

1961  
HONORS GROUP

IN

THE 20th ANNUAL

*Science Talent Search<sup>®</sup>*

for the

Westinghouse Science Scholarships  
and Awards

1961



SCIENCE CLUBS OF AMERICA  
Administered By Science Service  
1719 N STREET N. W. \* WASHINGTON 6, D. C.

OOPS! It's twins!

PLEASE CHANGE IN THE PHOENIX, ARIZONA LIST P.3. 20th STS HONORS

Farnbach, George Carl 17 North H. S. 536 E. Cheery Lynn  
Variations in the Constituents and Preparations of

Grignard Reagents

Farnbach, John Sevier 17 North H. S. 536 E. Cheery Lynn  
A Means of Hastening the Paper Chromatographic Analysis  
of the Five Principal Sugars of Wood  
(Farnbach is correct.)

# The Meaning of Honors in the Science Talent Search

## Honors Group in the Twentieth Annual Science Talent Search®

The achieving of Honors in the Science Talent Search, earned by the top 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 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 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 this list of 399 honor awards, 40 are being chosen as winners of the Washington trip. Among these \$34,250 in scholarships and awards will be distributed. This list of winners is being announced subsequently to the distribution of this list and will be published in the Science News Letter of February 4, 1961, 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 93 girls and 306 boys. The girls determine their own chances in the Science Talent Search in accordance with the number that enter. Of the Honors Group, 68% of the boys and 78% of the girls rank in the upper 5% in their high school classes. Among the 399 who won Honors, 356 belong to science clubs of which 128 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 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 those 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 first twenty 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 25,000 science clubs and more than 600,000 members affiliated with Science Clubs of America.

\* Indicates girls  
H. S. Indicates High School  
Title of project report submitted is on next line

### ALABAMA

Birmingham \*Palmer, Jean Karen 17 John Carroll H. S. 1749 Wellington Rd. 9

Determination of the Nutritional Value of Various Carbohydrate Substances in White Rats

Stella, Mark Emil 16 John Carroll H. S. 800 48th Pl., Fairfield Atmospheric Phenomena of Mars and Their Relationship to Nitrogen (IV) Oxide

McCoy, Norman Kitchen, Jr. 18 Ramsey H. S. 1116 So. 10th Pl. 5 Application of Photography in Astronomical Research

Morgan, Geoffrey Clyde 18 Shades Valley H. S. 1608 Barry Ave. 9 A Reverberatory Furnace

Hamner, George Fleming, Jr. 18 Tuscaloosa H. S. 51 Cherokee Hills Linear Proton Accelerator

### ARIZONA

Cone, Robert Miller 17 North H. S. 2030 N. 18th St. Determination of the Constituents of Tobacco and Tobacco Smoke by Means of Paper Chromatography (Ascending Method)

Farnback, George Carl 17 North H. S. 536 E. Cherry Lynn Variations in the Constituents and Preparations of Grignard Reagents

Fitzgerald, John William 17 North H. S. 51 E. Hoover St. Color Reaction of 2,6-Dibromo-N-chloro-p-quinoxalimine with Thiophosphate Insecticides on Paper Chromatograms

\*Gonzalo, Frances Ann 17 North H. S. 708 E. Coronado A Demonstration of the Secretion Phenomenon by the Ouchterlony Double-Gel Diffusion Process

Jordan, Michael Lynn 17 North H. S. 2246 E. Yale St. Electrophoresis of Proteolytic Enzymes at Various pH Levels

Breitner, John Carl 16 Phoenix Union H. S. Box 234, Cave Creek Isolation of L-Arabinose from Agave Leaves

Fox, Donald Jensen 17 West H. S. 2314 W. Pinchot St. New Positive Qualitative Differentiation of the Sodium and Potassium Ions by the Application of F-centers

Puckett, Jason Niles, Jr. 18 West H. S. 3316 N. 17th Ave. 15 Design and Construction of an Electrometer

Rottmiller, Edmund Henry 17 West H. S. 2121 W. Medlock Dr. A Working Demonstration of the Millikan Oil-drop Experiment

Kaderlik, Norman Stanley 17 Tucson H. S. 3445 Calle Alarcon. Metabolism in Regenerating Planaria

### ARKANSAS

Vaughn, Richard Simpson 17 Hall H. S. 4316 Lee Ave. Effect of Triethylbenzylamine on Reproductive Capacity of Frog Spermatozoa *in vitro*

### CALIFORNIA

Rosen, Steven David 17 Menlo-Atherton H. S. 330 Sherwood Way, Menlo Park Effects of Electric Charge on the Surface Tension of Liquids

Runde, Philip Wilson 17 Menlo-Atherton H. S. 1195 Hillview Dr., Menlo Park Ecological Studies of Cenozoic Foraminifera

Neidengard, Lee 17 Nathaniel Narbonne H. S. 4068 Hawthorne Ave., Palos Effects of Hypothermia and Hyperthermia on the Rate of Antibody Production Against Human Serum in Mice

Quadrus, Harold Lawrence 16 Nathaniel Narbonne H. S. 1726 265th St. Calculating the Orbital Elements of an Asteroid

Long Beach	Thompson, Peter Van Zandt 17 Nathaniel Narbone H. S. 1032 Via Nogales, Determining the Equation of Nodal Lines Palos Verdes Estates
Red Bluff	Menzies, Robert Thomas 17 Long Beach Polytechnic H. S. 3341 Mrtle Ave. 7 Solutions of Certain Diophantine Problems by Functional Methods
Reseda	Sibley, Robert Woolsey 17 Red Bluff Union H. S. 1550 Carryana Dr. Characteristic Properties of Alpha Ray Absorption In Air and Other Gases
Ridgecrest	Sautier, Charles Leonard 17 Cleveland H. S. 8031 White Oak Ave. Photoreactivation
San Rafael	*Plain, Karen Elizabeth 16 Sherman E. Burroughs H. S. Rademacher View A Mechanical Generator for Lissajous Figures
Santa Barbara	Phelps, Donald Earl 17 San Rafael H. S. 57 Junipero Serra Ave. Purification of Phosphoglyceronutase
Studio City	Gubrandson, Rolf Norman 17 Santa Barbara H. S. 719 Alston Rd. Analysis of Radioisotopes by Alpha-Particle Range Detection
Van Nuys	*Wiele, Louise Mary 17 Corvallis H. S. 6920 Woodman Ave. Van Nuys Thinking Machines and the Thought Behind Them
Boulder	Fine, Robert Elliot 16 Birmingham H. S. 17118 Willard St. Studies on Lung Structure and Water Conservation in the Desert Iguana, <i>Dipsosaurus dorsalis</i>
Colorado Springs	Armstrong, Leonard James 17 Boulder H. S. 905 15th St. Production of Viable Seeds of the Alpine Tundra
Denver	Hanson, Carl Veith 17 Cheyenne Mountain H. S. 205 Alsace Way Determining the Possibilities of Supplementing Visual or Auditory Senses with the Tactile Sense
Fairfield	Chessen, Douglas Howell 17 East H. S. 6301 E. 22nd Ave. 7 The Role of Luteinizing Hormone in Testicular Tumorigenesis in Balb/C Mice
Washington	Miller, Gary Logan 17 Fairfield College Preparatory School 1180 Merwin's Analysis of a Long Period Horizontal Lane, Westport Seismometer System Including a Solid State Amplifier and a Graphic Recorder
Tallahassee	Herrin, Dennis Winton 17 Anacostia H. S. 1611 Fairlawn Ave., S. E. 20 Quantitative and Qualitative Analysis of Gases in Blood Samples by Gas-Solid Chromatography
Atlanta	Burns, Martha Anne 17 Immaculata H. S. 6138 30th St., N. W. 15 Effect of Osmium Tetroxide Buffered to pH 8.5 on the Fine Structure of <i>Spirastomum ambiguum</i>
Idaho Falls	Dobbs, Leland George 17 The Sidwell Friends School 7401 Western Ave., N. W. 15 Effect of Iproniazid on Red Blood Cell Production in Rats
Payette	Newton, Michael Clarke 17 Western H. S. 3714 Massachusetts Ave. 16 Quantitative Study of the Mollusk Population of Lower Calvert Formation
Chicago	Vacher, Henry Leonard 17 Western H. S. 2317 Huldeker Pl., N. W. 7 Quantitative Correlation of the Heavy Minerals in Sediments to Those in the Bedrock of the Rock Creek Tributaries
Bradenton	*McCranner, Rosalie Ann 17 Woodrow Wilson H. S. 2822 Kanawha St., N. W. Study of the Nutritional Requirements of <i>Spirastomum ambiguum</i> 15
Coral Gables	*Vary, Judith Anne 17 Manatee H. S. 4402 Pompano Lane, Palmetto The Chemotherapeutic Action of AET and MEA plus 2M-DHTP on Irradiated Cardiomyocites and Normal Tissues in White Mice
	*Finerty, Donna Elizabeth 17 Coral Gables Sr. H. S. 630 San Lorenzo 46 Embryonic Chick Heart as a Biological Thermometer
	Gravitz, Norman 17 Coral Gables Sr. H. S. 5250 S. W. 2nd St., Miami 44 Properties of the Hyaline Plasma Membrane of the <i>Lytechinus variegatus</i>
	Gross, Leslie Jay 16 Coral Gables Sr. H. S. 6380 S. W. 62nd Terr., Comparative Survey of the Salinity Tolerances of Seven Species of Shallow-Water Hermit Crabs of the Families, Paguridae and Diogenidae
	*Kamp, Katherine Marland 16 Coral Gables Sr. H. S. 1534 Ancona Ave. 46 Fungal Infestation of Submerged Cordage and Concurrent Enzymatic Activity
	Kirsch, Warren Robert 17 Coral Gables Sr. H. S. 3660 S. W. 12th St., Synthesis of Schiff Bases as Potential Anticancer Agents Miami 35
	McCorquodale, Donald Sinclair, Jr. 17 Coral Gables Sr. H. S. 3660 Royal Palm Ave., Miami 33 Incidence of <i>staphylococcus</i> in High School Students
	Scott, Michael McCready 17 Gainesville H. S. 1515 N. W. 5th St. Induction Heaters
	*Most, Sheila Marie 16 Boca Ciega Sr. H. S. 1908 56th St., So. Natural Fluoridation and its Relation to the St. Petersburg 7 Paleo-Odontology of Two Prehistoric American Indian Tribes
	Adkins, William Milton III 17 Melbourne H. S. 67 Lund Circle Pineal Regulation of the Water Metabolism and Behavior of Bufo terrestris
	Ragsdale, Charles William 17 Leon H. S. 308 N. Delview Electroencephalography
	Kane, Daniel Frederick, Jr. 17 Joseph E. Brown H. S. 1626 Rogers Ave., Dependence of Color and Stability of Gold S. W. 10 Hydrosols on Amount of Tannin Used
	*Ward, Joan Helen 17 Joseph E. Brown H. S. 1980 Cascade Rd. 11 Parallel Changes in Physical Properties and Odors of the Aliphatic Esters
	*Purvis, Virginia Marilyn 17 Druid Hills H. S. 2222 Tanglewood Rd., Gamma Ray Irradiation Effects on Corn and Beans Decatur
	Maddox, James Hunt, Jr. 17 Henry Grady H. S. 130 Little John Trail, N. E. Physical and Chemical Properties of Fall-Line Kaolins of Georgia 9
	Giglio, Thomas Lloyd 17 Murphy H. S. 1378 Metropolitan Ave. 16 Increasing Gain and Efficiency in Low Frequency Antenna Systems
	Hosford, James Michael 17 Northside H. S. 1080 Northcliffe Dr., N. W. 18 Molt-Controlling Hormone of Crayfish, Its Characteristics and Basis for Possible Application in Medicine
	Holben, Richard Dale 17 Genesee H. S. Genesee Application of Relay Circuits to the Syllogism and to the Reductio ad Absurdum Method of Propositional Calculus
	Arrington, John Sherwood 17 Idaho Falls H. S. 795 Saturn Ave. Static Testing of a Liquid Fuel and Solid Fuel Rocket Propulsion System
	Kunter, Richard Sam 17 Idaho Falls H. S. 1228 9th St. Induction Heating
	Wheeler, John Craig 17 Idaho Falls H. S. 239 11th St. A Point-Emitter Colliding-Beam Proton Accelerator
	Bogard, Charles Edward 17 Payette H. S. 590 S. 12th St. New Concept of Benzene Bond Resonance
	Dworkin, Barry Ronald 16 Arundsen Sr. H. S. 2630 W. Rascher St. 25 Determination of the Sensitve Period in the Division Cycle of <i>Escherichia coli</i>
	Hochfeld, William Leslie 16 Bowen H. S. 3010 S. Jeffery Blvd. 17 Acetylcholine Content of the Regenerating Forelimb of the Adult Newt
	Keys, Thomas III 16 Hirsch H. S. 7701 S. Evans Ave. 19 Plasma Dynamics
	Sleben, Bruce Michael 17 St. Patrick H. S. 1412 N. Mason Ave. 51 Adaptation of a Digital Computer to Pattern Recognition
	Greene, Lloyd Asher 16 Nicholas Senn H. S. 6506 N. Talman 45 Characterization of the Flavonoid Pigments of Roses Using Paper Chromatography

	*Schwartz, Marlene Roberta	17	Nicholas Senn H. S.	<u>2655 W. Albion Ave. 45</u>
	Paper Chromatography of Amino Acids			
Couston, Donald Ross	17	South Shore H. S.	<u>7817 S. Phillips Ave. 49</u>	
	<u>Trypanosoma lewisi</u> Infections in White Rats: Presence and Effects of Ablastin			
Fried, Victor Arnold	17	South Shore H. S.	<u>7530 Merrill St. 49</u>	
	Kinetics of the Urea-Urease Reaction			
Pinsky, Howard Joel	17	Sullivan H. S.	<u>1521 W. Farfo 26</u>	
	Effects of Radiation on Chemicals			
Resan, Steven Alfred	17	George Washington H. S.	<u>10027 Avenue N. 17</u>	
	Changes in the Thermal Conductivity of the Phenol-Formaldehyde Polymer Due to the Addition of Sucrose			
Eichelmann, Burr Simmons	17	Community H. S.	<u>748 Clucaio Ave.</u>	
	Physiological Effects of "Nerveine"			
Ryack, Wayne Howard	17	Community H. S.	<u>6950 Route #53</u>	
	Effects of Irradiation on the Transmission Spectrum of Sodium Nitrate			
Art, Richard Carl, Jr.	Evanson Twp. H. S.	<u>3000 Trayer St.</u>		
	Correlation of the Index of Refraction, Molecular Weight, Lattice Spacing and Density in Cubic Crystals			
Axelrod, Robert Marshall	17	Evanson Twp. H. S.	<u>8835 Monticello Ave., Skokie</u>	
	Hypothetical Life Forms and Environments by Computer Simulation			
Brauer, Howard Morris	16	Evanson Twp. H. S.	<u>149 Callan Ave.</u>	
	Effects of pH on the Formation of Tantalum Oxide			
Chamberlain, John Paul	17	Evanson Twp. H. S.	<u>2246 Sherman Ave.</u>	
	Design and Construction of a Bubble Chamber			
Ellin, Leon Roland	17	Evanson Twp. H. S.	<u>8727 Ridgeway Ave., Skokie</u>	
	Modification of Stoke's Law			
Hedeen, Stanley Earl	17	Evanson Twp. H. S.	<u>3115 Central St.</u>	
	Study of Ecological Recession			
Lewis, Jonathan David	17	Evanson Twp. H. S.	<u>1033 Wesley Ave.</u>	
	Effects of Some Synthetic Detergents on Plants			
Morton, John Elliott	17	Evanson Twp. H. S.	<u>1645 Ridge Ave.</u>	
	Complexes of Lead 2, 6-Dimethyl-4-thiopyrone and the Halogens			
*Peters, Nancy Carol	17	Dunham-Twp. H. S.	<u>1415 Fowler Ave.</u>	
	Paper Chromatography in Amino Acid Separations			
Roe, Frank Lewis	17	Evanson Twp. H. S.	<u>2520 Harrison St.</u>	
	Thiopyrone-Copper Complexes			
Schnader, William Joseph	17	Evanson Twp. H. S.	<u>8933 Forestview Ave.</u>	
	Investigation into the Effects of Reduced Pressure on the Rates of Various Chemical Reactions			
*Solar, Merle Sharon	17	Evanson Twp. H. S.	<u>8629 N. Trumbull, Skokie</u>	
	Effects of Some Anesthetic Substances Upon Single-Celled Animals			
Vickers, George Ross	17	Evanson Twp. H. S.	<u>1126 Oak Ave.</u>	
Glen Ellyn				
Puetz, Douglas Phillip	17	Glenbard West H. S.	<u>603 Phillips Ave.</u>	
	Measuring Ability to Learn by Conditioned Response in Mice			
McGivern, Thomas John	17	Highland Park H. S.	<u>347 Elm Pl.</u>	
Joliet				
*Latz, Jean Ann	17	St. Francis Academy	<u>605 N. Hickory St.</u>	
	A Study of Catalysis			
LaGrange				
Lubin, Donald Paul	17	Lyons Twp. H. S.	<u>5417 Country Club Dr.</u>	
	Analysis of Softened Water			
Phillips, Roger Morgan	16	Lyons Twp. H. S.	<u>5434 Grand Ave., Western Springs</u>	
	Relative Numbers of the Kinds of Ions in Air Irradiated with Gamma Rays			
The Peaceful Atom at Work				
Miller, Robert Alan	17	Prospect H. S.	<u>213 S. Windsor Dr., Arlington Heights</u>	
	Photon Size			
*Bonini, Sylvia Evelyn	16	Glenbrook H. S.	<u>2422 Central Rd., Glenview</u>	
	Experiments with the Land Phenomenon			
North Chicago				
*Butkus, Julia Dalia	17	No. Chicago Community H. S.	<u>1510 Lincoln St.</u>	
	Preparation of Gibberellic Acid Compounds			
Orland Park				
*Smith, Sandra Joyce	17	Cari Sandburg H. S.	<u>9003 W. 126th St., Palos Park</u>	
	The Land Color Theory			
Johnson, Mark Hartman	16	Maine Twp. H. S. East	<u>7624 Maple St., Morton Grove</u>	
	Factors Determining the Nature of Multiplication			
	Tables for Permutations			

\*Moehring, Martha Lillian 16 Maine Twp. H. S., East 634 Wisner St.  
Metallic Crystals and the Thermoelectric Effect

#### INDIANA

	Angola	Steele, William Kenneth, Jr.	18	Angola H. S.	407 W. Felicity
	Bloomington	Judd, Arthur Reed	17	University H. S.	<u>1310 Atwater Ave.</u>
		Possible Existence of a Correction Factor for Improvement of Stellar Magnitude Determinations			
	Crawfordsville	*Shortz, April Irene	17	Crawfordsville Jr.-Sr. H. S.	<u>R. R. 3</u>
		An Investigation of Horse Sense			
	Delphi	Peterson, David Lee	17	Delphi H. S.	<u>R. R. 1, Box 25</u>
		A Step-by-Step Dial Telephone System for Use on the Farm			
	Evansville	Kusner, Sidney Ralph	17	Benjamin Bosse H. S.	<u>621 S. Norman Ave. 14</u>
		Generation of Alternating Current from an Electrochemical Cell			
	Fort Wayne	Robertson, Charles William, Jr.	17	Benjamin Bosse H. S.	<u>502 S. Lincoln Park Dr. 14</u>
		Possibilities of Electroluminescence in the Transmission of Color Modulated Light Signals			
	Hobart	Stevens, John Galem	17	Benjamin Bosse H. S.	<u>1509 Heming Ave. 14</u>
		Design and Lampworking of Small DeLaval Type Rocket Nozzles Using Compressed Air			
	Hammond	Hirschfelder, John Joseph	17	Central Catholic H. S.	<u>4123 Hoagland Ave. 6</u>
		Geometrical Foundations of the Theory of Relativity			
	Indianapolis	Berg, Samuel William II	17	Hammond H. S.	<u>8523 Schreiber Dr., Munster</u>
		Effect of Darkness on the Feeding Habits of Guinea Pigs			
	Portland	Brusch, Richard Gervais	17	Hammond H. S.	<u>8646 Walnut Dr., Munster</u>
		Testing the Characteristics of Small DeLaval Type Rocket Nozzles Using Compressed Air			
	Sheridan	*Prusicki, Linda Lou	17	Hobart H. S.	<u>225 E. 11th Pl.</u>
		Variations in Prevalence and Anatomy Among Terrestrial, Aquatic and Air Insects			
	South Bend	*Goodle, Martha Lee	17	Emmerich Manual Training H. S.	<u>2117 E. Raymond</u>
		Construction and Operation of a Colorimeter Spectroscope	<u>St. 3</u>		
		as Used in the Analysis of Human and Animal Blood			
		*Wolting, Linda Louise	16	Emmerich Manual Training H. S.	<u>1506 Barth Ave. 3</u>
		Leukocytic Changes in <u>Escherichia coli</u> Infection of Albino Rats			
		Bolin, Stephen Ray	17	Harry E. Wood H. S.	<u>924 Wright St. 3</u>
		A System for the Conversion of Rotatory Motion to Unidirectional Motion			
		Settle, Wayne Lee	17	Portland-Wayne Twp. Sr. H. S.	<u>R. R. 1, Keystone</u>
		Mutations Produced by the Irradiation of German Miller Seeds			
		Wehrly, Stephen Phillips	17	Portland-Wayne Twp. Sr. H. S.	<u>927 W. High St.</u>
		Nuclear Research, Experimentation and Visualization with a Continuous Diffusion-Type Cloud Chamber			
		Emry, Donald Charles	18	Sheridan H. S.	<u>R. R. #1</u>
		Roads of the Future			
		Ferrell, Richard	17	Central H. S.	<u>117 W. North Shore Dr. 17</u>
		An Analysis of the Vegetation in an Abandoned Gravel Pit			
		Peters, Roger Paul, Jr.	17	Central H. S.	<u>557 Edgewater Dr.</u>
		Gas Chromatographic Determination of Free Energy in 1-Chloro-1-propene			
		Raymond, Robert Lee	17	Central H. S.	<u>1205 N. Kaley 28</u>
		A Study of the Process of Root Initiation			
		*Fry, Marianne Jo	17	Garfield H. S.	<u>1316 N. 7th St.</u>
		Hydrolysis of Cellulose into Reducing Sugars			
	Terre Haute				
	Bettendorf	Yount, Kenneth Duane	17	Bettendorf H. S.	<u>2544 Oak St.</u>
	Cedar Falls	*Wilson, Mary Sue	17	Malcolm Price Laboratory School	<u>1203 W. 23rd St.</u>
	Ottumwa	Studies in Bacterial Mutation			
	Etkwall, Jack Eugene	17	Ottumwa H. S.	<u>825 Glenwood St.</u>	
	Sioux City	Stevens, Charles Gordon	17	East H. S.	<u>3308 Garretson Ave. 6</u>
		Design and Construction of a Solid-State Digital Computer			
		West Des Moines Drew, Gerald Cecil	17	Valley H. S.	<u>RFD #1, Cumming</u>
		Analysis of the Motion of Masses Connected in a Straight Line by Springs			

KANSAS

Great Bend Miner, Robert Nelson 17 Great Bend Sr. H. S. 2824 Paseo Dr.  
Shawnee Mission \*Holtzman, Joanne Marie 17 Bishop Mige H. S. 5707 Dearborn St.,  
Miscellaneous Studies in Herpetology  
Penicillin-Resistance of Staphylococci from Children

Wichita Gresham, Michael Arthur 17 Wichita H. S., Southeast 2516 N. 95th St. E.  
Lunar Phototopography R #3 20

Louisville Kleinman, Daniel Ellis 17 Atherton H. S. 1414 Goddard Ave. 4  
An Investigation of the Twin Prime's Problem

Baton Rouge Harris, Rano Joseph, Jr. 16 Baton Rouge H. S. 840 Ingleside Dr.  
Research Work in Gas Chromatography

MAINE

East Millinocket \*Henderson, Julia Anne 18 Schenck H. S. Palm St.  
Effects of Analgesics on Mice

MARYLAND

Bladensburg Andrews, Thomas Gaylord, Jr. 17 Bladensburg Sr. H. S. 5903 Euclid St.,  
Interfacial Polycondensation Chevyevry  
\*Koltke, Margaret Ellen 17 Bladensburg Sr. H. S. 3209 Tremont Ave.,  
Sugar-Born Complexes Chevyevry  
Catonsville \*Yople, Merry Carol 17 Catonsville Sr. H. S. 2 Montrose Ave.,  
Inheritance of an Eye Defect in Hamsters Baltimore 28  
Gambrills Huggins, Stephen Richard 17 Arundel Sr. H. S. 50 Highland Dr.,  
Theory and Practice of the Half-Life Millersville  
Rockville Formula in Radiation and Nuclear Decay  
\*Shaw, Mary Margaret 17 Walter Johnson Sr. H. S. 9615 Montgomery Dr.,  
Pattern of Ossification in the Chicken Embryo Bethesda 14

\*Nelsen, Margaret Ann 17 Richard Montgomery H. S. R #2, Great Falls Rd.  
Investigation of the Interference Phenomenon in Rabbit Test Systems  
Silver Spring Jordan, Steven Lee 17 Montgomery Blair H. S. 9205 Sudbury Rd.  
Geometric Implications of an Algebraic Equation

MASSACHUSETTS

Arlington Sprinkle, James Thomas 17 Arlington H. S. 440 Concord Turnpike 74  
Braintree Krabek, Charles Burleigh 17 Thayer Academy 10 Off Grove St.,  
Studies in High Resolution Nuclear East Weymouth 89  
Framingham Aron, Carl Robert 17 Framingham H. S. 38 Lohnes Rd.  
Diurnal Migration in Plankton Animals

Flinigan, Robert Charles 17 Framingham H. S. 28 Lyman Rd., Framingham Center  
Growth Patterns and Chromosomal Aberrations in Plant Cells in a Liquid-Medium Tissue Culture Environment  
\*Raymond, Eileen Bardwell 17 Hull H. S. 3 Holbrook Ave.  
Amino Acid and Carbohydrate Composition of the Toadfish Chorion

Bielat, Diane Leah 17 Lexington H. S. 7 Rockville Ave. 73  
Investigation of the Physiological and Chemical Composition of Nissl Substance

Hull Millbury Owen, Bruce Manning 17 Millbury H. S. Birchwood Dr., Holden  
Grain Structure of Metals

Natick Anstey, Robert Leland 17 Natick H. S. 11 Brookdale Rd.  
Fossil Alge Correlation by Amino Acid Content

Zelze, Frederick Fullen 17 Needham H. S. 207 South St. 92  
Design, Construction and Use of an Electroencephalograph

Norwood \*Stitt, Ann Elizabeth 17 Norwood Sr. H. S. 777 Neponset St.  
Determining the Population of Bacteria in the Rhizospheres of Banana Roots

Quincy Hoffman, Donald Richard 17 North Quincy H. S. 80 Forbes Hill Rd.,  
Oxidations of Steroids by Intact Bacterial Cells Wollaston 70

Revere Cecere, Mary Ann 17 Revere H. S. 300 Malden St. 51  
Two Methods for Measuring Germicidal Effects of Disinfectants

KANSAS

Shuster, Malcolm David 17 Revere H. S. 82 Kimball Ave. 51  
Effect of Temperature, Relative Humidity Difference and Plasticizer on the Permeability of Plastic Films to Water Vapor

Dufresne, Richard Frederick 17 South Hadley H. S. 337 E. State St., Granby  
A Mathematical Dye Synthesis  
Bass, Martin Clark 16 Classical H. S. 178 Commonwealth Ave. 8  
Effect of Cranial X-Irradiation on the Activity of Rats

Ware LaFlame, Paul Henry 18 Ware H. S. 32 Highland St.  
Performance of Variations in Neoprene Compared with Natural Rubber

Hughes, Allan George 17 Westwood Sr. H. S. 69 Loring St.  
Magic Squares

Knitter, James Bruce 17 Westwood Sr. H. S. 38 Gloucester Rd.  
Reduction of Transmitted Bandwidth

Wilmington Neilson, Peter Augustus 17 Wilmington H. S. 57 High St., No. Wilmington  
Effect of Excess Gravity on Plant Growth

Vandenbroek, Jan Abraham III 17 Ann Arbor H. S. 1128 Birch Ave.  
An Experimental Ultrasonic Generator

Beaverton Knapp, Larry De-Wayne 19 Beaverton H. S. 4399 Roehrs Rd.  
Formulating a Four-Dimensional Space-Time Geometry

Dearborn Lutz, Donald Stephen 17 Sacred Heart H. S. 22302 Cleveland St. 8  
Effects of Alpha Radiation on Bean Seeds

Detroit Tedeschli, Philip Joseph 17 Sacred Heart H. S. 3761 Williams St. 8  
Use of Grains to Improve Amateur Rocketry

Rochester Salmon, Robert Samuel 16 Cass Technical H. S. 18700 Whittlecomb St. 35  
Effects of Radionuclides of Iron on the Appearance of Erythrocytes

Flint \*MacVicar, Margaret Love Agnes 17 Flint Central H. S. G-6460 Detroit St.,  
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DuMouchel, William Hermas 17 St. Michael H. S. 1806 Parkfront St. 4  
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Minneapolis Harper, Nicki Diane 17 St. Margaret's Academy 2643 Webster Ave. 16  
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Rochester Barrett, John Neil 17 Lourdes H. S. 1105 12th Ave., N.E.  
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- Tillinger, Martin Herbert 17 Irvington H. S. 659 Chancellor Ave. 11  
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- Kaufman, David Gordon 17 William L. Dickinson H. S. 391 Central Ave. 7  
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- New Providence Mutter, Gustav Patrick 17 New Providence H. S. 12 Westerly Ave.<sup>1</sup>  
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- Red Bank Sherman, Marvin Nathan 16 Plainfield H. S. 614 Huntingdon Ave.  
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- South Merchantville Weingarten, Donald Henry 15 Plainfield H. S. 521 Penbernton Ave.  
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- \*Chess, Shelley 16 Erasmus Hall H. S. 1625 Ditmas Ave. 26  
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- \*MacMinigal, Pamela Dee 17 Great Neck South Sr. H. S. 3 Gilchrist Rd.
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- Stovall, John Kalp 17 Hamburg Central H. S. 31 Hampton Brook Dr.
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- Middletown Marcellus, Daniel Haskell 17 Middletown H. S. 1 Brown Ave.
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- Mt. Vernon Radow, Michael David 17 A. B. Davis H. S. 430 Oakland Ave.
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- New Hyde Park Crane, Martin 17 Herricks Sr. H. S. 489 Willis Ave., Williston Park
- Effects of a Magnetic Field (Static and Alternating) on Water Liberman, Allen Harvey 17 Herricks Sr. H. S. 142 Robby Lane
- Nature of Molecules in Chlorophyll Pigments
- Goth, George William 17 New Hyde Park Memorial H. S. 85 1/2 St., Garden City Park
- Solubilities of Certain Inorganic Salts in Organic Solvents and Properties of these Solutions
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Uniondale	Ryniker, Richard William 16 Uniondale H. S. 123 Jean Ave., Hempstead Determining the Resonant Frequency of Low Frequency LC Tank Circuits
Wappingers Falls	Ingersoll, Robert Grant 17 Wappingers Central H. S. De Garmo Hills Rd. Hydrogenation of Benzene
Westbury	Huebsch, Robert Irwin, Jr. 17 W. Tresper Clarke H. S. 792 Regent Dr. Use of Experimental Surgical Techniques to Study Tissue and Organ Immunity in Grafts
Williamsville	*O'Dea, Elizabeth Marie 17 Williamsville Sr. H. S. 11 Blossom Heath 21 Effect of Ultraviolet Irradiation Upon the Specific Rotation of Amino Acids
	*Wick, Marcia 17 Williamsville Sr. H. S. 174 Glen Ave. 21 Biochemical Equivalent of a Human Disease in a Mutant Strain of Bacteria
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Hickory	Harmon, Samuel Douglas 17 Claremont Central H. S. 236 8th St. S. W. Cleaning by Ultrasonics
Washington	Kling, Charles Lee 17 Washington H. S. 1309 N. Market St. Lubricating Qualities of Graphite at Various Altitudes
Winston-Salem	Fairchild, William Royal 16 Bishop McGuinness Memorial H. S. 820 West-A decimal to Binary Converter and Binary Adder over Ave.
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Bedford	Hora, Charles Joseph, Jr. 17 Bedford Sr. H. S. 647 High St.
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	*Nash, Anne Haley 17 Thomas Edison H. S. 4149 E. 46th St. 35 A Study of Chorionic Gonadotrophic Hormone
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Abington	Jacksonoff, Ray Saul 16 Abington Sr. H. S. 2133 Parkdale Ave., Glenside Computer Music
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Drexel Hill	*Whitman, Marilyn Louise 17 Archibishop Prendergast H. S. 1120 Alexander Ave. Paper Chromatography
Huntingdon Valley	*Yates, Virginia Carol 17 Lower Moreland H. S. 2339 Huntingdon Pike, Bethayres Cell Differentiation
Lima	Tempelman, Ernest Stefan 16 Penncrest H. S. Shady Hill Rd., Moylan Sound Transmission via Light Intensity Modulation
Mechanicsburg	*Myers, Martha Jean 17 Cumberland Valley H. S. Mounted Route, Camp Effects of Growth Hormone on Tumor Transplantation
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	Epps, Thomas Wakefield	17	Robert E. Lee H. S.	<u>1800 Amy Dr.</u>	
	Construction of a Sixty-Degree Spectroscope				
El Paso	Ward, Arthur Joseph, Jr.	17	Burges H. S.	<u>1438 Pike Rd., Fort Bliss</u>	
	Reptilian Fauna of El Paso County, Texas				
Midland	Hall, James Michael	17	Midland H. S.	<u>4304 Leddy St.</u>	
Fort Worth	*Harkins, Anna Marie	17	Arlington Heights Sr. H. S.	<u>4010 W. Fourth St.</u>	7
Odessa	Short, Kenneth Roy, Jr.	17	Permian H. S.	<u>1214 Royalty</u>	
	Effect of the Sun on the Atmosphere of the Planet Jupiter				

Port Neches	Glassmire, William Fischer, Jr.	17	Port Neches-Groves H. S.	<u>6470 Washington St., Groves</u>	
San Antonio	*Hodges, Karen	17	Alamo Heights H. S.	<u>416 College Blvd.</u>	9
Philadelphia	Dobkin, Robert Curtis	17	Central H. S.	<u>Sutton Terrace, 50 Belmont Ave.</u>	
Pittsburgh	Research in Thermoelectrics				
Reading	*Bytnar, Patricia Ann	16	Sacred Heart H. S.	<u>213 Dorseyville Rd.</u>	15
	Effects of Sodium Fluoride on Plants and Animals				
	Kobrin, Lowell Edmund	17	Reading Sr. H. S.	<u>1530 Oak Lane</u>	
Scranton	The Obese Mouse and Transfer of Ova Following Artificially Induced Ovulation and Matting				
	*Ramsay, Barbara Jeanne	17	Reading Sr. H. S.	<u>1411 College Ave.</u>	
	Polymeric Growth Influence				
Kuhar, Michael Joseph	16	Cathedral H. S.	<u>1109 Throop St., Dickson City</u>		
	Thermoelectricity				
					<u>UTAH</u>
Bountiful	York, William Byrne, Jr.	17	Bountiful H. S.	<u>65 S. 750 East</u>	
	Classification of Photosynthetic Bacteria from the Great Salt Lake				
Salt Lake City	Magley, Karl LeGrande	17	Highland H. S.	<u>2152 E. Crystal Ave.</u>	9
	Application of Research in Model Aerodynamics				
					<u>VIRGINIA</u>
Alexandria	Cone, John Martin, Jr.	16	F. C. Hammond H. S.	<u>4542 LaSalle Ave.</u>	
Arlington	Jones, Edward Charles	17	Wakefield H. S.	<u>6807 N. 29th St.</u>	13
	Convex Smooth Curves				
	Bast, Robert Clinton, Jr.	17	Washington-Lee H. S.	<u>4329 24th St. N.</u>	7
	Possible Role of the Leukocyte in Tolerance to the Pyrogenicity of Bacterial Endotoxins				
Fairfax	Finegan, Michael Joseph	18	Fairfax H. S.	<u>Rt. 1, Box 4, Fairfax Station</u>	
	A Study of Factors Which Affect the Chromic Acid Oxidation of 1-Ethyl-2-nitrobenzene				
McLean	Souders, Thomas Michael	17	McLean H. S.	<u>Rt. 1, Box 136, Great Falls</u>	
	Development of a Liquid Freon Bubble Chamber				
Richmond	Mitchell, Archer Sylvester, Jr.	17	Maggie L. Walker H. S.	<u>2400 Langston Ave.</u>	20
	Electrophoretic Study of the Effect of pH on Precipitation of Rabbit Serum Proteins by Sodium Lauryl Sulfate				
					<u>WASHINGTON</u>
Deming	Mideke, Michael Louis	17	Mount Baker H. S.	<u>1906 E. Sunset Dr., Bellingham</u>	
	Planning and Construction of a Radio Telescope				
Everett	*King, Leslie May	17	Everett H. S.	<u>1112 Colby Ave.</u>	
	Effects of Prenatal Hypoxia on Early Postnatal Development				
Spokane	Ashurst, Parker Kirk	17	Lewis and Clark H. S.	<u>3723 S. Tekoa</u>	36
	Electric Fields and Colloidal Smoke				
					<u>WEST VIRGINIA</u>
Charleston	Hills, Henry Monroe	17	Stonewall Jackson H. S.	<u>122 Swarthmore Ave.</u>	2
	Teratogenic Effects of Iodine-131 in Chick Embryos				
	*Ingram, Doris Ann	17	Stonewall Jackson H. S.	<u>806 Main St.</u>	2
	Syroflock Models for the Illustration of Metallic Crystal Lattices				
Fairmont	Meredith, Jamison, Jr.	17	Fairmont Sr. H. S.	<u>925 Farms Dr.</u>	
	Factors Influencing Spore Germination in the Fungi				
Kenova	Brooks, Thomas Hoke	17	Buffalo H. S.	<u>2451 Spring Valley Dr., Huntington</u>	
	Rate of Electron Exchange Between Mercurous and Mercuric Ions in Nitric Acid Solutions by Nuclear Magnetic Resonance				
Morgantown	Gwynne, John Thomas	17	Morganstown H. S.	<u>241 Richwood Ave.</u>	
	Nuclear Magnetic Resonance and a Magnetic Resonance Spectrometer				
Welleson	Wojdyla, John Robert	17	Madonna H. S.	<u>165 Powers Rd.</u>	
	Initial Spectrographic Investigations with a Wood Spectrometer				
					<u>WISCONSIN</u>
Kenosha	Moeller, John Anthony	17	Mary D. Bradford H. S.	<u>7413 10th Ave.</u>	
	Digraph Substitution Ciphers				
Milwaukee	Jahnke, James Arthur	17	Custer Sr. H. S.	<u>5145 N. 55th St.</u>	18
	Silicone Rubber (Synthesis and Properties)				
	*Gibson, Nancy Janet	17	Nicole H. S.	<u>1526 W. Larkspur Lane</u>	17
	Effects of Beta-Radiation on Buglina Gracillaria				
	Remmel, Ronald Sylvester	17	Nicolet H. S.	<u>2221 W. Raleigh Ave.</u>	
	Rate of Ion Migration				
	Winkler, Mitchell A.	17	Nicole H. S.	<u>538 W. Apple Tree Rd.</u>	17
	A Study of the Phosphorus Oxychloride Acid-Base System				

**Sturgeon Bay**

**Waukesha**

**Logerquist, David Russell** 17 **Sebastopol H. S.** **Bailey's Harbor**  
**Response of Baby Chicks to Selected Hormones**  
**\*Tillingworth, Roberta Ann** 17 **Waukesha Sr. H. S.** **122 N. Hartwell Ave.**  
**Radiation Effects on Dicotyledonous Seeds**

**STATE SCIENCE TALENT SEARCHES**

All State Science Talent Searches are authorized by special arrangement with Science Clubs of America. Those desiring information on or details of the results of State Science Talent Searches should send their inquiries to the Directors in the respective states. For a prompt reply, send a stamped, self-addressed envelope with your inquiry.

**Alabama:** Alabama Academy of Science

**Dr. Emmett B. Carmichael,** Prof. and Head, Dept. of Biochemistry, Alabama Medical College, Birmingham.

**Alaska:** University of Alaska

**Dr. Wm. S. Wilson,** Head, Depts. of Chemical Engineering and Chemistry, University of Alaska, College

**Arkansas:** Arkansas Academy of Science

**Dr. Leo Paulissen,** Asst. Prof. of Bacteriology, University of Arkansas, Fayetteville

**Connecticut:** Connecticut Academy of Arts and Sciences

**Dr. David J. Blieck,** Assoc. Prof. of Science Education, University of Connecticut, Storrs

**District of Columbia:** Washington Academy of Sciences

**Dr. Leo Schubert,** Chm., Div. of Nat. Sciences and Math., American University, Washington

**Florida:** Florida Foundation for Future Scientists

**Dr. Luther Arnold,** College of Education, University of Florida, Gainesville

**Georgia:** Georgia Academy of Science

**Mrs. Emily Simmons,** Science Teacher, McEachern H. S., Rt. 1, Powder Springs

**Hawaii:** Inter-Society Science Education Council and Hawaiian Academy of Science

**Mr. Edwin Y. H. Chun,** Field Asst., Secondary Educ., 1037 S. Beretania St., Honolulu

**Idaho:** Idaho Academy of Science

**Dr. Harold McValine,** Prof. of Botany, University of Idaho, Moscow

**Illinois:** Illinois Academy of Science

**Dr. W. J. Birge,** Dept. of Zoology, University of Illinois, Urbana

**Indiana:** Indiana Academy of Science

**Mr. R. W. Leffler,** Asst. Prof. of Physics and Education, Physics Dept., Purdue University, Lafayette

**Dr. M. Joe D. Woods,** Assoc. Prof., Chemistry, Drake University, Des Moines

**Kansas:** Kansas Academy of Science

**Dr. S. Winston Cram,** Chm., Physical Science Div., Kansas State Teachers College, Emporia

**Louisiana:** University of Southwestern Louisiana

**Dr. James R. Oliver,** Prof. of Chemistry, University of Southwestern Louisiana, Lafayette

**Maine:** University of Maine

**Dr. George T. Davis,** Assoc. Prof. of Education, University of Maine, Orono

**Maryland:** Maryland Academy of Sciences

**Dr. Thomson King,** Enoch Pratt Free Library Bldg., Baltimore

**Michigan:** Michigan Academy of Sciences, Arts and Letters

**Prof. C. L. Schloemer,** 146 Natural Science Bldg., Michigan State University, E. Lansing

**Minnesota:** Minnesota Academy of Science

**Dr. Arthur F. Nelson,** Prof. of Chemistry, St. Cloud State College, St. Cloud

**Montana:** Montana State College

**Dr. Adrien L. Hess,** Assoc. Prof. of Mathematics, Montana State College, Bozeman

**Nebraska:** Nebraska Academy of Science

**Dr. James A. Rutledge,** Assoc. Prof. of Secondary Education, University of Nebraska, Lincoln

**New Hampshire:** New Hampshire Academy of Science

**Dr. R. L. Blitsie,** Prof. of Entomology, University of New Hampshire, Durham

**New Mexico:** New Mexico Institute of Mining and Technology

**Dr. Joseph A. Schulte,** Prof. of Chemistry, New Mexico Institute of Mining & Technology, Socorro

**North Carolina:** North Carolina Academy of Science

**Dr. Herbert Spence,** Dept. of Mathematics, North Carolina State College, Raleigh

**North Dakota:** North Dakota State College

**Prof. Fred Sands,** School of Chem.Tech., North Dakota State University, Fargo

**Oklahoma:** Oklahoma Science Service

**Dr. Horace E. Hoffman,** Oklahoma Science Service, University of Oklahoma, Box 1120, Norman

**Oregon:** Oregon Academy of Science

**Mr. Raymond E. Barrett,** Educ. Dir., Oregon Museum of Science and Industry, 4015 S. W.

**Pennsylvania:** Pennsylvania Academy of Science

**Dr. William Urticchio,** Head, Dept. of Biology, Mount Mercy College, Pittsburgh

**Rhode Island:** Brown University

**Dr. J. W. Kling,** Dept. of Psychology, Brown University, Providence

**South Carolina:** South Carolina Academy of Science

**Dr. Richard H. Gadsden,** Asst. Prof. of Chemistry, Medical College of South Carolina, Charleston

**South Dakota:** South Dakota State College, Brookings

Tennessee: Tennessee Academy of Science  
Mr. James L. Maior, Chemistry and Physics Teacher, Clarksville H. S., Clarksville  
Texas: Texas Academy of Science  
Mr. Jack Pemberton, Chm., Texas Jr. Academy of Science, La Porte H. S., La Porte  
Utah: Utah Academy of Sciences, Arts and Letters  
Dr. Richard S. Peterson, State Supv. of Science, Utah State Capitol Bldg., Salt Lake City  
Vermont: University of Vermont  
Dr. G. Chapman Crooks, Prof. of Chemistry, University of Vermont, Burlington  
Virginia: Virginia Academy of Science  
Mr. J. C. Holmes, Research and Development Dept., Philip Morris, Inc., P. O. Box 1895,  
Washington: Whitworth College Richmond  
Dr. Hugh W. Johnston, Chm., Dept. of Chemistry, Whitworth College, Spokane  
West Virginia: West Virginia Academy of Science  
Mr. Douglas B. Williamson, Asst. Prof. of Physics, West Virginia University, Morgantown  
Wisconsin: Wisconsin Academy of Science  
To be announced

Bernstein, Herbert Jacob 16 New Utrecht H. S. 1342 51st St. 19  
Gordon, Robert Jay 16 Yeshiva of Flatbush H. S. 2480 84th St. 14  
Jamaica  
Jamaica H. S. 75-32 179th St., Flushing 66  
New York  
Fell, Harriet Jane 16 Jamaican H. S. 23 E. 69th St. 21  
Wallman, Joshua 17 Bronx H. S. of Science 143-11 Barclay Ave.,  
Lepowsky, James Ivan 16 Stuyvesant H. S. Flushing 55  
Penfield  
Tate, William Charles 17 Penfield Central H. S. 11 Dokwood Glen,  
Staten Island  
Rappaport, Bernard Sandor 17 New Dorp H. S. Rochester 25

Rappaport, Bernard Sandor 17 New Dorp H. S. 72 Tenth St. 6

OHIO

\*Manuk, Rita Carol 16 Lourdes Academy 2217 Montclair Ave. 9  
\*Mayer, Ann 17 Fairborn H. S. 572 Wayne Dr. \$34,250 of Westinghouse Science Scholarships and Awards will be distributed, represent about  
Smith, Dale Thorpe, Jr. 18 Tippecanoe H. S. 7276 S. Dixie Dr.  
Tipp City

OREGON

Beaverton  
Hubbell, Wayne Lester 17 Beaverton H. S. 4450 S. W. 96th St.

TEXAS

Austin  
Austin, Frederick Albert III 16 Stephen F. Austin H. S. 1800 San Gabriel St. 1

Fort Worth  
\*Harkins, Anna Marie 17 Arlington Heights H. S. 4010 W. Fourth St. 7

VIRGINIA

Arlington  
Jones, Edward Charles 17 Wakefield H. S. 6807 N. 29th St. 13

\* indicates girls  
HOME ADDRESS follows name of school  
AGE of winner follows name  
H.S. indicates High School



*for the Westinghouse Science Scholarships and Awards*

*Washington Trip Winners*  
*of the*  
*Twentieth Annual Science Talent Search®*

The forty Washington trip winners of the 20th Annual Science Talent Search, among whom 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 March 2 through March 6, 1961, 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 30 cities in 18 states and the District of Columbia. They were picked by the judges from among 25,355 contestants of whom 3,991 completed their entries by taking a science aptitude examination, obtaining recommendations and writing a report on "My Scientific Project." Examinations were received from every state.

Of the 40 Twentieth Annual Science Talent Search winners, 27 ranked in the top 5% of their graduating class and 18 of these 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 23.2% of the entries this year.

## ***Washington Trip Winners***

INDIANA			
South Bend	Peters, Roger Paul, Jr.	17	Central H. S. 557 Edgewater Dr. Raymond, Robert Lee 17 Central H. S. 1205 N. Kaley 28
IOWA			
Cedar Falls	*Wilson, Mary Sue	17	Malcolm Price Laboratory School 1203 W. 23rd St.
KENTUCKY			
Kleiman, Daniel Ellis	17	Atherton H. S.	1414 Goddard Ave. 4
MARYLAND			
Bladensburg	Andrews, Thomas Gaylord, Jr.	17	Bladensburg Sr. H. S. 5903 Euclid St., Cheverly
MASSACHUSETTS			
Hoffman, Donald Richard	17	North Quincy H. S.	80 Forbes Hill Rd., Wollaston 70
MISSOURI			
*Ceere, Mary Ann	17	Revere H. S.	300 Malden St. 51
NEBRASKA			
Kansas City	Barisas, Bernard George, Jr.	15	Southeast H. S. 6319 S. Benton St. 32
NEW YORK			
Omaha	Josephson, Paul Douglas	17	Omaha Central H. S. 1507 N. 54th St. 4
ARIZONA			
Fox, Donald Jensen	17	West H. S.	2314 W. Pinchot St.
COLORADO			
Chessen, Douglas Howell	17	East H. S.	6301 E. 22nd Ave. 7
DISTRICT OF COLUMBIA			
Newlon, Michael Clarke	17	Western H. S.	3714 Massachusetts Ave. 16
FLORIDA			
*Meison, Eloise Ann	17	Coral Gables Sr. H. S.	1507 S. W. 19th Terrace, Miami 45
GEORGIA			
Adkins, William Milton III	17	Melbourne H. S.	67 Land Circle
IDAHO			
Kane, Daniel Frederick, Jr.	17	Joseph E. Brown H. S.	1626 Rogers Ave., S.W. 10
ILLINOIS			
Hosford, James Michael	17	Northside H. S.	1080 Northcliffe Dr., N. W. 18
KANSAS			
Wheeler, John Craig	17	Idaho Falls H. S.	239 11th St.
LAWRENCE			
Dworkin, Barry Ronald	16	Amundsen Sr. H. S.	2630 W. Rascher St. 25
Evanston	17	Evanston Twp. H. S.	8835 Monticello Ave., Skokie
MICHIGAN			
McGivern, Thomas John	17	Highland Park H. S.	347 Elm Pl.
Hightland Park	Phillips, Roger Morgan	16	Lyons Twp. H. S. 5434 Grand Ave., Western Springs
LaGrange			