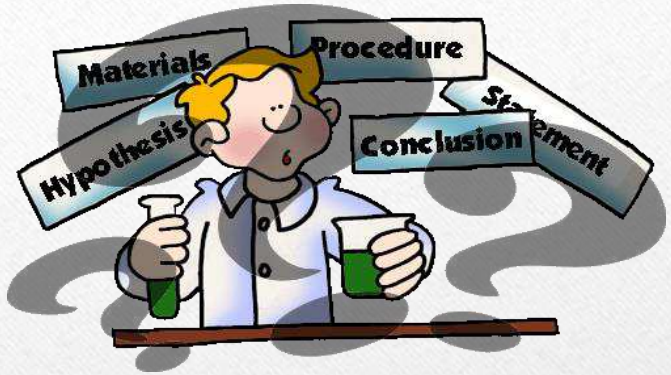
ACT NOW!
Afterschool for Children and Teens

presents



Navigating STEM Resources & PD Opportunities

Presenters:

Faith Knocke (ACT Now)

Chelsey Echevarria (Girls Who Code)

Saundra Frerichs (Click2Science)

Perrin Chick (ACRES Project)

AGENDA

- Who is ACT Now?
- Why STEM in OST?
- ACT Now's STEM Guidebook
- **Girls Who Code** (Chelsey Echevarria)
- **Click2Science** (Saundra Frerichs)
- **ACRES Project** (Perrin Chick)

Who is ACT NOW! ?

- The ACT Now Coalition works towards ensuring that young people in Illinois have access to quality, affordable afterschool and youth development programs.
- ACT Now is a diverse statewide coalition of various stakeholders across the state.

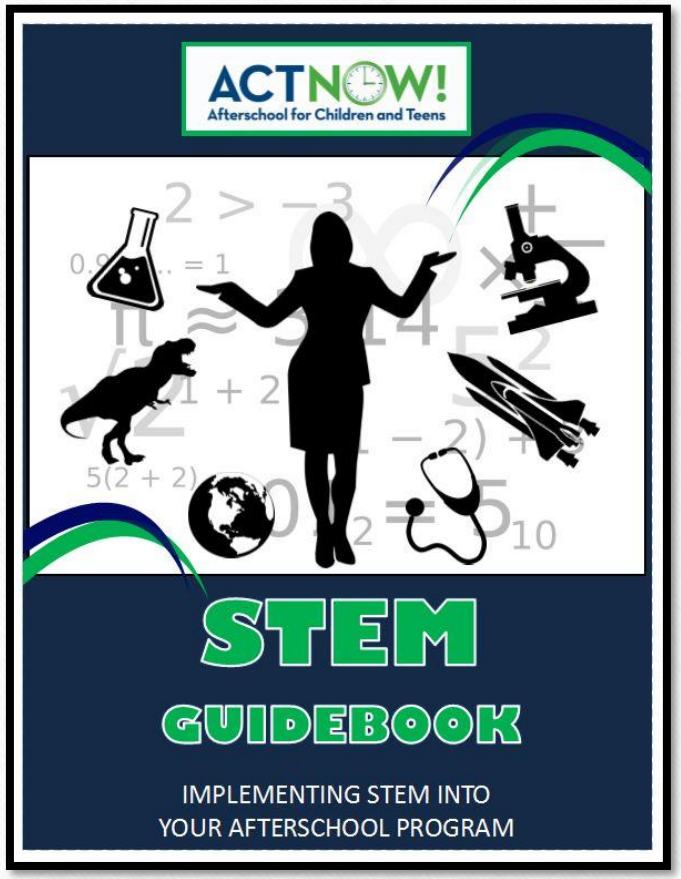
How we work:

- Connect stakeholders and build effective partnerships
- Increase overall visibility of and support for afterschool programs
- **Share developments, research and best practices with the field**
- Advocate for afterschool programs with federal, state and local policymakers
- Provide advocacy training
- **Connect stakeholders to professional development**
- Offer support to afterschool programs just getting started
- Pursue sustainable system-wide funding and share new funding opportunities

Why STEM in OST?

- Exposing youth to STEM in OST is important given how fast the STEM workforce is growing.
- Afterschool programs have the unique opportunity to build and shape future coders, doctors, scientists, and engineers as these programs allow for **greater flexibility** not typically found in a classroom setting and provides students an opportunity to build and mold STEM skills.
    - **Critical Thinking**
    - **Creativity**
    - **Problem-Solving**
    - **Teamwork**
    - **Leadership**
- As an afterschool provider, **you do not have to have a STEM background** or have access to an expensive lab.

STEM Guidebook



ACT Now has created an easy to navigate, comprehensive guide of affordable STEM resources for afterschool providers to utilize and incorporate into their own programs.

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Professional Development

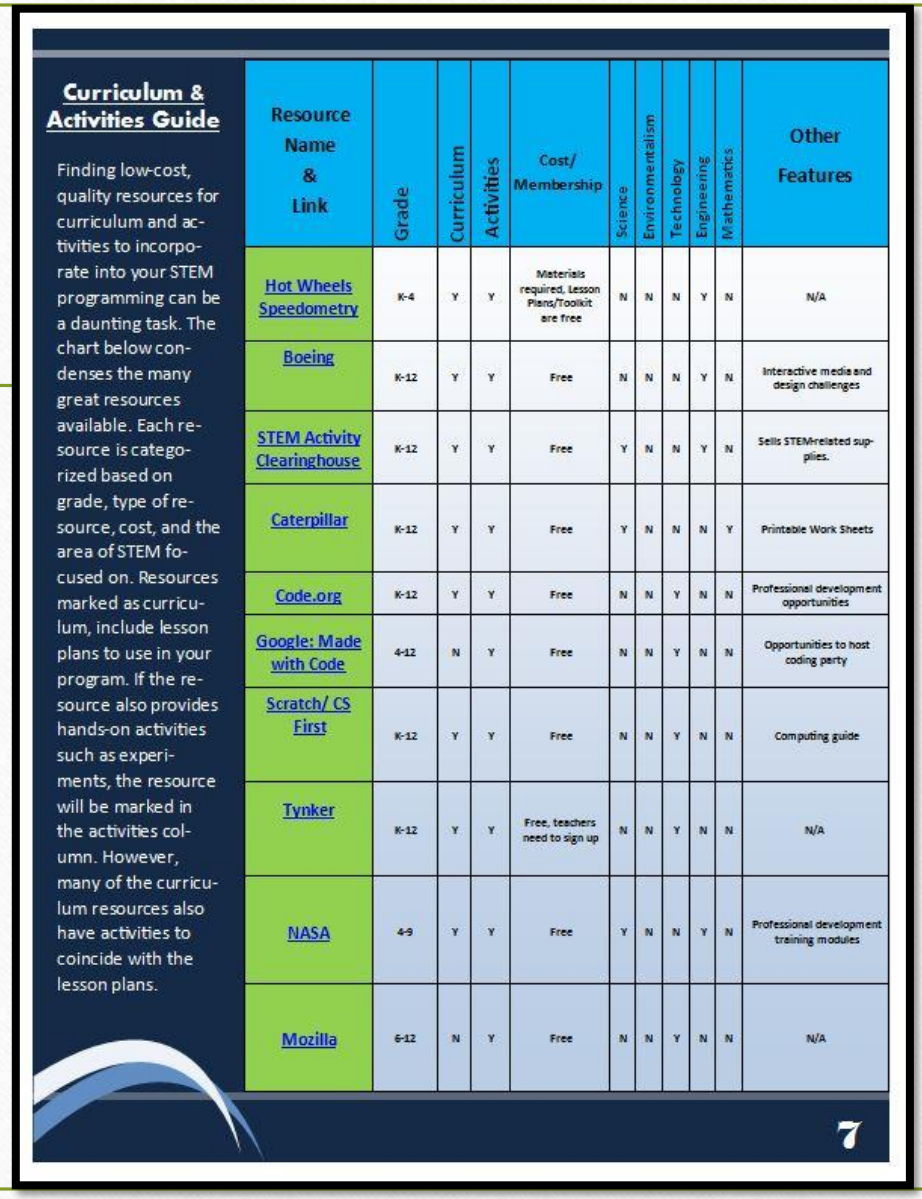
The guidebook includes links to a variety of different resources including articles, webinars, and conferences to further your professional development in STEM

- Not having a degree in a STEM-related field should not be a barrier to implementing STEM into your own afterschool program
- There are plenty of resources available to help you develop STEM teaching skills and learn STEM subject areas alongside your students

Curriculum & Activities

Finding low-cost, quality resources for curriculum and activities to incorporate into your STEM programming can feel like a daunting task.

The STEM guidebook provides a chart that condenses the many great resources available!



Curriculum & Activities Guide

Finding low-cost, quality resources for curriculum and activities to incorporate into your STEM programming can be a daunting task. The chart below condenses the many great resources available. Each resource is categorized based on grade, type of resource, cost, and the area of STEM focused on. Resources marked as curriculum, include lesson plans to use in your program. If the resource also provides hands-on activities such as experiments, the resource will be marked in the activities column. However, many of the curriculum resources also have activities to coincide with the lesson plans.

Resource Name & Link	Grade	Curriculum	Activities	Cost/ Membership	Science	Environmentalism	Technology	Engineering	Mathematics	Other Features
Hot Wheels Speedometry	K-4	Y	Y	Materials required, Lesson Plans/Toolkit are free	N	N	N	Y	N	N/A
Boeing	K-12	Y	Y	Free	N	N	N	Y	N	Interactive media and design challenges
STEM Activity Clearinghouse	K-12	Y	Y	Free	Y	N	N	Y	N	Sells STEM-related supplies.
Caterpillar	K-12	Y	Y	Free	Y	N	N	N	Y	Printable Work Sheets
Code.org	K-12	Y	Y	Free	N	N	Y	N	N	Professional development opportunities
Google: Made with Code	4-12	N	Y	Free	N	N	Y	N	N	Opportunities to host coding party
Scratch/ CS First	K-12	Y	Y	Free	N	N	Y	N	N	Computing guide
Tynker	K-12	Y	Y	Free, teachers need to sign up	N	N	Y	N	N	N/A
NASA	4-9	Y	Y	Free	Y	N	N	Y	N	Professional development training modules
Mozilla	6-12	N	Y	Free	N	N	Y	N	N	N/A

Planning & Assessment Tools

The planning and assessment tools provided allow afterschool providers to create quality STEM programming, provide evidence of success, and assist in policy and advocacy efforts.

These tools allow you to plan the implementation process, understand where your program is in regards to STEM education and where you want your program to improve in measuring your program's impact and outcomes.

Funding

- It is not unrealistic to implement STEM into your afterschool program
- Afterschool programs do not need to have a large amount of money to incorporate STEM.
  - However, there may be situations and particular projects that need additional funding

The guidebook includes a variety of public and private funding streams and recommendations to be used to help fund your program's future STEM progress, projects, and equipment.

Policy & Advocacy

Advocating for effective, quality policies to shape and support STEM education in afterschool raises awareness about the benefits of STEM education in afterschool programs and can help to secure sustainable public funding streams.

The guidebook includes resources that provide insight into the current policies impacting STEM in afterschool as well as strategies to advocate for your STEM program to be sustained, expanded, and funded.

Glossary of Resource Links

An ever-growing list of resource links!

Glossary of Resource Links

Professional Development	Page
Edutopia https://www.edutopia.org	5
National Afterschool Association https://naaweb.org/ NAA Membership Options https://naaweb.org/membership-information-page - Ambassador NAA STEM Gems https://naaweb.org/resources/stem-gems?highlight=WyJzdGVtll0=	5
Afterschool Coaching for Reflective Education (ACRES) https://mmsa.org/projects/acres/for-educators/	5
Afterschool Tech Toolkit https://naaweb.org/afterschooltechtoolkit	6
Click 2 Science http://click2sciencepd.org/?utm_source=NAA&utm_medium=artide&utm_campaign=STEMfinityNAAartide	6
Concept Schools http://www.conceptschools.org/professional-development-stem-educators/	6
Columbia College Chicago: Scientists for Tomorrow https://www.scientistsfortomorrow.org/modules/ Scientists for Tomorrow Calendar https://www.scientistsfortomorrow.org/calendar/ National Science Teachers Association http://www.nsta.org/conferences/	6
Curriculum & Activities	**Page**
Hot Wheels Speedometry http://origin2.hotwheels.mattel.com/en-us/explore/speedometry/index.html	7
Boeing http://www.boeing.com/principles/education.page - /edu_resources	7
STEM Activity Clearinghouse http://clearinghouse.starnetlibraries.org/	7
Caterpillar https://www.caterpillar.com/en/company/visitors-center/resources/student-activities.html	7
Code.org https://code.org/	7
Google: Made with Code https://www.madewithcode.com/projects/	7

girls who code

TEACHING GIRLS TO CODE AND CHANGE THE WORLD

OUR MISSION

Girls Who Code works to **inspire, educate, and equip girls** with the computing skills needed to pursue 21st century opportunities.

Our vision is to reach **gender parity** in computing and technology sectors.

OUR EDUCATIONAL PHILOSOPHY

We believe that ALL girls are creative and able to make a positive impact on the world through computer science.

MORE THAN CODE

Learning computational thinking and computer science cultivates girls' interests and prepares them for long-term success in computer science.

SISTERHOOD & COLLABORATION

Positive and supportive environments both enable & sustain the learning process and longevity in computer science.

REAL-WORLD RELEVANCE & IMPACT

Interest-based learning enables and empowers students to make an impact in their communities.

Clubs Programs Overview

GIRLS WHO CODE CLUBS

Clubs are FREE after-school programs for 3-12th grade girls to **join our sisterhood** of supportive peers and role models and **use computer science to change the world**.

Clubs are led by **Facilitators**, who can be teachers, librarians, parents, or volunteers from any background or field. **Many Facilitators have no computer science experience** and learn to code alongside their Club members.

We offer two Club programs for you to choose from:

3rd-5th Grade Clubs

6th-12th Grade Clubs

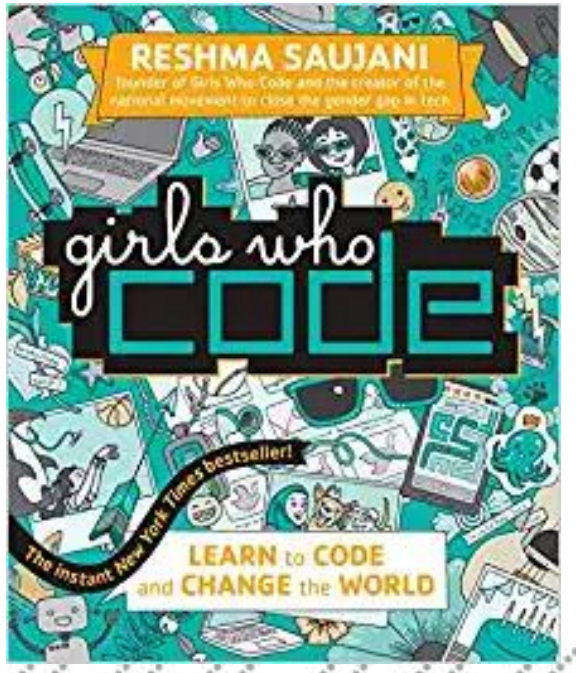
CLUBS MODEL

The two main Club Programs are divided by age group:

3-5TH GRADE CLUBS

Girls Who Code 3rd-5th Grade Clubs are a community of girls who actively design, code, read and explore together.

- **10 meetings** per school year
- **~45-60 minutes** during lunch, enrichment blocks, or after school



6-12TH GRADE CLUBS

Our Clubs are free after-school programs for 6-12th grade girls to use computer science to impact their community and join our sisterhood of supportive peers and role models.

Club girls work in teams to design and build a **Girls Who Code Project** that solves real world problems they care about through code.

- **Minimum of 10 meetings to the full academic year**
- **~1-2 hours per week** after school.

HOW WE SUPPORT CLUBS

Girls Who Code provides **FREE materials and curriculum** to the Club Facilitator in order to support you with:

- **CS Skills** — Custom online training, online curriculum platform HQ, curriculum materials, and extended computer science resources
- **Community** — Clubs Success Specialist, online community with thousands of other Girls Who Code Facilitators, and in-person and virtual events
- **Logistics Support** — Recruitment Toolkits, Clubs Fund, and earlier access to resources

WHAT YOU NEED TO GET STARTED

It is easy as 1-2-3 to get started! Before you apply to start a 3-5th Grade or 6-12th Grade Club in your community, you'll need need:

1

Space in a non-profit location to host your club at least once a week

2

Computers and internet connection (6-12th Grade Clubs only)

OR

Copies of our non-fiction books (3-5th Grade Clubs only)

3

A Facilitator who is over 18+ and will be responsible for administration and leading the Club curriculum.

NO technical experience is needed!

LAUNCH A CLUB

If you are 18+, you can join the movement as a Club Facilitator! Clubs can be hosted at schools, libraries, community centers, college campuses, and other non-profits.

- **Already have a host site?** Apply today to start an individual Club at: **https://girlswhocode.com/start-a-club/**

- **Need a host site?** Complete our Facilitator Application at **www.girlswhocode.com/volunteer**. Our **Find a Club Site Toolkit** can also help you connect with organizations near you!

GIRLS WHO CODE SAMPLE CURRICULUM

What happens during a Girls Who Code Club session? Here's a quick snapshot!

6th-12th Grade Clubs

10 min	Build Sisterhood
10 min	Women in Tech Spotlight
60+ min	Self-Guided Coding Tutorials: Learn, Plan, Build, Celebrate
10 min	Girls Who Code Standups

3rd-5th Grade Clubs

10 min	Build Sisterhood
15+ min	Read & Reflect
20+ min	GWC Challenge
5 min	Close-Out

THANK YOU!

Want to connect? Email me at chelsey.echevarria@girlswhocode.com!

APPENDIX: RESOURCES

Clubs Overview: Explains requirements to start a Club and how Girls Who Code supports
Clubs Curriculum Overview: Shows what girls will learn in Clubs
Clubs Application: Apply to start a Club
Community Partner Outreach Toolkit: Outreach materials/template language
Clubs Community Partnership Overview: Information about Community Partnerships
Find a Club Site Toolkit: Find a location for a Club

A Model for Effective STEM Professional Development

High-Quality Programming

through High-Quality Professional Development

Our Professional Development Model

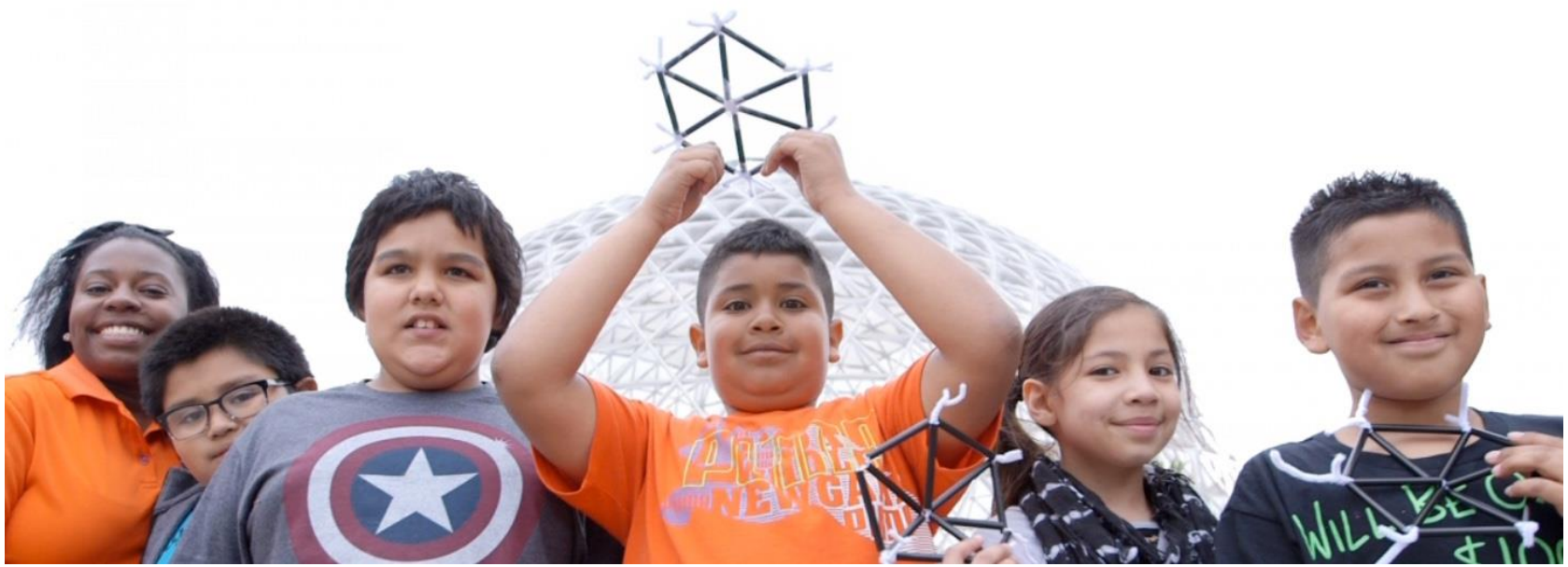
Click2Science resources are design to be combined and used together to create a blended learning experience that makes a meaningful impact on staff. Learn more about our Professional Development Model to improve your own professional development facilitation.

Professional Development Model

Our Framework

Click2Science resources are built around three strategies for effectively facilitating STEM learning experiences in out-of-school time. Each strategy is supported by skills that staff and volunteers need in order to facilitate high-quality STEM programming.

Strategies & Skills



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FRAMEWORK

Click2Science skills are the abilities frontline staff need to effectively facilitate high-quality STEM learning experiences with youth. The skills are designed to help staff achieve overarching strategies that lead to higher-quality education during out-of-school time.

PREPARING FOR SUCCESS IN STEM

- Preparing STEM Learning Opportunities
- Creating STEM Learning Environments

SUPPORTING YOUTH DEVELOPMENT DURING STEM

- Managing Groups During STEM
- Encouraging Collaborative STEM Work
- Facilitating Inclusive Learning Experiences
- Developing a STEM Identity
- Making Connections to STEM Careers
- Connecting to Prior Knowledge & Experiences
- Giving Youth Control

DEVELOPING STEM PRACTICES & MINDSET

- Enabling Active STEM Learning
- Modeling Science Practices
- Modeling Engineering Practices
- Supporting Documentation of STEM Learning
- Asking Purposeful Questions
- Reflecting & Processing Experiences
- Making Authentic Assessments

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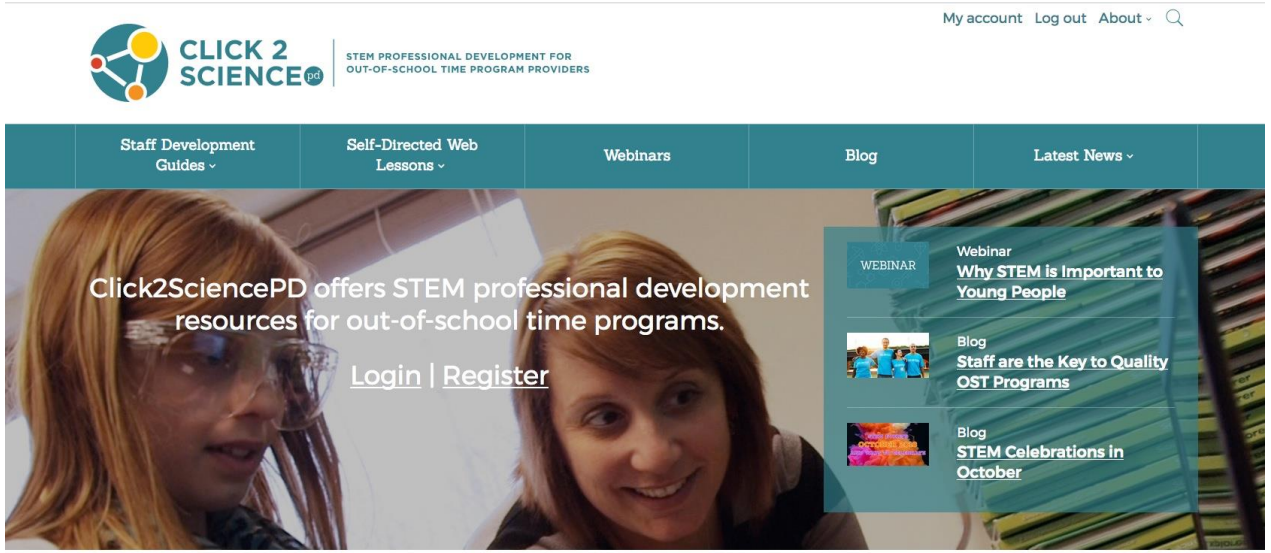

Find Resources for...

Frontline Staff & Volunteers

Improve your own STEM facilitation skills to increase youth's learning.

Explore Resources for Frontline Staff →

Trainers & Coaches

Help staff or volunteers improve their STEM facilitation skills by providing high-quality professional development.

Explore Resources for Trainers & Coaches →

Program Leaders

Improve overall program quality by incorporating high-quality STEM facilitation and professional development.

Explore Resources for Program Leaders →

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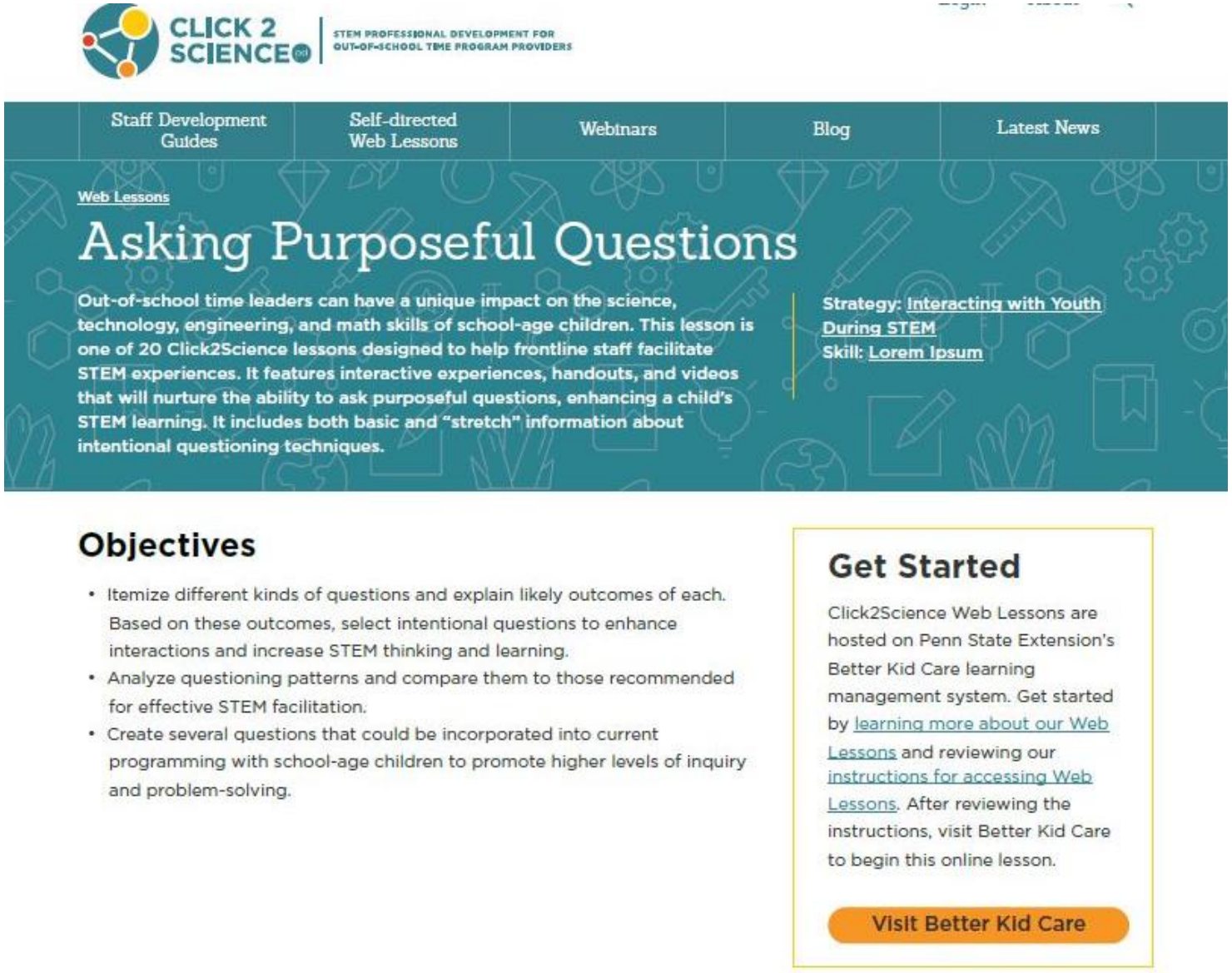
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STEM PROFESSIONAL DEVELOPMENT FOR OUT-OF-SCHOOL TIME PROGRAM PROVIDERS
Staff Development Guides
Self-directed Web Lessons
Webinars
Blog
Latest News
Web Lessons
Asking Purposeful Questions
Out-of-school time leaders can have a unique impact on the science, technology, engineering, and math skills of school-age children. This lesson is one of 20 Click2Science lessons designed to help frontline staff facilitate STEM experiences. It features interactive experiences, handouts, and videos that will nurture the ability to ask purposeful questions, enhancing a child's STEM learning. It includes both basic and "stretch" information about intentional questioning techniques.
Strategy: Interacting with Youth During STEM
Skill: Lorem Ipsum
Objectives
• Itemize different kinds of questions and explain likely outcomes of each. Based on these outcomes, select intentional questions to enhance interactions and increase STEM thinking and learning.
• Analyze questioning patterns and compare them to those recommended for effective STEM facilitation.
• Create several questions that could be incorporated into current programming with school-age children to promote higher levels of inquiry and problem-solving.
Get Started
Click2Science Web Lessons are hosted on Penn State Extension's Better Kid Care learning management system. Get started by learning more about our Web Lessons and reviewing our instructions for accessing Web Lessons. After reviewing the instructions, visit Better Kid Care to begin this online lesson.
Visit Better Kid Care

PennState Extension

Search Better Kid Care...

PENN STATE | PENN STATE EXTENSION | PROGRAMS | BETTER KID CARE | SCHOOL-AGE PROFESSIONALS | SCHOOL-AGE MODULES | CLICK2SCIENCE

Better Kid Care

- CDA Course
- Early Learning Professionals
- **School-Age Professionals**
  - **School-age Modules**
  - Coaching
- Family Child Care Professionals
- Parents & Families
- Coach & Instructor Resources
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- BKC PD Alignments

Required Health and Safety Training

On Demand Web Lessons

Module Approvals in Your State

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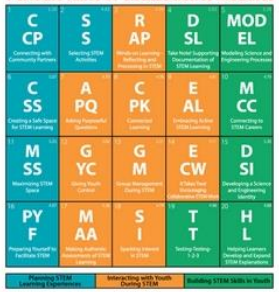
Click2Science

Online STEM professional development for out-of-school providers. Twenty modules available in English and Spanish.

Do you work with children in out-of-school settings? Out-of-school-time leaders can have a unique impact on the science, technology, engineering, and math skills of school-age youth. Click2Science is a series of twenty *Skills to Make STEM Click* and professional development materials designed to help front line staff facilitate STEM experiences.

Periodic Table of Click2Science Modules



Ready to take a lesson? Click here to register or sign-in to access Click2Science-based On Demand modules. After signing in or registering for the On Demand system, select "Lesson Series" or "Course" from the side bar on the left. There are free downloadable resources and interactive experiences in each lesson.

Better Kid Care is partnering with the national Click2Science program to deliver the self-learning modules. See how Better Kid Care modules fit into the overall Click2Science Professional Development model. Register at the Click2SciencePD website to access other helpful materials including Staff Development Guides, rich with video-based learning modules.

Download this flyer which summarizes the Click2Science series and share it with others! (PDF)

Click2Science modules

(Todos los lecciones disponible en Español)

- Click2Science: Asking Purposeful Questions
- Click2Science: Connected Learning
- Click2Science: Connecting to STEM careers
- Click2Science: Connecting with Community Partners
- Click2Science: Creating a Safe Space for STEM Learning
- Click2Science: Developing a Science and Engineering Identity
- Click2Science: Embracing Active STEM Learning
- Click2Science: Giving Youth Control

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Upcoming Webinar

Quality Programming with Trained Staff - Make it Happen

Participating in high-quality out-of-school time programs can have a life-long impact on youth. Improving program quality has been shown to have a positive impact on youth and on program staff. This webinar will present low-cost, easy-to-use resources to improve your overall program quality. You will connect with current research on OST program quality, and see how it applies to your own program.

Register Now!

Date: March 8, 2017

Time: 1:00 pm CST

Strategy: Lorem Ipsum

Skill: Supporting Documetnation of STEM Learning

On-Demand Webinars

Strategy

- ANY -

Skill

- ANY -

Date

- ANY -

Knowing When STEM Learning Runs Deep

Participating in high-quality out-of-school time programs can have a life-long impact on youth. Improving program quality has been shown to have a positive impact on youth and on program staff. This webinar will present low-cost, easy-to-use resources to improve your overall program quality. You will connect

Partner Collaboration Impacts Youth Collaboration

Participating in high-quality out-of-school time programs can have a life-long impact on youth. Improving program quality has been shown to have a positive impact on youth and on program staff. This webinar will present low-cost, easy-to-use resources to

Creatively Using Your Space, Time & Materials

Participating in high-quality out-of-school time programs can have a life-long impact on youth. Improving program quality has been shown to have a positive impact on youth and on program staff. This webinar will present low-cost, easy-to-use resources to

Click2Science Blog

STEM Celebrations in October

October 2, 2018

Computer Learning Month Month of

Making Connections to STEAM Careers

September 25, 2018

At an early age, I discovered a talent

What is STEAM?

September 11, 2018

Recently, STEAM has caught on as a buzzword in K-12 and afterschool

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Implementing Click2Science at the Y-USA

Background Summary:

Representatives from Click2SciencePD (C2S) collaborated with the Y-USA to recruit participants from four locations (Fort Worth, Memphis, San Antonio, and St. Louis). A small group of leaders from each location participated in C2S training put on by C2S staff in the fall of 2016. These leaders were then responsible for training 10 frontline staff at their respective locations between fall 2016 and spring 2017. The triangulated, comprehensive evaluation included interview/focus groups with site leaders and frontline staff following training, pre- and post-training observations of frontline staff using the Dimensions of Success (DoS) protocol, and collection of youth data.

Site leaders and frontline staff had positive perceptions of their experiences with C2S training.

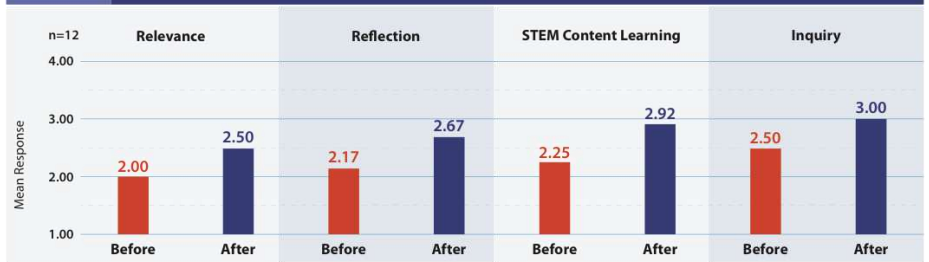
"So many times staff take a training and it's the theory of STEM…I felt Click2Science provided them [staff] with the actual skills of this is how you ask purposeful questions or this is an example of someone in a tinker room asking purposeful questions." – ***Leader***

"Knowing that they [staff] are touching lives in STEM is something we haven't done before –Click2Science helped bridge that gap and made it possible." – ***Leader***

"I felt that it [Click2Science training] helped make me stronger in a lot of places I didn't realized I was weak in." – ***Frontline staff***

"In the Click2Science training I've been able to take back things like purposeful questions, making sure I'm hands on with a group, and also allowing the kids to feel like they know how to be in certain roles, like they can be in leadership roles." – ***Frontline staff***

Frontline staff selected for observations improved over time on 11 out of the 12 DoS dimensions. Highest gains were found on the inquiry, reflection, relevance, STEM content learning and youth voice dimensions.



Developing a Plan

1. What is the need?
2. What skills meet your need?
3. Consider logistics

Then-

Create your plan

Professional Development Model

Staff development guides are designed to be combined and used together as part of a larger professional development plan. The Click2Science Professional Development Model is an example of how staff development guides, web lessons, and practice can be combined for achieving high-quality professional development.

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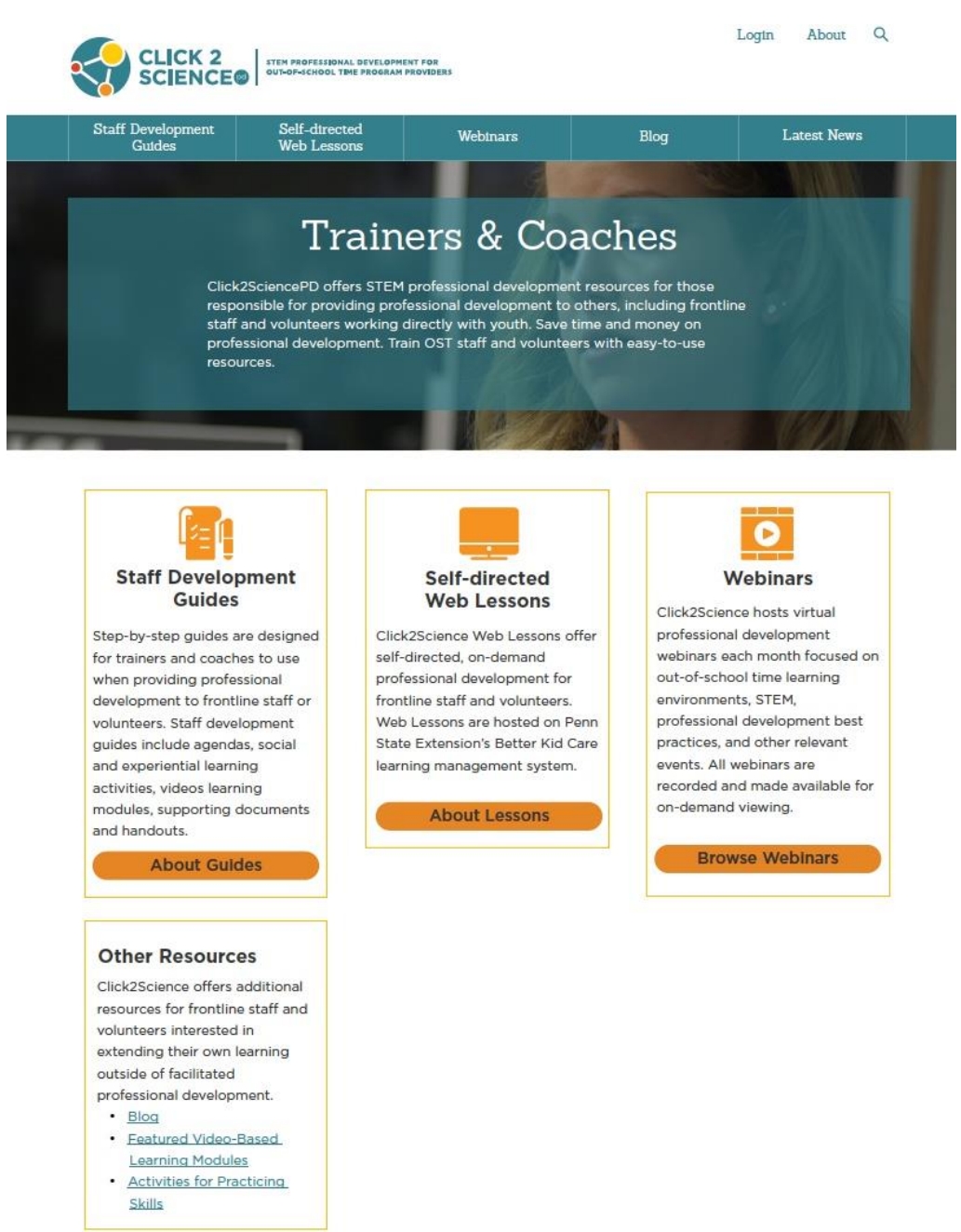

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About Staff Development Guides

Click2Science Staff Development Guides are designed for trainers and coaches to use when providing professional development to frontline staff and volunteers. These downloadable step-by-step professional development guides include agendas, social and experiential learning activities, video-based learning modules, supporting documents, and handouts. Not associated with a particular program or curriculum, guides focus on the skills staff need to create high-quality STEM learning experiences with youth.

Situations

Click2Science Staff Development Guides range from 15-120 minutes in length and are useful in a variety of professional development situations.

Training

Large Groups
50-120 minutes

Meeting

Small Group
15-35 minutes

Coaching

One-on-One
15-60 minutes

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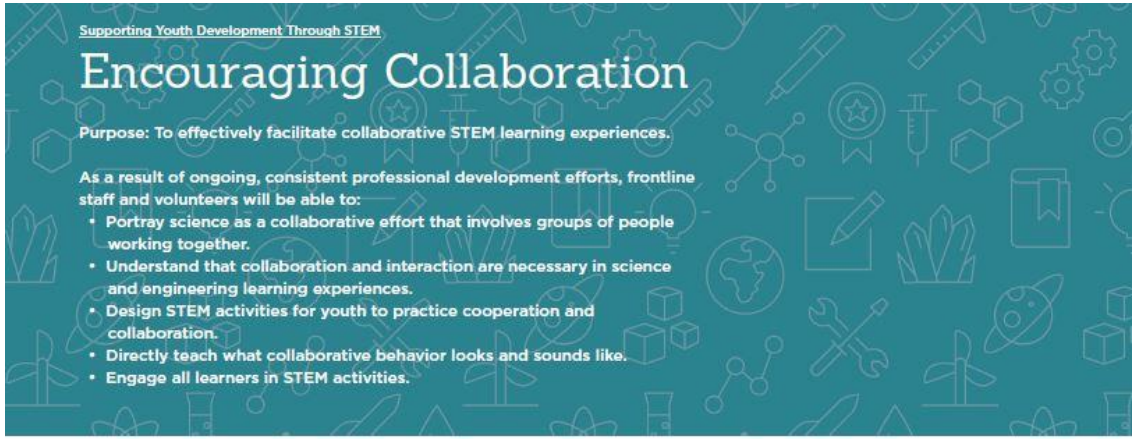

Staff Development Guides

Staff development guides are designed for coaches and trainers to use when providing professional development to frontline staff or volunteers. These downloadable step-by-step professional development guides include agendas, social and experiential learning activities, videos learning modules, supporting documents and handouts. The guides available below are design to support the skill Encouraging Collaboration. For more information about Staff Development Guides, please visit About Staff Development Guides.

Applying Strategies for Documenting STEM

Frontline staff or volunteers will document their learning with three activities: "Sink or Float," "Paper Airplanes," and Amphibi-an/Fish Comparison". They will also complete a self-reflection and set goals for their pratice.

Situation: Training
Strategy: Lorem Ipsum
Skill: Supporting Documetnation of STEM Learning
Time: 90 minutes

Learn More

6 LIKES BOOKMARK

Like a Real Engineer

Create an action plan for engaging youth in STEM by encouraging them to deepen their undestanding by relfecting on and processing experiences.

Situation: Training
Strategy: Lorem Ipsum
Skill: Supporting Documetnation of STEM Learning
Time: 90 minutes

Learn More

6 LIKES BOOKMARK

Making Learning Fun

Create an action plan for engaging youth in STEM by encouraging them to deepen their undestanding by relfecting on and processing experiences.

Situation: Training
Strategy: Lorem Ipsum
Skill: Supporting Documetnation of STEM Learning
Time: 90 minutes

Learn More

6 LIKES BOOKMARK

> <

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Connect with Click2Science

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click2sciencepd.org

@Click2Science

ACRES

Afterschool Coaching for Reflective Educators in STEM

ACRES · AFTERSCHOOL COACHING FOR REFLECTIVE EDUCATORS IN STEM

MMSA Maine Mathematics and Science Alliance

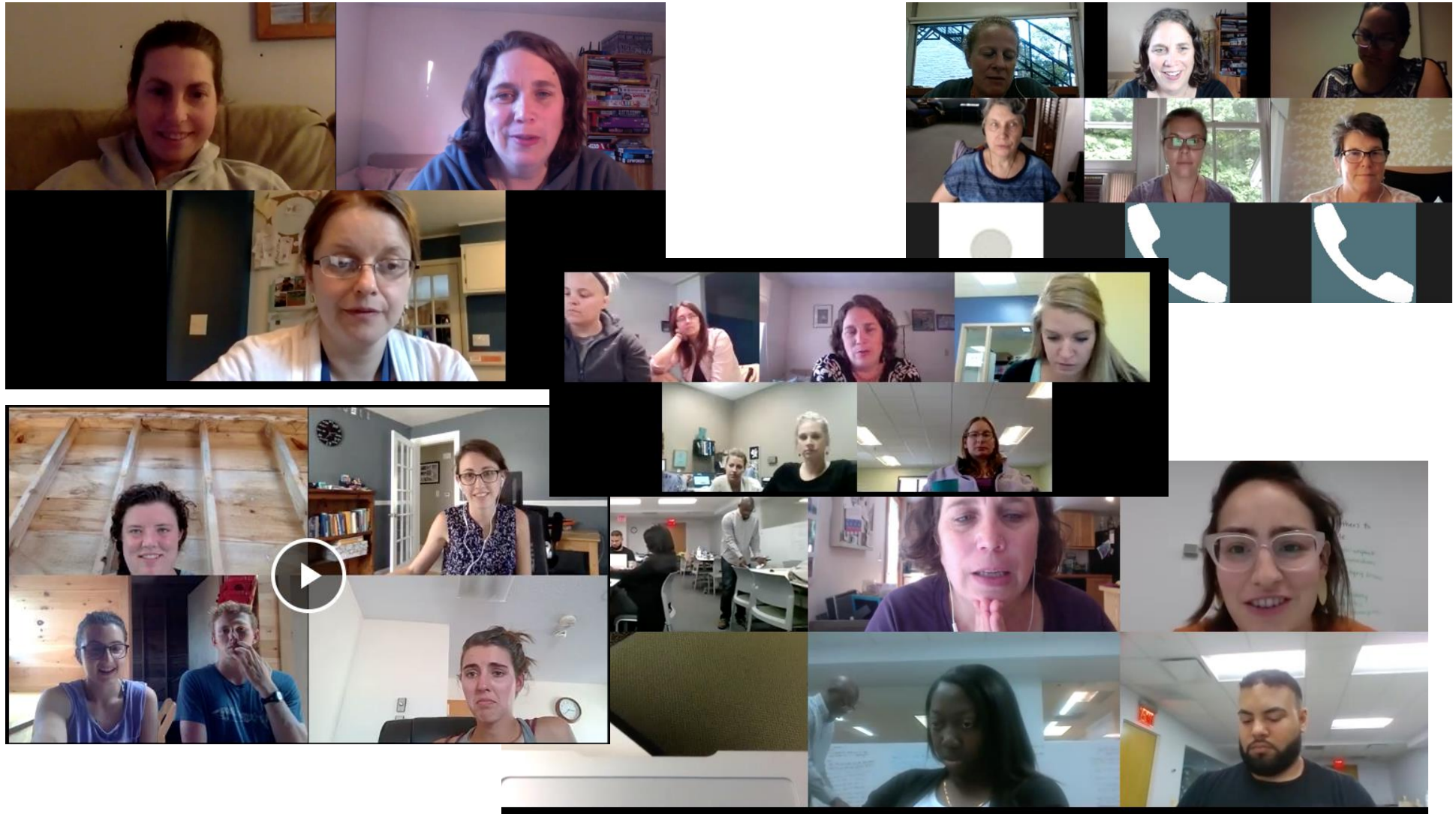
HOME | About ACRES | Get Involved | Research and Publications | Contact ACRES | Coaches Corner

engage...practice...reflect

Sign up for ACRES Professional Development

ACRES is a nationally acclaimed coaching program that builds knowledge and skills so afterschool educators, librarians and anyone who works with youth in out-of-school settings can confidently facilitate Science, Technology, Engineering, and Math (STEM) experiences for youth. Thanks to generous funding from several national foundations, the program is currently offered at no cost to participants.

The look and feel of ACRES



ACRES · AFTERSCHOOL COACHING FOR REFLECTIVE EDUCATORS IN STEM

MMSA Maine Mathematics and Science Alliance

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Get Involved

Join a Cohort

Become a Coach

Partner with Acres

Resources & Forms

Sampling ACRES

Now sketch a different version of this image.
What could you design that could improve this scene in the future?

THE **ACRES** PROJECT

Afterschool Coaching for Rural Educators in STEM

What is ACRES?

A new major national afterschool project is seeking interested organizations in rural states to participate in an innovative, video-based coaching curriculum in STEM.

Pay no fee to participate: The Noyce Foundation has made a substantial investment in the Maine Mathematics and Science Alliance to have the ACRES team build online professional development. For chosen sites, we provide free coaching and support.

Experience innovative and reflective professional development: The heart of the coaching model is a group of participants who get to learn and practice skills that research has shown are key to being an effective STEM facilitator in afterschool settings. Participants learn in a collegial atmosphere, viewing each others' video-recorded interactions with youth.

ACRES Success

Over the past three years, ACRES has suc coached over 50 educators in effective STE Below are some findings from interviews an data:

ACRES training is widely valued by particip

- 96% of ACRES participants would recommend the course to someone e
- 93% of participants would take anot course in the same format
- 89% of participants felt their work w youth changed after an ACRES cour

Develop skills for working with youth: Pa gained both STEM-specific skills as well a facilitation skills that transcend discipline.

"Purposeful Questions have been so pow impactful for me and the way I teach in my ACRES is one of the few courses I've had th is over I am still using what I learned. It has a better teacher and made my students better

"I learned so many tips and tricks about wo kids, and I've never even run a science progr I'm in the process of establishing a STEM cl has been the catalyst and has given me the to do that."

Program Strengths

Expert Facilitation: Participants identified the facilitation skills of the coach as a strength of the training, ci the coach gave good feedback and made the participants feel comfortable throughout the process.

"[Coach] was amazing. I got excellent feedback from her. It was nice to take a fresh look at my teaching practice me to reevaluate what I am doing and check in with myself and be more reflective."

Professional Learning Community: 100% of participants stated that they benefited from the sharing educators in their group. They valued receiving feedback, the camaraderie of the group, and being able struggles and lessons learned.

"The greatest strength of the ACRES course was being able to share videos and receive input from peers. Bei see how others implemented what we were learning, and how kids responded, was an invaluable learning tool.

Universal Application: Participants felt that the skills taught in the course were universally beneficial to anyone working with youth or in education.

"This course is well suited for anyone that works with youth in a group setting. While the topics covered are geared towards STEM activities, I found the information useful for other activities that I do with youth."

MMSA Maine Mathematics and Science Alliance

For more information contact:

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Publications

- Brasili, A. & Allen, S. (in press). Beyond the webinar: Dynamic STEM professional development for online learners. *Afterschool Matters*.
- Allen, S., Brasili, A., Byrd, S. Chick, P.C., Ouellette, K., & Lobley, J. (2018, March). *Adapting video-based reflections to afterschool settings*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.
- Brasili, A., Allen, S., & Foster, M. (2017). The ACRES project (Afterschool Coaching for Reflective Educators in STEM) Evaluation Report 1: Impacts on afterschool educators.
- Brasili, A., Allen, S., & Foster, M. (2017). The ACRES project (Afterschool Coaching for Reflective Educators in STEM) Evaluation Report 2: Reflections of the coaches.
- Lobley, J. & Ouellette, K.L., (2017) Using videoconferencing to create authentic online learning for volunteers. *Journal of Extension* 55 (5).
- Allen, S. & Ouellette, K. (2016). Building coaching relationships over the internet. *AfterSchool Today, 7(3),* (pp.12-13).

For more information about ACRES

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