

VASE ANNUAL REPORT FOR 2018-19

The year began with VASE's Annual Meeting and Public Forum which took place on October 17th, 2018 at Middlebury College's McCardell Bicentennial Hall in Room 216. The room was packed to capacity, with ~150 attendees, including VASE members, honorees and their guests, students, and members of the general public. As the out-going President of VASE, Frank Winkler started the meeting by welcoming everyone. He then introduced VASE Outreach Coordinator John Cohn who announced the 2018 Paula Fives-Taylor Awards for Outstanding Teaching in Science. This year's awardees were (Grades K-8) Kurt Sherman of the Westford Elementary School, and (Grades 9-12) Karen Schroeder from Arlington Memorial High School. The awardees each received an engraved plaque as well as a check for \$1000.00.

The keynote speaker for the evening was Dr. David Latham from the Harvard Smithsonian Center for Astrophysics and Director of Science for NASA's new Transiting Exoplanet Survey Satellite mission. He delivered a lively talk entitled "The Search for Habitable Worlds" which was followed by a vigorous question and answer session.

Following the meeting, 42 VASE members, honorees, and guests convened for dinner at Middlebury's Kirk Alumni Center. The Middlebury *a capella* group, the "Dissipated Eight" sang a few tunes after dinner and before dessert was served. VASE then welcomed three new VASE members: Dennis Clougherty of the UVM Physics Department, Gordon Jensen of the UVM College of Medicine, and Alan Rubin of the UVM College of Medicine. The meeting ended after the science teacher awardees delivered some brief reflections on their teaching careers and philosophies.

VASE continued its long-standing Small Equipment Grants program for Vermont's K-12 educators. This year we received 13 highly competitive Small Equipment Grant proposals. We were able to fund eight of these, with a total of \$6,932.00 awarded. A list of Small Equipment Grant awardees is attached to this report.

VASE also continued its Hands-On Science and Technology (HOST) grants outreach program (now in its third year). A donor who wishes to remain anonymous contributed yet another \$10,000 to VASE's HOST program in 2018 to promote capable and practical technology skills among Vermonters beyond the traditional classroom. This year we received a very strong response to our solicitation for proposals that, taken collectively, requests almost twice the funds we have available for the program! Among the 18 HOST grants received, 12 earned funding, for a total of \$10,357.00 (see list of HOST grant awardees attached).

Another notable achievement was the awarding of VASE's second Outstanding High School Science Project Award at the 2018 Vermont Science, Technology, Engineering and Mathematics Fair held at Norwich University in March. This award recognizes outstanding initiative and innovation in science, technology, engineering, and/or mathematics in a student-led high school science project at the fair. This year's recipient was Miranda Todt of the Windsor School.

The VASE 2019 Spring meeting was held at the Vermont State House in Montpelier on Tuesday, April 30, 2019 from 4:30pm – 6:00pm. All 2018 K-12 grantees (for both VASE Small Equipment and HOST grants) were invited to attend, and many of them did. Project exhibits and demonstrations were set up at tables all around the State House cafeteria as VASE members, guests, and at least a dozen state legislators or other state government officials engaged in conversation. The formal part of the program began when new VASE President Grace Spatafora announced that VASE is now accepting nominations for the 2019-2020 Outstanding Teaching in Science awards for grades K-8 and 9-12. Outreach Coordinator John Cohn proposed an earlier call for VASE Grant proposals this year, (ie. before the start of summer vacation), and he solicited feedback on this idea. Newly-inducted VASE member Gordon Jensen then delivered a very interesting presentation of his research on inflammation and malnutrition, after which VASE member Alan Betts spoke briefly about global youth projects and climate change that stimulated some lively discussion.

In summary, VASE is very much alive and well as it continues its mission in 2019-2020 by honoring the accomplishments of scientists and engineers, promoting the interests of science and engineering throughout the state of Vermont, educating Vermonters about the importance of science, technology engineering and mathematics in their daily lives, and helping the state government resolve science and engineering problems (the latter with VASE's recently appointed Artificial Intelligence Task Force).

Respectfully Submitted,



Grace Spatafora
President, Vermont Academy of Science and Engineering
Irene Heinz and John LaPorte Given Professor in the Pre-medical Sciences
Middlebury College
July 29, 2019

VASE Small Equipment Grants funded, 2018

School	Lead Teacher	Title	Award
Randolph HS	Ken Cadow	Sensing and Measuring the World We Live in	\$885.00
Salisbury Community School	Amy Clapp	Tinker Crates—Keeping Engineering Alive	\$600.00
Middlebury MS	Katie Moquin	Eco zones development and data collection	\$984.00
Richmond Elementary	Darcie Rankin	Curricular Enrichment through Coding and Robotics	\$1,017.90
Arlington HS	Karen Schroeder	Building Kits for Engineering Projects	\$815.00
Montpellier MS	Eli Rosenberg	Building Kits for Engineering Projects	\$750.00
Williamstown MS/HS	Paul Smith	Trout in the Classroom	\$1,000.00
Edmonds Elementary	Kathryn Neil	First Graders are Literally Computational Thinkers!	\$880.40

Total Funds Awarded: \$6,932

VASE HOST Grants funded, 2018

Group	Leader	Title	Award
Archytas Education Corp	Stephen Farrington	Archytas Education Corp	\$1,000.00
BFA	Elijah Church	Electric Junkyard Science Band	\$1,000.00
Code for BTV	Micah Mutrux,	Code for BTV	\$1,000.00
East Montpelier Elementary School	Shawn Kasulka	East Montpelier FIRST Robotic Team	\$500.00
Montpelier Public Schools	Chuck Hoffert	Capital Robotics	\$1,000.00
The Schoolhouse	Pike Porter	Schoolhouse Community Robotics	\$1,000.00
VT Day School	Caryn Shield,	Vermont Day School	\$1,000.00
Champlain Shamrocks 4-H Club	Sheila Chairvolotti	Champlain Shamrocks	\$1,000.00
Ripton Elementary	Charlotte Holmquist	Preserve Bee Biodiversity	\$398.00
Randolph Union HS	Ken Cadow	Randolph Robotics	\$1,000.00
Tuttle Middle School	Chris Johnstone	FHTMS	\$899.00
Salisbury Elem	Bethany Morrissey	Salisbury School	\$560.00

Total Funds Awarded: \$10,357

Balance, fiscal year beginning June 1, 2018

	2018-19 Budget	2018-19 Actual	2019-20 Budget
		\$5,249	

RECEIPTS

Transfer from Technology Council	\$13,000	\$13,000	\$13,000
Contributions from members	\$1,100	\$1,825	\$1,600
Donation to HOST grant program	\$10,000	\$10,000	\$10,000
Reimbursement of unused grant funds	\$0	\$55	\$0
Total Receipts	\$24,100	\$24,880	\$24,600

EXPENDITURES

Fall meeting and Public Forum			
Travel & accommodation for speaker, Dr. David Latham	\$700	\$927	\$700
Honorarium to keynote speaker	\$500	\$0	\$500
Catering	\$2,000	\$2,412	\$2,500
Conference and Events charge	\$200	\$0	\$200
New member certificate frames, etc.	\$100	\$78	\$100
Science Teacher of the Year Award			
Two awards at \$1000 each	\$2,000		\$2,000
Kurt Sherman, Westford	\$1,000		
Karen Schroeder, Arlington	\$1,000		
Engraved plaques	\$400	\$164	\$200
Small Equipment Grants to Teachers			
8 @ 1000	\$8,000	\$885	\$8,000
Randolph High School		\$600	
Salisbury Community School		\$984	
Middlebury Union Middle School		\$1,018	
Richmond Elementary School		\$815	
Arlington High School		\$1,000	
Montpelier Middle School		\$1,000	
Williamstown Middle/High School		\$1,000	
Edmonds Elementary School		\$880	
Maple Leaf Montessori (awarded previous year)		\$972	
Total Equipment Grant Awards		\$8,154	
Hands on Science & Technology Grant Awards			
Archylas Education Center		\$1,000	
Bellows Fall Academy		\$1,000	
Code for BTU		\$1,000	
East Montpelier Elementary		\$500	
Montpelier Public School		\$1,000	
The School house		\$1,000	
Vermont Day School		\$1,000	
Champlain Shamrock		\$1,000	
Ripton Elementary		\$398	
Randolph Union High School		\$1,000	
Turtle Middle School		\$899	
Salisbury Elementary		\$560	
Total HOST Awards		\$10,357	\$10,000
VT STEM Fair Award			
One award at \$100 to Miranda Todd,	\$100	\$100	\$100
Spring meeting expenses			
Catering (Abbey Food Service, VT State House)	\$800	\$616	\$800
Miscellaneous expenses (postage, bank costs, etc.)			
	\$100	\$55	\$50
Total expenditures	\$4,232	\$5,866	\$5,316

BALANCE, fiscal year end

	\$4,232	\$5,866	\$5,316
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