



# Necessity is the Mother of Invention

Barbara Punt, Punt Consulting Group

Lorie Millward, Thanksgiving Point Institute

Tara Henderson, Explora

Marvin Logan Jr., OH WOW!

Peter Olson, WonderTrek



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# Tulip Festival

APRIL 7 - MAY 13

# Beautiful Questions



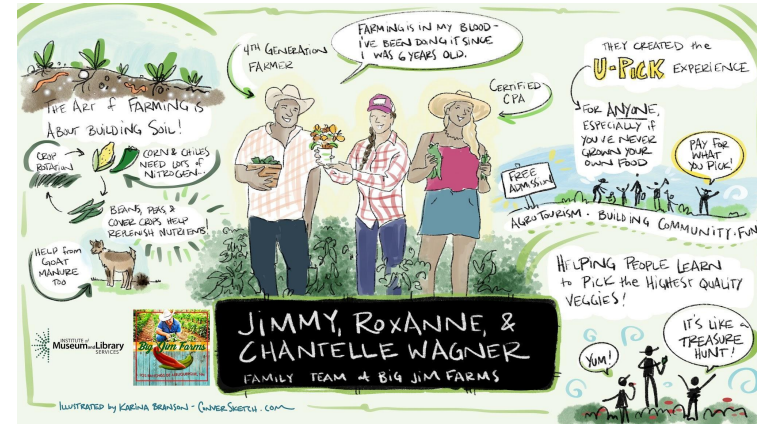
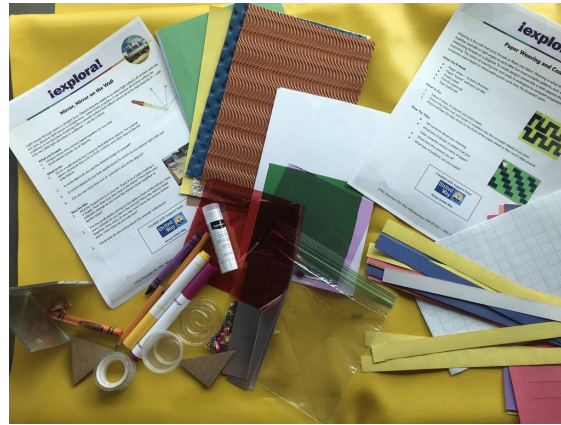






## Turning Outward: Listening to Connect with Community

Making intentional choices based on community sharing:  
it will produce greater impact and relevance in the community.





## Atsin'tł'ish Diilch'oshí

### Di kwoda' t'éé igii cho'idit ít:

- Natsq̄dii bi'ol'dzol'ígi / (Joot yitalí)
- Áataa' a'dá t'eeigii na'a't'áíí ch'oi'l diljji'. Agháá, Na'káá, Na'taa'ígii.

### K'wé'ék'ad kwo'diikii:

1. Natsq̄dii bi'ol'dzol'ígi bi'so't
2. Natsq̄dii bi'ol'dzol'ígi ni tsii'ts'iin bídinee'yish
3. Natsq̄dii bi'ol'dzol'ígi nighaan bídinee'yish

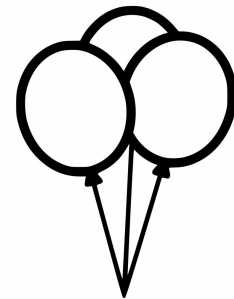
### K'ad k'wo adilnii:

- Natsq̄dii bi'ol'dzol'ígi na'at'aíí bídinee'yish.
- Natsq̄dii bi'ol'dzol'ígi agháá bídinee'yish.
- Natsq̄dii bi'ol'dzol'ígi na'káá bídinee'yish.
- Natsq̄dii bi'ol'dzol'ígi na'taa'ígii bídinee'yish.
- Atsin'tł'ish diilch'oshí laáíí eí kad naaltsos bé inid tsos.
- Ashjji' dóó be'íí'indii'áh.

### Nanaa ía adóó ba'ntsiník'éés:

1. Natsq̄dii bi'ol'dzol'ígi nakiigo ah'á ni'nineet. Ha'doo nít?
2. Natsq̄dii bi'ol'dzol'ígi eí naaltsos da't'stíí bii doljáá?
3. Ashjji' da't'stíí nidąą hónaa dóó?

Translated by Venaya Yazzie



### Books to Read Together:

*Fun with Static Electricity* by Chocolate Tree

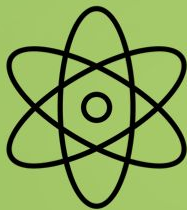
*Balloon Trees* by Danna Smith

*Harvey Potter's Balloon Farm* by Mark Buehner



# THE OH WOW!® CENTER FOR SCIENCE & TECHNOLOGY





# OH WOW!® PROGRAMS & SERVICES

- Visitor Services
- After-School STEM Intervention
- Educational Professional Development
- Specialized Programs
- Specialty Camps
- STEM Activity Kits

# EXPERIENCE EVERYWHERE

## STEM ACTIVITY KITS



Includes all materials needed for activity + instructions and a walkthrough video



Closely aligned with learning standards

## THE BLUE-SKY METHOD

- How can we take immersive, interactive experiences in a mobile and accessible way?





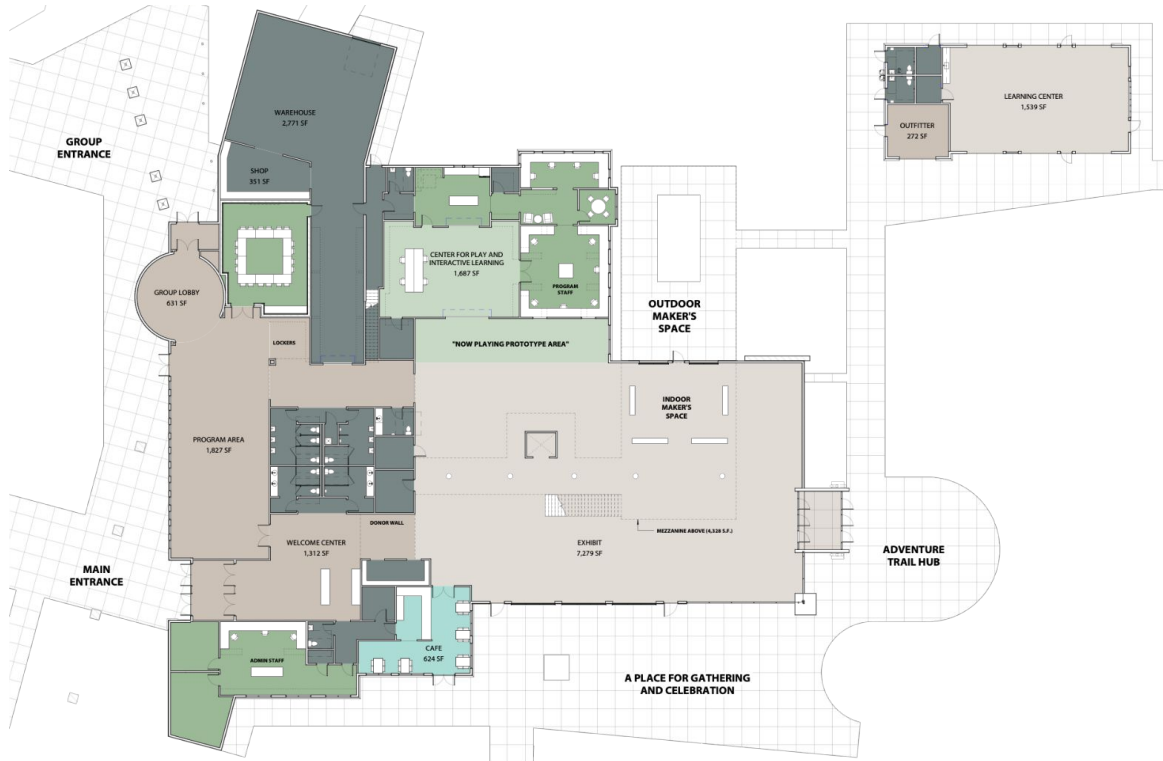
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**EXPLORE PLAY LEARN**



# Strategic Master Plan

## CENTER FOR PLAY & INTERACTIVE LEARNING



## Play Resource

- Multi-dimensional
- Hands-on Materials
- Workshops
  - Museum Staff
  - Volunteers
  - Teachers
  - Administration
  - Caregivers

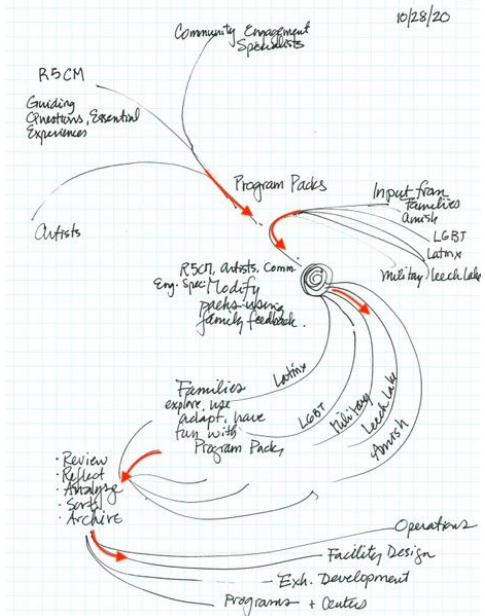
*Learning from and with children and each other*



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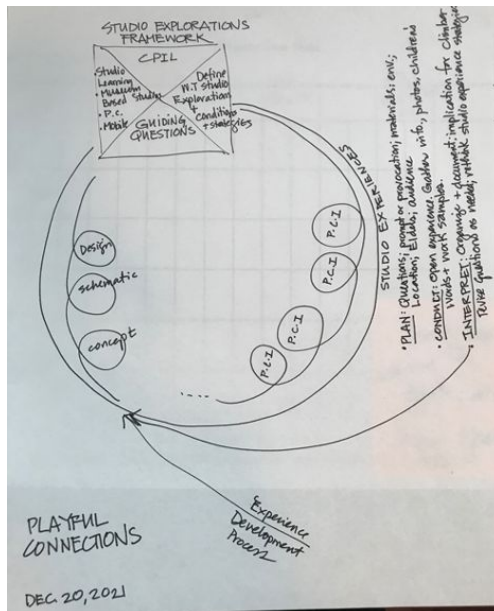
# Advancing Through Engagement

## LEARNING FROM AND WITH CHILDREN



### Grant 1, Playful Explorations, 10/28/2020

A visual sketch of the interconnections between different aspects of WonderTrek's early approach to programmatic development, eventually informing Studio Explorations



### Grant 2, Playful Connections, 12/20/2021

Just over a year later, another visual sketch of the iterative, interconnected approach to programmatic development prior to drafting the Studio Explorations Framework

## 4 Year Progression

- Two x 2-year grants
- Build Capacity
  - Project Team
- CPIL Framework
- Engage Audiences
  - Material Explorations
  - Inform Museum Development



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**Question: What are some things in the natural world that children find fascinating?**





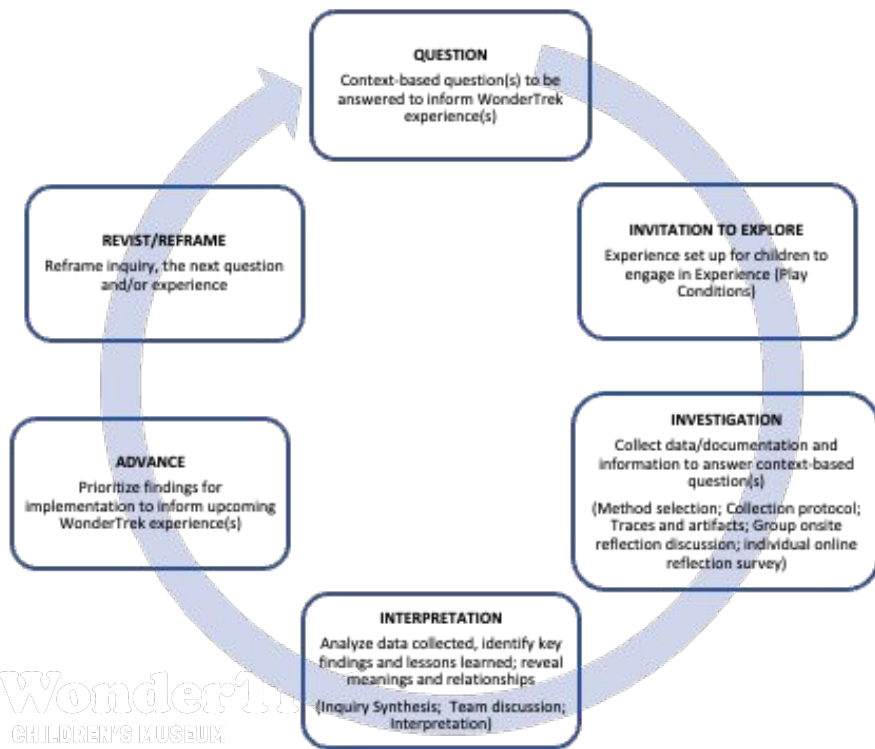
# STUDIO EXPLORATIONS FRAMEWORK



*SE Framework: Children engage with materials, spaces, phenomena, or relationships to discover possibilities; and to take tools, objects, materials or ideas where their thoughts and imaginations need to go. These investigations are directed by the child with the adult as resource and co-researcher, rather than instructor.*

# WonderTrek Inquiry

## EXPLORE, DOCUMENT, & SHARE INSIGHTS



Combining practices:

- Prototyping
- Studio Learning
- Reggio documentation
- Team Based Inquiry
- Research-based practice

Starting with questions:

- Learn with, from, and about children
- Inform experience development
- Durable approach for others

The *Studio Explorations Framework* is available at:  
[www.wondertrekmuseum.org/...](http://www.wondertrekmuseum.org/)





**Question: How does adding different materials, Big Blue Blocks, fabrics, balls, & colored cards, throughout a Studio Exploration, invite and encourage children's narration of their play?**



**Question 1: What do we notice about children's play and exploration in a space with the new landscape feature?**

**Question 2: What opportunities and challenges for movement and climbing do the ropes and notched boards present?**

Working Question: *What questions do we want to investigate?*

This is important because... *What persistent questions or projects does the Museum have this will address?*

Invitation to Explore: *Where and when will this take place? What are relevant Play Conditions? How will it be set up? How is the set-up responsive to the Question?*

Documentation Methods: *What are the ways in which children's activities and experiences will be documented: collect quotes? data will be collected.*

Data Gatherers/Researchers/Documenters: *Who will gather what information?*

Timeline: *What tasks and arrangements must be made for this Studio Exploration to be ready?*

Completed by: *All individuals who contributed to the worksheet.*

Date: *Date worksheet completed*



# WONDERTREK'S DEVELOPMENT & DESIGN TEAM

**Peter Olson**

Program Director

[peter@wondertrekmuseum.org](mailto:peter@wondertrekmuseum.org)

**Emilee Mailhot**

Program Coordinator

[emilee@wondertrekmuseum.org](mailto:emilee@wondertrekmuseum.org)

**Maria Prozinski**

Communications & Executive Director

[maria@wondertrekmuseum.org](mailto:maria@wondertrekmuseum.org)

**Shannon Wheeler**

Development & Board Liaison

[shan.wheeler@gmail.com](mailto:shan.wheeler@gmail.com)

**Ashley Wereley**

Design & Management

[ashley@wondertrekmuseum.org](mailto:ashley@wondertrekmuseum.org)



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**Jeanne Vergeront**

Development Lead

[jwverg@earthlink.net](mailto:jwverg@earthlink.net)

**Cheryl Kessler**

Evaluation

[cheryl@bluescarfconsulting.com](mailto:cheryl@bluescarfconsulting.com)

**Jim Roe**

Development & Design

[jroe@umn.edu](mailto:jroe@umn.edu)

**Mary Weiland**

Development

[weilandgruen@gmail.com](mailto:weilandgruen@gmail.com)

**Jeff Brown**

Design

[brownknowsthat@gmail.com](mailto:brownknowsthat@gmail.com)

*Traces of children's thinking and work invite discussion among the WTI team, children, parents, teachers, and partners*

# REFERENCES & FURTHER READING

**For further reading on the practice of asking questions, visit Museum Notes by Jeanne Vergeront:**

*Because a Good Question is Hard to Find*

<https://museumnotes.blogspot.com/2021/12/because-good-question-is-hard-to-find.html>

*How Can Museums Become Places Alive with Questions?*

<https://museumnotes.blogspot.com/2016/07/how-can-museums-become-places-alive.html>

*2014 Resolution: Shiny Questions*

<https://museumnotes.blogspot.com/2013/12/2014-resolution-shiny-questions.html>

**For WonderTrek's *Studio Exploration Framework* and its complete reference list, visit: [www.wondertrekmuseum.org/...](http://www.wondertrekmuseum.org/)**



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