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Edgar V. Russell, Jr., Dept. of Chemistry, Virginia Polytechnic Institute, Blacksburg

Washington: Washington State Science Talent Search Committee 24016
Dr. Hugh W. Johnston, Chemistry Dept., Whitworth College, Spokane 99218

West Virginia: West Virginia Academy of Science
Wm. H. Gillespie, Instructor, West Virginia University, Morgantown 26506

Wyoming: (See Colorado-Wyoming)

HONORS GROUP

IN

THE 26th ANNUAL

Science Talent Search®

for the
Westinghouse Science Scholarships
and Awards

1967



SCIENCE CLUBS OF AMERICA

Administered By Science Service

1719 N STREET N. W. WASHINGTON, D. C. 20036

The Meaning of Honors in the Science Talent Search

The achieving of Honors in the Science Talent Search, earned by approximately 10% 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 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 justified 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 300 honor awards, 40 are being chosen as winners of the Washington trip. Among these \$34,250 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 Science News of February 4, 1967, and it will be sent upon request accompanied by a self-addressed stamped envelope.

Each of those winning honors is being furnished with multiple 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 83 girls and 217 boys. The girls determine their own chances in the Science Talent Search in accordance with the number that enter. Of the Honors Group, 79% of the boys and 89% of the girls rank in the upper 5% in their high school classes.

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 the potentialities to become the research scientists of the future. 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 talent.

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 in colleges, 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-five Science Talent Searches 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 28,000 science groups and more than 750,000 members affiliated with Science Clubs of America.

FOR RELEASE: WEDNESDAY AFTERNOON, JANUARY 25, 1967

Honors Group in the Twenty-sixth Annual Science Talent Search[®]

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

ALABAMA

Decatur Franks, Jerry Don 18 Decatur H.S. 1608 Buena Vista Cir., S.E. 35601
Obtaining the Clinical Picture of a Laboratory Strain of
Mice With a Hereditary Reticulum Cell Sarcoma
Huntsville Levie, Harold Walter 18 S. R. Butler H.S. 802 Brickell Rd. 35805
Analysis of Factors Affecting Energy Transfer
Efficiency in an Exploding Bridgewire System

ARIZONA

Phoenix Chavolla, David Joe 17 Alhambra H.S. 3543 W. Campbell Ave. 85019
Study of Auxotrophic Mutants and Amino Acid
Synthesis in *Escherichia coli*
Clot, Ronald 17 West Phoenix H.S. 935 W. Avalon 85013
Quantitative Investigation of the Hydrogenation of
Benzene Using an Electrical Corona as a Catalyst
Insana, Sam Frank 17 West Phoenix H.S. 818 W. Picadilly Rd. 85013
Search for Living Air Pollutants
*Martin, Deborah Frances 17 Xavier H.S. 323 W. Flynn Lane 85013
Nomography

Tucson Hoshaw, Richard Alan 17 Catalina H.S. 2402 E. Lester 85719
Influence of Lichen Extracts on Plant Structure and Growth
Leavitt, Mark Keith 16 Tucson H.S. 1722 E. 9th St. 85719
Development and Analysis of a Directional Antenna System
McDonald, Lee Hunt 18 Tucson H.S. 3461 E. 3rd St. 85716
Photographic Study of Variable Stars

Yuma Jackson, Philip Chilton, Jr. 17 Yuma H.S. 1215 9th Ave. 85364
Approach to the Four Color Problem

ARKANSAS

Little Rock Whitfield, Edward Leroy 17 Central H.S. 2114 Ringo St. 72206
Transformations of a Line in a Plane

CALIFORNIA

Anaheim Carlson, Robert Martin 17 Loara H.S. 1771 Niobe Ave. 92804
Determination of the Mechanism by Which Sea
Anemones Concentrate Hydrochloric Acid
Atherton Lotspeich, Jeffrey Bruce 17 Menlo-Atherton H.S. 224 Oak Grove Ave.
Mercury²⁰³-Chlormerodrin Studies in Mice 94025
Robertson, James McJanet 16 Menlo-Atherton H.S. 5 Randall Pl.,
Determination of 1.1724 MeV Gamma Ray Mento Park 94025
Absorption Coefficients of Al²⁷ and Cu^{63.5}

*Roy, Linda Jo 17 Menlo-Atherton H.S. 1020 Del Norte Ave., Mento Park
Drug Modification of Pentobarbital 94025
Anesthesia in Two Strains of Inbred Mice

*Keeney, Mary Monica 17 Presentation H.S. 144 York Ave. 94708
Effects of Environmental Red Lighting on
Sexual Activity in Male Mice

*Moffitt, Eileen Maria 17 Presentation H.S. 721 San Luis Rd. 94707
"Lac" z and i Genotype Determination in
Four Strains of *Escherichia coli*

Beverly Hills Cooper, James Ray, Jr. 17 Beverly Hills H.S. 9917 Robbins Dr. 90212
Investigation of the Predatory-Prey Relationship Between *Gambusia*
affinis, the Mosquitofish, and *Esox niger*, the Chain-Pickeral

- Grossmont *Sweadner, Kathleen Joan 17 Grossmont H.S. 5931 Howell Rd., La Mesa
The Nature of Contact Chemoreception in 92041
Adult *Drosophila*
- La Mesa Happel, Kenneth Malcolm 17 Helix H.S. 8660 Tulare St. 92041
Radiation Mechanics: The Question of the Quasar
- Los Angeles Rogers, Harold Robert 17 Fairfax H.S. 824 N. Polkettia Pl. 90046
Effects of Radioisotopes and *Drosophila* in
Transitional Primordial Atmosphere
- Oakland Jung, Frank 18 Fremont H.S. 3923 Mera St. 94601
Investigation of Floating Grid Phenomena
- Palos Verdes *Leddy, Kathleen Anne 17 Marymount H.S. 2033 MacArthur St., San
Epinephrine-Blood Glucose Relationship as a Pedro 90732
Factor Causing Chromatophore Change in *Rana pipiens*
- Peninsula Stutzman, Walter Jacob 16 Grover Cleveland H.S. 8915 Balcom Ave.,
Combined Effects of Temperature and Northridge 91324
Immunosuppressive Drug Therapy on Allograft Survival in Goldfish
- Reseda Lewis, Trevor Rand 17 Point Loma H.S. 3430 Larga Cir. 92110
Improving Mechanical Translation by Phrase Structure Grammars
- San Diego Isaak, James DeWitt 17 Will C. Crawford Sr. H.S. 3759 Dupont St. 92106
Ions and Plant Growth
- Santa Monica Ash, Avner Dolnick 17 Santa Monica H.S. 455 21st Pl. 90402
Some Aspects of Infinite Continued Fractions
- Torrance Kraakman, Reinier Herman 17 Santa Monica H.S. 1549 Princeton St.
Effect of Altitudinal Translocation on the 90404
Metabolic Rate of *Peromyscus*
- Van Nuys Beach, Stephen Charles 17 South H.S. 5624 Calle de Ricardo 90505
Repetition of Linear Recursion Sequences in Modulo Systems
- *Petersen, Janice Lynn 16 Birmingham H.S. 6544 Balboa Blvd. 91406
Development of a Quantitative Polyacrylamide Disc
- Woodland Hills Cogan, Martin Gerald 17 William Howard Taft H.S. 5535 Valerie Ave.
Electrophoresis Technique for the Brain Protein, S-100
Genetic Control of the Developmental Process in 91364
Drosophila melanogaster: A Search for Sex-Linked
Conditional Lethal Point Mutations
- COLORADO**
- Boulder Edgar, Gerald Arthur 18 Boulder H.S. 2695 Stanford Ave. 80302
Sums of Recurrence Functions
- Cheraw Wilson, William Chalmers 18 Boulder H.S. 866 13th St. 80302
Effect of Carbon Dioxide and Oxygen on *Dictostelium discoideum*
- Colorado Springs Snyder, Loren Ellis 17 Cheraw H.S. Rt. 2, La Junta 81050
Development of an Antiviral Cancer Vaccine
- Williams, Byron James 17 R. J. Wasson H.S. 2121 Condor St. 80909
Wave Acoustics
- Snowden, Paul Truman, Jr. 17 St. Mary's H.S. 2407 N. Circle Dr. 80909
Analogue Computer Simulation of Pavlov's Experiment
- CONNECTICUT**
- Naugatuck Iannuzzi, Guy Joseph 19 Naugatuck H.S. 12 May St. 06770
Adaptability of Certain Lichens to a Martian Environment
- Rockville Fortier, Alan Ernest 17 Rockville H.S. 51 West St. 06066
Electronic Simulation of Learning Processes
- Wallingford Milkie, Thomas Theodore 18 Rockville H.S. 381 Tunnel Rd., Vernon
Center of Gravity Calculation Device 06086
- Wiskocil, Robert Lafe 17 The Choate School 3455 Noyo St., Oakland, Calif.
Comparative Study Between the Dominant Lethal 94602
System of UV and X-Irradiation in *Saccharomyces*
- DELAWARE**
- Wilmington Flanbeck, Richard Louis 17 Brandywine H.S. 107 Holland Dr. 19803
Growth and Habit Modification of Crystals in a Silica Gel
- DISTRICT OF COLUMBIA**
- Washington *Kaplan, Laura May 16 Anacostia H.S. 3705 S St., S.E. 20020
Bacterial Studies in the Absence and Presence of Streptomycin
- *Schwartz, Eleanor Louise 17 Woodrow Wilson H.S. 2611 Moreland Pl.,
Musical Scales: Their Formation and Use N.W. 20015
Weisser, Daniel Philip 17 Woodrow Wilson H.S. 3923 McKinley St., N.W.
The "L" Series 20015
- FLORIDA**
- Fort Lauderdale Fisher, Robert Scott 17 Nova H.S. 5353 S.W. 3rd Ct. 33314
Survey of Burnside's Problems for Groups
- Jacksonville Henefeld, Louis Stephen 17 Nova H.S. 2907 S.W. 67th Way, Miramar
The Eightfold Way 33023
- Melbourne Summers, Nevin Morris, Jr. 17 Terry Parker Sr. H.S. 816 Bordeau
Biochemistry of Fiddler Crab Cuticle Hardening Ave. W. 32211
- Stetancic, James 17 Melbourne H.S. 601 S. Ramona, Indialantic
Androgen Stimulation of Thymus Atrophy 32901
Metamorphic Effects of an Unknown Termite Enzyme
on the Passive Larvae of the Ant
- Miami Maltzman, Warren Hal 17 Miami Norland Sr. H.S. 17410 N.E. 9th Ct.,
Study of Photodynamic Hemolysis North Miami Beach 33162
as Affected by Triphenylmethane Dyes
- Miami Beach Bain, Donald Steven 17 Miami Beach Sr. H.S. 601 82nd St. 33141
Rehydration of Dried Agar Gels as
Applied to Immuno-Chemical Reactions
- North Miami Hays, Walter Patrick 17 North Miami Sr. H.S. 820 N.E. 113th St.,
Application of Agar Gel Dehydration Miami 33161
to Immunodiffusion Testing
- Orlando Leddy, Robert Thomas 18 Oak Ridge H.S. 919 Lake Jessamine Dr. 32809
Fluorescent Treponemal Antibody Test
- Panama City Stone, Michel Leon 17 Bay County H.S. 6024 S. Lagoon Dr. 32401
Programmed Chess
- Tallahassee Nugent, William Robert 17 Leon H.S. 1651 Sharkey St. 32304
Planet Jupiter and the Sun Spot Cycle
- Winter Park Weaver, Thomas Allan 17 Winter Park H.S. 2007 Strathaven Rd. 32789
A Bi-Angular Coordinate System
- GEORGIA**
- Atlanta Gartrell, Jack Eugene, Jr. 18 Henry Grady H.S. 796 Amsterdam
How Do Auxins Affect Geotropism? Ave., N.E. 30306
- Columbus Lapidus, David Leon 17 Columbus H.S. Standing Boy Rd. 31904
The Metric Circle
- Jonesboro MacLemore, Daniel Nesbitt III 17 Jonesboro Sr. H.S. Rt. 1, Box 1,
Spectroscopic Comparison of the Fluorescent Riverdale 30274
and Electric Arc Radiations of Calcite
- Ocilla *Luke, Linda Karen 17 Irwin County H.S. Sizland Acres 31774
Cortical Induced Teratogenic Differentiations in Chick Embryos
- Toccoa Williams, Lewis Thomas 17 Toccoa H.S. 323 Valley Rd. 30577
Quantitative Study of Ion Migration Using Disc Electrophoresis
- HAWAII**
- Honolulu *Hong, Carol Lee 17 Kalani H.S. 1658 Kamole St. 96821
Effect of Photoperiod, Temperature and Salinity
on the Molting of *Leander debilis* (DANA)
- IDAHO**
- Boise Tooman, Tim Patrick 16 Capital H.S. Rt. 2, Box 115 83702
Inhibitory Effects of Sagebrush on Bacteria
- ILLINOIS**
- Chicago *Redemske, Gale Lee 17 Carl Schurz H.S. 5640 N. Mango Ave. 60646
Sulfur Requirements of Chlorella
- *Leong, Helen Vanessa 17 Lake View H.S. 727 W. Aldine 60657
Pic - A Projective Plane?
- Weres, Oleh 16 Lane Technical H.S. 3306 W. Crystal 60651
The Photoreduction of Iron(III) Oxalate
- Yovovich, Bozidar George 16 Lane Technical H.S. 1917 W. Schiller 60622
New Definitions for Algebraic Relations

Elgin	*Banas, Theresa Marie 17 Resurrection H.S. <u>4569 N. Melvina Ave.</u> Statocyst - Key to Balance <u>60630</u> Gibrich, Craig Ellis 16 Sullivan H.S. <u>7309 N. Damen Ave.</u> <u>60645</u> Binary and Other Relationships of Triangular Numbers	Marshalltown	*Halverson, Valerie Sue 17 Marshalltown Sr. H.S. <u>206 S. 8th St.</u> <u>50158</u> Antiviral Agent (AVA) Produced Against Tobacco Mosaic Virus (TMV) by Animal Host
Evanston	*McTavish, Mary Megan 17 St. Edward Central Catholic H.S. <u>115 N.</u> Linear Transformations and Matrices <u>McLean Blvd.</u> <u>60120</u> Young, George Anthony 17 St. Edward Central Catholic H.S. <u>546, 7th St.,</u> High Frequency Antenna Analysis <u>Dundee</u> <u>60118</u> of the "Cubical Quad" Antenna	Newton	*Blyth, Christine Marie 17 Newton H.S. <u>1013 S. 14th Ave. W.</u> <u>50208</u> Effects of Crowding on Two Inbred Strains of Mice
Glenview	Ashley, Richard Arthur 16 Evanston Twp. H.S. <u>1724 Oakton</u> <u>60202</u> Homologous Series in Osmics	Waterloo	Preston, Jeremy Thomas 17 East H.S. <u>43 Franklin</u> <u>50703</u> Summation of the First M Integers Raised to the Nth Power
Highland Park	Drake, Kenneth Franklin, Jr. 17 Evanston Twp. H.S. <u>2306 Harrison St.</u> Solvent Viscosity Effects in Polarography <u>60201</u> Lewin, Edward Frank 17 Evanston Twp. H.S. <u>1612 South Blvd.</u> <u>60202</u> An Investigation of the Mechanism of Reaction of 2-Iodobutane and Iodide Ion	Wichita	KANSAS
La Grange	Suber, David Alan 17 Evanston Twp. H.S. <u>815 Ridge Ter.</u> <u>60201</u> Derivation of Prime Number Generating Equations	Louisville	Wier, Stuart Kirkland 17 Southeast H.S. <u>1459 Willow Lane</u> <u>67208</u> Mechanics of Sand Dune Formation
Niles	Taggart, Paul Dallas 18 Glenbrook South H.S. <u>2232 Glenview Rd.</u> <u>60025</u> Experiments in Optics With an Interference Fringe Photometer	Lafayette	KENTUCKY
Oak Park	*Ellman, Sharyn Gail 16 Highland Park H.S. <u>2903 Summit Ave.</u> <u>60035</u> Monomolecular Films	New Orleans	*Stark, Deborah Leigh 18 Mayme S. Waggener H.S. <u>10400 Foxboro Dr.,</u> Complex Exponents <u>Anchorage</u> <u>40223</u>
Skokie	Grossman, Richard Weaver 18 Highland Park H.S. <u>1011 Sheridan Rd.</u> , Newton's Method and the General Complex Polynomial <u>60035</u> Stanley, James Carl 18 Lyons Twp. H.S. <u>4731 Woodland Ave.,</u> Western Artificial Animals <u>Springs</u> <u>60558</u>	Baltimore	LOUISIANA
	Bruckner, Brian Philip 17 Notre Dame H.S. <u>7102 W. Kedzie St.</u> <u>60648</u> Effects of Chlorpromazine and L-Histidine on Euglena and Tetrahymena	Bethesda	*Jaubert, Annette Elizabeth 17 Mount Carmel H.S. <u>225 Louise Dr.</u> <u>70501</u> Stoichiometry of the Mercury (II) - Potassium Iodide - Water System
	*Miller, Julie Ann 16 Oak Park-River Forest H.S. <u>823 Woodbine</u> <u>60302</u> Survival Rate of Tribolium on Algal Nutrition	Silver Spring	*Jackson, Joan Laura 17 Benjamin Franklin H.S. <u>4831 Magazine St.</u> Changes in Soluble Carbohydrates in the <u>70115</u> White Clover Seedling
	Binder, Steven Ross 17 Niles Twp. H.S. North <u>327 Crabtree Lane, Glen-</u> Preparation of Bidentate Sulfito Complexes <u>view</u> <u>60025</u>	Bolton	MARYLAND
	Farkas, Daniel Reuven 16 Niles Twp. H.S. North <u>9215 Kenneth</u> <u>60076</u> An Algorithm for Approximating Roots of Polynomial Equations	Boston	Felser, Gary Jay 17 Pikesville Sr. H.S. <u>7502 Lisburne Rd.</u> <u>21208</u> A Microwave Simulation of X-Ray Diffraction
	Wolz, John Frederick 16 Niles Twp. H.S. North <u>5353 Arcadia St.</u> <u>60076</u> Effects of Dimethyl Sulfoxide Used With Chloramphenicol on <u>Staphylococcus albus</u>	Braintree	Weissler, Frederic Bennett 17 Bethesda-Chevy Chase H.S. <u>5510 Upping-</u> Extension of Operations <u>ham St., Chevy Chase</u> <u>20015</u>
	*Egel, Carol Sharon 17 Niles Twp. H.S. West <u>4045 Columbia Ave.,</u> Homotransplantation of Mouse <u>Lincolnwood</u> <u>60646</u> Tissue by Parabiosis	Holden	Price, Robert Harold 17 Walter Johnson H.S. <u>4615 Edgefield Rd.</u> <u>20014</u> Injection of High Energy Particles Into Confined Plasmas
	Roberts, William Morgan 16 Niles Twp. H.S. West <u>7016 N. Kenton Ave.,</u> Generalization of the Factorial Function <u>Lincolnwood</u> <u>60646</u>	Natick	Lagarias, Jeffrey Clark 17 Springbrook H.S. <u>13217 Glenhill Rd.</u> <u>20904</u> An Investigation of the Terms of the Fibonacci Series
	Weiss, Alan Louis 17 Niles Twp. H.S. West <u>6636 N. Kenneth Ave.,</u> Recombination in the RNA <u>Lincolnwood</u> <u>60646</u> Bacteriophage, MS-2	Needham	MASSACHUSETTS
	INDIANA	Newton Centre	Arguimbau, Nicholas Clapp 17 Nashoba Reg. H.S. <u>R.F.D. 1, Box 274,</u> Studies of Polyploidy in <u>Hemerocallis</u> <u>Shirley</u> <u>01464</u>
Acton	*Lancaster, Mary Ellen 18 Franklin Central H.S. <u>4320 Wanamaker Dr.,</u> Quantitative Detection of Nuclear <u>Indianapolis</u> <u>46239</u> Particles in a Cloud Chamber With a Helmholtz Coil	Newtonville	Baron, Robert Victor 17 Boston Latin H.S. <u>50 Hiawatha Rd.</u> <u>02126</u> Computer Techniques Applied to the Processing of
Evansville	Spillman, Robert William 17 North H.S. <u>2201 E. Morgan</u> <u>47711</u> Effects of Temperature on Polarographic Analysis	Revere	Metallurgical Data to Produce Simplified Graphical Results
Gary	Johnson, Gary 17 Horace Mann H.S. <u>200 Taft St.</u> <u>46404</u> Programming a Three-Bit Mechanical Digital Computer and	Sharon	*Arey, Janet Teresa 17 Archbishop Williams H.S. <u>15 Minihan's Lane,</u> Photochemical Generation and <u>W. Quincy</u> <u>02169</u> Decay of Colored Intermediates
Hammond	Relation of Its Logic to an Electronic Digital Computer		*Getch, Linda Marie 17 Archbishop Williams H.S. <u>17 Chestnut St.,</u> Effect of Low Temperatures on the <u>Randolph</u> <u>02368</u> Decay of Silver Centers in a Silver Bromide Crystal
	Dawson, Dennis Wade 18 Oliver P. Morton H.S. <u>3233 173rd St.</u> <u>46323</u> Evolutionary Mechanisms in the Contact Binary SS Cygni		*Pflugradt, Pamela Ann 17 Wachusett Reg. H.S. <u>John Dee Rd., Sterling</u> Effects of Carbohydrates on the Growth <u>Junction</u> <u>01565</u>
	Guzis, Charles Peter 17 Oliver P. Morton H.S. <u>6618 Maryland Ave.</u> <u>46323</u> Atomic Radius Determination by Proton Precession		Rees, John Karl 17 Natick H.S. <u>19 Manor Ave.</u> <u>01760</u> Variables Affecting Laminar Stream Stability
Fort Dodge	Thissen, David Michael 17 St. Edmond H.S. <u>818 7th Ave. N.</u> <u>50501</u> Study of Gallium Phosphide Diodes		Harrington, Andrew Neal 17 Needham H.S. <u>35 Emerson Rd.</u> <u>02192</u> Pascal's Triangle in Any Dimension
Le Mars	Bryant, Curtis Lee 17 Le Mars Community H.S. <u>R.R. 1, Akron</u> <u>51001</u> Theory of Energy Release in Solar Flares		Einstein, Leonard Peter 17 Newton South H.S. <u>77 Louise Rd., Newton</u> Effects of Motion Stress on the Course of <u>02167</u> Inflammatory Tail Lesions in Rat Mycobacterial Adjuvant Disease

- Springfield *Karcz, Anita Marie 17 Cathedral H.S. 80 Boulay Cir., Fairview 01044
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- *Phelan, Elizabeth Margaret 17 Cathedral H.S. 377 Dwight Rd., 01108
Incidence, Characteristics, and Inducement
of Dermo-Optical Perception
- Ellopoulos, George Mittalades 17 Technical H.S. 17 Beaumont Ter., 01108
Possible Role of Anoxia in Chemoprophylaxis
Against Ionizing Radiation
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Study of Fluid Viscosity Using an Air Bubble Method
- MICHIGAN
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Osmo-Regulation, Oxygen Consumption, and
Weight Fluctuations in Crayfish
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Finding Its Relation to the Chamber Pressure
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Detection and Analysis in Gas Chromatography 48075
- Myers, Stephen Lee 18 W. E. Groves H.S. 6790 East Dartmoor 48010
Heat Tolerance in Drosophila
- Detroit Florkowski, David Robert 17 Cass Technical H.S. 8067 Chatham 48239
Changes in Shape of the Lightcurve of 185243 R Lyrae
- Buckingham, James Allan 17 Redford H.S. 15741 Beaverland 48223
Effects on Unborn Mice of Cigarette Smoke
Administered to Their Mothers
- Kalamazoo Limoges, Robert Frank 18 Kalamazoo Central H.S. 1307 Warren Pl., 49007
A Computer-Designed NII-Aberration Optical System
- MINNESOTA
- Dilworth Liefeld, David Ronald 17 Dilworth H.S. 111 1st Ave., S.W., 56529
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Dr. S. Winston Cram, Physical Sciences Div., Kansas State Teachers College, Emporia 66802

Kentucky: Kentucky Academy of Science
Morris D. Taylor, Chemistry Dept., Eastern Kentucky University, Richmond 40475

Louisiana: University of Southwestern Louisiana
Dr. James R. Oliver, Dean, Graduate School, University of Southwestern Louisiana,
Lafayette 70506

Maine: Society of Sigma Xi and University of Maine
Dr. George T. Davis, Dept. of Education, University of Maine, Orono 04473

Maryland: Maryland Academy of Sciences
Nigel O'C. Wolff, Dir., Maryland Academy of Sciences, 9 W. Mulberry St., Baltimore 21201

Michigan: Michigan Junior Academy of Sciences, Arts and Letters
Dr. C. L. Schloemer, Dept. of Natural Science, E 191 Holmes Hall, Michigan State
University, East Lansing 48824

Minnesota: Minnesota Academy of Science
Dr. Arthur F. Nelson, Dept. of Chemistry, St. Cloud State College, St. Cloud 56301

Mississippi: Mississippi Academy of Sciences, Inc.
Dr. Clyde Q. Sheely, Chemistry Dept., Box 574, Mississippi State University, State
College 39762

Missouri: Missouri Science Talent Search
Joseph W. Goerner, Dept. of Chemistry, School of the Ozarks, Point Lookout 65726

Montana: Montana State College
Dr. Adrien L. Hess, Mathematics Dept., Montana State University, Bozeman 59715

Nebraska: Nebraska Academy of Sciences, Inc.
Dr. James A. Rutledge, Dept. of Secondary Education, University of Nebraska, Lincoln 68508

New Hampshire: Northern New England Academy of Science
Dr. R. L. Bliekle, Dept. of Entomology, University of New Hampshire, Durham 03824

New Mexico: Eastern New Mexico University
Dr. William D. Pitt, Dept. of Geology, Eastern New Mexico University, Portales 88130

North Carolina: North Carolina Academy of Science
Dr. Herbert Speece, Math and Science Education Dept., North Carolina State University,
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North Dakota: North Dakota Academy of Science
Dr. Fred H. Sands, Dept. of Chemistry, North Dakota State University, Fargo 58102

Oklahoma: Oklahoma Science Talent Search
Robert Fite, Arts and Science Extension, Oklahoma State University, Stillwater 74074

Oregon: Oregon Museum of Science and Industry
Dr. Raymond E. Barrett, Educ. Dir., Oregon Museum of Science and Industry,
4015 S.W. Canyon Rd., Portland 97221

Pennsylvania: Pennsylvania Academy of Science
Dr. William A. Uricchio, Dept. of Biology, Mount Mercy College, Pittsburgh 15213

Rhode Island: Rhode Island Schools' Science Fair Committee
George W. Gallipeau, Jr., Barrington High School, Barrington 02806

South Carolina: South Carolina Academy of Science
Charles F. Jumper, Dept. of Chemistry, The Citadel, Charleston 29409

South Dakota: South Dakota State College
Dr. Elmer R. Johnson, Dept. of Chemistry, South Dakota State University, Brookings 57007

Tennessee: Tennessee Academy of Science
James L. Major, Clarksville High School, Clarksville 37040

Texas: Texas State Science Talent Search
Dr. Robert W. Higgins, Chemistry Dept., Texas Woman's University, Denton 76204

Utah: Utah Junior Academy of Sciences, Arts and Letters and Utah State Science Talent Search
Richard S. Peterson, State Supv. of Sci. Educ., 136 East South Temple, Salt Lake City 84111

Vermont: University of Vermont
Dr. George Chapman Crooks, Chemistry Dept., University of Vermont, Burlington 05401

Virginia: Virginia Academy of Science
Edgar V. Russell, Jr., Dept. of Chemistry, Virginia Polytechnic Institute, Blacksburg 24016

Washington: Washington State Science Talent Search Committee
Dr. Hugh W. Johnston, Chemistry Dept., Whitworth College, Spokane 99218

West Virginia: West Virginia Academy of Science
Wm. H. Gillespie, Instructor, West Virginia University, Morgantown 26506

Wyoming: (See Colorado-Wyoming)

Cincinnati
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Loh, Elwyn Yuan 16 Blacksburg H.S. 111 Allendale Ct. 24060
*Schwarz, Sandra Ann 17 McLean H.S. 6507 Dryden Dr. 22101



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Washington Trip Winners FILE COPY

of the
Twenty-sixth Annual Science Talent Search®
for the Westinghouse Science Scholarships and Awards

The forty Washington trip winners of the 26th Annual Science Talent Search, among whom \$34,250 of Westinghouse Science Scholarships and Awards will be distributed, represent about 1 1/2% 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, D.C. 20036.

Eleven girls and 29 boys (proportion determined by ratio of boys and girls completing entries) are being invited to Washington, D.C., for an all-expense trip March 1 through 6, 1967, 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 (\$1,875 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 17 states and the District of Columbia. They were picked by the judges from among 23,829 contestants of whom 2,626 completed their entries by taking a science aptitude examination, obtaining recommendations and writing a report on their science project. Completed entries were received from 50 states and the District of Columbia.

Of the 40 Twenty-sixth Annual Science Talent Search Winners, 32 ranked in the top 5% of their graduating class and 17 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 27.7% of the entries this year.

Washington Trip Winners

*indicates girls
H.S. indicates High School

HOME ADDRESS follows name of school
AGE of winner follows name

CALIFORNIA

Atherton *Roy, Linda Jo 18 Menlo-Atherton H.S. 1020 Del Norte Ave., Menlo Park 94025
San Diego Lewis, Trevor Rand 17 Point Loma H.S. 3430 Larga Cir. 92110
Van Nuys *Petersen, Janice Lynn 17 Birmingham H.S. 6544 Balboa Blvd. 91406

COLORADO

Boulder Edgar, Gerald Arthur 18 Boulder H.S. 2695 Stanford Ave. 80302

DISTRICT OF COLUMBIA

Washington Weisser, Daniel Philip 17 Woodrow Wilson H.S. 3923 McKinley St., N.W. 20015

FLORIDA

Jacksonville Summers, Nevin Morris, Jr. 17 Terry Parker Sr. H.S. 816 Bordeau Ave. W. 32211
Winter Park Weaver, Thomas Allan 17 Winter Park H.S. 2007 Strathaven Rd. 32789

GEORGIA

Atlanta Gartrell, Jack Eugene, Jr. 18 Henry Grady H.S. 796 Amsterdam Ave., N.E. 30306

ILLINOIS

Skokie Binder, Steven Ross 17 Niles Twp. H.S. North 327 Crabtree Lane, Glenview 60025
Farkas, Daniel Reuven 16 Niles Twp. H.S. North 9215 Kenneth 60076
*Egel, Carol Sharon 17 Niles Twp. H.S. West 4045 Columbia Ave., Lincolnwood 60646
Weiss, Alan Louis 18 Niles Twp. H.S. West 6636 N. Kenneth Ave., Lincolnwood 60646

Hammond

Dawson, Dennis Wade 18 Oliver P. Morton H.S. 3233 173rd St. 46323

Silver Spring

MARYLAND

Lagarias, Jeffrey Clark 17 Springbrook H.S. 13217 Glenhill Rd. 20904

Sharon Springfield

MASSACHUSETTS

Strasnick, Steven Lawrence 17 Sharon H.S. 10 Madison Ave. 02067
Eliopoulos, George Miltiades 17 Technical H.S. 17 Beaumont Ter. 01108

Ann Arbor

MICHIGAN

Donabedian, Haig 17 Ann Arbor H.S. 1739 Ivywood Dr. 48103

St. Paul

MINNESOTA

*Verbrugge, Martha Helen 17 Alexander Ramsey Sr. H.S. 1787 Shryer Ave. W. 55113

Omaha

NEBRASKA

*Fitzwater, Mary Ann Heten 18 Notre Dame Academy 2750 Martin Ave. 68112

Brooklyn

NEW YORK

Croton-on-Hudson Deer Park Jamaica

Baker, Louis 16 Abraham Lincoln H.S. 3069 Brighton 7th St. 11235
Goodman, Martin Harris 16 Erasmus Hall H.S. 959 Carroll St. 11225
Firstenberg, Arthur Robert 16 Midwood H.S. 2515 Glenwood Rd. 11210

*Bass, Emily 17 Croton-Harmon H.S. Finney Farm 10520
Back, Allen Henry 16 Deer Park H.S. 276 W. 21st St. 11729
Goldberg, Paul Bernard 16 Jamaica H.S. 86-70 Francis Lewis Blvd., Hollis 11427
Wilczek, Frank Anthony 15 Martin Van Buren H.S. 254-41 75th Ave., Glen Oaks 11004

Queens Village