

ANNUAL REPORT 2022

THE MISSION OF FLYING CLOUD INSTITUTE IS TO INSPIRE YOUNG PEOPLE AND EDUCATORS THROUGH DYNAMIC SCIENCE AND ART EXPERIENCES THAT IGNITE CREATIVITY.

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Celebrating 2022's Family STEAM Challenge: Executive Director Maria, Board Members Barbara Viniar and Mary Nash, Development Manager AmyTruax

Dear Flying Cloud Friends,

We have been following the gorgeous images coming back from the James Webb Space Telescope, ethereal pictures of the distant universe and galaxy clusters. Talk about wow moments!

I think about the many smart, creative scientists and engineers who worked together for over 25 years to make this glimpse into infinity possible, dreaming big and planning down to the smallest detail. All of us will benefit from their care and curiosity for years to come.

As Flying Cloud dreams big and looks towards a bright future, there is one thing we know for sure: there is no empty sky. The universe is full of light and mystery. Our Flying Cloud community— families, schools, staff, volunteers, artists, scientists— creates a constellation together that lights up our world. You are one of those guiding lights and we are so grateful to have you on this joyous exploration with us.

RUNDLE

EXECUTIVE DIRECTOR

WWW.FLYINGCLOUDINSTITUTE.ORG 20 Stockbridge Rd., Suite 2 Great Barrington MA 01230 413.645.3058



In 2022 Flying Cloud expanded creative, hands-on learning opportunities to children throughout Berkshire County and beyond. This would not be possible without committed donors, dedicated volunteers, families, alums, community partners, and a hard-working staff and board.

Financial Report

Total Expenses \$397,853

Program Services \$307,347

Administrative & General \$31,828

Fundraising Expenses \$58,678

Total REVENUE \$506,415

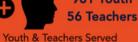
Tuition & Program Income \$148,914

> Grant Income \$221,265

Donations & Gifts \$135,401

> Interest/Misc \$835











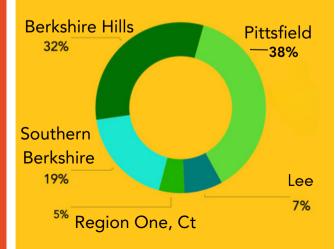
2022

"I can't thank you enough for the experience you gave my students this week. The empowered looks on their faces and in their voices was pure magic. Today was an experience that empowered them for a moment to believe in themselves. Every child deserves that and an adult who believes in them. Today you gave that to them."

- Sue Garcia, Morningside Science Specialist

Schools Districts Served

Program Delivery as measured by contact hours



S•M•Art Schools

Supporting Students and Schools

YOU empowered Flying Cloud to become a leader in STEAM education, using art to teach science, technology, engineering, and math.

Public school educators face uphill challenges in overcoming economic disparity and the effects of the pandemic.

You were there for them!

The Flying Cloud community provided lifechanging and transformative experiences for students, critical support to educators, and contributed vibrancy to local schools.

Flying Cloud supporters made possible:

- Equitable access to STEAM learning by bringing Flying Cloud programs into 13 public schools!
- Science residencies supporting 6 Teachers and 187 students
- MakerSpace and Girls Science Club afterschool programs FREE for over 100 youths every week.
- Summer, winter, and spring break programs for 180 youth





Liliana Atanacio FCI S•M•Art Schools Educator

"As an engineer, creator, and educator, it gives me purpose to create a safe learning environment for each student who shows up at the MakerSpaces. I invite students to forget all they know about math and join me on a fascinating trip to explore fractals and sequences.

"We foster an open minded approach to learning science and engineering. You can see when a concept clicks in their brain while building. In that wow moment, their eyes light up as their MagLev trains levitate or the LED light glows on their circuitry. Students have a sense of achievement when they walk out with their own projects in their hands. Hands-on learning is a powerful way to form new synapses in the brain."



In a **Physics of Sound residency at Stearns Elementary**, students participated in a series of hands-on sound and light wave investigations. Flying Cloud hires musicians like Jerome Edgerton of Youth Alive to use percussion as an anchoring phenomenon to understand energy transfer. Then, students built working speakers!

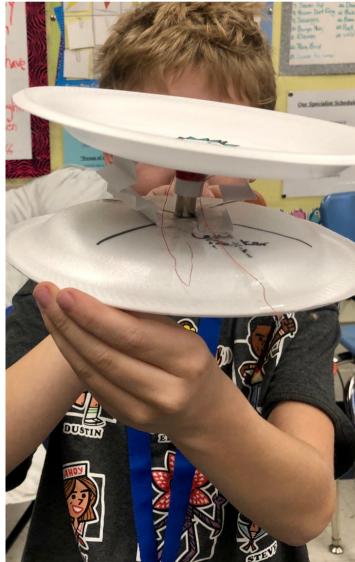
Teaching authentic science practices creates a science mindset that empowers all learners and releases their innate curiosity. For 39 years, Flying Cloud has supported teachers through classroom residencies and professional development workshops — all focused on helping teachers bring the best science practices into their classrooms.

2022 Classroom Residencies

- 4th grade Energy Transfer residency at Lee Elementary School for 55 students.
- Yearlong Life Science residency for 12 students at South Egremont School
- Geology and Animation residency for 90 eighth-grade students at W.E.B. Du Bois in Great Barrington
- Physics of Sound residency for 30 fourth-grade students at Stearns in Pittsfield

2022 Professional Development

Flying Cloud Institute led professional development for 50 teachers at the Wade Institute for Science Education.



Why Young Women in S

The National Science Foundation reports that women hold less than 30% of STEM occupations, excluding healthcare. Increasing the rate of women in STEM is an important step to creating a stronger STEM pipeline in the Berkshires, where 1 in 5 jobs are STEMrelated.

STEM jobs pay better! In Massachusetts, the average annual entry-level wage for STEM is approximately \$56,000, around twice that of the \$28,000 average. Research suggests that single-gender STEM programs for girls are important because they can increase girls' confidence, engagement, interest, and selfesteem in STEM. In YWIS's multigeneration approach, 19 high school and college mentors contributed 153 hours to assisting younger students, serving as positive female role models and creating a supportive community.

Your support of Young Women in Science allowed 120 girls to work hand-in-hand with 17 STEM professionals.

It is a pleasure to work with Flying Cloud in their mission to assist young women to take on STEM as a career. We need more gender equity in STEM-related fields."

-Andrea Wagner, PhD Chief Technology Office, Co-Owner of Berkshire Sterile Manufacturing



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Angel Heffernan, Director of YWIS honoring FCI youth mentors



Dr. Jessica van Baaren, Human Genomics researcher from UCB at STEM Summer

Congratulations Apple

Above, Emma with mentors Abigail "Apple" Webster and Jess Sammons.

In 2017, Apple was a student in Flying Cloud's STEM Summer where she discovered a love of microbiology. In 2022, she returned as a STEM mentor to volunteer with the next generation of Young Women in Science.

When Apple started college this fall, we were thrilled to hear from her, "I wanted to let you know that I just landed a lab assistant position in an eDNA lab here on campus. I was one of 35 undergraduate candidates. I'm super excited to start! During my interview, I learned that the DNA extraction procedure we'll use is the same method we did on fruit in Young Women in Science. I'm excited to come back to the Berkshires to share new things."

Thank you to our STEM Volunteers Brigitte Arduini, Ph.D., Principle Investigator -Neural Stem Cell Institute Wei Chen, Ph.D., Professor of Chemistry - Mt. Holyoke College Rebecca Chowdhury, Ph.D., Researcher - Neural Stem Cell Institute Drue Davis, Engineer - General Dynamics Mission Systems Liz Fisher, Ph.D., Post Doctoral Fellow - Neural Stem Cell Institute Kristi LaMonica, Ph.D., Professor of Biology - Russell Sage College Linda Merry, Professor - BCC, Cliff Nest Swallow **Conservation Project** Swapna Nandakumar, Ph.D., Postdoctoral Fellow Neural Stem Institute, Emily Paltz, Researcher - Center for Excellence in Weather & Climate Analytics Erin Potter, Professor of Atmospheric Science & Meteorology - University of Albany Kim Sawyer-Wheeler - Boyd Technologies Susan Sharfstein, Ph.D., Professor of Nanobioscience SUNY Polytechnic Institute Theresa Tatro, Special Services Technician Kate Tubbesing, Neural Stem Institute - Postdoctoral Fellow Jessica van Baaren, Ph.D., Genomics researcher -UCB Cheryl Victor, retired chemical engineer

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Dana Vorisek, Senior Economist - WorldABank 7

Community Events

Family STEAM Challenge Night

Over 100 families enjoyed a night of hands-on science and arts hosted by Flying Cloud at Hancock Shaker Village in partnership with Berkshire STEM Pipeline.

Thank you to volunteers from:

Berkshire Community College, Berkshire Museum, Berkshire Innovation Center, Berkshire Sterile, Berkshire Arts Council, Bottomless Bricks, Crane Currency and Museum, Hancock Shaker Museum, General Dynamics Mission Systems

Free Community Events:

- Activity tables at Farmers' Markets in Great Barrington and Pittsfield, 3rd Thursdays, Festival Latino, and Pittsfield's Halloween Festival
- Alumni Night hosted by Scotty Salame and Lindsey Brown (Berkowitz)
- Space Module Design Challenge at Mason Library as part of Art Week
- Brain Workshop series at BCC sponsored by the Berkshire Regional Planning Commission
- STEM Café for 50 college students at BCC
- Young at Heart monthly series at Dewey Hall



Erin Laundry of Bottomless Bricks building Lego catapults at STEAM Challenge Night



Berkshire Museum teaching physics with a mini zipline at STEAM Challenge Night



Alumni Night at the Firefly with Maria Rundle, Lili Atanacio Lindsey Brown (Berkowitz), Scotty Salame, Jane and Larry Burke





Designing space modules at Mason Library

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S•M•ART WHERE SCIENCE MEETS ART S•M•Art Ways YOU can help!

- Become a business sponsor, receive public recognition, and build a STEM pipeline.
- A gift from your IRA. If you are 72.5 years old or older, talk with your financial advisor about how to take advantage of tax benefits with your donation.
- Now accepting Cryptocurrency! Crypto donors typically deduct their full donation amount and avoid capital gains tax.
- A monthly recurring gift is one of the best ways YOU can give! Setting up a monthly donation that fits your budget and provides sustainable funding for dynamic science and art throughout the year is easy.
- Could you include **a gift in your will** to empower future generations of young scientists and artists?

Questions? Contact Amy Truax at atruax@flyingcloudinstitue.org.

INSPIRE YOUNG PEOPLE & IGNITE CREATIVITY

Optimize your generosity for greater impact. Ensure access to science and art, regardless of a family's ability to pay. Only vacation camps are fee-based. All other programs are available for FREE.

> We've been a Flying Cloud family for over ten years! We love the combination of art and science and how inspirational it has been for our entire family. We truly believe it is one of the BEST organizations in Massachusetts.
> Daniel Medwed & Sharissa Jones

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WE CELEBRATE YOU FOR MAKING A DIFFERENCE!

Grants, Foundations, Businesses & Government Agencies

Adirondack Payroll Services Alford-Egremont Cultural Council Amazon Smile American Online Giving Foundation Arcadian Shop **Beacon** Cinema Berkshire Bank Foundation Berkshire Taconic Community Foundation Sweet Dreams Berkshire United Way **Big Elm Brewery** Blue Cross Blue Shield Burrito Grande, Inc. DBA Hot Harry's Celanese Foundation Commonwealth of Mass Crane Fund For Widows And Children Domaney's Liquors and Fine Wines Echo Street Foundation Edith MacGuire Charitable Trust EDM Services. Inc. Edward L. Mann Scholarship Fund Farmington River Initiative for Regional Excellence Feigenbaum Foundation Fidelity Charitable Donor-Advised Fund FreeWill Impact Fund Goodnow Fund Great Barrington Cultural Council Greylock Federal Credit Union Guido's Fresh Marketplace Jewish Communal Fund Josephine and Louise Crane Foundation Lee Bank Foundation Lee Cultural Council Lennox Foundation LLL Foundation Mass Cultural Council Massachusetts After School Partnership MassHire Berkshire Workforce Board Matrushka Toys and Gifts Mertz Gilmore Foundation Monterey Cultural Council New Marlborough Cultural Council

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Zonta Club of Berkshire County









Berkshire Innovation Center





We make every effort to ensure the accuracy of these lists. If you discover an error, please accept our apologies and email Amy Truax at atruax@flyingcloudinstitute.org

Businesses Sponsors - building a STEAM Pipeline

Berkshire Sterile Manufacturing Blue Q Firefly Gastropub Guardian Life Insurance Company of America Hogan Technology Interprint, Inc. Snapdragon Chemistry The Bookloft Warrior Trading Webster Landscapes Yarmosky Pediatric Dentistry



Berkshire United Way and General Dynamics supporting FCI's youth mentors

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Thank you!

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January 1 - December 31, 2022

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Would you like to expand access to science and art for children in the Berkshires? Flying Cloud Institute is donor funded. Scan to donate.

