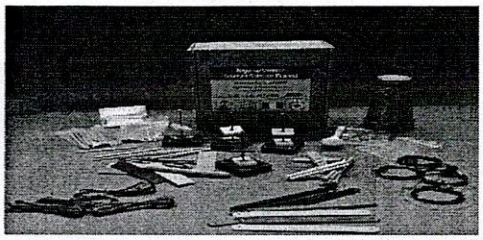
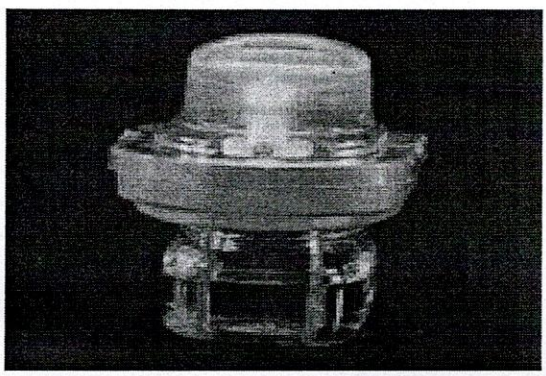
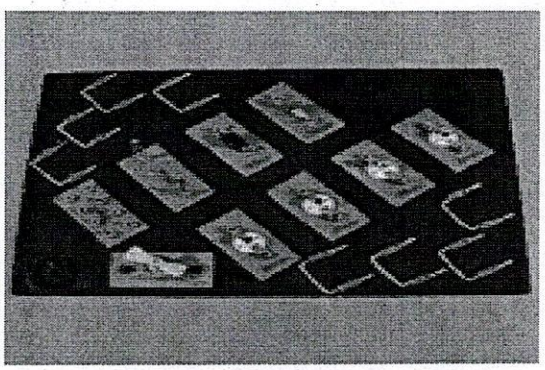
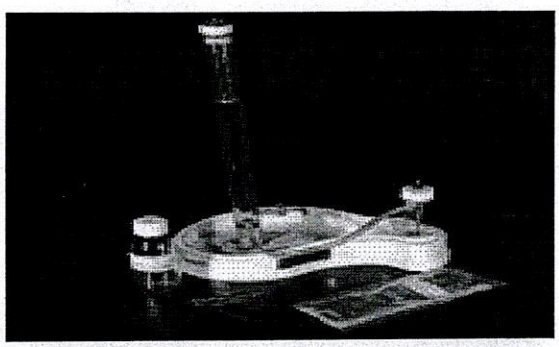
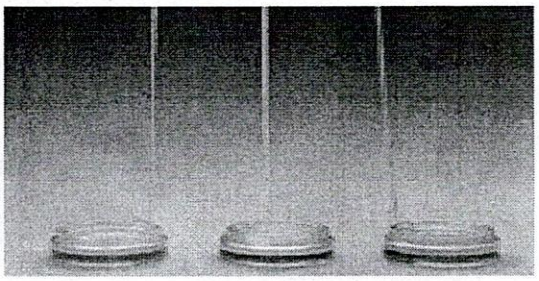
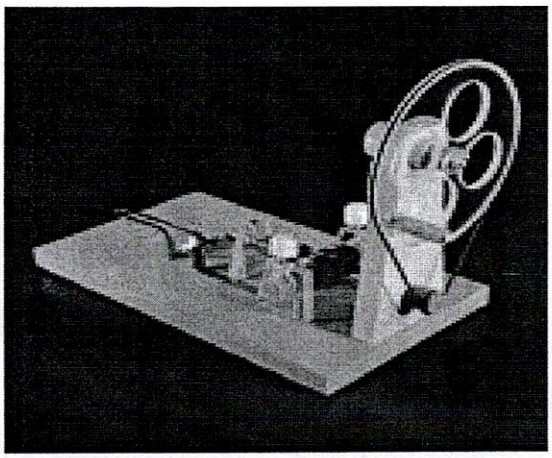
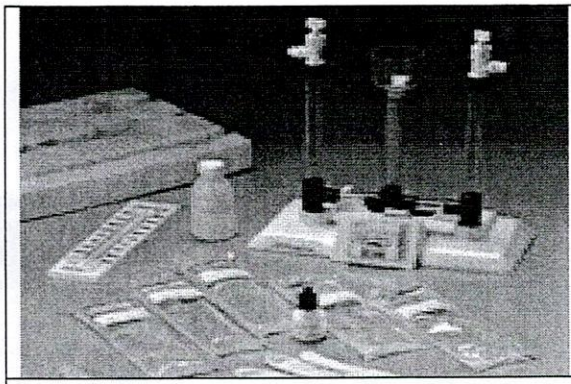
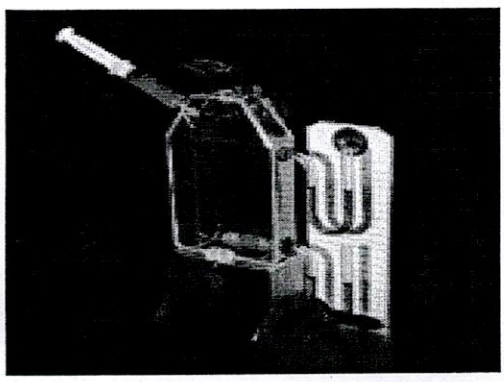
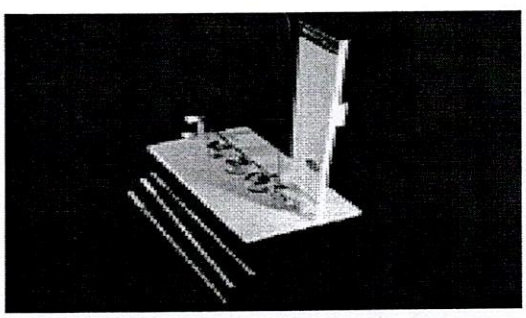
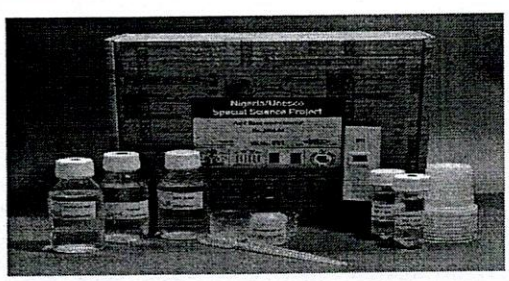
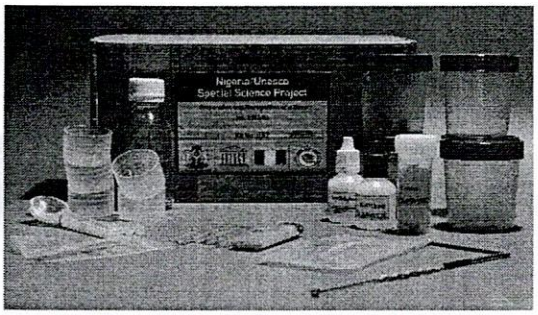
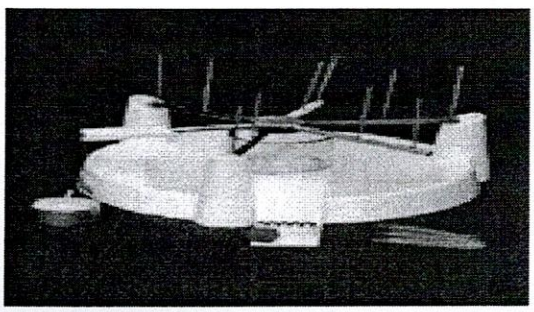
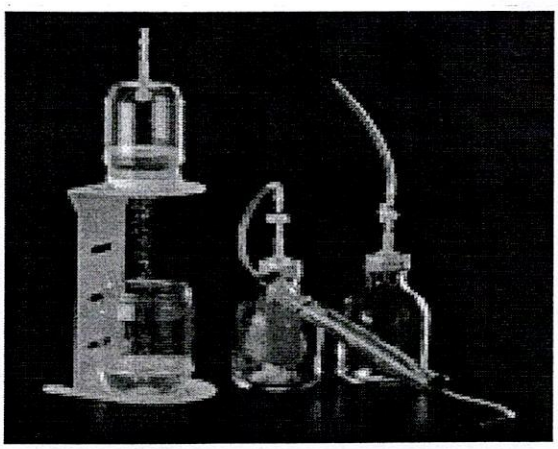
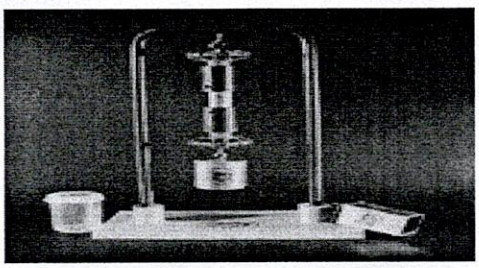
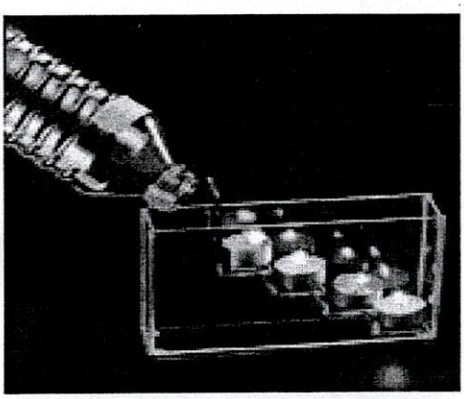
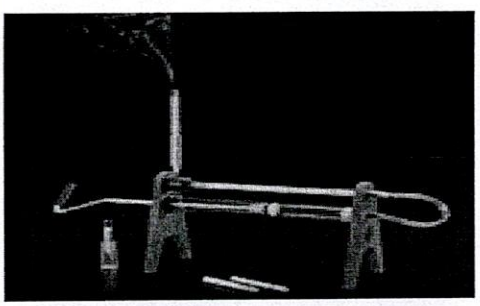
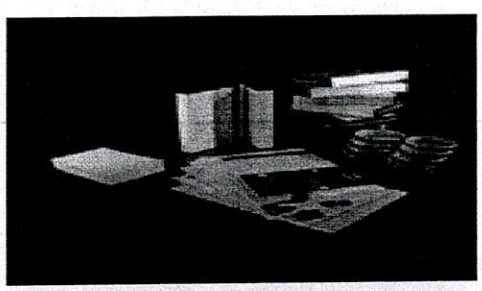
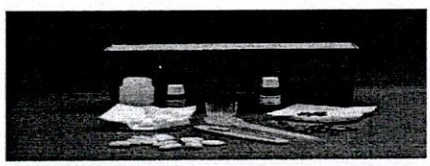
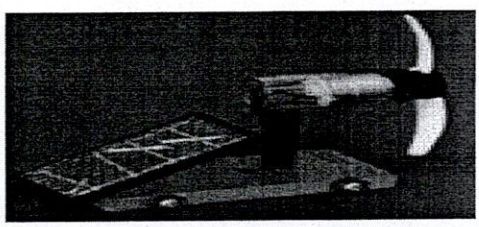
	Kit Name	DESCRITION AND CONTENTS
	***Experiments in Electromagnetism***	The kit contains experiments of important principles of electricity
	***Conductivity of Solutions and solids - Expanded Version***	**Multiple use**. Includes a conductivity device (6x9x15 cm), with a battery, six containers with different solutions, an empty container, a spare bulb, sugar and salt (NaCl) for 12 experiments, set of solids. **Teaching topics**: Properties of water, Self dissociation of water, Electrolytes and non-electrolytes, Strong and weak acids and bases, Strong and weak electrolytes.
	***Introductory Course in Electricity***	**Multiple use**. The kit contains experiments of important principles of electricity. **Teaching topics**: Series and parallel circuits, switches and resistance.
	***The Molar Mass of Magnesium (15 experiments)***	Multiple use. Includes a hydrogen generator and a gas collection cylinder with stand, and chemicals for 15 experiments. Refills are available. Teaching Topics: Determination of molar mass, Stoichiometric ratios, Ideal Gas Equation, Pressure and partial pressure, Vapor pressure.

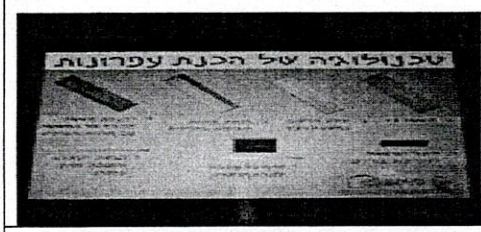
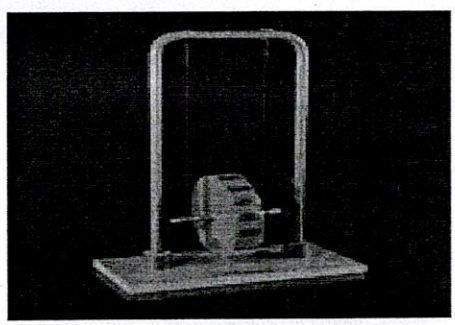
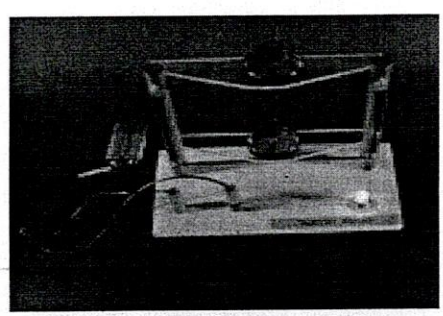
	***The Nylon Rope Trick – with special stand***	Multiple use. Includes a special plastic stand, plastic rods, colored solutions (for 12 ropes) and three reaction vessels. Additional refills are available. Teaching topics: Chemical bonding, Polymers, Interfaces between immiscible liquids.
	***Electric Generator***	Multiple use. Turning a handle causes a magnet to rotate inside a metal coil, producing an electric current which lights up a bulb. Rotating the handle at a greater speed increases the brightness of the light. By means of an external battery, the generator can be transformed into an electric motor. Teaching topics: Energy transformations, the Principle of the electric generator and the electric motor.
	***Chemical Activation of an Electric Motor (24 experiments***	Multiple use. Metal electrodes, when dipped into weak acid, produce electricity which drives an electric fan. Enough material for 24 experiments. Refills are available. Teaching topics: Electrochemistry, Oxidation-Reduction processes, Cell potential, Conversion of chemical energy into electrical energy.
	Electrolysis of Water - with Gas Collection Device + Spare Parts	Multiple use. Includes an electrolysis device (33x26x15 cms) all parts made of plastic, a stand, platinum-coated electrodes, two taps, batteries, universal indicator, a screen, a dropper and 10 solutions for multiple use. Refills are available. Teaching topics: Empirical formula of water, Gas Laws, Electrochemistry, Cathode-anode identification, Acid-base

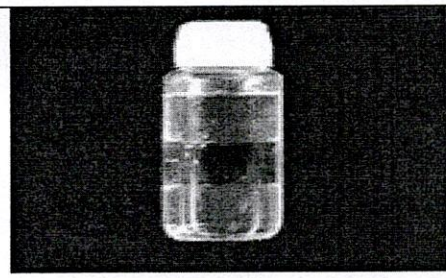
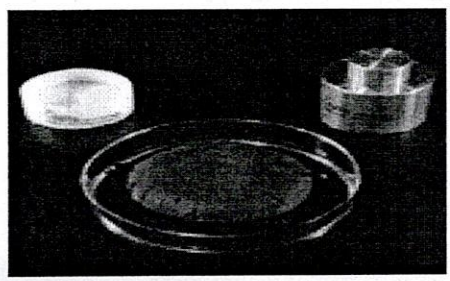
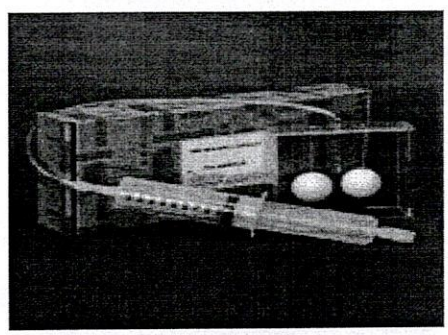
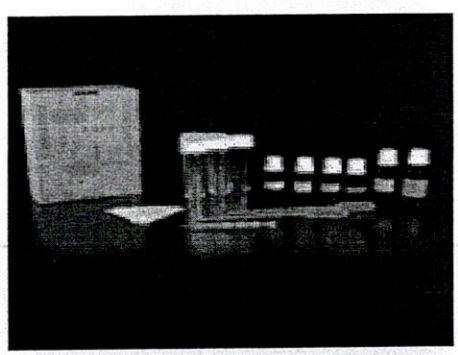
		indicators.
	***Expansion of Gases***	Multiple use. A unique apparatus for the visualization of the Gas Laws. Both the effects of adding and removing air or raising the temperature in the container can be easily followed. Includes a transparent container, a lid attached to an electric circuit and battery, a syringe, two manometers, a bottle of colored water with dropper and a stand. Spare parts are available. Teaching topics: Gas Laws, Pressure as a function of number of particles and temperature, Pressure measuring device.
	***Expansion of Solids***	Multiple use. Includes expansion device, 2 metal strips, burner and alcohol. Heating a metal rod causes its expansion, which is unnoticeable until magnified by means of a pointer. The different expansion of another metal is demonstrated. Teaching topics: Properties of matter, Heat.
	***Acid Base Neutralisation***	**Disposable kit**. Includes transparent containers, HCl solution, NaOH solution, litmus papers. **Teaching topics:** Acid and base reactions, neutralization. .

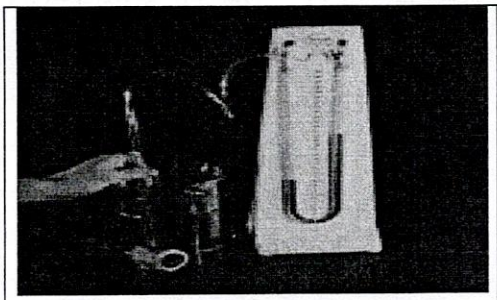
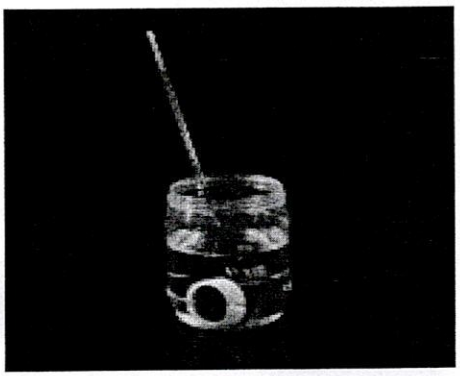
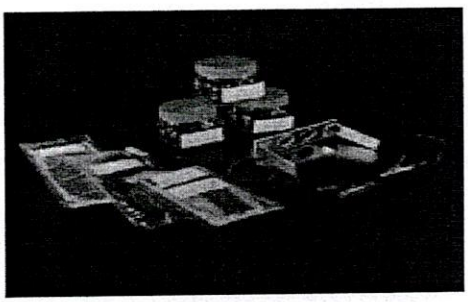
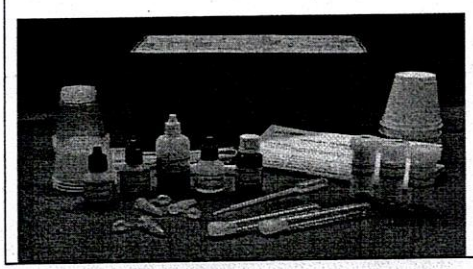
	***Preparation and Recognition of a Base***	**Disposable kit.** Includes reaction vessel, metallic magnesium, pipets, litmus paper, bases of different kinds. Metallic magnesium is burned producing an oxide. When the oxide is dissolved in water, a base is produced, that turns red litmus paper blue.
	***Conductivity of Heat in Solids***	Multiple use. Includes stand, heating candle, several metal rods (copper, aluminum, stainless steel, brass), plastic rod markers, modeling clay and matches. Teaching topics: Heat conductance in solids, Insulators and heat conducting solids.
	***Atmospheric Pressure and Vacuum***	Multiple use. Includes hand-operated transparent vacuum pump, container with tap + pierced lid, glass bottle (including stopper and tap), 2 stoppers, rubber glove in glass bottle, container with concentrated dye, small container with boiling stones and a special stand. Several experiments with atmospheric pressure can be simply demonstrated, using a hand-operated vacuum pump. Teaching topics: The atmosphere, Atmospheric pressure, Reduced pressure and vacuum, Boiling of warm water at reduced pressure.
	***Mariotte's Column & Flow rate device***	Multiple use. Includes 2 liter transparent cylinder, fitted with three taps, a trough, bottle of colored water and plastic tube. The additional device enables comparison of flow rate to outlet area. Refills are available. Teaching topics: Hydrostatic pressure, Pascal's Law, Atmospheric pressure and reduced pressure.

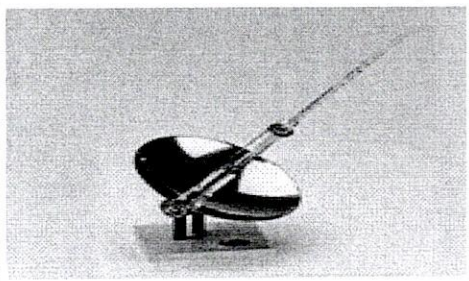
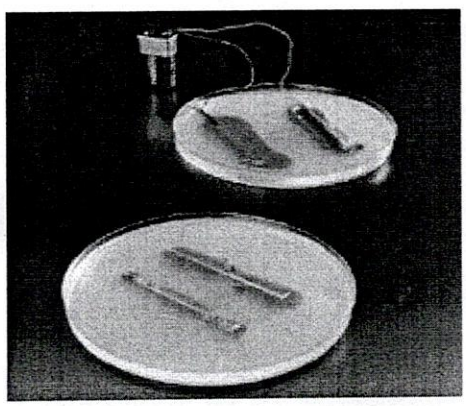
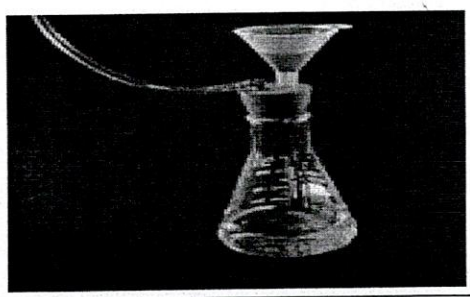
	***Intreatomic Forces in Metals***	Multiple use. Includes stand, two lead cylinders, scraping device, container for lead-waste, 500g weight and gloves. Refills are available. Teaching topics: Interactions between neutral atoms, The forces that make a solid out of atoms, Metallic bonding.
	***The Cave of Dogs***	Multiple use. Includes transparent plastic box, transparent steps, gas generator and chemicals (for 12 experiments), candles (will last for many experiments), bottle for CO_2 gas, matches and wooden splint. Spare parts are available. Teaching topics: Fire extinguishing, Density of gases, Mixing of gases, Molecular motion, Properties of CO_2 gas.
	***Cigarette Smoke - What do inhale***	Multiple use. Includes a device with a transparent vacuum pump for the simulation of cigarette smoking, a filter for tar capture, a solvent and a device for tar extraction and examination. Teaching topics: Health hazards in smoking.
	***Principle of Photosynthesis***	An improved simple and safe technology is introduced. Students produce from a variety of oils real soap which they can use take home and test. Teaching topics: The sun as the most important energy source for all living matter on earth, light as a form of energy, spectrum, transformation of energy, synthesis of sugar, plant chlorophyll as an antenna.

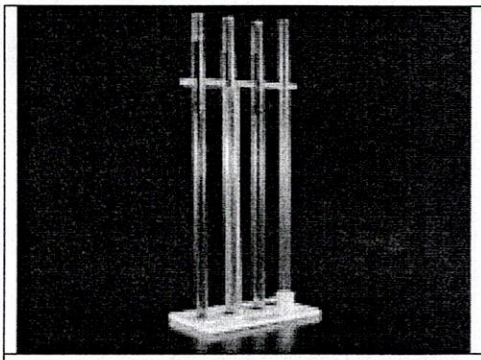
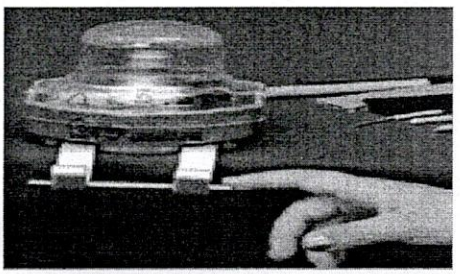
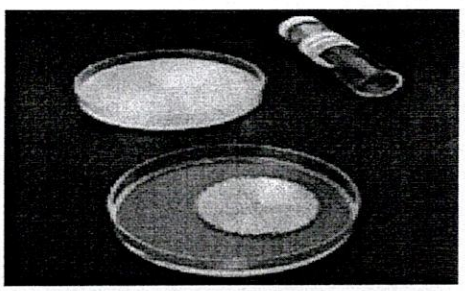
	***Introduction to Biotechnology – Yeast Fermentation. Bakers yeast, Sacharomyces crevisiae***	Disposable Kit: Includes yeast and tools to investigate the kind of foods and conditions which are best for reproduction of the microorganism. Teaching topics: Biotechnology, anaerobic and aerobic processes, metabolism ATP and ADP, principles of baking.
	***Technology of Preparation of Toothpaste and Marketing***	Disposable Kit: Includes all materials and ingredients for the production of real-tooth paste that students can later take home and use. All the ingredients are food grade. Teaching topics. Human health, teeth and gum disease. Technology of production, advertisement and marketing.
	***Seed Staining Kit***	Disposable Kit: Includes all the necessary materials and tools to carry out the experiment. Teaching topics. Observing the location of materials as sugar, starch and lipids in seeds.
	***Photoelectric Activation of an Engine (Fan)***	Multiple use. Solar energy is converted into electricity, that is used to activate an electric motor with a propellor. Teaching topics: Direct conversion of light into electricity, Solar energy.

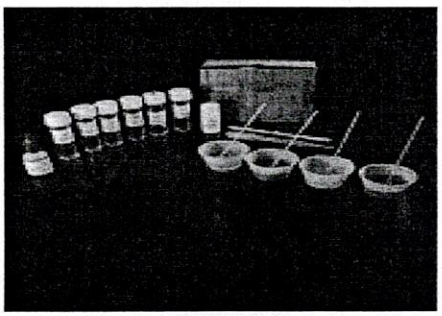
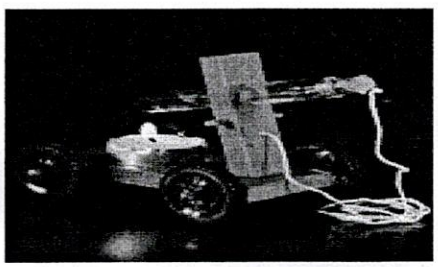
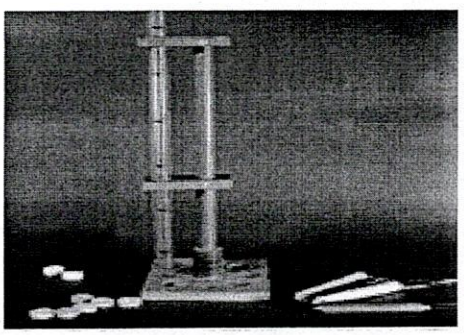
	***Prepare your own Pencil***	Disposable kit. Includes two grooved wooden boards, cutting and polishing aids. Teaching topics: Technology of pencil production.
	***Blood typing using Simulated Blood***	Disposable kit. Includes different types of blood , as well as different Anti Serums, special trays, tips operation instructions, students sheet and background information.
	***Maxwell's Pendulum***	Multiple use. A disc rotates as it descends, converting potential energy into rotational energy rather than translational kinetic energy. It then rises, reversing the process. Teaching topics: Conservation of energy, Potential energy, Rotational energy.
	***Electromagnetism – oersted's Effect***	Multiple use. The magnetic field produced by a current in a coil is detected by means of two compass needles. Changing the direction of the electric current reverses the direction of the compass needles. The kit consists of a coil, electric bulb, two compass needles and a battery. Teaching topics: Oersted's discovery of electromagnetism, the Magnetic field pattern surrounding a coil.
		Multiple use. Three non-miscible liquids placed inside a transparent container,

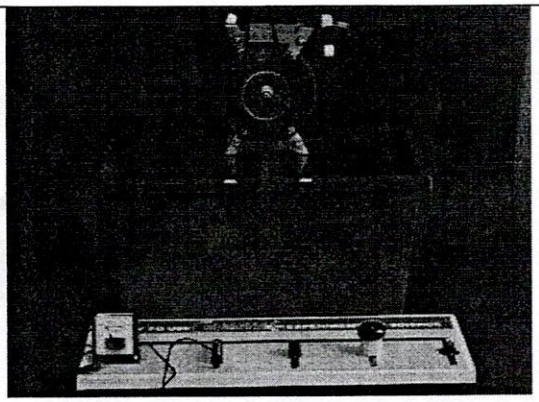
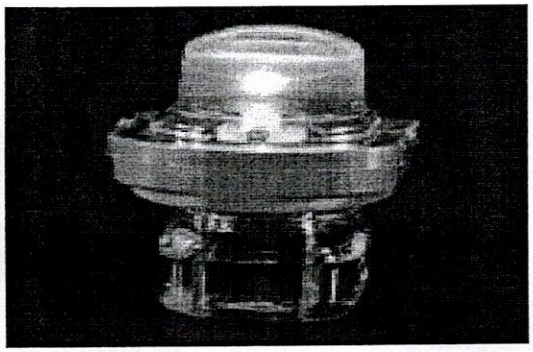
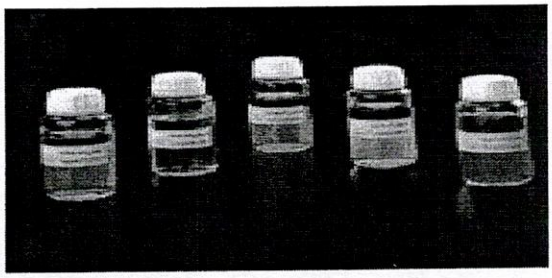
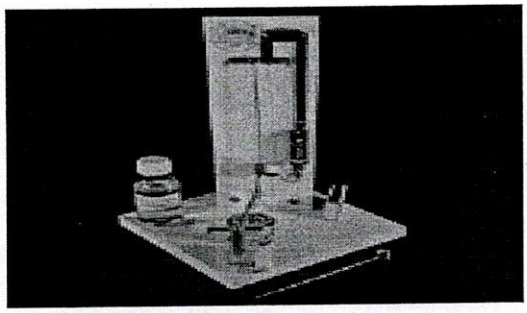
	***Liquids of different Densities***	separate out, one above the other according to their densities. Teaching topics: Miscibility and immiscibility of liquids, Density of liquids.
	***Visualizing the Concepts of Pressure + Additional refills***	Multiple use. A metal cylinder, with two differently shaped faces, is placed on top of modeling clay. Imprints are observed when the smaller face adjoins the clay. Teaching topics: Pressure is weight divided by area.
	***Bernoulli's Principle***	Multiple use. Includes a device with two ping-pong balls on strings and an air pump. When air is squeezed in between the balls, they are attracted one to the other. Teaching topics: Principle of aviation, Bird flying and Sailing
	***Chromatography of Dyes***	Disposable kit. Includes a thin layer chromatography strip, a container for developing, dye solutions (for 5 groups), chemicals and TLC plates for 10 experiments.

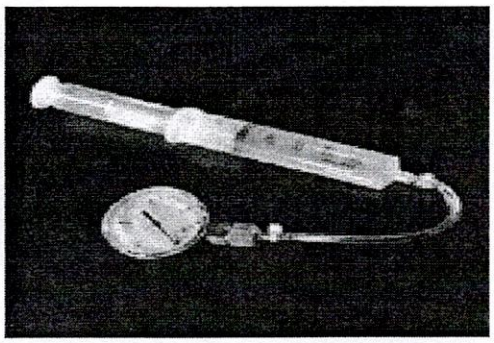
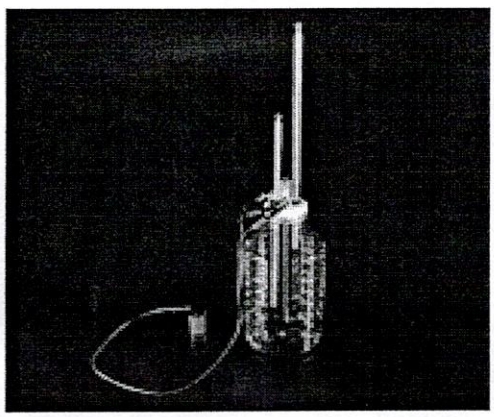
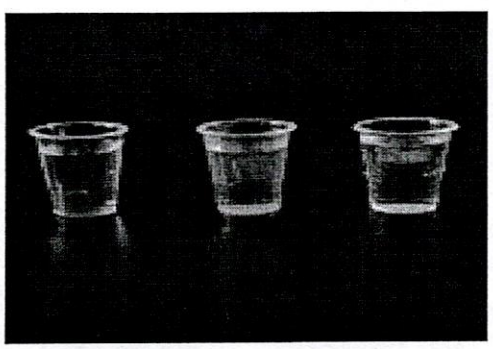
	***Measurement of Hydrostatic Pressure - Manometer***	Multiple use. Includes plastic manometer (50 x 15 cms) and spare membrane. Spare parts are available. Teaching topics: Visualizing the meaning of pressure, Atmospheric and Hydrostatic pressure, Pressure measurement techniques.
	***Osmotic Pressure***	Permanent apparatus with disposable materials. An osmosis device, fitted with a tube and a semi-permeable membrane, is filled with a concentrated salt solution. The device is dipped into water, resulting in a rise of the level in the tube, caused by water diffusing into the salt solution. The process is repeated with sugar. Leaving the experiment over- night emphasizes the strength of osmotic pressure. Teaching topics: Osmotic pressure, Semi-permeable membranes, Plant physiology.
	***Electrochemistry + Additional refills***	Multiple use. Includes a voltaic cell, salt bridge, electrodes and solutions. Requires a digital voltmeter which is not provided. Teaching topics: Redox reactions, Ions as charge carriers in solutions, Salt bridge and Electrode potential.
	***Biochemistry – Food Components Determination***	Students study methods for testing and defining carbohydrates, proteins and fatty are experienced. Teaching topics: Proteins, Carbohydrates, fatty acids, basic food components.

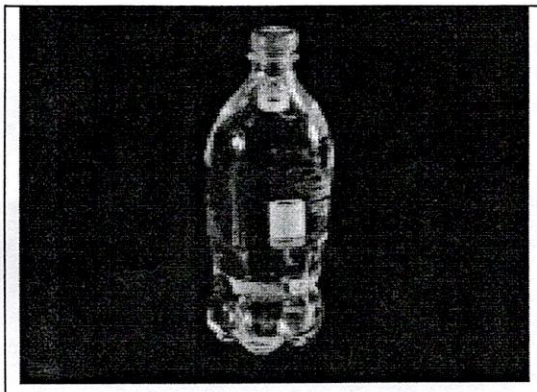
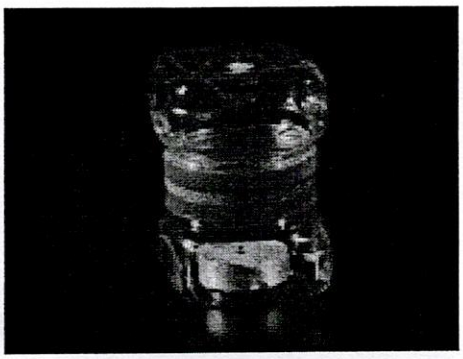
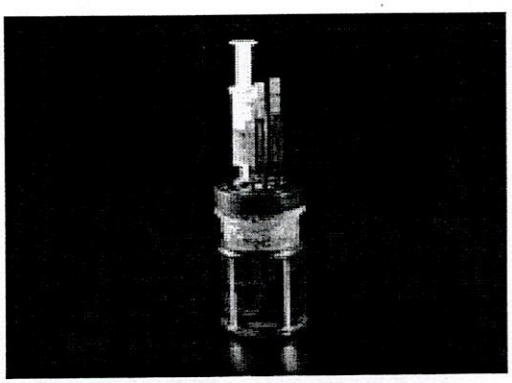
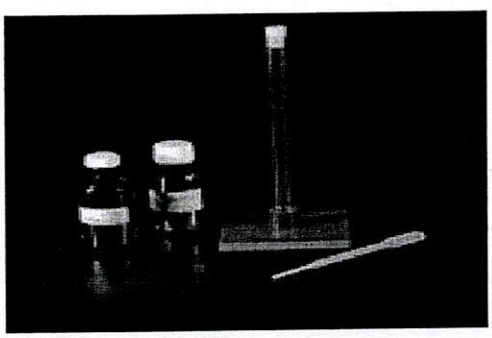
	***Heating Water with a concave Mirror***	Multiple use: The sun's rays heat water, when focused by a concave mirror on a test tube with water. The rise in temperature is measured using a thermometer. Teaching topics: Solar energy, Clean fuel, Pollution, Energy conversion.
	***Oxidation of Metallic Iron in Agar Gel***	Disposable kit. Includes two petri dishes with a specially prepared agar gel with indicators, a set of nails ready to connect to a 9 volt battery, an additional pair of nails, a coiled magnesium strip and a battery. Teaching topics: Oxidation and reduction reactions, Spontaneous and non-spontaneous oxidation of metallic iron, Rusting and cathodic protection.
	***Air Occupies Space***	Multiple use. Includes a rubber stopper with a funnel and tubing. Requires an 250 ml Erlenmeyer which is not included. Teaching topics: Air, like other gases, occupy space.
	How can we measure Viscosity-Advanced Version	Multiple use. Includes a device with two sealed-off tubes, filled with two liquids of different viscosity. Bodies fall through those two tubes. The body that falls through the less viscous liquid reaches the bottom before the other one. The advanced version consists of 4

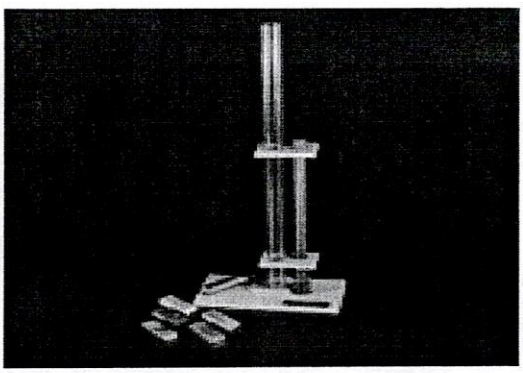
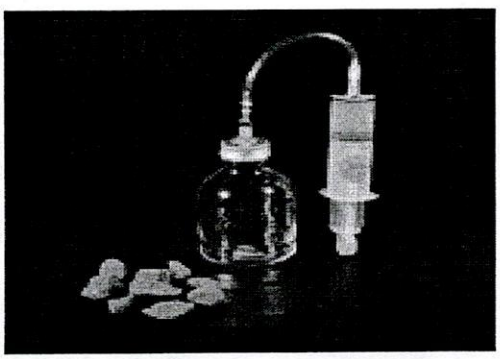
		tubes, long enough to permit measuring the rate of fall. Teaching topics: Viscosity of liquids and how it is measured.
	***Conductivity of Solids***	Multiple use. Includes a conductivity device, a spare bulb, a battery and a set of rods of various solid materials. Teaching topics: Properties of solids, Conducting and insulating materials.
	***Crystallization from Supersaturated Solutions***	Disposable kit. Includes two stabilized supersaturated solutions, six petri dishes, a vial of sodium acetate crystals and a vial containing sodium chloride crystals. Economy packages are available. Teaching topics: Solutions - saturated and supersaturated, Crystallization, Seeding, Enthalpy of crystallization.
	***An Extreme Exothermic Reaction***	Disposable kit. Includes 24 containers with reactants (enough for 12 experiments), a reaction vessel and a wooden board. Economy packages are available. Teaching topics: Spontaneous endothermic reactions, Order and disorder, Gibbs free energy and the driving force of chemical reactions.

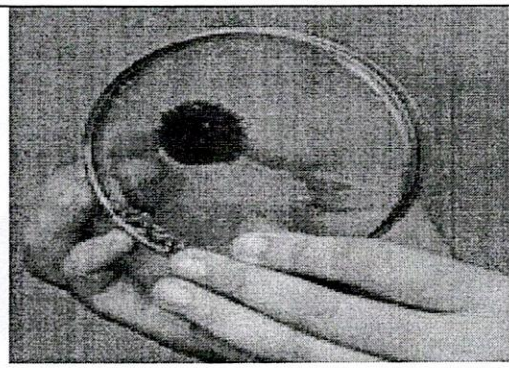
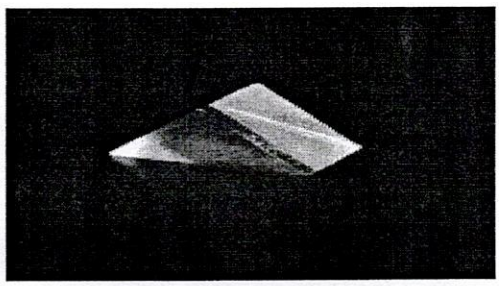
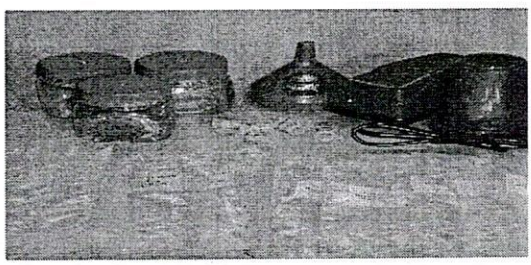
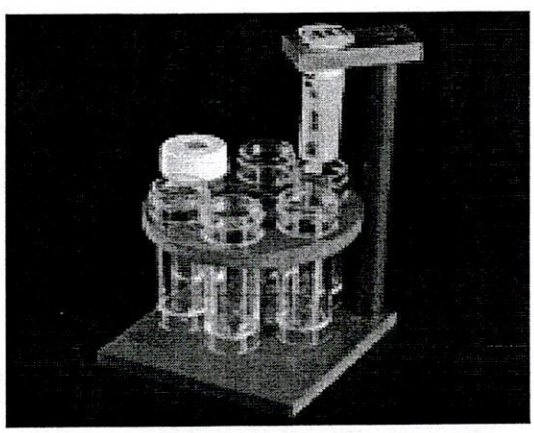
	***Polymerization Cross-Linking***	Disposable kit. Poly-vinyl alcohol (P.V.A.) is cross-linked using borax, producing a gel, which can be later destroyed by the addition of salt. Enough materials for 12 experiments. The kit includes: 12 bottles of P.V.A solution, borax solution, dye solution, salt containers, a stirring rod, 12 transparent plastic containers and a pipette. Teaching topics: Cross-linkage of polymers, Gels and Hydrogen bonding.
	***":Steam Canon"***	Multiple use. When water inside a closed container is heated to boiling, the increase in pressure, as a result of the formation of steam, shoots the cork out of the tube. The supporting wagon moves in the opposite direction. Teaching topics: Pressure, Phase
	***Visualization of Potential Energy + Spare Parts***	Multiple use. The kit consists of a transparent tube in which different weights fall freely. The difference in the potential energy of each weight can be estimated from the depth of the crater made in modelling clay. Teaching topics: Conservation of energy, Conversion of potential energy into kinetic energy.
	A Hydro-electric Power Station	Multiple use. The pollution-free production of electricity from the power of "falling" water is clearly demonstrated by this safe and simple, but sophisticated, model. A stream of water hits and turns a water-wheel, causing a magnet to revolve. This dynamo produces an electric current which lights up a bulb. Teaching topics: The Pollution-free

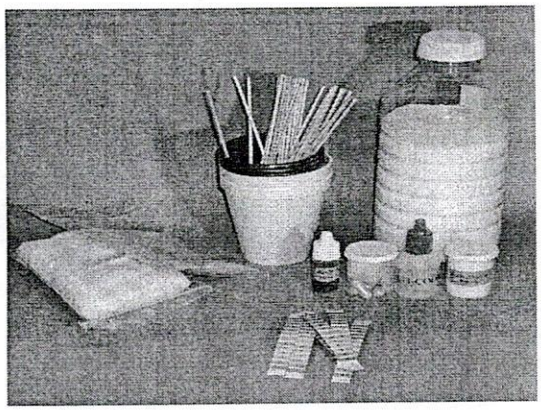
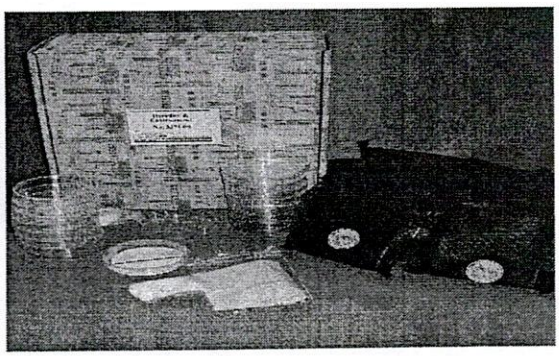
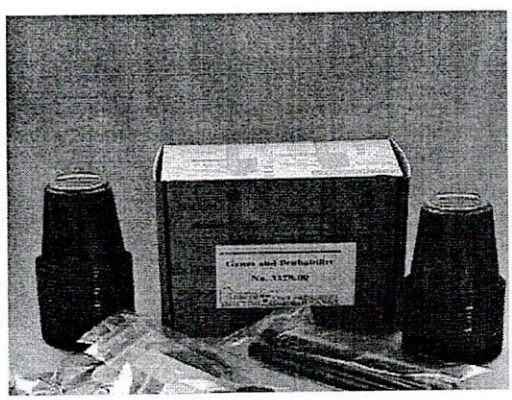
		production of electricity, the Working of a hydro-electric power station, Energy transformations, the Principle of a dynamo.
	***Tracing Hydronium ion Concentration***	Multiple use. Includes a series of acidic and basic solutions for six experiments, a conductivity device including bulb and batteries, a spare bulb and a pair of droppers. Spare parts and refills are available.Teaching topics: Acid and bases, Strong and weak acids, Electrolytes, Titration, Acid base neutralization, Slightly soluble salts, Solubility product. Hydrogen ion concentration and pH.
	***Oxidation State of Manganese***	Disposable kit. A set of ready-to-use solutions of $KMnO_4$ and a reducing agent are provided, which enable the observation of the various colored oxidation states of manganese. Teaching topics: Multiple oxidation states of transition metals, Redux reactions, Origin of color in ions.
	***Thermal Expansion of Bi-Metallic Strip***	Multiple use. Includes a special device, which demonstrates the principle of operation of a bi-metallic strip and some of its applications in everyday life. Teaching topics: Thermal expansion of metals, Principle of operation of a thermostat.

	***Pressure Gauge with a Piston***	Multiple use. Consists of a piston to which a pressure gauge us attached. Teaching topics: Properties of gases, Compressibility, Pressure and Force.
	***Air as a Thermal Insulatotr***	Multiple use. Consists of a special device equipped with two thermometers, heating coil and a battery. Teaching topics: Properties of gases, Heat conductivity in gases.
	***Floating Bodies in Liquids of Different Densities***	Multiple use. Three bodies of equal shape and density are immersed in three containers with water. Salt is added to two of them, until in one of them the cubes float fully immersed, and in the other container the cube floats up to the surface. Topics: Density of liquids, Buoyancy, Archimedes' Law.
	Floating Bodies – Cartesian Diver	Multiple use. Includes 3 small different "divers". Economy packages are available. Teaching topics: Density, Principle of floating, Buoyancy, Compressibility of gases and non-compressibility of liquids under pressure.

		
	***The Strength of Atmospheric Pressure***	Multiple use. Includes two jars, candle and matches. Teaching topics: Atmospheric pressure, Reduced pressure, Consumption of oxygen in air, Gas Laws, Pressure and force.
	***Pascal's Jar***	Multiple use. Includes a container, with a lid and a syringe. Three tubes of different length are immersed in a liquid, at different depths. Using the syringe, pressure in the jar is increased and the rise of the liquid level in the tubes is followed. Teaching topics: Pascal's Law, Hydrostatic pressure.
	***Intermolecular Space in Liquids***	Multiple use. Includes a plastic cylinder with markers, a bottle with a concentrated fluorescent dye and a bottle of colored ethanol. Enough material for 12 experiments. Teaching topics: Mixing and packing of liquids, Structure of liquids, Hydrogen bonding.
	Crystallization of	Disposable kit: A hot saturated solution of alum is allowed to cool: one part in

	***Alum***	an open petri dish, the second in a covered petri dish, and the third with a piece of tile suspended in it. In each case, beautiful crystals are formed, but on the tile the crystals are especially large. As a comparison, the crystallization of NaCl is carried out in petri dishes. Teaching topics: Crystals, Crystallization from solution, Dependence of solubility on temperature.
	***The Hardness of Metal***	Multiple use. In order to determine the hardness of a solid, a heavy object with a rounded end is dropped onto it from a standard height. The size of the depression so caused is then measured. In this kit, the relative hardness of aluminum, copper, iron and brass, are determined. The results are found to be in close agreement with the accepted values in the literature and with the Mohs scale.
	***Porosity of Bricks under various Conditions***	Multiple use. Includes a transparent container, a hand-operated vacuum pump, 3 bottles of mineral oil and pieces of brick. When a brick is immersed in oil, air bubbles are produced as the oil penetrates the pores. With a vacuum pump, the process is completed in about 20 minutes, and appropriate calculations can be performed. Teaching topics: Porosity, Measuring the volume of pores in a brick.
	Separation of Metals for recycling	Multiple use. Includes a transparent device with a mixture of iron and brass powders and a ceramic magnet. Using the magnet, the iron powder is separated and stored in a special location in the device. Teaching topics: Concept of recycling, Separation of iron from other metals, Magnetism.

		
	***Prism*** ***Prism*** ***Prism***	A multipurpose piece of Apparatus **Teachings topics**: The diffraction of light, Spectrum, The rainbow.
	***Artemia – from Cyst to a living organism***	Artemia is a living organism, which requires oxygen and food for hatching and growth. Students hatch those shrimps from a powder that looks like sand. All of a sudden a living organism starts to move around. Students study the best conditions for hatching Artemia. Teaching topics: Microbiology, Marine sciences, Fishes, Shrimps
	***Purification of water by Filtration***	Disposable kit: Water contaminated with an impurity (sugar) is purified using an activated charcoal filter. The quality of the purified water is examined using Benedict's solution. The students observe that the filter has a saturation point. The kit contains ready to use materials and chemicals for 5 groups. Teaching topics: Recycling, Water purification, Adsorption of charcoal, Filter capacity.

	***Introduction to Biotechnology – Cheese Making Process***	Disposable Kit: Includes all the necessary materials including an enzyme and milk powder for the production of real cheese. Teaching topics: Biotechnology, metabolism, enzymes and enzyme activity, milk, lactose and casain.
	***Hereditary and Environment***	Disposable Kit: Includes all the necessary tools & materials. Teaching topics: determine the influence of light in different environment on the production of chlorophyll in a hybrid plant.
	***Genes and Probability***	Multiple use. Includes 2 liter transparent cylinder, fitted with three taps, a trough, bottle of colored water and plastic tube. The additional device enables comparison of flow rate to outlet area. Refills are available. Teaching topics: Hydrostatic pressure, Pascal's Law, Atmospheric pressure and reduced pressure.
	The Biology and Chemistry of Soil	Disposable Kit: Includes all the chemicals and tools in order to carry out analysis of chemical Composition of soil using samples of soil. Teaching topics: methods of chemical analysis, determine major chemical