

Children's Museum Learning Frameworks

Interactivity 2023

AGENDA

- 1. Introductions and Icebreaker
- 2. What are learning frameworks anyway?
- 3. Sharing Learning Frameworks
 - Children's Museum Houston
 - WonderTrek
 - Marbles Kids Museum
- 4. You Share
- 5. Q&A



What does learning look like, sound like, feel like at your museum?

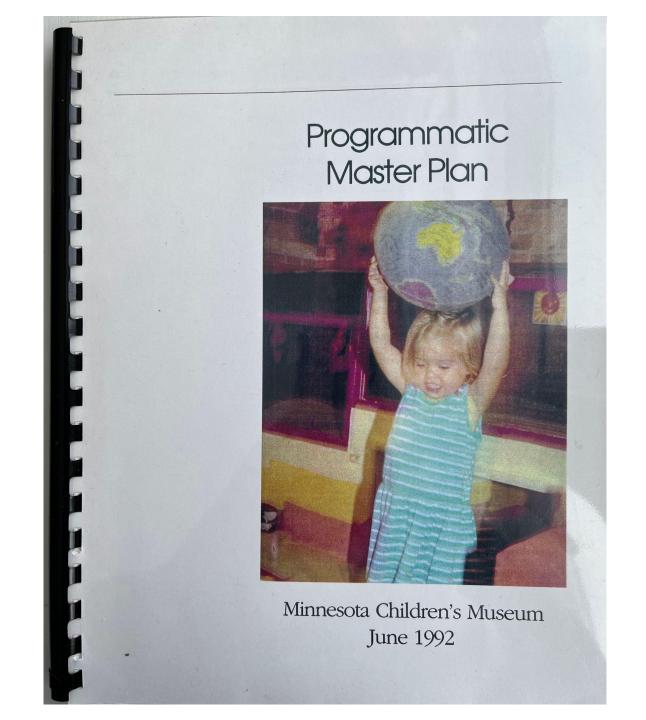


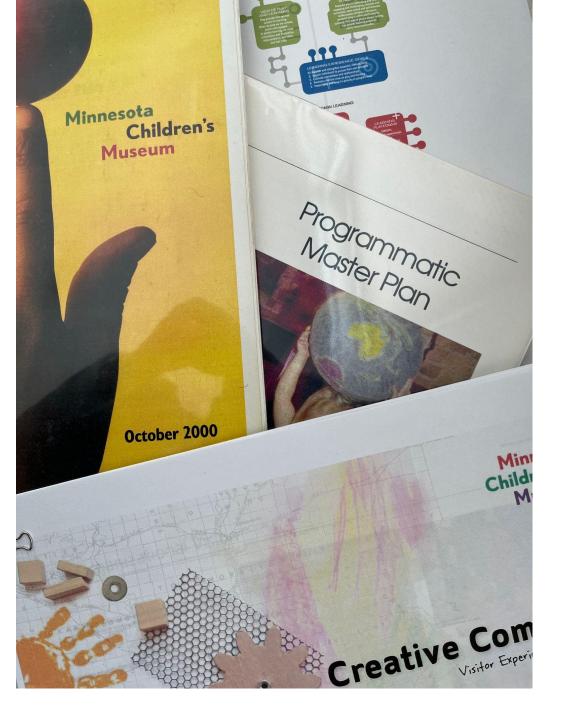
Where are you?

- 1. We have a learning framework and we use it.
- 2. We have a learning framework but we don't use it.
- 3. We are in the process of developing a learning framework.
- 4. What's a learning framework?

What Are Learning Frameworks Anyway?

1992:
What's A
Programmatic
Master Plan?





Learning Frameworks Evolve

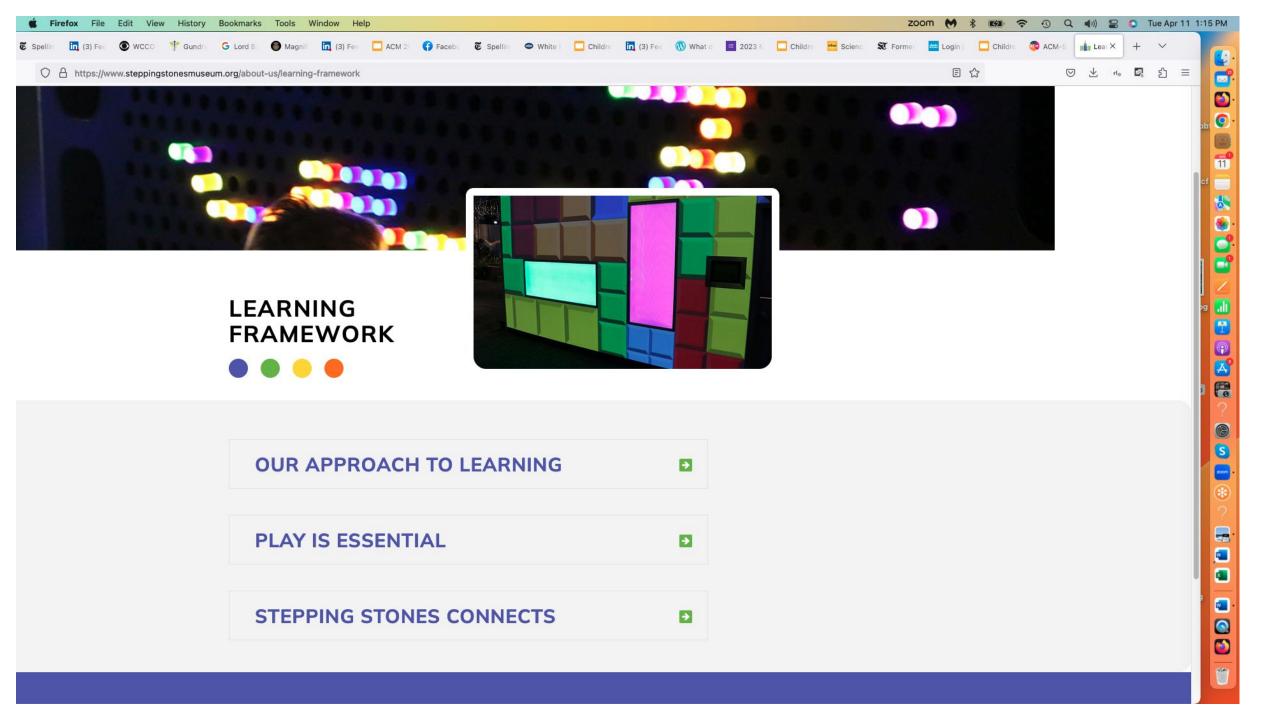
- 1992 Programmatic Master Plan
- 2000 Education Master Plan
- 2013 Visitor Experience Plan
- 2019 Learning Framework

A Learning Framework is...

- A process and a product
- Based in a vision and mission
- Consolidating a museum's most important ideas around learning and learners
- For its audience and community







Mud

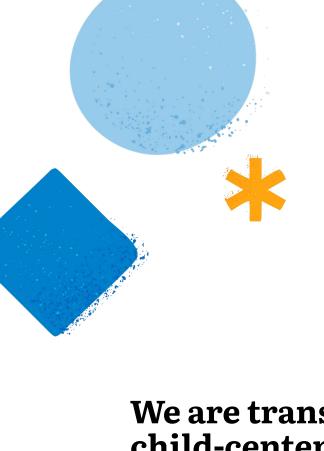
Mud is quintessentially interdisciplinary.

Is mud science, solids suspended in liquid? Is it art, a plastic medium with expressive qualities? Is it humanities, a universal building material providing shelter the world around?

Yes. No. Mud is mud.









We are transforming communities through innovative, child-centered learning that improves the trajectories of all children in Greater Houston.

















...build confidence in their learning abilities;

...apply basic skills in math and reading;

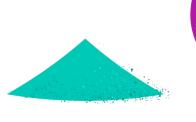
...communicate their ideas;

...become skilled in scientific inquiry;

...use problem solving processes; and

...experience meaningful connections to the world around them.







Quintessential Questions:

- Cyberchase
- Flow Works
- Invention Convention
- Tot*Spot
- Kidtropolis
- Matter Factory
- •How Does It Work?
- PowerPlay
- EcoStation
- Cultural Gallery
- What's New Gallery
- Parent Resource Library

- Can I Solve It?
- What Can it Do?
- What if?
- How does my baby develop?
- Where Does It Come From?
- What Is It Made Of?
- How Does It Work?
- Can I Do It?
- How Does It Grow?
- How Are We Alike/Different?
- varies





















STANDARDS FOR LEARNING EXPERIENCES BY GALLERY

The Children's Museum of Houston CMH Learning Standards (drawn from national education standards and learning theory)		Problem Solving Concept Under					cept Understandings Skills and Content												Intrapersonal and Environmental Relationships																									
		Inquiry	Concept/Process Integration	Scientific and Mathematical Habits of Mind	Selection and Use of Tools and Strategies	Research	Systems	Representation and Modeling	Change and Constancy	Scale	Language	Evolution and equilibrium	Form and function	Recognize and Extend Patterns	Vocabulary	Phonological/Phonemic Skills	Properties of Matter	Motion and Forces	Transfer of Energy	Use of Symbols to Convey Meaning	Bodily-Kinesthetic	Number Concepts	Music	Equivalency	Mathematical Operations	tation/Estimation	Collect, Organize, Display and Apply Data	000	Geometric Characteristics and Actanon Simps	Diversity/Interdependence	solution (managed as)	Licological Line	Contract		Geography/Global Connections	Innerpersonal	Governance	Democratic Beliefs and Values	nmigration	Production, Distribution, Consumption	Spatial	Oral/Written/Graphic Traditions	Multiple Perspectives	Health Enhancing Strategies/Understandings
What is it made	from?	•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•		•		•		19	•	•			24	1	10		•	1	1			•	•			•
Where does it c	ome from?	•		•	•	•	•					•	•	•	•	•				1	•	•			•	•	20	• •	9	•		9		- 0	•	•	•	•	•	•			•	•
How does it get	there?	•		•	•	•	•	•	•	•		•	•	•	•			•				•		•			7	• •		•					•				•	•	•			
How does it wo	rk?	•	•	•	•	•	•		•	•		•	•	•	•		•	•	•		•	•		•		- 0	•		1			200								•	•			
Can I solve it?		•	•	•	•	•		•		•	•			•	•					•		•	•	•	•	•	•	• •		•						•	•			•	•		•	
How are we alik	ke?	•			•	•	•		•		•				•	•				•			•			10	•		N.						•	•	•	•	•	•		•	•	
How does my b		•	•		•	•			•		•				•	•					•						•	•		•	•					•						•		•
How does it gro		•	•	•	•	•	•	•	•			•	•	•	•		•	•	•			•		•		•	•	•						3	•	•				•				•
What if?		•	•	•	•	•		•					•	•	•		•	•		•			•	•	•	•	10							•		•				•	•	•	•	
Can I do that?		•	•	•	•	•				•			•	•	•			•	•		•		•			•	•				121		1		I	•					•	•		•
What can it do?		•	•	•	•	•			•	•		•	•	•	•		•	•	•		•	•		•		•	•		15		•	9			•				•	•	•			

How does the chart work?

The CMH Learning Standards chart is a dynamic development and assessment tool that guides the exhibit development process for the expansion. As activities for each exhibit are defined, the chart will grow and reflect in more detail how each exhibit activity meets the learning goals indicated for each Quintessential Question.

Vertical Alignment refers to the progressive building of knowledge and skills as students move by grade through the K12 system. This progression is not defined above, but is articulated in the standards used to develop the chart. This building process will be another variable that is used to engineer the appropriate learning opportunities for our target audience into each of the exhibits.

Web of Knowledge and Skills

The categories defined in this chart are much more interconnected than we are able to depict in this kind of brief format. As we define the vertical alignment of the learning process, this connectivity will be another added variable in the development and assessment process.

Building Blocks

The Building Blocks for Kidtropolis are a compilation of education guidelines from the Texas Essential Knowledge and Skills and are comprised of concepts, goals, and skills that are essential in creating 21st century learners. Throughout Kidtropolis, visitors are able to engage in the following 21st century skills: Critical Thinking, Creative/Innovative Thinking, Problem Solving, and Listening.

Kidtropolis will immerse visitors in learning experiences that build their financial literacy and understandings of civic engagement. The thematic wrap for Kidtropolis is the city itself: a set of iconic buildings lining a street. The city is completed by the children; they have the opportunity to become leaders, voters, workers, consumers and entrepreneurs within the various venues in the city.



TEKS alignment

Economics Component/Source



Explain the difference between needs and wants. Bank, City Hall K.6(B)



Identify jobs in the home, school, and community. Gallery K.7(A)

Entire

Explain why people have jobs. Entire Gallery K.7(B)



Identify ways people exchange goods and services. Entire Gallery 1.8(B)





Alignment with School Standards

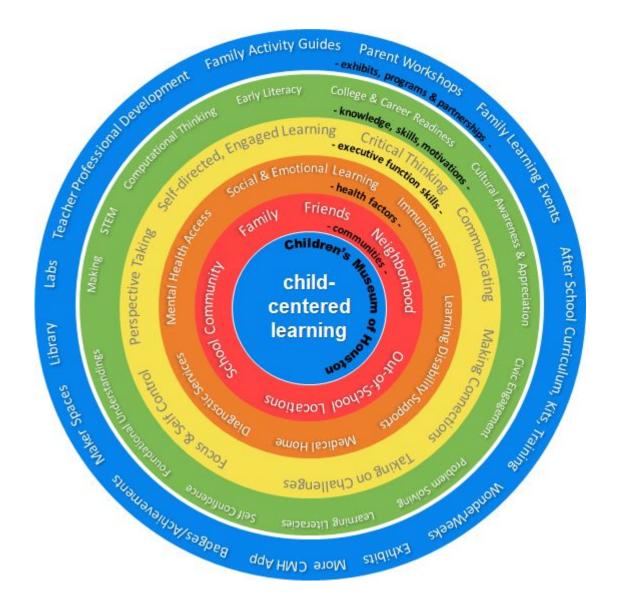
13 exhibits as learning platforms

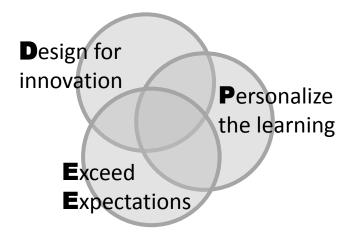
...engineered to meet the learning needs of children birth through 12

...based on 13 sets of Building Blocks for Learning aligned with school standards

Knowledge and Skills	PK	K	1	2	3	4	5	6+
Apply systematic decision making by considering financial alternatives & consequences								
Explain the choices people in the U.S. Free Enterprise system make about earning, spending, and saving money			1	of 12	2			
Saving and Investing			Kic	dtrop	olis			
Describe how and why people save.			build	ling b	locks			
Identify the opportunity cost of saving.								







DEEP Model

- . developed 2005
- . updated last in 2018

Early Childhood

Exhibits

Outreach Programs











Literacy



OPEN DOORS

est. 1992



CMH partners with community-based organizations to make sure that all children in the Greater Houston area have opportunities to engage in our programs regardless of barriers like inability to pay admission or lack of knowledge about the Museum and our offerings.

Programs include:

- Open Doors Free Family Passes & group visits
- Lone Star Card holders and WIC recipients
- Free Family Nights (every Thurs 5-8)
- Family Math Adventures
- Overnight Adventures









FOLLOW YOUR WONDER



Strategic Master Plan ENVISIONING A MORE CONNECTED REGION

WonderTrek's vision is a compelling image of the positive changes we believe are possible for children and families in the region over the next generation:

WonderTrek Children's Museum and its partners envision a more vibrant and **connected region** because all children enjoy the supportive relationships, expanding opportunities, and wellbeing they need to thrive

SMP Sections

- Executive Summary & Planning Overview
- Strategic Framework, Audience & Goals
- Learning Experience Framework
- Experience, Environments,
 & Exhibits
- Moving Forward



Learning Framework WONDERTREK'S VIEW OF LEARNING

KEY WORDS:

Active; lifelong process; learner directed; motivated; curiosity; interests; senses; emotions; mind; over time; interactions; experience; new meaning

LEARNING AT WONDERTREK IS:

An active, lifelong process directed by the learner.
Motivated by curiosity and interests, learning
engages the senses, emotions, and mind. Learning
takes place over time through interactions with
others and the physical environment, builds on
experience, and creates new meaning

Process Goals

- Learning Value
- Consolidate Thinking
- Engage Community
- Champion Play
- Serve Students, Teachers, & Schools
- Advance Start-up





A MUSEUM CREATING CONNECTIONS



<u>Experience Approach #3, Making Meaningful Connections:</u> Link actions and effects; explore connections among objects, part-and-whole relationships; build ideas and understandings; make connections with people and ideas, across systems, the region and the world.



Organizational Goal #5: A disciplined organization engaged in learning for itself, children and families, and the region



FUN

experiential

SIMPLE

- · Wow
- Wonder
- Novel materials
- Novel ways to use materials

- Multiple ages
- Multiple interests
- Multiple abilities
- Multiple learning styles

FLEXIBLE

- Multiple entry points
- Can be a quick or longer experience
- Lends itself to playing together
- Lends itself to caregiver engagement



- · Child-led
- · Open-ended
- Multiple outcomes
- Exploratory
- Process, not product-oriented
- · Provides for choice
- Doing not watching
- · Low tech

- Classic favorites
- Low consumables
- Low tech
- Low cost/high impact
- Mindful of safety, mess, set-up, and facilitation requirements







I Can/I Will