

GENERAL SCIENCE-EDUCATION

40 Winners to Compete

Nine girls and 31 boys (proportion determined by ratio of boys and girls entering the contest) are being invited to Washington, D. C., for an all-expense trip Feb. 28 to Mar. 4, 1947, to attend the Science Talent Institute. Here one boy and one girl will be awarded \$2,400 Westinghouse Grand Science Scholarships. Eight winners will be awarded \$400 Westinghouse Science Scholarships and \$3,000 additional in scholarships will be awarded at the discretion of the judges.

CALIFORNIA	
<i>Bakersfield</i>	Self, Cecilia Maud 15 East Bakersfield High School
<i>Los Angeles</i>	Halverson, Phillip Carl 17 Alexander Hamilton High School
<i>Pasadena</i>	Kamb, Walter Barclay 14 Pasadena Junior College
CONNECTICUT	
<i>Bridgeport</i>	Nagy, Irene Elizabeth 17 Bassick High School
<i>Greenwich</i>	Gregory, Clarence Leslie, Jr. 16 Brunswick School
DISTRICT OF COLUMBIA	
<i>Washington</i>	Shappirio, David Gordon 16 Roosevelt High School
ILLINOIS	
<i>Chicago</i>	Addleman, Mary 16 Aquinas High School
	Wilt, James William 16 De La Salle High School
<i>Mt. Sterling</i>	Briggs, Marilyn Louise 17 Mt. Sterling Community High School
<i>Urbana</i>	Smith, Norman Harkey 16 University High School
MAINE	
<i>Orono</i>	Cloke, Paul LeRoy 17 Orono High School
MASSACHUSETTS	
<i>Newtonville</i>	Karplus, Martin 16 Newton High School
MINNESOTA	
<i>St. Paul</i>	Gordon, Milton Paul 16 Central High School
NEW HAMPSHIRE	
<i>Lebanon</i>	McKenna, James 17 Lebanon High School
NEW JERSEY	
<i>Cliffside Park</i>	Cole, Irwin Harold 17 Cliffside Park High School
<i>Clifton</i>	Hayes, John Richard 17 Clifton High School
<i>Upper Montclair</i>	Pike, John Nazarian 17 College High School
NEW YORK	
<i>Albany</i>	Cooley, Robin 17 Albany Academy for Girls
<i>Brooklyn</i>	Bieber, Herman 16 Erasmus Hall High School
	Mattuck, Arthur Paul 16 Midwood High School
<i>Buffalo</i>	Inman, Charles Gordon 17 Bennett High School
<i>Eden</i>	Rennagel, William Robert 16 Eden Central High School
<i>Huntington</i>	Demerec, Vera Radoslava 16 Huntington High School
<i>New York</i>	Cooper, Leon N. 16 Bronx High School of Science
	Radack, Herbert Brahm 16 Bronx High School of Science
	Felsenfeld, Gary 17 Stuyvesant High School
	Taylor, Leonard Stuart 17 Stuyvesant High School
	Zemach, Ariel 16 Stuyvesant High School
	Semiat, Paula B. 17 Wm. H. Taft High School
<i>Perry</i>	Relyea, Douglas Irving 16 Perry High School
OHIO	
<i>Cincinnati</i>	McLeish, William Lee 17 Plainville High School
<i>Waynesfield</i>	Emrick, Donald Day 17 Waynesfield High School
<i>Willoughby</i>	House, Herbert Otis 17 Willoughby Union High School
OREGON	
<i>Eugene</i>	Christensen, Dorothy Jean 16 Eugene High School
PENNSYLVANIA	
<i>Philadelphia</i>	Eisenberg, Jerome Martin 16 Central High School
	Kopple, Kenneth David 16 Cheltenham High School
TENNESSEE	
<i>Nashville</i>	Maynard, Donald More 17 Peabody Demonstration School
WASHINGTON	
<i>Hunters</i>	Anthony, Katherine Virginia 19 Hunters High School
WEST VIRGINIA	
<i>Sissonville</i>	Simmons, Gustavus James 16 Sissonville High School
WISCONSIN	
<i>Reedsburg</i>	Haugh, Eugene Frederick 17 Reedsburg High School

AERONAUTICS

New Types of Planes Predicted for 1947

➤ MORE NEW types of aircraft than in any prior year in American air transportation will take to the air in 1947, the Society of Automotive Engineers in Detroit was told by R. C. Loomis of Trans World Airline, Kansas City. Better engines will feature them.

Improved engines, making use of war-born devices, will give them speed and economy. Fuel injection systems will be used for purposes of fuel economy, reduced engine vibration, freedom from icing and improved cooling. The use of the small exhaust-turbo-supercharger on the new Boeing Stratocruiser will increase speeds at 25,000-foot altitude by 50% over sea level speeds, he declared.

No gas turbine engines will be used to power commercial aircraft during 1947, but much development work will be done in applying turbine-propeller powerplant combinations to commercial planes for later use. New aircraft models must be designed to take care of turbo-jets, he asserted, so that their use must be considered three years away.

Science News Letter, January 25, 1947

MINING

New Clay Analysis Methods Often Detect Minerals

➤ THE CLAYS in the vicinity of hidden mineral deposits are now being used to betray the presence of the ore, thanks to X-ray, the electronic microscope, thermal analysis methods, and the old-time chemical analysis for traces of the mineral.

The technique employed is known as "alteration study." Its extended use in searching for new deposits of minerals to replace depleted reserves was revealed by Prof. Paul F. Kerr, of Columbia University, who is partly responsible for its development and who has used it for the past five years.

Particular attention in alteration study, he states, is paid to the processes of nature that have destroyed original rocks and left in their place clay and various other types of alteration material. A determination of their mineral contents furnishes the clue that leads to the mineral deposits. When the alteration study technique is further developed, he predicts, it will be a valuable weapon in the search for new mineral deposits.

Science News Letter, January 25, 1947