Science Service

In a democracy like ours it is particularly important that people as a whole should so far as possible understand the aims and achievements of modern science, not only because of the value of such knowledge to themselves but because research directly or indirectly depends upon popular appreciation of its methods. The specialist is likewise a layman in every science except his own and he, too, needs to have new things explained to him in non-technical language. Scientific progress is so rapid and revolutionary these days that no one can keep up with it without some means of keeping in close contact with its new ideas and discoveries.

Independent and Permanent

Through the endowment by the late E. W. Scripps, Science Service has been assured of such basic financial support as to insure its independence and permanence. Mr. Scripps long and wide experience as a newspaper editor and proprietor convinced him of the importance of scientific research as the foundation of the prosperity of the nation and the guide to sound thinking and living. He realized the need for an independent agency that would bring the results of research to the attention of the entire people for application to the solution of their own personal, social or political problems.

Science Service is especially charged by scientists, through their leading national organizations, with the great responsibility of interpreting and popularizing science to the people. Historically, it began its work when newspapers understood little and cared less about science. To a major degree, science is appreciated and well-handled by newspapers today because of the ideals, example and practice of Science Service.

The conduct of the science club movement and the development of experimental kits have been significant contributions to public understanding of science. So also are Science Service magazines, particularly the Science News Letter which brings to scientists and intelligent non-scientists alike, significant reports of science progress.

Thousands Cooperate

Thousands of scientists and educators through the years have joined with trustees and staff in the work of Science Service.

For editing and reporting the pulse of science, day by day, Science Service has a staff of scientist-writers at its headquarters in Washington, and contributors of scientific competence in the centers of research in America and abroad. The principal national and international science meetings are reported by staff or other scientist-writers. A large working information file and library provide quickly the necessary background to the current happenings in science.
The Meaning of Honors in the Science Talent Search

The achieving of Honors in the Science Talent Search, earned by the top 1% of those who complete entries in the Science Talent Search, is an evidence of science ability and interest which can be taken into consideration by colleges and universities in admissions and granting of scholarships. For this reason this Honors list is distributed to all the universities and colleges of the United States utilizing a list furnished by the American Council on Education.

All boys and girls awarded Honors in the Science Talent Search are considered so outstanding that any institution of higher learning will be justifying in considering their abilities carefully.

In past years members of the Honors Group have made creditable records in the colleges and universities to which they have been admitted.

From the list of 327 honor awards, 40 are being chosen as winners of the Washington trip. Among these $84,200 in scholarships and awards will be distributed. The list of winners is being announced subsequently to the distribution of this list and will be published in the Science News Letter of February 2, 1963, and it will be sent upon request accompanied by a self-addressed stamped envelope.

Each of those winning honors is being furnished with multiples certificates intended to accompany applications for college admissions and scholarships, but a listing in this pamphlet should be accepted as an equivalent certification.

The proportion of boys and girls in this list is determined by the ratio of boys and girls entering the contest. Listed are 76 girls and 251 boys. The girls determine their own chances in the Science Talent Search in accordance with the number that enter. Of the Honors Group, 20% of the boys and 78% of the girls rank in the upper 5% in their high school classes. Among the 227 who won Honors, 279 belong to science clubs of which 198 are affiliated with Science Clubs of America.

The Annual Science Talent Search

The Science Talent Search was the pioneering endeavor to discover at the senior high school year level those who have developed scientific talent available for important tasks in our civilization. It has fulfilled this function far beyond the hopes entertained when this educational project was conceived. Many millions of dollars in scholarships in colleges and universities throughout the nation, supplementing the Westinghouse Science Scholarships, have been given to those who have thus been discovered to have high science talents.

This selection of students with research ability in science has become an institution and tradition due to approval from the educational world and the creditable records of winners, universities and professional positions.

In a real sense the annual Science Talent Search is more than a scholarship contest. It is a major step toward making scientific talent available for important tasks in our civilization. The participation of a great industrial organization in the financing of the annual Science Talent Search is a notable contribution to the advancement of science in America. This activity can be considered a support of "pure research" of importance equal to the fundamental researches in the Westinghouse Research Laboratories. Science and education are grateful for the financial support of the twenty-two Science Talent Searchers by the Westinghouse Educational Foundation, an organization endowed by the Westinghouse Electric Corporation for the promotion of education and science.

Science Service, engaged in the interpretation and popularization of science on a broad front, is proud of administering, through Science Clubs of America, the annual Science Talent Search. From the newspapers, educators and scientists of America there has been enthusiastic cooperation in this annual activity that means so much to high school seniors interested in science. The Science Talent Search is a continuing opportunity and responsibility of the more than 20,000 science groups and more than 700,000 members affiliated with Science Clubs of America.

FOR RELEASE: WEDNESDAY AFTERNOON, JANUARY 22, 1963

Honors Group in the Twenty-second Annual Science Talent Search

* indicates girls
HOME ADDRESS is underlined
H. S. indicates High School
AGE of winner follows name
Title of project reported submitted is on next line

ALABAMA
Talladega
Smith, Jackson Ellis 17 Talladega H. S. R. 41
Geometry in a Spherical Manifold

ARIZONA
Phoenix
*Owen, Ann 17 Camelback H. S. 3740 E. Piccadilly St. 3B
Mathematical Analysis of Three-Dimensional Tic Tac Toe
*Clements, Linda Lou 17 North H. S. 2725 E. Thomas Rd. 16
Differences Between Infant and Adult A-Antigen by Use of Immuno-Diffusion on Cellulose-Acetate Membrane Filters
Royce, Ronald Richard 17 North H. S. 4741 E. Oak St. 3
Circum-Cathodic Motion of the Ball-Of-Fire Mode in Gas-Filled Electron Emission Tubes with Thermionic Cathodes
Atchley, Alan Aubrey 16 West H. S. 824 W. Amelia Ave. 18
Demonstration of Planetary Motions Using an Analog Computer
*Crossland, Sydney Carol Ann 17 West H. S. 3311 W. College Dr. 17
Ionization of Air Upon Maze Learning Rate of Rats Measured by T-Stone Maze
Weissberg, Larry Stuart 17 West H. S. 3726 W. Cavalier Dr.
Influence of Preparatory Set on Perception

CALIFORNIA
Atherton
Bregman, Jack Mark 17 Menlo-Atherton H. S. 760 Menlo Oaks Dr.
Effect of Light on Distribution of Spores in Fungi

Bakersfield
Johnson, Erik Nels 17 Bakersfield H. S. 2901 1st St.
Mutagenic Effects of Radiation

El Cerrito
Jenson, David William 17 El Cerrito H. S. 16 Kerr Ave., Berkeley 7
Magnetic Core Logic Circuits to become the research scientists of the future.

Fresno
Poythress, Vern Sheridan 16 Ballard H. S. 1231 W. Escalon Ave. 5
Sums of Multinomial Coefficients

Granada Hills
Gordon, Bruce Roderick 17 Granada Hills H. S. 19222 Superior St., Northridge
Function and Metabolism

La Jolla
Tanaski, Theodore Graf 16 La Jolla Jr. Sr. H. S. R. 41, Box 20-G
Inverted Vacuum Tube Emitter Using the Ditmar Tube

Los Angeles
Mitchell, David Hillard 17 Venice H. S. 751 Greene Rd., Pacific Palisades
Effects of Low Temperatures on Plasma of Physarum polycephalum
Mitchell, Ralph Martin 17 Venice H. S. 751 Greene Rd., Pacific Palisades
Investigation of Existence and Properties of Superconductors
Cooper, Martin David 17 Westchester H. S. 6143 W. 75th Pl. 45
Use of Electromotive Force In Conversion of Heat to Electricity
Engelbrecht, Glenn Eric 17 Westchester H. S. 111 Gillis St., Playa Del Rey
Summation of Power Series with Polynomal Coefficients

Palos Verdes Estates
*Gregory, Alina Elizabeth 17 Marymount H. S. 309 Via Linda Vista, A Concept of Antibody Production

Pasadena
Gibson, Kim Dean 18 Pasadena H. S. 502 Lakeview Rd.
Graphs of Imaginary Values of Functions

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Cicero
Bedrosiansky, Erwin Raymond 17 J.S. Morton H.S., East 5331 W. 25th Pl. JH Chromatographic Separation of Mik1, K+, and Li+ Ions

Deerfield
Neilsen, Walter B., Jr. 17 Deerfield H.S. 707 Osterman Ave. Electrophoresis

Des Plaines
Schaefer, John Arthur 17 Maine Twp. H.S., West 1339 Custer St. Methods and Study of Nervous and Muscular Activity

Downers Grove
Thurn, Craig Edward 17 Downers Grove Community H.S. 4622 Douglas Rd. Spectroscopy

Evaston

Glencoe
Gayle Wallace 17 Evanston Twp. H.S. 1131 Cleveland St. Retention into Adulthood of Responses Conditioned in Mealworm Larvae

Goldstein, Michael Louis 17 Evanston Twp. H.S. 3857 White Cloud Dr. Partial Study of Cobalt (II) and Cobalt (III) Ions

Klamann, John Arthur 17 Evanston Twp. H.S. 1505 Craig Preliminary Investigations of Thiacetamidine Additions in Sulfide Precipitation

LaGrange
Pols, James Harry 17 Evanston Twp. H.S. 1013 Ashland Ave. Optical Multiplexing of Audio Signals


Long, Charles Anthony 17 Lyons Twp. H.S. 1325 Walnut, Western Springs Crystal Whiskers of Ionic Salts

Park Ridge
Camelio, Emma A. 17 Maine Twp. H.S., East 2556 Ballard Rd., Des Plaines Investigation Concerning Possible Existence of Lichens on Planet Mars

Spieser, Janet Lee 16 Maine Twp. H.S. East 1125 S. Washington St. Recalcitrance

Riverside
Religa, Noel Mary 17 Riverside-Brookfield H.S. 2805 Knights Rd. Effects of Radiation on Developing Organisms

Schwal, Carol Marguerite 17 Riverside-Brookfield H.S. 240 Maplewood Rd. Selection for Reduced Recovery of Yellow Ferred and Yellow Ferrous Attached-Females in Drosophila melanogaster

Rockford
Carrique, Diane Christine 17 East Sr. H.S. 5700 Breedenwood Dr. Comparative Effects of the Thymus Gland

Rock Island
Clevensline, Emmet Corbin 17 Rock Island Sr. H.S. 2332 6th St. Study of Photosensitive Pigments

Skokie
Bramson, Martin Arnold 17 Niles Twp. H.S. West 6952 N. Crawford, Niles Effects of Chlorocic and Its Isomers on the Salvinia Gland Chromosomes of Drosophila melanogaster

Wheaton
Smucker, David Eugene 17 Wheaton Community H.S. 410 Howard St. Effect of Altitude on the White Rat

Terre Haute
*Prox, Jane Ann 17 Schults H.S. R.R. 4 Chromatography and Leaf Pigments

IOWA
Bettendorf
*Roller, Frances Mary 16 Bettendorf H.S. R.R. 1 Box 194 Selective Refraction of Sounds

Boone
Dorer, Francie Paul 17 United Community H.S. R.R. 3 Winter Bird and Breeding Bird Populations on 13.8 Acres in Iowa

Cedar Falls
Tietz, John Charles 16 Cedar Falls H.S. 602 W. 11th St. Polyhedra — Ellipsoids with More Than Two Focal Points

Mason City
Olsen, Richard Lowell 16 Mason City H.S. 319 1st St. S. E. High Temperature Plasma Techniques Necessary for a Controlled Thermonuclear Reaction

KANSAS
Manhattan
*Fick, Ruth Ellen 17 Luskey H.S. R.R. 3 Analysis of Several Insect Hemolymphs that Appultinate Human Erythrocytes

Lambert, John Vincent 17 Luskey H.S. 600 Rutone St. Survey of Availability of HPCHDTA as a Chemical Accellerator

Whitehair, Norman Allen 16 Luskey H.S. 121 N. 9th St. Tests Proving Smoking Tobacco, Snuff and Cigarettes Do Not Contain Mutagenic Agents

Frisco Village
*Fleitz, Michele Rhona 17 Shawnee-Mission East H.S. 5845 Sunrise Dr. Determination of Molecular Weight and Hydrodynamic Parameters by Means of Ultracentrifugation and Viscosity Data

Topeka
Beeson, Michael James 17 Topeka H.S. 1617 Grove Radiometric Effects of Chlorambucil

LOUISIANA
New Orleans
Marshall, Rudolph James III 16 Benjamin Franklin H.S. 4320 Clara St., 15 Testing the Law of Mass Action

Smith, Martin Leo 17 Benjamin Franklin H.S. 4934 Citrus St. Polarographic Oxygen Determination

MAIN
Kittery
*Collins, Susan Elizabeth 17 Robert W. Traip Academy 15 Williams Ave. Effects of Gonadal Hormones in Parabiosis

MARYLAND
Baltimore
*Milly, Susan May 17 Institute of Notre Dame 340 Crocker St., Bel Air Statistical Analysis of Tests Given to Determine Presence of Extra-Sensory Perception

Hornstein, Robert Michael 17 High Point H.S. 9290 Brum Mawr Rd., Bel Air Hemagglutinins from Seeds

Baltimore
Berg, William Edith 17 Walter Johnson H.S. 4509 Fonda Dr., 14 Hemagglutinins from Seeds

Bethesda
Murray, William Elwood 17 Walter Johnson H.S. 4509 Fonda Dr., 14 Hemagglutinins from Seeds

Baltimore
Decatur
Schwarz, David Alexander 17 Decatur H.S. 5222 Eastside Dr. Comparative Effects of the Thymus Gland

Swickard, David Alexander 17 Decatur H.S. 5222 Eastside Dr. Comparative Effects of the Thymus Gland

Delphi
McCall, David Robert 17 Aspen Technical H.S. 523 N. Keystone 1 Differeniation Between Current and Voltage Sensitivity in Paramica
d

Greenwood
Smuck, Ethel William 17 Greenwood Community H.S. 222 E. Washington Physical and Psychological Effects of a Prolonged Stay Underwater

Highland
Larrabee, James Frank 17 Highland H.S. 2214 Cooper Ave. Classical Analysis of Some Borderline Magic Squares

Indianapolis
Wisomower, Michael Andrew 17 Arsenal Technical H.S. 593 N. Keystone 1 Physical and Psychological Effects of a Prolonged Stay Underwater

Rochester
Deane, Philip Timothy 17 Rochester H.S. East Lyman-Mc. Zion Do There Exist an Odd Perfect Number?

Seymour
Kelly, Robert James II 17 Seymour Sr. H.S. 1111 Gaiser Dr. Differentiation Between Current and Voltage Sensitivity in Paramica
d

South Bend
Martin, Richard Allan 17 John Adams H.S. 110 N. Elsworth Pl. Relation of Volume to the Pressure Behavior of Rats

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Russian, Donald Lawrence 17 Bridgewater-Raritan H.S. Rt. 2, Box 1130
Visible Effects of Radiation on Diatoms
Marlinsville

Teaneck
Lester, Henry Allen 17 Teaneck H.S. 600 East Lawn Dr.
Modulating Microwaves by Varying Plane of Polarization with Ferrites

West Orange
Waxman, Stephen George 7 Mountain H.S. 19 Mellen Ave.
Skin Homografts in Rats

NEW MEXICO
Dever, Robin Kent 17 Highland H.S. 420 Monticure S.E.
Genetics, Disease and Hemoglobin
Falck, Melvin Simpson, Jr. 17 Highland H.S. 400 Palomas Drive N.E.
Design, Development and Testing of a Super-Regenerative Video Detector

Albuquerque

Baldwin
Nevin, Donald Michael 17 Baldwin H.S. 610 DeMott Ave.
Numerical Sequence Which Yields Prime Numbers

Bayside
Elbert, Larry Emil 16 Bayside H.S. 23-03 164th St., Flushing 58
Energy Output Characteristics of the Optical Ruby Laser

Brooklyn
Fropper, Ralph Leonard 15 Bayside H.S. 15-26 200th St. 60
Determination of Relative Sizes of Organic Radicals by a Method of Racemization
Warner, Philip Mark 16 Bayside H.S. 234-03 38th Ave., Little Neck 63
Cellular Control Mechanisms - Induced Synthesis of Beta-Galactosidase in Escherichia coli

*Bodner, Rachel 16 Abraham Lincoln H.S. 125 Neptune Ave. 35
Phototropic Response of Coleus Plant to Varying Amounts of Injected Iodoxybutyric Acid

Silklin, Nancy Laura 16 Abraham Lincoln H.S. 2341 Ocean Pkwy. 23
Action of Neurosecretion from the Corpora Cardiaca of Leucophaea maderae on Nervous Activity, Heart Beat and Behavior
Aronson, Joel Peter 16 Erasmus Hall H.S. 302 Eastern Pkwy. 25
Effect of Varying Light and Darkness Exposures on Rat Sleeping Time
Elias, Laurence 16 Erasmus Hall H.S. 1203 Newkirk Ave. 30
Pyrozone as a Geochronometric Thermometer
Fetell, Michael Richard 15 Erasmus Hall H.S. 325 Ocean Ave. 25
Effects of Lysosome on Sarcina lutea

*Gerber, Miriam 15 Erasmus Hall H.S. 61 Eastern Pkwy. 38
Hydroxyvitamin A in Mice
Kate, Matthew Mark 16 Erasmus Hall H.S. 201 Crown St. 25
Measuring of Escherichia coli K-12 Chromosome

Using Genetic Recombination
Kirsch, Edward Barry 16 Erasmus Hall H.S. 1268 Albany Ave. 3
Disaggregation of Iris Mesophyll Tissue and Propagation in vitro

Leslie, Bruce Robert 15 Erasmus Hall H.S. 50 S. 1lst St. 25
Mapping Study of Genetic Mutation Sites of the rfl Region in Bacteriophage T7

Loomer, Jerrold Stanley 15 Erasmus Hall H.S. 71 Ocean Pkwy. 18
Staining Affinities of Acidophilic and Basophilic Dyes on White Blood Cells and Artificial Systems
Miller, Zachary Ian 16 Erasmus Hall H.S. 100 Woodruff Ave. 25
Effect of Thyroxin on Various Stages of Development of the Chick Embryo

Peasonberg, Paul Allen 15 Erasmus Hall H.S. 277 Rugby Rd. 25
Physiological Effects of Ionized Air on Mice
Silverstein, Alvin Jerome 16 Erasmus Hall H.S. 10 Ocean Pkwy. 18
Induction of Tumors in Carrots by Agrobacterium tumefaciens
Press, Robert Arthur 15 James Madison H.S. 2789 Ocean Ave. 29
Effects of Protein-Deficient Diet on Blood of Rats
*Kolkin, Marjorie Ena 15 Lafayette H.S. 2101 75th St., 4th
Determination of Terminal Nucleoside of sRNA

Kramer, Kenneth 16 Lafayette H.S. 9578 Bay Pkwy. 14
Finite Geometry in the Modular Plane

NEW JERSEY

Butler
Ourban, Robert Arnold 17 Butler H.S. 626 Mountain Rd., Smoke Rise, Butler P.O.

Oham
Siemons, Michael Leonard .7 Central H.S. 1807 N. 50th St. 4
Investigation of the Four Color Theorem

Schuyler
Cady, Kenneth Stanley 17 Schuyler H.S. Rt. 1, Clarkson
Copper (II) Sulfate and Its Complexes

New Hampshire

Exeter
Spot Cycles of Jupiter and Saturn

New Jersey

Burlington
Garib, John Arnold 17 Burlington H.S. 526 South St.
A Language Translator

Newton
Rosen, Barry Kumin 17 Newton H.S. 409 Crafts St. 60
Mathematical Theory of Scientific Explanations

North Plainfield
Simpson, Joan Eve 17 North Plainfield H.S. 15 Lifeave Rd., Squam Lake 71
Research on Bacilliophytae in Quincy Bay

Reverchon
Antonacci, Vincent Thomas .7 Revere H.S. 6 Sprague St. 51
Growth Inhibitory Effects of Several Aflatoxins on Escherichia coli

Springfield
Hammer, Robert Alexander 16 Classical H.S. 60 Columbus Dr. 8
Blood Protein Analysis

Orthogonality of Eigenvectors

Waltham
Julien, Paul Charles 17 Waltham H.S. 24 Coolidge Ave. 54

MICHIGAN

Ann Arbor
Joeris, Leonard Simon, Jr. 17 Ann Arbor H.S. 1502 Morton
Two Freon Bubble Chambers

Detroit
*Padgett, Christine W. 16 Denby H.S. 1600 Logan Rd. 5

Highland Park
Moore, William George 17 Highland Park H.S. 67 Puritan St. 3
Histochromic Investigation of Muscle Tissue in Three Stages of Growth

Midland
*Gill, Pamela Kay 18 Midland Sr. H.S. 711 Chatham Dr.

Oak Park
Hauptman, Larry 17 Oak Park H.S. 24501 Harding Rd.
Capillary Tube Method of Electrophoresis

MINNESOTA

St. Paul
Gustafson, Steven Carl 17 Alexander Ramsey H.S. 912 W. County Rd. D 12
Charge to Mass Ratio of Carbon Particles in Electrically Deflected Flames

MISSISSIPPI

Greenville
Hafer, Jerome Charles 17 Greenville H.S. 210 Wetherbee St.
Computer and Its Applications in Technical Research

Jackson
*Reed, Mary Margaret 17 William B. Murrah H.S. 105 Robinson Rd. 6
Marine Plankton Diatoms of Mississippi Sound

MONTANA

Anaconda
Smith, Kenneth Arthur 16 Anaconda Sr. H.S. 1311 W. 3rd St.
Lunar Surveilled

"White, Dorothy Ann 17 Anaconda Central High S. 1003 W. Fourth St.
Soil Bacteria - Source of Antibiotics

Choteau
*Chalmers, Ann Leslie 17 Choteau H.S. R. R. 4

Sunburst
Schlegel, Oscar Thomas 17 North Toole County H.S. 3400
Experiments with a Repulsion Cell

NEBRASKA

Omaha
Siemons, Michael Leonard .7 Central H.S. 1807 N. 50th St. 4
Investigation of the Four Color Theorem

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Cady, Kenneth Stanley 17 Schuyler H.S. Rt. 1, Clarkson
Copper (II) Sulfate and Its Complexes

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Exeter
Spot Cycles of Jupiter and Saturn

NEW JERSEY

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Butler
Ourban, Robert Arnold 17 Butler H.S. 626 Mountain Rd., Smoke Rise, Butler P.O.
Brooklyn
Tischfield, Jay Arnold 16 Lafayette H.S. 123 Ave. P 4
Transference of Radioactive Materials in Marine Bioes
Garson, Jerrold 17 Midwood F.S. 1040 E. 133 St. 40
Effects of Antibiotics on Morphology and Physiology of Serraria marcescens
Willig, Robert Daniel 16 Midwood H.S. 1250 E. 21st St. 10
Effect of Temperature on Ionic Mobility in Liquids
Bretl, Elias 16 New Utrecht H.S. 1501 53rd St. 19
Determination of nth Term of an Infinite Repeating Series
*Schwartz, Madeleine Joyce 17 Yeshiva of Flatbush H.S. 1324 Brooklyn Ave. 3
Buffalo
Flor, William John 17 The Niels School 402 Plymouth Ave. 13
Simulation and/or Toxic Effects of Antibiotic Phenylaacetyl spectrum
Zinger, Arthur Richard 17 Lawrence H.S. 511 Church Ave. Woodmere, L.I.
Slope Walls in Thin Iron Oxides
Elmira
Hall, James Alexander, Jr. 16 Notre Dame H.S. 106 Durand Ave.
Mechanics of the Vibrating String
Farmingtondale
Freeman, Richard Walter 17 Farmingdale Sr. H.S. 27 Fourth Ave.
Rotary Dispersion of Cellulose Tape
Far Rockaway
Small, Eric 16 Far Rockaway H.S. 188 Beach 130th St. Belle Harbor, Queens
Microwave Communications
Flushing
Berenzeid, Harold Karl 16 Francis Lewis H.S. 70-24 168th St. 62
Effects of Ciliary Apparatus of Selected Cephalopods on Mitosis of Micrococi
Nathan, Neil Jay 15 Francis Lewis H.S. 216-17 68th Ave., Bayside 64
Chromatography and Electrophoresis as Applied to Separation of Hemicelluloses
Stem, Carl Russell 15 Francis Lewis H.S. 64-15 33rd St., Bayside 64
Comparison of Amino Acids in Bacillus subtilis and Paramecium bursaria
Forest Hills
Abeles, Michia 17 Forest Hills H.S. 110-33 72nd Ave. 73
Relationship of Plant Growth to Sonic Stimuli
Aronson, Peter Samuel 15 Forest Hills H.S. 68-27 136th St. 67
Investigation of Asymmetric and Asymmetry of Alcoholic Leads on Chlorophyll A
Chang, Stephen Peng 15 Forest Hills H.S. 110-17 64th Rd. 75
Chemically Produced Sabondi's in Benzopyrones
*Rimel, Jane Betty 15 Forest Hills H.S. 404-04 95th St. 74
Effect of Darkness on Central Nervous System of Rat Under Varying Environmental Conditions When Subjected to Hormone Experiments and Drugs
Rosenfield, Eric H. 16 Forest Hills H.S. 105-10 Queen Blvd. 75
Sound Source Localization by the Human Ear
*Schuler, Jacqueline Marjorie 16 Forest Hills H.S. 104-15 66th Ave. 75
Test of the Arousal Theory of Exploratory Behavior Using Two Psychoactive Drugs
Franklin Square
Waldman, Robert Harvey 17 Valley Stream North H.S. 62 Dunmore Pl.
High Speed Computer Investigation into Prime Pairs, Malvern, Pa.
Garden City
Potter, Douglas Marion 17 Garden City H.S. 39 Transverse Rd.
Harmonic Analysis
Great Neck
Scheib, Robert Sidney 17 Great Neck S.S. H.S. 15 Norfolk Rd.
Effect of Irritability on Transplanted Melanomas in Mice
Hambug
DePasquale, John Leonard 17 Hamburg Central H.S. Lake St. Angola
Acetate Populations of Six F1 Hybrids Between Mice
Hicksville
Yano, Arne William 16 Hicksville Sr. H.S. 15 Straw Lane
Kinetik Study of Reduction of Au(CN)2 to Au(CN)0
Islip
Vasey, James Walton 17 Islip H.S. 2189 Deer Park
Game Theory
Itasca
Seeley, Daniel Henry 17 Itaca H.S. 1216 Ellis Row Rd. R. P. D. 62
Experiment in Mice Learning with Turtles and Mice
Wright, Timothy William 17 Itaca H.S. 203 Root St.
Experiment to Test Ability of Young Lemon Sharks and Young Bull Sharks to Learn
Jamaica
*Baillie, Linda Mae 16 Jamaica H.S. 139-37 87th Ave. 35
Percentage of Error in Work of First Year Physics Students in the Laboratory
Effects of Colchicine on Polyploidy in Plectranthus acrostisoides

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Jamaica
Doblin, Ellen Margaret 16 Jamaica H.S. 179-33 Grand Central Pkwy. 32
Freerack, Albert E. 16 Jamaica H.S. 139-59 86th St. 35
Goodbread, Joseph Henry 16 Jamaica H.S. 179-33 86th St. 35
Observation of Axial Domain Wall Propagation in Thin Iron Whiskers
Lambert, Glen A. 15 Jamaica H.S. 139-50 86th St. 35
Effects of Psychological Cues on Phenomenon of Binocular Fusion
Shaw, Richard Jeffrey 16 Jamaica H.S. 139-50 McLeavag Ave. 37
Electronicrocin in the Gutta Pucca and Its Effect on Growth
Ruskin, Marvin Lloyd 16 Kenmore West Sr. H.S. 376 Knowlton Ave. 23
Defects in Crystal Structure of Sodium Thiosulfate Pentahydrate
Starkschall, George 10 Sachen H.S. 7 Willis Ave.
Simple and Complex Solubility Effects of Sulfones of Transition Metals
Martin, Ronald Michael 17 Island Trees H.S. 44 Constellation Rd.
Leavenworth, Learning Process in Computers
Stenger, Mark Harold 17 Island Trees H.S. 7 Kemo Lane
A G System of Trigonometry
Libman, Lawrence Charles 17 New Rochelle H.S. 308 Chestnut Rd.
Determination of Optimal pH of Alpha Amanita Activity
Nowinski, Robert Charles 17 New Rochelle H.S. 142 Terrace
Transfer of a Specific Tissue Immunity to Newborn Rats with Immune Cell Transplants
Determination of Role Cell Wall in Growth and Adsorption of Bacterioflages
Serber, Daniel Paul 17 New Rochelle H.S. 255 Storer Ave.
The Thermochromism of the Inorganic Oxides
Ameen, Ramsey Mark 17 Bronx H.S. of Science 787 E 175th St. 60
Application of Numerical Analysis to Information Theory
*Braverman, oren 15 Bronx H.S. of Science 787 E 175th St. 60
Prediction of Dominant Wavelength of Absorption of an Inorganic Metal Salt
Cappell, Sylvan Edward 16 Bronx H.S. of Science 129 W 19th St. 68
Theory of Conductivity of Groups with Special Reference to Generalized Non-Abelian Logics
*Chase, Deborah 16 Bronx H.S. of Science 895 W 22d Ave. 25
Findings on Simultaneous Production by Cells of an Anti-Viral Agent and a Host-Poisoning Factor in Response to Inactivated Viruses
Dichter, Robert Harry 16 Bronx H.S. of Science 57 W 73rd St. 23
Possible Use of Polarographic Methods for Determination of Some Amanita Lattases and Tetracyclines
Dotes, Lance Meredith 16 Bronx H.S. of Science 100-10 67th Rd., Forest Hills
Time Dependence of Pentobarbital in Conditioning
Friedman, Norman Ebb 16 Bronx H.S. of Science 2255 Morris Ave. 53
Looping and Non-Looping Systems of Logic in Mathematics
Grassman, Stuart David 16 Bronx H.S. of Science 135 E 164th St. 52
Geometric-Theoretical Considerations of Isomorphisms of a Euclidean Space on Itself
Koontz, Donald Warren 16 Bronx H.S. of Science 910 W 22d Ave. 25
Physical Aspects of Drug Substances
Milford, Edgar Louis, Jr. 17 Bronx H.S. of Science 365 S. Middletown Rd.
Macro-Instruction Translating System
Perelson, Alan Stuart 15 Bronx H.S. of Science 40-45 Hampton St.
Velocity Profile and Axial Accumulation of Blood
Raper, David Dorn 15 Bronx H.S. of Science 33-37 St. James Ave.
Investigation on Post Log Phase of Growth Curve
Saneter, Attila 15 Bronx H.S. of Science 550 W 234th St. 68
Analysis of Stimulus Alternation Behavior in Mice
Tischler, Arthur 16 Bronx H.S. of Science 277 E 237th St. 60
Reversal of Toxic Effects of Nicotine Acid on Cerebrospinal Fluids
Weinberger, Alan Paul 16 Bronx H.S. of Science 40 Payson Ave. 34
Cross-Resistance of Bacteria to Streptomycin and Arsenopyrin
Zaslows, Michael Alan 16 Bronx H.S. of Science 125 Riverside Dr. 26
Pirgu, 18 Hegerer on A Biotechnical Inquiry into Influencing Factors Chakin, Joshua Samuel 15 Stuyvesant H.S. 21-55 34 Ave. Long Island Preparation of Electrodes from Polyurethane Setting

New York

Incompounds

Fries, Brant Elias 16 Stuyvesant H.S. 520 sAve, Brooklyn 17
Progressive Studies in Electrical Mechanical Machines with Special Application to the Solving of Ciphers

Hirsch, William Alan 16 Stuyvesant H.S. 160 Ocean Pkwy., Brooklyn 18
Thermoelectric Junction Parameters

Rabin, Richard Illard 16 Stuyvesant H.S. 2630 Cropsey Ave., Brooklyn 46 Roles of Copper and Cobalt in Erythropoesis, Hemoglobin 14

Steinlauf, Michael Charles 15 Stuyvesant H.S. 3104 Brighton Ave., Brooklyn 35
Development of the Funtion P(n) 7

Wacholder, Bernard Guy 16 Stuyvesant H.S. 2607 Kings Highway, Brooklyn 29 Photo-Conductivity in a Semiconductor as Related to Optical Absorption and Carrier Mobility

Pelham, St. Mary, Jonathan Lawrence 16 Penfield Jr. H.S. 37 Stoney Dr.

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Queens Village

Pelham Manor

Pelham Manor

Penfield

St. Mary, Jonathan Lawrence 16 Penfield Jr. H.S. 37 Stoney Dr.

The Lockport DolomiteDeposition

Queens Village

*Pelcher, Lesore Zen 17 Martin Van Buren H.S. 83-15 Commonwealth Applications of Nomography to Prediction of Electric Power, Acceleration, and Young's Modulus by Methods of Determinants

Sassen, Roger 16 Martin Van Buren H.S. 821 213 St. 27
Geochemistry of Organic and Metallic Compounds in Coals, Shales and Limestones

Silverberg, John 15 Martin Van Buren H.S. 70-08 327 St. Floral Park Exchange of Ions in Resins and Radish Root Tips

Rome

*Cecilia, Carla Elizabeth 17 Rome Free Academy 121 E. Pine St.


Reactions of Trichloroethanesulfenyl Chloride with Isocyanate and Phosphate Group

Shaker Heights

*Knoll, Mark Sador 17 Shaker Heights H.S. 3123 Avon Rd.

Laminarian of Euclipsa gracile

Springfield

*Rothenberg, Albert A. 15 Urbana H.S. 511 N. Main St.

Acceleration of Fluid Particles in a Centrifugal Pump Impeller

State Island

Clayman, Jamie Norman 17 Curtis H.S. 71 E. Sand St.

An Inorganic Microanalysis

Siegel, Paul David 15 Curtis H.S. 49 Loretto Ave.

Effects of Nitrous Acid on Oxidizing Powers of Nitric Acid

Smith, Jesse Leonard 17 Curtis H.S. 127 Ezra Ave.

Thermoluminiscence

Swartz, Joel Barry 17 Curtis H.S. 599 Pelton Ave.

Relationship Between Mechanical Frequency and Radiation Frequency of a Bohr Electron

White Plains

Young, Richard Allen 17 White Plains H.S. 42M Rockledge Rd., Hartsdale Removal of Radioactive Strontium from Milk

Whitehorse

Finn, Michael Patrick 17 Whitehorse Central School 47 Walnut Dr.

Toxic Effects of Salicylic Acid on Kidneys

NORTH CAROLINA

Carroll, Robert Lee, Jr. 17 Clinton H.S. Box 5, Turkey Design and Construction of an Electronic Computer Car

Kelly, Charles Charles 17 N. B. Broughton H.S. 613 Macon Pl.

Cognitive Effects of Acceleration

Carroll, Robert Lee, Jr. 17 Clinton H.S. Box 5, Turkey Design and Construction of an Electronic Computer Car

Salem

Farris, Karl Dwayne 17 South Salem H.S. 1700 Fair St.

Acetylcholine—Water Reaction in Relation to Hydrates

Pennsylvania

Hatfield, Robert Andrew 17 Carlisle Sr. H.S. 1818 Spring Rd.

A 3-MEV Neutrons Generator and 100 Kev X-Ray Source

NORTH DAKOTA

Marx, Kathleen Lawrence 17 Assumption Abbey Prep School 
Fairfield

Antibiotics in Cacti?

Walshen, Richard 17 Washene Central H.S. 592 7 Ave. N.

Metabolism in Bats and Mice Under Varied Conditions

OHIO

Kallman, Robert Richard 17 Archbishop Hoban H.S. 3577 West 73 St.

Elementary Proof of Prime Number Theorem

Bedford

Hox, Richard Peter 17 Bedford Sr. H.S. 647 High St.

Synthesis of Amino Acids

Sadownik, Thomas Michael 17 Bedford Sr. H.S. 1261 Alexander Rd.

Anatomical and Biochemical Study of Gallbladder Melanoma

Cleveland

*Yavorsky, Carol Ann 17 Bedford Sr. H.S. 17735 Alexander Rd.

Study of Anserine Bacteria for Use in A Low Cost Energy Source

Konopka, Ronald Jerome 17 Cuyahoga Heights H.S. 5898 Wasaw Rd.

Amino Acids - Key to Regeneration


Hexose-Monophosphatase Shoot in glucose Metabolism by Penicillium chrysogenum

*Danke, Carol Ann 17 Lourdes Academy 3518 W. 127 St.

Construction and Use of Polarograph in Determining a Table of Reduction Potentials for Study of Quinoid System of Organic Compounds

Cleveland Heights


Construction of a Geiger-Muller Tube Coincidence Counter to Detect Origin of Cosmic Radiation and Determine Relationship of Cosmic Radiation to Earth's Topography

Elyria

Daney, Charles Gary 17 Elyria H.S. 397 E. River St.

Effects of Additives on Crystal Growth

Harmon

Steinmetz, Wayne Edward 17 Huron H.S. 407 Huron St.

Reactions of Trichloroethanesulfenyl Chloride with Isocyanate and Phosphate Group

Shaker Heights

*Knoi, Mark Sador 17 Shaker Heights H.S. 3123 Avon Rd.

Laminarian of Euclipsa gracile

Urbana

*Koch, Carol Ann 15 Urbana H.S. 511 N. Main St.

Acceleration of Fluid Particles in a Centrifugal Pump Impeller

West Alexandria

Greenfield, John Charles 17 West Alexandria H.S. 66 W. 3rd St.

Comparative Wave-Length Effects on Photosynthesis

Steiner, Richard Wayne 17 West Alexandria H.S. 40 Smith St.

Observations of Alpha-Particle Emission

OKLAHOMA

Moskowitz, John Lee 17 Central H.S. 2921 Oklahoma St.

P-N Junctions Depending upon Surface State Properties

Oklahoma City

Smith, Diane Marie 18 Classen H.S. 526 N.W. 17th St.

Thyman—Its Effects on Resistance to a Parasitic Infection of a Bird Electron

Helmer, Jo Lynn 17 Tardington H.S. 1500 N.W. 49th St

Effects of Polychlorinated Hydrocarbons in Bacterial Metabolism

Daugherty, Walter Chinholm 18 Putnam City H.S. 5944 N. Redmond 22 Method for Generation of Primes and Tests for Primeness of Miscellaneous Numbers

Ponca City

*Clarke, Linda Darlene 17 Ponca City Sr. H.S. 2403 Bluebird Lane

Quantitative Study of Mitochondria in Lymphocytes of Mice

Tulsa

Hawley, Fred Graham 17 Thomas Edison Jr. Sr. H.S. 5811 E. 71st St.

Study of Surface Active Agents

OREGON

Gaskell, Robert Weyand 17 Corvallis Sr. H.S. 416 Crescent Valley Dr.

The Vortex Theory of Matter

Corvallis

*Roberts, Sarah Carlisle 17 South Salem H.S. 1700 Fair St.

Acetic Anhydride-Water Reaction in Relation to Hydrates

Carlisle

Hatfield, Robert Andrew 17 Carlisle Sr. H.S. 1818 Spring Rd.

A 3-MEV Neutrons Generator and 100 Kev X-Ray Source

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Philadelphia
Bilk, Mark Steven 17 Central H.S. 6732 Lyndale St. 49

Shapiro, Arthur Maurice 17 Central H.S. 7636 Tharoun Ave. 50

Genetics and Variation of Collas Butterflies

Wilkes-Barre
Yervat, Marguerite Mary 16 St. Nicholas H.S. 825 E. Northampton St.
Protection from Total-Body Irradiation

Wyomissing
Factors Affecting Hydrogen Peroxide Decomposition by Catalase

TENNESSEE

Memphis
Casini, Michael Peter 18 Christian Brothers H.S. 3205 S. Waynoka Circle
Use of Turtle Red Blood Cells in Hemagglutination Test

Kitchens, Charles Herschel 17 Messick H.S. 203 Perkins Ext. 17

Petroleum and Structural Aspects of Precambrian Silts in the

Pony Greens of South London Hills, Madison County, Montana

Emerick, Phillip Terry 17 Treadwell H.S. 1024 Treadwell St. 22

Measurement of Lunar Formations

Newton, Shirley Louise 17 Treadwell H.S. 2551 Hubbard St. 8

In Irradiation of Seeds Beneficial to Plant Growth?

Carney, Robert Spencer, J r. 17 White Station H.S. 500 Colonial Rd. 17

Nerve and Muscle Tissue Responses to Alternating Current

Oak Ridge
Culver, David Alan 17 Oak Ridge H.S. 110 Cassnepe Dr.
Effects of Infrared and Ultraviolet Light on Germination and Growth of Lettuce Plants

* Savage, Serena 17 Oak Ridge H.S. 108 Norman Lane

Color and Eye Adaptation

Teguie, Benjamin Harrison III 17 Oak Ridge H.S. 120 W. Maiden Lane

Non-Standard Matrix Operations

TEXAS

Austin
Ellison, John Robert 17 Stephen H. Austin H.S. 5305 Oakmont St. 3

Effect of Magnetism on Living Organisms

Fruchter, Jonathan Sewell 17 Stephen H. Austin H.S. 1216 Norwood Rd. 22

Conditions of Biosynthesis of Betacyanin Pigments in Beta vulgaris

Clarksburg
Jordan, Lawrence Monroe 18 Clarksburg H.S. 202 Circle Dr.

Certification Reaction

Corpus Christi
Kennedy, Kathleen Elizabeth 16 Incarnate Word Academy 436 Del Mar Blvd.
Investigation of Pigmentation and Antibiotic Properties

of Multicellular Marine Algae in Corpus Christi Bay Area

Dallas
Ash, James Lee, Jr. 17 Bryan Adams H.S. 5209 Sorrento St. 28

Effects of X-Rays on Living Cells

Greene, Harold 17 Thomas Jefferson H.S. 3923 Cortez Dr. 20

Rond Una-Dilute Geometry

Thornton, William Keith 18 Thomas Jefferson H.S. 5233 Greenbrier St. 9

Mandibular Condylar Fracture Dissections

Harlingen
Alexander, Gerald Morris 17 Harlingen High S. 1638 Murray St.

Study of Sublimal Stimulation

Houston
Timmie, Robert Howard 18 Jesse H. Jones H.S. 6292 Southbrook Dr. 17

Nutrient Passage Through Plant Grafts as Tested with Radioisotopes

*Bybee, Ann Marie 17 Memorial H.S. 5951 Wickford St. 24

Drug Effect on Normal Tissue Respiration

*Reif, Catherine Lee 17 Memorial H.S. 12118 Queensbury St. 24

Pigment of Sarcina algae

Plains
Tippett, James Milton 17 Plains H.S. Box 454

Possible Correlation Between Jupiter's 18 Megacycle Resonance and Its Atmospheric Features

UTHA

Salt Lake City
*Dickman, Susan J. 17 Highland H.S. 1892 Nevada St. 8

Histamine and SRS Release During Anaphylaxis

Firmage, Robert Darrell 18 Highland H.S. 2694 Eagle Way 8

Theory of Origin of Craters of the Moon

VIRGINIA

Alexandria
Work with Organosilicon Intermediates and Silicone Elastomers

Arlington
Zalkind, David Laster 17 Wakefield H.S. 1510 S. Edgewood St. 4

Development of a Method of Mathematical Rewiring with Application to Prime Numbers

Lord, Charles Ellis 17 Washington-Lee H.S. 2000 N Adams St. 1

Gas Cloathine Stability as an Index to Anesthetic Potency

Baker, James Karl 17 Yorktown H.S. 6301 16th Rd N. 11

Computational Methods for the Theory of Games

Miller, James Carson 18 Patrick Henry H.S. Box 601

Transformations in Artificially Induced Non-Luminous Mutant Cultures of Photobacterium fisheki by Treatment with DNA

Extracts Taken from Normal Cultures

McLean
Hodges, John Alfred 17 McLean H.S. Rt. 2, Box 452

Study of Pythagorean Triplets

* Lynch, Lucy Ann 17 McLean H.S. 4638 Tomkins Dr.

Investigation of Metabolism Changes of Albino Rats Under Stress

Maynard, Julian Decatur, Jr. 17 Warwick H.S. 24 Douglas Dr.

Mathematical Game Played by an Analog Computer

Richlands
Gillespie, James Earnest 18 Richlands H.S. Box 364

Effects of Systemic Detergent on White Mice

WASHINGTON

Bothell
Wegner, Gary Alan 18 Bothell H.S. 9209 N.E. 191st St.
Clues to the Origin of the Planet's Markings

Port Townsend
Milton, Kimball Alan 18 Port Townsend H.S. 1208 Jackson St.
Rectification Properties of Halide-Ion Contaminated Ice

Seattle
Kauffman, Peter Carr 17 Ballard H.S. 7231 33rd St. N.W. 7

Determination of Chromium-51 in Sea Water Samples

WEST VIRGINIA

Charleston
*Frame, Brenda Karen 17 Stonewall Jackson H.S. 406 Donally St. 1

Do Cigarettes Have a 'Fowl' Effect on Chickens?

WISCONSIN

Beaver Dam
Whitner, Roger Dean 17 Beaver Dam Sr. H.S. R.H. 3

Theoretical Investigation of the Oblique Telescope

* * *
Washington Trip Winners
of the
Twenty-second Annual Science Talent Search®
for the Westinghouse Science Scholarships and Awards

The forty Washington trip winners of the 22nd Annual Science Talent Search, among whom $34,250 of Westinghouse Science Scholarships and Awards will be distributed, represent about 1% of those who completed entries in this scientific and educational competition.

Designed to discover and develop scientific ability among high school seniors, the Science Talent Search is conducted annually for the Westinghouse Science Scholarships and Awards by Science Clubs of America, administered by Science Service, 1719 N Street, N.W., Washington 6, D.C.

Nine girls and 31 boys (proportion determined by ratio of boys and girls completing entries) are being invited to Washington, D.C., for an all-expense trip February 27 through March 4, 1963, to attend the Science Talent Institute. Here five winners will be selected by the board of judges to receive one of the following Westinghouse Science Scholarships: $7,500 ($1,500 a year), $6,000 ($1,500 a year), $5,000 ($1,250 a year), $4,000 ($1,000 a year), $3,000 ($750 a year). The remaining 35 contestants will be given Westinghouse Science Awards of $250 each.

The trip winners are 15 to 18 years of age and come from 33 cities in 19 states and the District of Columbia. They were picked by the judges from among 22,477 contestants of whom 3,274 completed their entries by taking a science aptitude examination, obtaining recommendations and writing a report on their science project. Completed entries were received from 48 states and the District of Columbia.

Of the 40 Twenty-second Annual Science Talent Search Winners, 32 ranked in the top 5% of their graduating class and 23 were first, second or third. Most of the winners are members of science clubs and many of them are club presidents or other officers. Most of their clubs are affiliated with Science Clubs of America. Girls accounted for 25% of the entries this year.

Grassian, Stuart Edwin 16 Bronx H.S. of Science 125 E. 168th St. 52
Smilowit, Henry Martin 16 Stuyvesant H.S. 815 Sutter Ave.,
Brooklyn 7

Cleveland
*Martin, Alice Marie 16 Lourdes Academy 1396 E. 45th St. 3

OKLAHOMA
*Birkhead, Jo Lynne 17 Harding H.S. 1505 N.W. 40th St. 18

OREGON
*Roberts, Sarah Carlisle 17 South Salem H.S. 1740 Fir St. South

Pennsylvania
Shapiro, Arthur Maurice 17 Central H.S. 7635 Thoron Ave. 50

Texas
Fruchter, Jonathan Sewell 17 Stephen F. Austin H.S. 1216 Norwood Rd. 22

Virginia
Zalkind, David Lester 17 Wakefield H.S. 1510 S. Edgewood St. 4

Washington
Wegner, Gary Alan 16 Bothell H.S. 9309 N.E. 191st St.
Kauffman, Peter Carr 17 Ballard H.S. 7721 33rd St. N.W. 7

* indicates girls
H.S. indicates High School
HOME ADDRESS follows name of school
AGE of winner follows name
SCIENCE SERVICE - 1719 N Street, N.W. - Washington 6, D.C.
# Washington Trip Winners

<table>
<thead>
<tr>
<th>State</th>
<th>City</th>
<th>Name</th>
<th>Address</th>
<th>Age</th>
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<tr>
<td>Arizona</td>
<td>Phoenix</td>
<td>Royce, Ronald Richard</td>
<td>17 North H.S. 4741 E. Oak St. 8</td>
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<td>California</td>
<td>Palos Verdes Estates</td>
<td><em>Gregory, Alina Elizabeth</em></td>
<td>17 Marymount H.S. 309 Via Linda Vista, Redondo Beach</td>
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<td></td>
<td>Pasadena</td>
<td>Kyle, Jack Ernst</td>
<td>16 Pasadena H.S. 1425 N. Chester Ave.</td>
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<td>Rialto</td>
<td><em>Ware, Anita Faye</em></td>
<td>17 Eisenhower H.S. 201 E. Valencia St.</td>
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<td>San Francisco</td>
<td>Vince, Andrew Joseph</td>
<td>17 Lowell H.S. 1642 30th Ave. 22</td>
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<td>San Jose</td>
<td>Kugelmann, Joel Nathaniel</td>
<td>16 Del Mar H.S. 2301 Stokes St. 28</td>
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<td>Connecticut</td>
<td>Fairfield</td>
<td>Campbell, Alan Stuart</td>
<td>16 Roger Ludlowe H.S. 232 Dunlea Rd.</td>
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<td>District of Columbia</td>
<td>Washington</td>
<td>Miller, Karl Henry</td>
<td>17 Woodward School for Boys 4404 Albermarle St., N.W. 16</td>
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<td>Florida</td>
<td>Coral Gables</td>
<td>Weiss, Mark</td>
<td>17 Coral Gables Sr. H.S. 3123 Coconut Grove Dr. 34</td>
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<td>Stuart</td>
<td>Fox, John Frederick</td>
<td>17 Martin County H.S. 623 Osceola Ave.</td>
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<td>Georgia</td>
<td>Atlanta</td>
<td>Pickard, William Leonard</td>
<td>17 Daniel C. O'Keefe H.S. 344 Northbrook St., N.W. 13</td>
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<td>Muchnick, Steven Stanley</td>
<td>17 Henry Grady H.S. 1229 Beech Valley Rd., N.E. 6</td>
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<td>Hawaii</td>
<td>Honolulu</td>
<td><em>Chang, Bernice Wei Sheng</em></td>
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<td>Illinois</td>
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<td>Neisendorfer, Joseph Alvin</td>
<td>17 Tilden Technical H.S. 470 W. 28th St. 16</td>
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<td>Kansas</td>
<td>Prairie Village</td>
<td><em>Flicker, Michele Rhona</em></td>
<td>17 Shawnee-Mission East H.S. 5845 Sunrise Dr., Mission</td>
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<td>Massachusetts</td>
<td>Holden</td>
<td>Cole, Douglas Reese</td>
<td>17 Wachusett Regional H.S. 30 Anderson Ave.</td>
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<td>Holyoke</td>
<td>Doherty, Edward John</td>
<td>18 Holyoke Catholic H.S. 526 South St.</td>
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<td>Newtonville</td>
<td>Rosen, Barry Kumin</td>
<td>17 Newton H.S. 409 Crafts St. 60</td>
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<td>North Quincy</td>
<td><em>Simpson, Joan Eve</em></td>
<td>17 North Quincy H.S. 15 Livesey Rd., Quantum</td>
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<td>New Hampshire</td>
<td>Exeter</td>
<td>Falwell, Richard Lee</td>
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<td>Lester, Henry Allen</td>
<td>17 Teaneck H.S. 860 E. Lawn Dr.</td>
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<td>New York</td>
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<td>Elias, Laurence</td>
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<td>Leslie, Bruce Robert</td>
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<td>Miller, Zachary Ian</td>
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<td>Jamaica</td>
<td>Cappell, Sylvain Edward</td>
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<td><em>Chase, Deborah</em></td>
<td>17 Bronx H.S. of Science 615 W. End Ave. 25</td>
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<td>Friedman, Norman Ebbie</td>
<td>18 Bronx H.S. of Science 2255 Morris Ave. 53</td>
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