

Code	Item Name	Product description
1108300	Motor Model, Open Type	Open type simple DC motor showing conversion of electrical energy into mechanical energy. Mounted on base, works on 4-6 volts DC. With Newton's colour disc attached vertically to the motor
1147010	Solar Energy Kit	An interesting solar energy kit for practical experiment. A solar panel mounted on a metal panel with 4mm banana sockets for output, a low consumption motor with fan, a buzzer and an LED are all included for conducting a series of solar powered activities.
1210800	Electroscope, Circular Shape	An annular metal ring frame of diameter about 125mm, carries an insulating bush at the top, which has circular metal disc electrode about it and a conducting metal strip on the underside. The smaller, lightweight metal strip is pivoted at the center of bigger strip to provide deflection with the charging of electrode. The metal frame also has an earthing terminal at one side. Complete
1217005	Van de Graaff Generator - Hand Driven	Hand operated, mounted on base. For the generation of electric charge, useful in electrostatics and for studying various phenomena associated with electric charge. Comprises a near spherical dome supported on top of an insulated, clear Perspex pillar on the base. A removable flat rubber belt rotates through rollers mounted at both the ends of Perspex pillar. Lower roller shaft has a pulley driven by a hand operated crank through rubber belt. The continuous rotation of the flat rubber belt results in the accumulation of charge on the dome, until electrical breakdown of air surrounding the sphere occurs. With sufficient charge build up on the dome, bringing the earthed discharge sphere sufficiently close to it results in the transfer of charge from dome to ground in the form of electric spark. Earthing terminal provided on the base. Supplied with discharge sphere, mounted on a long insulated handle.
1247920	Linear Expansion Apparatus	Demonstrates the linear expansion of solids and allows comparison of expansion rods of different materials. Comprises cast metal end supports mounted at each end of a horizontal metal reservoir, open at the top, that can take any liquid fuel such as Alcohol. One of the end supports has a scale with pointer needle on the outside to indicate the expansion in the rod. Expansion rods supports in the holes near top of both the end supports and can be clamped at the end opposite to that of scale pointer. Burning of fuel in the reservoir causes rod at the top to expand, which in turn pushes the pointer needle showing deflection in the scale. Includes three expansion rods, 1 each of brass, Copper and aluminium.
1331500	Ray Optics Box	
1332400	Light Box with Optics Kit	

1338200	Optical Bench 1 meter	<p>This 100cm Optical bench is constructed with a square section aluminium pipe which riders can move along tube easily. Rail has 1cm graduations up to 100cm. Comes with 6 riders for lens and slit holder. Optical bench can be used to measure the focal length of a lens. Perfect for Physics experiments.</p> <p>Set comprises of :</p> <ul style="list-style-type: none"> <li>1 x 12V Light source</li> <li>2 x Needles</li> <li>2 x Lens holder</li> <li>1 x White screen with holder</li> <li>1 x Mirror with holder</li> <li>6 x Riders</li> <li>2 x Side Brackets with levelling screws.</li> </ul>
1423010	Tangent Galvanometer	<p>Comprises a circular coil wound on non-magnetic bobbin of Bakelite/Plastic about 160mm in diameter mounted vertically on a non-magnetic, cast metal base, with the coil width very small as compared to its diameter. A compass box (magnetometer) is located at the center of the coil to make its needle experience uniform magnetic field due to current in the coil. The coil consists of three windings of enameled Copper wire of different thicknesses – one each of 2, 50 and 500 turns. A circular platform on base carries a set of four socket terminal for connection to the coils and are marked for each coil.</p>
1506500	Force Table	<p>Used for verifying the laws of composition and resolution of forces utilizing vector diagrams of several concurrent forces. Comprising a thick aluminium circular table, about 30cm in diameter and finished with powder coating paint. Raised outer rim of the table has circular scale graduated 0 to 360°×1°, and marked every 10°. Table mounted on a heavy, stable cast metal tripod base through a metal pipe, with base having three leveling screws. Also included are four pulleys in clamp that can be attached anywhere along the rim. A detachable pin, positioned at the center of the table indicates the balancing for forces through the centering of ring, tied to the strings carrying masses and suspended through the pulleys, around it. Supplied complete with set of strings tied to the rings, center pin and 4 sets of slotted masses with hanger, each set having one hanger 100g and masses 1 each of 10, 20, 50 and 100g.</p>
1506800	Force Table, Economical	<p>Used for verifying the laws of composition and resolution of forces utilizing vector diagrams of several concurrent forces. Comprising a thick wooden circular table, about 30cm in diameter and finished with scratch resistant black epoxy coating. Raised outer rim of the table has circular scale graduated 0 to 360°×1°, and marked every 10°. Table mounted on a heavy, stable cast metal tripod base through a metal pipe. Also included are four pulleys in clamp that can be attached anywhere along the rim. A detachable pin, positioned at the center of the table indicates the balancing for forces through the centering of ring, tied to the strings carrying masses and suspended through the pulleys, around it. Supplied complete with set of strings tied to the rings, center pin and 4 sets of slotted masses with hanger, each set having one hanger 100g and masses 1 each of 10, 20, 50 and 100g.</p>

1517901	Inclined Plane, Wooden, 600x100mm	A simple inclined plane made of polished hardwood board hinged at one end to wooden base board. A 38mm plastic pulley in U-bracket is mounted on the other end of inclined plane supports masses suspended from the thread with other end tied to the object under observation. The index pointer fixed to the inclined surface moves along the arc scale attached to the baseboard and gives its angle of inclination. Includes two wooden block sliders for friction experiments, one metal roller in bracket with hook, and one weight pan with lightweight cord for suspension.
1519310	Inclined Plane One meter, Metal	This high quality Inclined plane has a solid aluminum construction, comprises of a pulley which can be adjusted. The length of the plane is 480x70mm approx. and has a protractor for angle measurements. A very useful apparatus to Investigate acceleration, friction, gravity, Galileo's free-fall experiments. Complete with roller, pan and other accessories.
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1523510	Linear Air Track Apparatus	<p>For exploring the concepts of mechanics involving linear motion on a near frictionless surface, such as acceleration, collisions (elastic / inelastic), explosions, conservation of momentum and simple harmonic motion etc. Air track, the principal component of the apparatus, comprises of specially designed, rugged, anodized, aluminium alloy extrusion providing a straight working length of 2m, is mounted on four cast metal feet with leveling screws, two on each side positioned along the length. Two rows of fine holes provided on each side all along the length of the track through which jets of the air emanate to form air cushion on which the vehicles float under virtually frictionless conditions. One end of the track has an air inlet tube connection for compressed air supply. The track also has a 0-200cm scale graduated in millimeters for measuring distances and recording positions. The kit includes various gliders, which float to and fro on the air cushion, together with a large number of attachments to permit a comprehensive range of experiments. The complete apparatus including Air Track and attachments (accessories as per Cat No. 5238) are packed in kit form.</p> <p>Linear Air Track is supplied complete with following accessories:</p> <ul style="list-style-type: none"> <li>• 2 large vehicles (mass 400g, length 215mm)</li> <li>• 1 small vehicle (mass 200g, length 100mm)</li> <li>• 2 magnetic buffers (25mm diameter)</li> <li>• 2 Plasticine holders (20mm diameter) with central hole</li> <li>• 4 catapults (45mm wide) with slot for elastic band</li> <li>• 3 steel buffers with central hole</li> <li>• 4 elastic cords (220mm long) with plastic rings</li> <li>• 1 reel of nylon thread</li> <li>• 2 white plastic rods (4mm diameter 150mm long) for stroboscope photography</li> <li>• 24 needles for use with steel buffer</li> <li>• 20 white plain cards for interrupting light beams</li> </ul>

1528010	Ticker Tape Timer AC	For timing motion in one dimension on a piece of paper in the form of dots spaced at equal interval of time. An electromagnet enclosed in a box operates on 6-12V AC through a pair of 4mm sockets. The screw shaped hammer on the armature mounted at the top of enclosure moves up/down with the changing polarity of electromagnet and leaves well defined dot on paper strip moving beneath Carbon paper disc. Guides on top of enclosure assure smooth and straight movement of paper strip. Amplitude of vibration of hammer can be varied to get sharp dot and relative position of Carbon discs with respect to paper tape adjustable for their optimum use. Includes a stand for mounting paper tape roll. Complete assembly mounted on a stable, non-skid base. Supplied complete with paper tape and Carbon paper discs.
1528600	Ticker Tape Timer DC	Similar to Cat No. 1528010 in construction and operation, but operates on 12V DC Produces dots at 1/50 seconds intervals only. It has an electromagnet with spring-loaded armature, which vibrates above a support table.
1529300	Ticker Tape Timer 6-12V AC, 2 Speed	This 2 speed ticker timer is a modern version of the tried and tested method of measuring velocity and acceleration. A vibrating striker prints dots on the tape using Carbon discs. The rate can be adjusted to 25 or 40 dots per second. The unit is housed in a durable, scratch proof, shock absorbing plastic case. It has a unique method of adjusting the position of the Carbon disc. Includes 100 Carbon Discs and one 50m roll of tape.
1600610	Solar System Model (The Orbit Orrery)	For demonstrating the overall shape of solar system, and the main movements of the planets. The apparatus has all the nine planets of Solar System from Mercury to Pluto on revolving arms with the biggest sphere representing sun positioned at the center. The planets are relative to their size as they appear in the solar system, but not to scale.
1602230	Elementary Planetarium, Wooden Box, Motorized	Tellurium of high-quality conceived to show on large scales the relative movements of the Sun, Earth and the Moon, and to explain a certain number of phenomena, such as the day and the night, the variation in the length and the orientation of the shades, seasons of the year, lunar phases, as well as the solar and lunar eclipses. Complete model mounted on a wooden box with on/off switch provided and operates on 220V motor.
1683010	Kinetic Theory Model	For demonstration of the kinetic theory of gases explaining the molecular motion of the gases, thinning of air with increasing altitude, increase in pressure / volume with temperature etc. Comprises clear Perspex cylindrical tube mounted on a plastic enclosure with a rubber diaphragm at its lower end and a loose fitting metal cap at its upper end. Just underneath the diaphragm, a piston connected to a low voltage DC motor through eccentric cam, is provided for producing oscillatory motion or vibration of the diaphragm. A pair of colour-coded 4mm socket terminals provided for electrical connection. Includes metal spheres 1/8" and free-sliding cardboard discs for loading at the top.
1742601	Wave Machine, Powell's, Transverse Waves, 18 Pulleys	For demonstrating the movement of progressive transverse waves. Comprises a number of circular discs mounted equidistant from each others on a horizontal shaft in gradually varying degrees of eccentricity, with each disc having a vertical rod of same length supported on top and sliding up and down into a pair of guides. Complete assembly mounted on a wooden base.

1742901	Wave Machine, Transverse & Longitudinal Waves, 18 Pulleys	For demonstrating the movement of progressive transverse and longitudinal waves. Comprises a number of circular discs mounted equidistant from each others on a horizontal shaft in gradually varying degrees of eccentricity, with each disc having a vertical rod of same length supported on top and sliding up and down into a pair of guides. Complete assembly mounted on a wooden base.
1743102	Wave Apparatus Plastic, 18 Pulleys	Completely made of plastic with basic design and functionality similar to Cat No. 1742901. The plastic highlighted tips provide easy observation of wave motion.
1743300	Wave Apparatus Plastic, 24 Pulleys	Completely made of plastic with basic design and functionality similar to Cat No. 1742901. The plastic highlighted tips provide easy observation of wave motion. The rotating handle is fitted with a circular scale marked in degrees to indicate the rotation
1759400	Ripple Tank Apparatus	<p>A specially designed versatile apparatus for the investigation of the wave properties, such as wave propagation, reflection, refraction, diffraction and interference. Permits demonstration with an overhead projector or use as a free standing bench model, allowing investigations to be carried out directly. Comprises a Rectangular plastic tank with clear bottom and sloped sides incorporating beach effect to eliminate unwanted reflections. The tank has four detachable legs mounted at its underside at the corners with a hole in the clear tray for water drainage. One end of the tank has clamps for supporting lamp holder with a pair of clamps on each side for mounting rippler support rods. Rippler assembly comprises of a Rectangular plastic rod with series of holes suitable for mounting spherical dippers and a low voltage DC motor having eccentric cam attached to its shaft to produce oscillatory motion. Supplied complete with following accessories:</p> <ul style="list-style-type: none"> <li>• Illuminant Assembly</li> <li>• Set of 4 barriers – a pair of bigger L-shaped (75×25mm) and a pair of smaller L-shaped barrier (25×25mm)</li> <li>• 1 Curved Barrier, 2.5cm high, with uniform radius of curvature</li> <li>• 1 Hand Stroboscope</li> <li>• 1 Convex Lens</li> <li>• 1 Concave Lens</li> <li>• 1 Rectangular Block</li> <li>• 2 Spherical Dippers</li> <li>• Spare Elastic Cords for suspending rippler assembly</li> </ul>