250 gm |
| 106 | Silver Nitrate (Solid) | Small Pack |
| 107 | Sodium Carbonate | 500 gm |
| 108 | Sodium Cobaltinitrite | 250 gm |
| 109 | Sodium Hydroxide | 250 gm |
| 110 | Sodium Hydroxide Flakes (L.R) Quality | 500 gm |
| 111 | Sodium Metal | 200 gm |
| 112 | Sodium Thiosulphate (Hypo) | 250 gm |
| 113 | Sodium Bisulfite (NaHSO_3) | 500 gm |
| 114 | Sodium Sulphate | 500 gm |
| 115 | Sodium Chloride | 500 gm |
| 116 | Sodium Hydrogen Carbonate (NaHCO_3) | 500 gm |
| 117 | Spatula (Plastic) | 12 pcs |
| 118 | Spirit (Methylated) | 5 ltrs |
| 119 | Stirrer | 10 |
| 120 | Sulphuric Acid (L.R) Quality | 2.5 ltrs |
| 121 | Spirit Lamp | 5 Set |
| 122 | Test Tube (Medium Sized) | 100 |
| 123 | Test Tube Stands | 10 |
| 124 | Thermometer (110°C) | 6 |
| 125 | Tongs (6") | 5 |
| 126 | Universal Indicator (500 ml) | 2 |
| 127 | Volumetric Flask (500 ml) | 1 |
| 128 | Volumetric Flask (1000 ml) | 1 |
| 129 | Wash Bottles (250 ml) | 6 |
| 130 | Watch Glass (Small) | 6 |
| 131 | Water Bath | 2 |

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| 132 | Wicks Spirit Lamps | 2 meter |
| 133 | Wire Gauge with Frame | 10 |
| 134 | Weight Boxes | 1 |
| 135 | Water Soluble Powder (Starch Powder) | 500 gm |
| 136 | Zinc Carbonate | 250 gm |
| 137 | Zinc Chloride | 250 gm |
| 138 | Zinc Granules | 250 gm |

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List of Materials Available in Maths Lab

| S. No. | Item Name | Authorized Stock |
|--------|---|------------------|
| 1 | Skip Counting | 1 |
| 2 | Pattern block foam set of 144 | 1 |
| 3 | Transparent dice set of 4 | 1 |
| 4 | Ganitmala | 1 |
| 5 | Interlinking Cubes (set of 100) | 1 |
| 6 | Base ten block set of 131 pec | 1 |
| 7 | Integer Counter + Number Cards | 1 |
| 8 | Multiplication Chart | 1 |
| 9 | Geo Board- Square (Wooden) RM-7 | 1 |
| 10 | Game of Place Value (Wooden) RM-6 | 1 |
| 11 | Dummy Currency Notes (RM-64) | 1 |
| 12 | Dummy Clock (Wooden) RM-1 | 1 |
| 13 | Magnetic Fraction Disk | 1 |
| 14 | Triangel/Quadrilateral Sorting Kit | 1 |
| 15 | 3 D solids set 5 cm transparent 17 pcs. | 1 |
| 16 | Clinometer Compass (RM-100) | 1 |
| 17 | Decimal Abacus | 1 |
| 18 | X Y axes coordinate geoboard | 1 |
| 19 | Geometry Box (Plastic-A) RM-10 | 1 |

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|----|---|---|
| 20 | Jug and Beaker | 1 |
| 21 | Junior Pythagoras (RM-93) | 1 |
| 22 | Hollow Sphere (RM-97) | 1 |
| 23 | Hollow Cylinder (RM-98) | 1 |
| 24 | Combination of Cube & Sphere (RM-99) | 1 |
| 25 | Teacher Abacus (Wooden) RM-4 | 1 |
| 26 | Student Abacus (Wooden) RM-5 | 1 |
| 27 | Gemometrical Solids (Wooden- Yellow) RM-11 | 1 |
| 28 | Fractions of Circle (Wooden-18) | 1 |
| 29 | Fractions of Square (Wooden) RM-19 | 1 |
| 30 | Fractions of Triangle (Wooden) RM-20 | 1 |
| 31 | Shapes Board- Big (Wooden) RM-25 | 1 |
| 32 | Weight Set (Metal) RM-36 | 1 |
| 33 | Octant- 3D (Acrylic) RM-81 | 1 |
| 34 | Identity Set-III (Wooden) RM-84 | 1 |
| 35 | Probability Kit (A- Dice, B- Playing Cards) RM-62 | 1 |
| 36 | Geometry Kit (Acrylic) RM-67 | 1 |

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List of Materials Available in Physics Lab

| S. No. | Name of Items | Quantity |
|--------|--|--|
| 1 | Ammeter | Ampere Ammeter-05 |
| | | Milliammeter-02 |
| | | Microammeter-02 |
| 2 | Battery Charger | 01 |
| 3 | Bar Magnets | Rectangular- 09 |
| | | U Shaped Horse Shoe- 03 |
| 4 | Bulb (Small) | 30 |
| 5 | Battery Eliminator | 03 |
| 6 | Bulb Holder | 30 |
| 7 | Convex Lens F=20cm, 5cm dia | 10 |
| 8 | Convex Lens F=15 cm | 02 |
| 9 | Concave Mirror 5cm dia | 10 |
| 10 | Convex Mirror 5cm dia | 10 |
| 11 | Clamp Stands | 08 |
| 12 | Cell Box | 10 Pcs. |
| 13 | Connecting Wire | 01 Roll |
| 14 | Cutter | 10 |
| 15 | Components for Display Only | Diode- 05 |
| | | Transistor NPN & PNP- 05 |
| | | LED- 05 |
| | | IC- 05 |
| | | Resistor Different Values- 05 |
| | | Capacitor (Paper, Mica & Electrolytic)- 05 |
| 16 | Copper Rod | 01 Pcs. |
| 17 | Dry Cell (1.5v) | 06 |
| 18 | Daniel Cell | 02 |
| 19 | Drawing Board | 15 |
| 20 | Double inclined plane (track) with steel balls & wooden blocks | 02 Sets |
| 21 | Extension Board (Required only if electric fitting is not there) | 01 |
| 22 | Fuse | 05 |
| 23 | Fractional Weights | 02 |
| 24 | Glass Slab | 20 |
| 25 | Gold Leaf Electroscope | 01 |

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|----|--|------------------------|
| 26 | Glass Jar with Scale (mm) $\frac{1}{2}$ m | 02 |
| 27 | Galvanometer | 04 |
| 28 | Holder (Glass Strip) | 10 |
| 29 | Horizontal Plane with Glass Surface with Pulley | 02 |
| 30 | Horizontal Plane Wooden+ Pulley | 01 |
| 31 | Hanger $\frac{1}{2}$ Kg with, eight $\frac{1}{2}$ Kg Slotted Weights | 3 Set |
| 32 | Hanger with Slotted Weights 50gm hanger with 50gm weights | 03 Sets |
| 33 | Helical Spring Apparatus with Small Weights | 2 Sets |
| 34 | Knitting Needles | 04 |
| 35 | Key One Way | 08 |
| 36 | Key Two Ways | 03 |
| 37 | Lens Holder | 02 Pcs. |
| 38 | Leads (Hole at Terminals) | 10 Pcs. |
| 39 | Lead Storage Cell | 02 |
| 40 | Laclanche Cell | 02 |
| 41 | Lab Thermometer | 10 |
| 42 | Lycopodium Powder (250 gm) | 01 |
| 43 | Mirror Strips | 20 |
| 44 | Multi Meter | 01 |
| 45 | Mano Meter | 02 |
| 46 | Meter Scale (Full & Half) | 10+5=15 |
| 47 | Maintenance Free Rechargeable Battery (6v) | 04 |
| 48 | Metallic Beakers (Small) | 05 |
| 49 | Meter Bridge with Jockey | 02 |
| 50 | Metallic Balls (Very Small) of different radius/ dia | 1mm-05 |
| | | 2mm-05 |
| | | 3mm-05 |
| 51 | Maganin/Constantan Wire (10 metre) | 01 |
| 52 | Newton Laws of Cooling Apparatus with Calorimeter and Stirrer | 03 |
| 53 | Optical Bench with Uprights & Needles | 02 |
| 54 | Pendulum | 10 |
| 55 | Prism | 10 |
| 56 | Physical Balance | 01 |
| 57 | P-N Junction Semi-Conductor Diode (with leads) | 03 |
| 58 | Parallelogram Gravesands (Aprts) | 03 |
| 59 | Potentiometer with Jockey | 02 |
| 60 | Pliers | 05 |
| 61 | Plyboard Protector: with radius about 30cm, have angle 0° to 90° | 01 |
| | | Upto 10 Ω -02 |
| | | Upto 1000 Ω -02 |

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|----|--|--------------------------|
| 62 | Resistance Box | Upto 100 Ω -02 |
| | | Upto 5000 Ω -02 |
| | | Upto 10000 Ω - 02 |
| 63 | Rheostat | 100 Ω -04 |
| | | 45 Ω – 02 |
| | | 75 Ω – 04 |
| 64 | Rubber Pad | 06 |
| 66 | Resistance wire with known value | 1 Ω – 03 |
| | | 2 Ω – 03 |
| | | 3 Ω – 03 |
| | | 5 Ω – 03 |
| | | 10 Ω – 03 |
| 67 | Rectangular Metallic Blocks (Small) of Known Mass | 10 |
| 68 | Spring Balance | 05 |
| 69 | Screw Gauge | 10 |
| 70 | Stop Clock | 08 |
| 71 | Soldering Iron + (Solder System) | 02 Sets |
| 72 | Steel Wire | 01 Roll |
| 73 | Sonometer | 02 |
| 74 | Spherometer | 10 |
| 75 | Spirit Level | 02 |
| 76 | Split Cork | 10 |
| 77 | Switches | 15 |
| 78 | Screw Drivers | 05 |
| 79 | Tuning Fork set of eight turning perks | 02 Sets |
| 80 | Thread | 01 Pcs. |
| 81 | Travelling Microscope | 01 Pcs. |
| 82 | Test Pen | 02 |
| 83 | Vernier Calipers | 10 |
| 84 | Viscous Liquid (Transparent Glycerin) | 1 Kg |
| 85 | Voltmeter (5v) | 05 |
| 86 | Wall Thermometer | 01 |
| 87 | Water Pipe with Narrow Opening (Projectile Activity) | 01 |
| 88 | Weighing Pans | 06 |
| 89 | Wooden Block (with hook on one side) | 04 |
| 90 | Weights (50 gm) | 10 |
| 91 | Zeener Semi-Conductor Diode (with leads) | 02 |
| 92 | Zin Rod | 01 Pcs. |

Small Models:

| S. No. | Name | Quantity |
|--------|--------------------------------|----------|
| 1 | Activity Step Down Transformer | 01 |
| 2 | Electric Generator (AC) | 01 |
| 3 | Electric Generator (DC) | 01 |
| 4 | Electric Motor | 01 |

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| 5 | Magnetically Generated emf (in a coil of insulated Cu wire) | 01 |
| 6 | Model of Solar Cooker | 01 |
| 7 | Van de gra Generator | 01 |