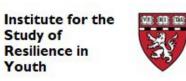


Study of

Youth













MILLION GIRLS MOONSHOT

# Speakers



### Bunmi Esho, M.Ed.

Family Engagement Advisor STEM Next Opportunity Fund bunmi.esho@gmail.com



### Linda Kekelis, Ph.D.

Family Engagement Advisor STEM Next Opportunity Fund Ikekelis@gmail.com @LindaKekelis



### Patty Allen, Ph.D.

Director of Research Institute for the Study of Resilience in Youth (ISRY) McLean Hospital Harvard Medical School pallen@mclean.harvard.edu



# **Tweet Intros**



**Bunmi:** Community | Education | STEM | my inspiration. Travel, my spirit. Global, my perspective. Always choose sun. Nigerian American. she/her. #BlackLivesMatter #StopAsianHate Lives on Nacotchtank land aka Washington DC.

**Linda:** My passion - family engagement. My privilege - able to access research and programs for my son and grandchildren. My dream every family having the same opportunities and access to resources. #Introvert #workingonmyImposterSyndrome

**Patty:** Who am I? first generation professional, scientist, mother, ally. What I do? Listen, learn, take action. What I want? To be a role model for #nextgeneration #girlscientists #motherscientists #firstinmyfamily #WomenInSTEM #STEMequity

# Who's in the Room?

On a sticky note...

- 1. What State Network do you represent?
- 2. In **2 TO 3 WORDS**, how are you training/resourcing your staff and/or partners to support family engagement?

# Agenda

The Why:

• Family engagement to close opportunity gaps in STEM

- The **How:** 
  - Resources to promote equitable family engagement in STEM

## • The What:

Brainstorming session focused on network ideas & challenges

The Wrap Up:
 Reflection time to clarify strengths, areas for growth, and next steps (including resources to support the journey)

# **Every Girl Builds Solutions**

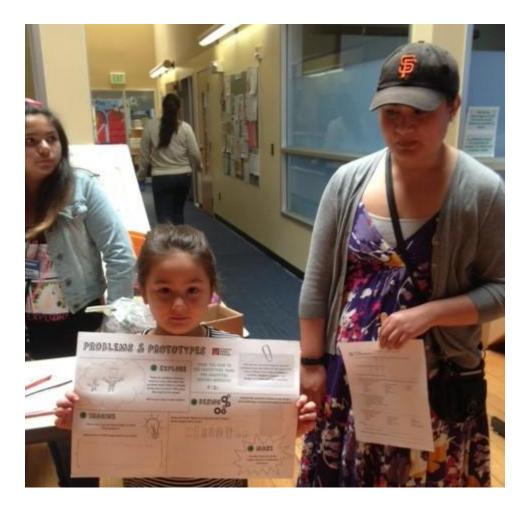


Photo credit: Bay Area STEM Ecosystem

## Prioritize equity and inclusion

Listen first and design with families
Prioritize families who have been left out

Challenge the idea of doing more to doing differently



Photo credit: Techbridge Girls

# Secret sauce for capacity building

- Support partners with impactful PD
- Share research and accessible resources

Stay tuned for next Community of Practice with STEM Next



## Family Engagement Our Community of Practice is our Superpower

Photo credit: Techbridge Girls

# **Resources for Family Engagement**

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### Articles and Blogs

#### **Webinars and Videos**

#### White Papers and Research

STEM Family Engagement: A Planning Tool by Institute for the Study of Resilience in Youth

Guide for Community of Practice by STEM Next

Family Engagement Core Competencies by NAFSCE

Powerful Partnerships by Karen Mapp, Ilene Carver, & Jessica Lander

Engage Every Family (Second Edition) by Steven Constantino

<u>Listening: The "Secret Sauce"</u> <u>for Impactful Family</u> <u>Engagement</u> by STEM Next

Family Engagement

<u>Reimagined</u> by Mahnaz Charania for Christensen Institute

Research Shows Home-School Communication is Forever Changed by Global Family Research Project

New Study Confirms Benefits of Connecting Parents with Each Other to Build Social Capital by Global Family Research Project Family Engagement Phone Calls: A Tool for Powerful Practice by Dr. Karen Mapp and Scholastic Education

Multigenerational Tinkering by the Exploratorium's Tinkering Together Festival

<u>Listen, Learn, Lead webinar:</u> <u>Voices from our Schools by</u> Flamboyan Foundation

<u>The Power of Our Words</u> by Dr. Steve Constantino and Patricia Weinzapfel <u>Funders' Playbook: Tools for Thinking About</u> <u>Family and Community Engagement</u> by Carnegie Corporation of New York

<u>Changing the Game in STEM with Family</u> <u>Engagement:</u> by Linda Kekelis and Kara Sammet for STEM Next

<u>The Essential Funders' Guide To</u> <u>STEM-focused Family Engagement</u> by Kathleen Traphagen, Kara Sammet, & Linda Kekelis for STEM Next

Embracing a New Normal: Toward a More Liberatory Approach to Family Engagement by Karen Mapp and Eyal Bergman, for Carnegie Corporation of New York

<u>Unlocking the "How"</u> by Eyal Bergman for Learning Heroes

# **STEM Family Engagement Planning Tool**

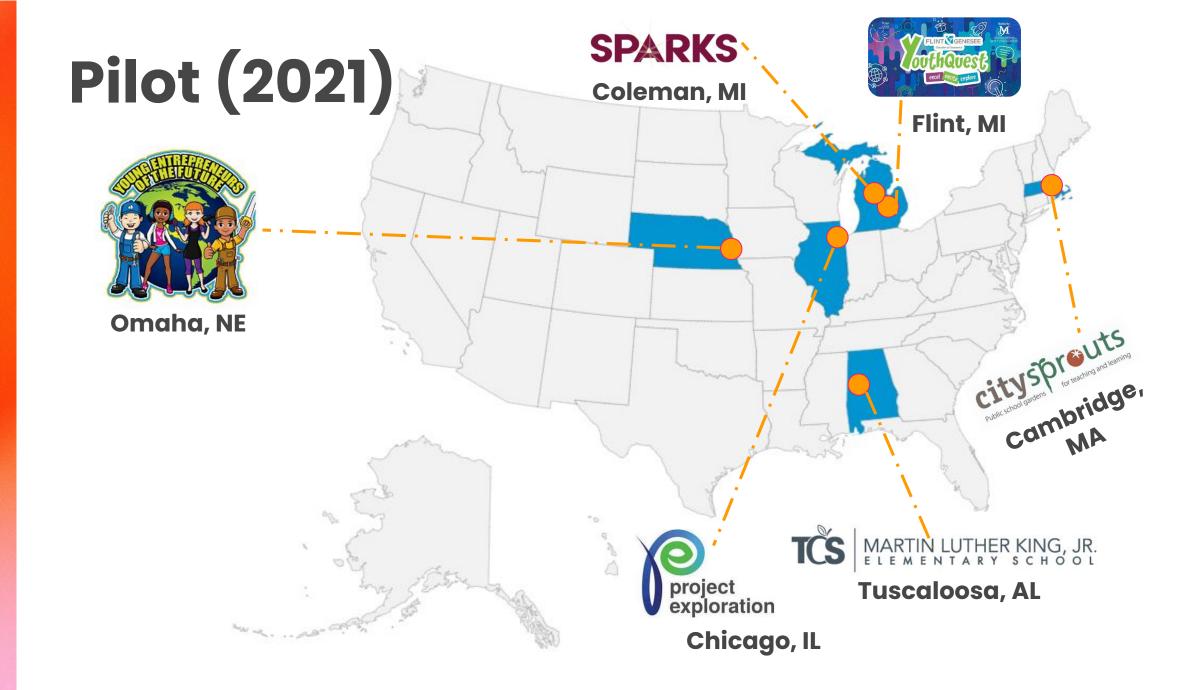
## What is it?

- Organizes key ideas from research and practice
- Promotes effective and equitable family engagement in STEM

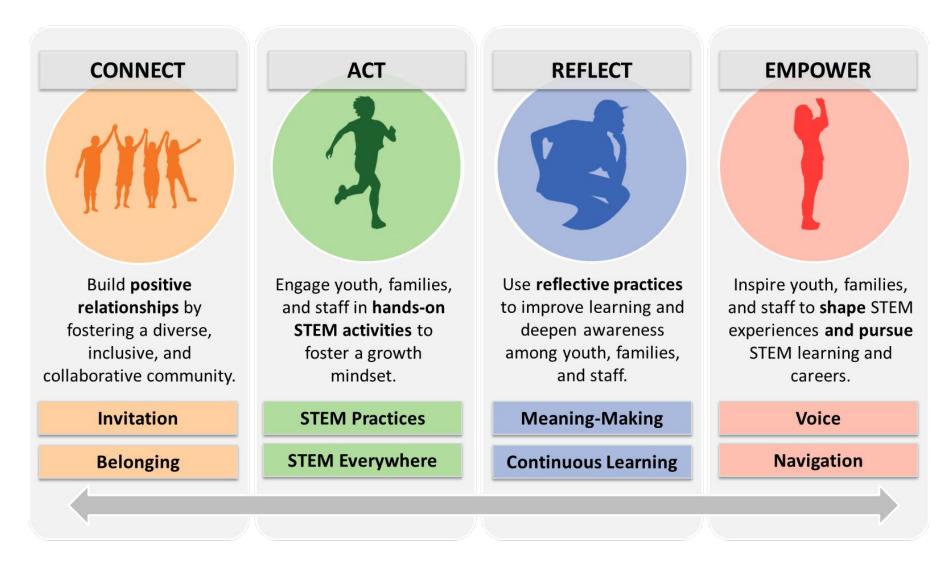
## Who's it for?

- STEM-providing out-of-school time programs, and schools
- All range of experiences, from beginners to those with strong family engagement program in place





# **CARE About Families in STEM**



Download free tool here: https://stemnext.org/stem-family-engagement-planning-tool/



Build **positive relationships** by fostering a diverse, inclusive, and collaborative community.

## Invitation

Belonging



**Project Exploration** 

## Belonging

Nurturing connections within and across programs

### **Invitation** Reaching out to diverse families and staff with intention





"...We give priority to applicants of color, youth who qualify for free/reduced lunch, whose primary/home language is not English, who come from a single-parent household and youth who have experienced some form of deep stress in the family...we are committed to cultivate wonder for all Cambridge youth, of every background."

**Invitation & Belonging** 

### Learn more at: www.citysprouts.org

# CAMBRIDGE DAY

News Business + Money Arts + Culture Opinion About this site About Cambridge SUPPORT LOCAL NEWS

Home | Opinion | Letters

### An open letter from CitySprouts: This summer, we're prioritizing kids with fewer opportunities

#### Saturday, April 24, 2021

For 20 years, CitySprouts has helped Cambridge children engage with the natural world in which we all live. CitySprouts Garden Educators partner with Cambridge classroom teachers to deepen elementary students' science knowledge by exploring the school garden. We run a summer and after-school program for middle school youth to teach them growing skills and help them become environmental stewards of their community. Since 2001, CitySprouts has gotten children learning outside. Thousands of Cambridge schoolchildren have grown up learning science from the garden. More than 650 middle schoolers have gone through our summer program or after-school leadership club. Now, after more than a year of disruption that has affected families unequally, we at CitySprouts are called to do more to make our out-of-school time program more accessible to youth with fewer material resources.

In our 2021 summer program, we are prioritizing places at our summer program sites for those Cambridge youth who have fewer opportunities for summer learning. Though not prerequisites for joining our program, we give priority to applicants of color, youth who qualify for free/reduced lunch, whose primary/home language is not English, who come from a single-parent household and youth who have experienced some form of deep stress in the family.

#### A better Cambridge Day

Please consider making a financial contribution to maintain, expand and improve Cambridge Day.

DONATE





Use reflective practices to improve learning and deepen awareness among youth, families, and staff.

Meaning-Making

**Continuous Learning** 



NYSCI Parent Ambassadors

## **Continuous Learning**

Listening and learning continually with families and staff

### **Meaning-Making** Families reflecting together to deepen STEM learning





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Example

**EFLECT** 

How else does your child show that they are interested in something?

> Use the pencils and paper provided to share your thoughts with other caregivers. Then, read others responses to discover the different ways children communicate their interests.



"In honor of Pride Month, we are turning our PlayLab into an inviting reflection space for visitors to celebrate the diversity of all families." (June 12, 2022)

\*DISCOVERY\* 40 years/ MUSEUM

Learn more at: www.discoveryacton.org

## Meaning-Making & Continuous Learning

6

### **Observing Brain Building Moments**







# **Brainstorming Session**

## Guidelines

- Think of **ONE word** to describe what is top of mind for you and the work you do?
- Now, choose CONNECT or REFLECT as your CARE Framework topic
- Find a table with your selected topic, with no more than 3 people at your table
- **30 sec Intros:** Name, Organization, and Role
- Take 2 minutes to think about how you've engaged your partners in your chosen topic or where you need support in engaging partners (new and current partners)



# **Brainstorming Session**

## **Prompt Questions**

- What are examples of how your Network/organization is supporting program partners or staff in achieving goals around CONNECT and REFLECT and the implementation of it?
- How can equity-framing support you, or your partner's work?

Be ready to share ONE tweet-sized highlight that resonated with your table!





## Session Shareout: One tweet-sized highlight per table

# **Our Closing Reminders**

**Re-imagining** family engagement beyond STEM events

Listening, learning, and designing with families

**Creating resources** that connect research to practice

**Shifting professional development** from one-time training to a community of practice

Relentlessly keeping equity and inclusion at the center

# Resources to help on your journey

## STEM Next

STEM Family Engagement: A Planning Tool

Future Communities of Practice

<u>Community of Practice guide</u>

Each other





# Celebrate our effort with a shout out!

# Additional Examples for Reference



















Invitation

Learn more at: https://sites.google.com/bostonpublicschools.org/bps-steamapalooza/home



"Talking with your kids about math, <u>counting</u>, and **playing** simple math games can go a long way in developing a foundation in math that will <u>prepare</u> <u>them for life."</u>

Invitation



## Families

#### STEM is for the whole family!

On this page, you'll find resources to empower your kids in science, technology, engineering, and math. No matter the age or the interest, we have something for every member of your family!

O Counts.



### Love Counts

Talking with your kids about math, counting, and playing simple math games can go a long way in developing a foundation in math that will prepare them for life.

Explore the Love Counts page to find games and resources for your family. STEM starts small. It starts with talking, counting, and love that counts.

Discover early STEM resources

#### STEM Games

Who says that STEM isn't fun? Explore our collection of free STEM games that teach everything from coding to math.

#### Play STEM games

Visit the TRSA Families page at: <u>https://tulsastem.org/home/families/</u>



"...We give priority to applicants of color, youth who qualify for free/reduced lunch, whose primary/home language is not English, who come from a single-parent household and youth who have experienced some form of deep stress in the family...we are committed to cultivate wonder for all Cambridge youth, of every background."

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#### A better Cambridge Day

Please consider making a financial contribution to maintain, expand and improve Cambridge Day.

> DONATE Powered by O Blink



## Invitation/Belonging

# How are the workshops run?

mple Exa ONNECT

Families participate in a series of five 2-hour workshops held in the evenings. In every workshop, we begin with dinner, followed by a <u>collaborative design activity</u>, using Scratch and MaKey MaKey. With Scratch, families program their own interactive stories, games, and animations. With MaKey MaKey, families create

### "...we **begin with dinner, followed by a collaborative design activity**...families program their own interactive stories, games, and animations."

Belonging





### Download the Facilitator Guide

Want to learn more details? Interested in adapting Family Creative Learning for your setting? Click here to learn more and download our Family Creative Learning Facilitator Guide.

### Download the facilitator guide:

http://familycreativelearning.org/guide/FCLGuide-20170628.pdf

### Check out the full video at:

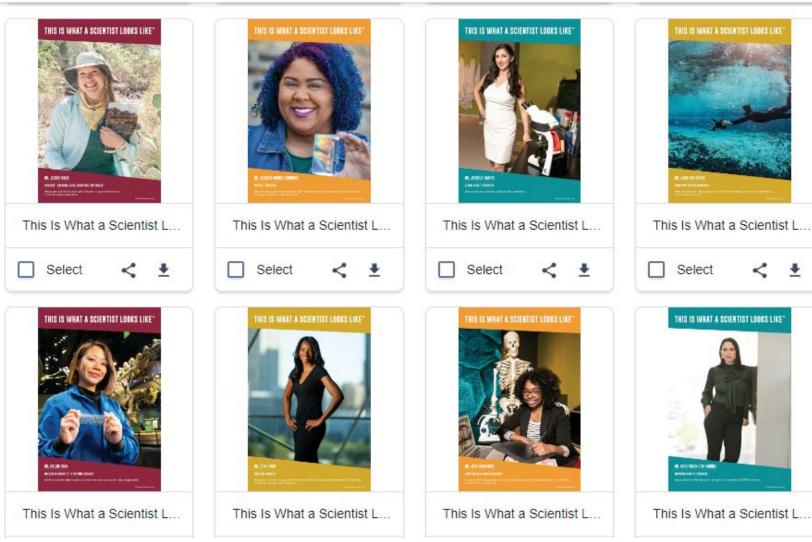
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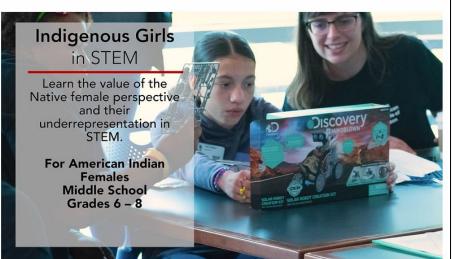
Belonging



View the full collection at: <a href="https://www.ifthencollection.org/">https://www.ifthencollection.org/</a>



### Project 3C





#### STEM Family Nights

Project 3C's Family STEM Nights are for students and their families to learn about science, technology, engineering, and math by engaging in interactive and hands-on activities.

- · Serving Native American students who reside in Robeson, Scotland, Cumberland and Hoke Counties.
- Materials will be provided to attendees
- Dates Available March 28 April 4, April 25 May 2, May 16 23
- Location: Hybrid
- Register at: <u>https://forms.office.com/r/8kbxbLgh77</u>

## PROJECT 3C PRESENTS THE STARRY STEM NIGHTS SERIES

Serving Native American students who reside in Robeson, Scotland, Cumberland and Hoke counties. We provide hands on experience in **ASTRONOMY** for Native youth and simple take-home STEM experiments.

> Dates you can choose from: March 28-April 4, April 25-May 2, May 16-23

UNC

#### Deadline to apply: April 1, 2022

Materials will be provided to the students. The series will be hybrid and open to all ages.

For more information, contact Francine Cummings: 910.775.4723 • project3c@uncp.edu • uncp.edu/project:

Register online: uncp.edu/project3c

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# Belonging

Learn more about Project 3C at: https://www.uncp.edu/resources/southeast-american-indian-studies/initiatives/project-3c



Example

"Parent University utilizes a **two-generation approach**, where children and parents are engaged together, with the goal of helping **families increase their awareness of STEM career opportunities** that can help put children on a pathway to achieve academic and career success."





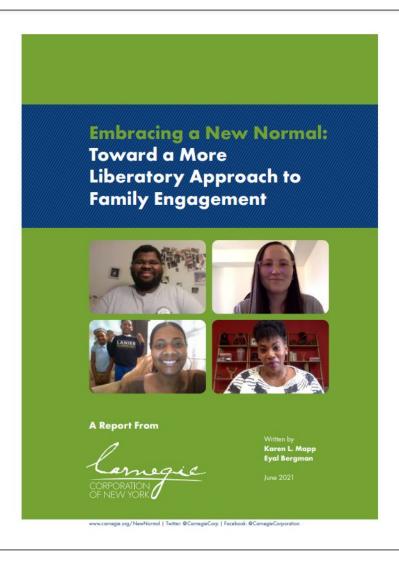


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## **Reflect to Check Assumptions**

- 1. **Respect**: Am I seeking input from, and do I listen to and value, what all families have to say?
- 2. **Competence**: Am I demonstrating to all families that I am competent and that I see them as competent and valuable caretakers?
- 3. **Integrity:** Do I keep my word with families?
- 4. **Personal Regard:** Do I show families that I value and care about them as people?



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# **Continuous Learning**

Mapp & Bergman (2021)



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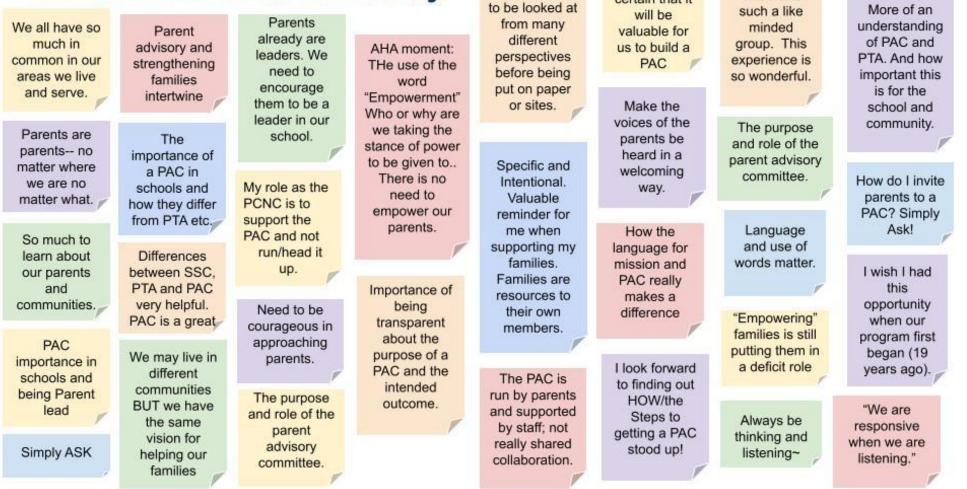
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### Share one reflection from today:



All words need

## **Continuous Learning**

Participant reflections from a National Family Support Network Parent Advisory Committees Training (January, 2022)

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certain that it

This hui is





"They tell their families stories using robotics... they learn coding, they learn design, and they also learn how to learn from failure, but along the way they are reliving these important family memories together."

-Carrie Tzou, Tech Tales

"That makes families feel more connected too, learning about your genealogy at the same time." – Margaret Larson, King5

### View the full interview/video at:

https://www.king5.com/article/entertain ment/television/programs/new-day-nort hwest/tech-tales-brings-family-stories-t o-life-through-robotics/281-574714961

# **Meaning-Making**



Author: Su Ring, Rachael Heistuman Published: 7/17/2018 8:48:43 AM Updated: 12:24 PM PDT July 17, 2018



In addition to teaching kids the wonders of math and science even when school is out for the summer, Backpacks for Science Learning brings families and communities together through exploration of robotics, computer science, coding, and even e-textiles.

Through a partnership between UW Bothell, Pacific Science Center, Seattle Public Libraries and Red Eagle Soaring, the program hosts workshops throughout the year that allows families to learn more about different fields within science, technology, engineering and math while working on projects together and exploring their family history.



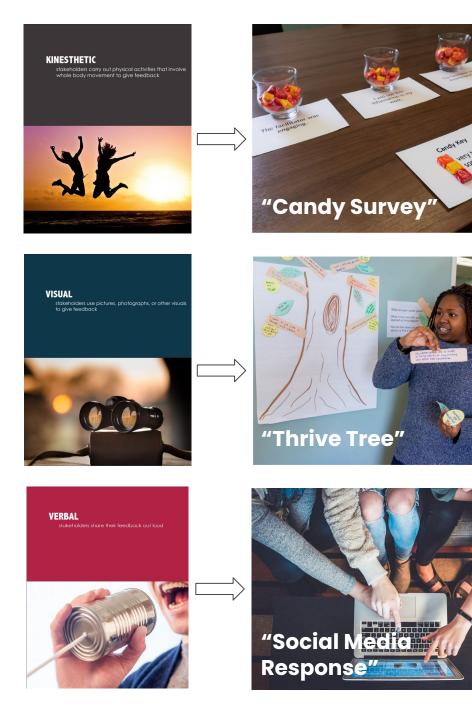


## CREATIVE WAYS TO SOLICIT STAKEHOLDER FEEDBACK

Visual, Verbal, and Kinesthetic Approaches to Gather Input from Any Audience

**Continuous Learning** 

Feedback akeholder Solicit-/www.publicprofit.net/Creative-Way guide at: <u>https:/</u> out the Check





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Example

EFLECT

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How else does your child show that they are interested in something?

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"In honor of Pride Month, we are turning our PlayLab into an inviting reflection space for visitors to celebrate the diversity of all families." (June 12, 2022)



Learn more at: https://www.discoveryacton.org/

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play with

## **Continuous Learning**

**Observing Brain Building Moments** 

The Point of Pointing

Please note