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SCIENCE NEWS LETTER

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Jet Armada

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Machines in RCA's Lancaster Tube Plant are designed for mass production of Kinescopes—television picture tubes—at lowest possible cost.

Behind the magic of a Television Tube

Every morning, 14 tons of glass "bulbs" go down to the production lines at the RCA Tube Plant in Lancaster, Pa.

By evening, the bulbs are television picture tubes, their luminescent faces ready to glow—in television homes everywhere—with news, sports, entertainment, education, politics.

Born of glass, metals, chemicals, the picture tube comes to life through flame and heat. Its face is

coated with fluorescent material—forming a screen on which an electron gun "paints" moving images.

Each step is so delicately handled that, although RCA craftsmen are working with fragile glass, breakage is less than 1%.

Water, twice-distilled, floats the fluorescent material into place on the face of the tube, where it clings by molecular attraction—as a uniform and perfect coating.

Every phase of manufacture conforms to scientific specifications established by RCA Laboratories. Result: Television tubes of highest perfection—assuring sharp, clear pictures on the screens of RCA Victor home television receivers.

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When in Radio City, New York, be sure to see the radio, television and electronic wonders at RCA Exhibition Hall, 36 West 49th Street. Free admission. Radio Corporation of America, RCA Building, Radio City, New York 20.

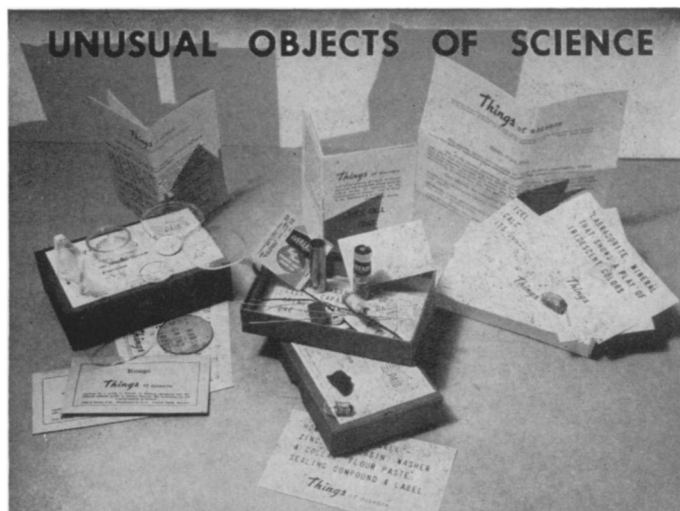


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we will send you, postpaid, any collection of THINGS of science described below. Each unit has, in addition to science objects, its own leaflet of description with many experiments suggested. Museum-style legend cards are provided with each exhibit.



A LIGHT COLLECTION

A mineral that makes you see double; a printed circuit; materials with which to assemble a dry cell—these are the exciting objects contained in the MINERAL OPTICS, ELECTRONIC and DRY CELL UNITS making up this collection. Among the 20 specimens contained in this group are a subminiature tube, light sensitive cell, iceland spar and labradorite. A factory-assembled dry cell and the materials needed to make one at home—zinc can, wrapped bobbin, bottom washer, top collar, sealing compound and label—are included along with a tiny flashlight bulb, litmus paper, wire, iron rod and filings with which to perform experiments.

B COLOR COLLECTION

Paints that glow in the dark; red and green plastic sheets that together cut out all light; brilliant dyes obtained from plant roots—these and many other intriguing specimens are contained in the PHOSPHORESCENCE, PLASTIC PILOT AIDS and VEGETABLE DYES UNITS which make this colorful collection. There are fourteen specimens in all, including blind flying sheeting in red and green, dimout blue sheeting, ultra violet transmitting sheeting, phosphorescence plastic, tape, pigment, paint, madder, indigo, tumeric and alum.

C MINERAL COLLECTION

Stones showing the original structure of trees that grew millions of years ago; vacuum tube insulator made from one of the softest known minerals; rock containing traces of native sulfur—these are the surprising subjects in the PETRIFIED WOOD, TALC and SULFUR UNITS making up this collection. In the three boxes there are seventeen specimens, including petrified sweetgum, redwood, oak, elm and bog, fired and natural talc, sulfur-bearing limestone, iron sulfide, zinc sulfide, crude sulfur and flowers of sulfur.

D UNUSUAL MATERIALS COLLECTION

Porous cushioning material for upholstery; glass-enclosed air cells used to keep out heat or cold; zinc made fine-grained by incorporation of only 0.05% lithium—these materials of industrial importance are contained in the HOUSING, HOME AND OFFICE and LITHIUM UNITS. The eighteen specimens contained in these three blue boxes include wood-fiber wallboard, plywood, glass fiber fabric, coffee measure, airfoam, plastic and wire screening, shaver head, natural spodumine, lithium chloride, lithium nitride, pure zinc, zinc and lithium master alloy, and lithium-treated zinc.

E FIBER COLLECTION

Synthetic fiber made from skim milk; twisted rayon cord used in auto tires; glass fibers less than three ten-thousandths of an inch in diameter—these are the interesting subjects of the CASEIN, RAYON and GLASS FIBER UNITS that will be sent to those selecting this collection. In the three boxes that make up this series of exhibits there are fifteen specimens, including casein powder, raw fiber spun from casein, aralac, soft glass fiber, cotton linters, chemical cotton pulp, rayon tire cord and rayon fabric lining material.

F PLASTIC COLLECTION

Film with a seam that is stronger than the plastic itself; plastic plate with which you can print a bit of illustration or writing; plastic-coated yarn for crocheting or braiding a design—these are the rewarding specimens contained in VINYL PLASTIC FILM, PLASTICS IN PRINTING and PLASTIC COATED YARN UNITS which comprise this unusual scientific collection. There are 20 specimens, including vinyl plastic film, heat sealed seam, spot welded ruffle, plating printing plate, moisture-proof sheeting, twist leaflet binding, plastic-coated yarn, flame-retardant webbing and fine fabric.

G TEXTILE COLLECTION

Raw material from which you can make a length of synthetic fiber; complete ball of fluffy white cotton; dye that enables you to identify different types of textiles—you have examples of both natural and synthetic fibers and a means of identifying them in the VINYL RESIN FIBER, COTTON and TEXTILE IDENTIFICATION UNITS. Twenty-two specimens make up this varied display, including vinyl resin, unstretched vinyl resin yarn, filter cloth, sailcloth, waterproof felt, tea bag, cotton ball, cotton that is tinted brown and green by nature, a differential dye and several swatches of different types of fabric to show how to distinguish cotton from silk, rayon and wool.

SPECIAL PRIORITY OFFER

Members of THINGS of science receive a surprise blue package each month, actual samples of the new and unusual. Although membership is limited to 10,000, we have a few vacancies open which you, as a subscriber to Science News Letter, are eligible to fill. If you would like to receive THINGS of science every month for one year (12 units in all), enclose \$4 with this order and receive also a gift unit. If the present vacancies should be filled before your order is received, we will mail you the gift unit and enter your subscription as soon as a vacancy occurs.

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