

The Stone Soup Leadership Institute's STEM-Sustainability Scholars Program Overview

The Challenge

We're all in new territory—we're committed to a future where sustainability is at the heart of our economies. Unfortunately too few students are obtaining even the basic STEM education they'll need to navigate that new reality. Worse, few are learning how critical an understanding of sustainability is to their future. As the news every day reveals, most urgent now is the rebuilding of the world in a sustainable way—one that provides opportunities to everyone, but not at the cost of future generations or the planet.

Ironically, at this moment when we need more STEM training to help students prepare for the transition to a sustainable economy, schools are struggling to hire and keep STEM teachers. Some leave teaching for higher paid jobs with companies. Some schools are even cutting their STEM programs to meet budget demands. Now with the COVID pandemic many students must learn online with limited opportunities to develop their critical thinking skills; explore project-based learning; or even get the basic scientific understanding they need to help be part of this transition.

A New Model for Inspiring, Educating and Empowering STEM Career Pathways

For the past 18 years, the Stone Soup Leadership Institute has been developing public-private partnerships with communities to prepare their youth to be leaders. The Institute is increasingly being asked to adapt our successful project-based learning STEM/sustainability training programs to provide supplemental resources to educators. The Institute's mission is to fill that void with our educational tools including our new book, *Stone Soup for a Sustainable World: Life-Changing Stories of Young Heroes*, and online platform. In this book we're drawing attention to young leaders and their innovative solutions - from 50 countries – from green entrepreneurs and inventors, to activists and next generation philanthropists, including your grandson, Sam, and his leadership at Resource Generation. For the last five years, the Institute has transferred its twenty years of project-based learning tools to our new platform, SustainWDN. Imagine if instead the 4 million students who have been inspired to join climate protests by the voices of young people like Greta Thunberg were trained with the skills to build a sustainable future.



Lessons Learned From Beta Program With Global Learning Public Charter School

Over the last year we've Beta-tested The Institute's STEM oriented workforce development platform with the Leadership & Career Counseling Department Director and her students at the Global Learning Public Charter School in New Bedford, MA. Students served as delegates to the Institute's 16th Youth Leadership Summit for Sustainable Development.

- GLPCS 70 students completed The Institute's SustainWDN™ Youth Survey (see report)
- Local companies, educational institutions, community organizations took SustainWDN[™] Survey.
- Worked with the GLPCS to fine-tune **The Institute's 16th Summit Curriculum** and adapt to a dynamic, virtual interactive learning experience.
- Customized the MVP SustainWDN[™] Career Pathways with GLPCS students.
- GLPCS Summit Newsletter
- GLPCS Youth Voices Video

The GLPCS' Director of Leadership & Guidance Department participated fully in the Summit and was eager to continue our partnership. We conducted preliminary exploration for how we might integrate her plans for the coming year with the Institute's curriculum. However, the school's administration had to adjust to the demands of life under a pandemic, which limited their ability to dedicate staff planning time. With GLPCS' investment in a new environmental science teacher for all 10th graders, we are optimistic that next year we'll have the capacity to once again collaborate. In a similar way, our preliminary meetings with the principal of High Tech High were well received. During the meetings, we discovered there was a similar lack of experienced STEM teachers. Given the current lack of STEM teachers, they relied on retired executives from the aerospace industry, who were less focused on a broad range of STEM-related education model, they asked for a delay to pursue our partnership. As a result of this initial assessment and the new virtual learning environment, the Institute decided to adapt our week-long intensive Summit to a series of one hour workshops with supplemental education resources that could assist GLPCS and HTH as well as other schools with the dynamic, user-friendly educational tools they need to engage their students and inspire them to pursue STEM related career pathways to build a more sustainable world.

The Institute's Virtual STEM Resources

Teachers are hungry for virtual user-friendly/STEM resources to engage their students. Therefore we have moved from our traditional model of intensive weeklong Summit to create a virtually-friendly one hour/week workshop. Given the pandemic's effect on public education, the Institute has developed an online/hybrid course that features our project-based STEM Learning Tools. This 10-week course serves as either a weekly one-hour stand-alone program or can supplement an existing syllabus—plugged into middle or high school to offer overwhelmed teachers trying to navigate their new online reality.

The ten sessions we've developed spotlight solutions-oriented projects that address the United Nations' Sustainable Development Goals. Each session includes inspiring speakers and readings from the new book, videos, virtual sustainability tours, interactive breakout groups with youth and facilitators. The course assists young people to navigate their career pathways in the emerging Blue-Green economy. Each week we will connect with inspiring global young leaders building and advocating for a better future today. We invite people to support these students to roll up their sleeves and start building a more sustainable world for us all.

The Institute's Educational Curriculum

The Institute's team of educators and seasoned STEM experts from New England, California, Oregon, and Florida are working collaboratively to develop the Institute's Educational Curriculum based on the 100 stories included in the book. These Lesson Plans provide educators with rich, action-oriented STEM Activities, highlight innovations and explore a wide variety of STEM Career Pathways students may pursue. Given the influence of school's Guidance/Career Counseling Departments' influence on students' college and career choices, we've incorporated a training component to increase their awareness of STEM career pathways. In this way, counselors can be better prepared to assist their students with their increased interest in pursuing these kinds of careers.

These materials can be used by any school, and will be made available and promoted through the Institute's social media channels. But after eighteen years of running youth trainings, we found that most effective is when this type of knowledge and inspiration is embedded in a shared learning experience. These lessons will be supported by facilitators—who moderate the online Stone Soup Sustainability Clubs. Facilitators trained by the Institute's team work with the students, facilitating discussions, sparking imaginations, and helping students to set up local Sustainability-In-Action projects that root this learning in efforts that can help them to build and advocate for the Blue-Green economy in their communities.

Most exciting is we are developing the Sustainable Workforce Development Network (SustainWDN), a resource website that helps students to assess how they want to pursue successful livelihood in the emerging sustainable economy—what skills do they need to develop, and what education do they need to be trained for this new emerging economy. Facilitators work actively with their groups to help inspire and engage youth to develop the skills they need to follow their dreams. We will orient and train school Guidance Counselors to inform them about this innovative tool and train them on how to best use it when working with their advisees.

Given the urgency of our times and the need to transition to a sustainable economy, The Institute's plan is to offer this curriculum—complete with videos, lesson plans, and assignments, to any schools who want to adopt it **free of charge**. Through our SustainWDNTM Facilitators Program, we train educators to facilitate conversations about sustainability and the blue-green economy for their schools. This has proven to be an effective 'train the trainer' approach, which we've developed and used successfully over the years.

Timeline: 2021 and Beyond

Fall 2020: Beta Test Massachusetts High School: Beta-test this hybrid - project-based learning model before further scaling. The Institute's team includes a recent graduate, the Dean of Academic Affairs, as well as local Blue-Green companies, with the Institute's sustainability, tech and social media teams.

Each week 10-week extensive Sustainability Course CCA students will experience:

• Fascinating Virtual Sustainable Tours to show the beauty and fragility of our planet and ways to rebuild it;

• Learn from youth leaders in *Stone Soup for the Sustainable World: Life-Changing Stories of Young*

Everyday Heroes;

• Expand their horizons about career pathways within the **Sustainable Economy** from local business leaders;

- Discover solutions-oriented and action-based Sustainability Innovations around the world;
- Explore the Institute's SustainWDNTM to develop their Sustainable Career Pathway;
- Use The Institute's TouchStone Leaders Learning Tools[™] to develop action plans;
- Sustainability Projects: produce videos and use social media to support our global youth leaders;

• Learn how to troubleshoot challenges; make engaging presentations and develop strategies to engage others.

Spring 2021: Expand to GLPCS, HTH and Other Massachusetts and California Schools

After this Fall Beta-test, we will launch the program in the spring term in 3-5 more schools, finalize the curriculum, and make any final enhancements to the design. The program will culminate in June with students from Beta sites serving as youth delegates to the 2021 Summit.

June 2021: The Institute's 17th Sustainability Summit for all Beta Schools

Before our first virtual Sustainability Summit with GLPCS, we've hosted 16 Sustainability Summits in four locations in two countries from Vieques, Puerto Rico to Virgin Gorda, British Virgin Islands to Martha's Vineyard, Newport and Bristol, Rhode Island. We've inspired hundreds of multicultural, underserved youth around the world to become leaders, by taking initiative in their lives, their communities and their world. Students leave the Summits empowered. Lightning rods for positive change. Ready to become sustainability representatives of their communities. The Institute's Summit is the foundation for our yearlong youth leadership initiatives that accelerates the development of "21st Century Skills" vital for jobs.

Fall 2021: Expand to Other Massachusetts and California Schools

We will expand our outreach and build partnerships, we expect to launch in at least 10 schools around the country. We believe this design could fill significant gaps in education—particularly in under- resourced public schools. By providing these schools with a free and practical STEM/sustainability education program, tailored to the students' needs and interests, this provides an invaluable benefit to schools. It can also play a key role in inspiring the next generation of entrepreneurs and sustainability leaders in the emerging sustainable economy.