

Examination with Dr. Frederick O. Carleton of New Orleans, La.

As one of the measuring devices of the Search, it is designed to test ability to think and reason in terms of scientific concepts and vocabulary. Most science-minded high school seniors find the examination challenging and enjoyable to take since it is much like the problems, puzzles and games so many of them delight in solving.

Scores on this test represent only the first hurdle in the judging procedures that select the students who seem most likely to become outstanding research scientists. There is no predetermined "passing" grade and scores are plotted on a curve to discover which contestants may be qualified for further judging. The qualifying score for boys in the 20th Search was 75; for girls, 65. This allowed a large margin for further selection, for the highest score among the boys was 111 out of a total possible score of 129. Highest score among the girls, who made up 23% of the entrants, was 104.

Contestants Are Evaluated

As the next step, detailed scholastic records of each "passing" contestant were evaluated. Then information offered by the student and his faculty sponsor about his accomplishments, activities, traits and attitudes was weighed carefully to find any of a number of good combinations of achievements and promise.

Each entrant is required to submit a written report of an individual research project. This usually amounts to a thousand or so words of text, plus relevant diagrams, graphs, theorems, pictures, etc. The papers of all the students who survived the first hurdles of the 20th Search were read critically by a board of professional scientists which included specialists in the many fields explored by the student-scientists. This board studied and evaluated reports on everything from an investigation of horse sense to complexes of lead 2,6-dimethyl-4-thiopyrone and the halogens, and computers designed to recognize patterns or compose music.

Then these professional opinions were added to the other evidence for and against each hopeful candidate.

Correlating all of these evaluations, the board of judges selected an Honors Group of 399 students (10% of those with completely qualified entries) who showed outstanding scientific potential. All of these top drawer students are being recommended to colleges and universities for admission and scholarship aid.

To choose 40 top winners from this Honors Group, each detail was reexamined and weighed on an even more precise scale of values. At this point numerical scores had to be combined with subjective judgments based on long experience with, and observation of, potential scientists.

During the Science Talent Institute, to be held March 2 through March 6 in Washington, D.C., the file on each of these 40 will be supplemented by personal interviews. Everything will be weighed again and some very fine hairs may be split to

select the five who will be awarded Westinghouse Science Scholarships ranging from \$7,500 to \$3,000.

In the 20th Science Talent Search 25,355 requests for the examination and other entry materials were received and 3,991 completely qualified entries were judged. Scholastically, 78% of the 93 girls in this year's Honors Group are in the top five percent of their high school classes and at least 41% rank first, second or third. Of the 306 boys, 68% rank in the top five percent of their classes and at least 27% of these are among the top three students.

Some of the traits most characteristic of these promising young people are intense and sustained intellectual curiosity, ingenuity, independence, self-discipline, and an intuitive way of knowing how and why certain theories and facts may fit together. Starting at the sand box age, many of them have investigated an astounding variety of questions.

There is no sameness among this group, except in their interest and ability in science. They are highly individual personalities from every kind of background and with a great assortment of ambitions and motives.

During the Science Talent Institute in March, the 40 winners chosen from this Honors Group will gather in Washington, D.C., for five unique days. In addition to the mutually rewarding experience of learning to know each other, they will meet eminent scientists, visit scientific laboratories of national agencies, and keep their scheduled appointments for interviews with the judges. The Westinghouse scholarships and awards traditionally are announced at the banquet which closes the Institute.

The five scholarships of \$7,500, \$6,000, \$5,000, \$4,000 and \$3,000, and the 35 awards of \$250 each, may be used at any accredited college or university and are intended to assure the professional training of these young pre-scientists. Recognition in the Science Talent Search brings many thousands of dollars in other scholarship offers to the Honors Group. In addition, 37 states and the District of Columbia conduct State Science Talent Searches in cooperation with Science Clubs of America, awarding more than half a million dollars in scholarships to students from their states who were qualified entrants in the national Search.

• Science News Letter, 79:74 February 4, 1961

METEOROLOGY

Weather News Relayed At 850 Words per Minute

➤ WEATHER INFORMATION relayed at the rate of 850 words per minute is now being transmitted by the Federal Aviation Agency using its new Automatic Data Interchange System (ADIS). Both civil and military aviation are being serviced by this first multi-point, high-speed, teletypewriter network.

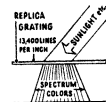
Operating eight times as fast as most persons talk, the ADIS will speed the collecting of meteorological observations from about 1,000 stations and advance their distribution to 2,500 points of use, operating 24 hours a day, every day of the year.

• Science News Letter, 79:75 February 4, 1961

SCIENCE BARGAINS

Order by Stock No.—Send Check or M.O.—
Satisfaction or Money Back!

REPLICA GRATING—Low, Low Cost Take Unusual Color Photos At Night!



It's here—after decades of effort. Replica Grating—on film—at very low price. Breaks up white light into full spectrum colors. An exciting display. 13,400 lines per inch. Diffraction Grating has been used to answer more questions about the structure of the material world and the universe than any other single device. Use it for making spectroscopes, for experiments, as a fascinating novelty. First time available such large size—so cheaply—comes in clear plastic protector.
Stock No. 50,202-Q—includes 2 pcs. 8" x 5 1/2"—1 transmission type, 1 reflecting type. \$2.00 postpaid

FLASHLIGHT POINTER FOR MOVIE SCREENS



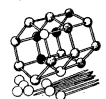
Ideal for pointing out interesting features on movie, slide projection screens. Excellent lecture tool. For teacher use on maps, etc. Flashlight focuses an arrow where you point it.
Stock No. 60,117-Q.....\$9.50 Postpaid

NEW! SCIENCE FAIR PROJECT KITS

Edmund Kits are carefully planned to give any boy or girl the fun and excitement of discovering science facts. Such carefully planned projects can lead the student to awards or scholarships. Adults too will find them an excellent introduction to the various fields of science.



For Junior High School and Beyond:



MOLECULE KIT—This low-priced kit can be used to make many molecular and crystal models. Consists of 60 sponge-rubber balls, 1 1/2" in diameter and 50 wooden sticks 6" x 1/4" that can be cut to any desired length. Balls may be painted, after assembly, to standard molecular colors. With this one kit, molecules with up to 50 atoms can be made. Several kits can be used to make up more complex models.
Stock No. 30,413-Q.....\$2.50 Postpaid

NUMBER SYSTEMS ABAQUS—Makes a dramatic exhibit demonstrating number systems other than the decimal system.
Stock No. 70,334-Q.....\$4.25 Postpaid

SOIL TESTING KIT—Basis for many fascinating experiments regarding growth of plants, etc.
Stock No. 60,118-Q.....\$2.00 Postpaid

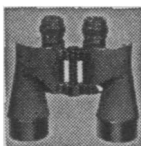
TOPOLOGY—All the ingredients for a project on 4 color map problems, Moebius strips, etc.
Stock No. 70,383-Q.....\$6.00 Postpaid

CRYSTAL GROWING KIT—Grow breathtaking display of large crystals with this set.
Stock No. 70,336-Q.....\$9.50 Postpaid

For Ages 8 Thru Jr. High School:
MAGNETISM KIT—Based on magnetism demonstrations developed by UNESCO.
Stock No. 70,325-Q.....\$3.75 Postpaid

COLOR THROUGH POLARIZATION—Show the beautiful color effects produced by passing polarized light through transparent objects.
Stock No. 70,350-Q.....\$2.00 Postpaid

OPTICAL ILLUSION KIT—Diagrams, lenses, mirrors, etc. for producing many amazing optical illusions.
Stock No. 70,352-Q.....\$3.00 Postpaid



Here's a Terrific Buy! WAR SURPLUS! American-Made! 7 x 50 BINOCULARS

Big savings! Brand new! Crystal clear viewing—7 power. Every optical element is coated. An excellent night glass—the size recommended for satellite viewing. Individual eye focus. Exit pupil 7 mm. Approx. field at 1,000 yds. is 376 ft. Carrying case included. American 7 x 50's normally cost \$195. Our war surplus price saves you real money.
Stock No. 1533-Q...only \$55.00 pstpd. (tax incl.)

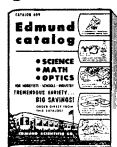


BUILD A SOLAR ENERGY FURNACE
A fascinating new field. Build your own Solar Furnace for experimentation—many practical uses. Easy! Inexpensive! Use scrapwood! We furnish instructions. This sun powered furnace will generate terrific heat—2000° to 3000°. Fuses enamel to metal. Sets paper aflame in seconds. Use our Fresnel Lens—14" diameter . . . f.1. 14"
Stock No. 70,130-Q, Fresnel Lens, \$6.00 Postpaid

FREE CATALOG-Q

144 Pages! Over 1000 Bargains!

America's No. 1 source of supply for science experimenters, hobbyists. Complete line of Astronomical Telescope parts and assembled Telescopes. Also huge selection of lenses, prisms, war surplus optical instruments, parts and accessories—Telescopes, microscopes, binoculars, infrared anisopesopes items for making "Science Fair" projects, math learning and teaching aids. Request Catalog Q.



TEACHERS! Write for Educational Catalog Q-2

EDMUND SCIENTIFIC CO.
BARRINGTON, NEW JERSEY