Welcome!

Today’s presenters are:
Julia Skolnik and Tara Cox from LEAP into Science at The Franklin Institute
Keliann LeConte, Professional Development Manager, Space Science Institute
Andrew Spence, Manager of Public Programs and Events, Kentucky Science Center
Anna Hurst, Director of Museum, Park, and Library Programs, Astronomical Society of the Pacific

As we wait to get started with today’s discussion, please:

• Update your display name. Include your first & last name, institution and location.
• Introduce yourself! Type your name and institution into the Chat Box
• Questions? Feel free to type your questions into the Chat Box at any time throughout the online workshop or use the raise your hand function in the participants list and we’ll unmute your microphone.

Today’s discussion will be recorded and shared on nisenet.org at: nisenet.org/events/online-workshop
Leap into Science:
Cultivating a National Network for Informal Science & Literacy Learning

Tara Cox & Julia Skolnik
October 10, 2017
What’s one thing you hope to learn today about working with libraries?

Thanks to NISE Net for hosting us, and Dr. Jayatri Das who has led TFI’s participation in the network.
Connecting hands-on science and children’s books to engage underserved preK-5th grade children and families in libraries across Philadelphia, through curricula, training, and partnerships.

2007-2011 Philadelphia Pilot
2011-2017 National Pilot
Program Model

Observe & ask questions
Feel like a scientist
Hands-on science & children’s books
Demonstrate community partnerships
Build capacity of facilitators
Strategies for Museum-Library Partnerships

1. Look at what your local libraries are already doing regarding STEM (e.g. Maker Spaces). Value their assets and infrastructure.

2. Think about books as a common access point for children, families, libraries, and science learning.

3. Consider professional development of librarians as informal STEM facilitators.
Leap National Network

**Previous Model**

- The Franklin Institute trains...
  - Informal educators from 12 cities, who lead programs for...
  - Underserved children and families in their respective cities.

**New Model**
(2017-2021)

- The Franklin Institute & NGCP train...
  - State leaders in science, literacy, & OST who train...
  - Informal educators from across their states, who lead programs for...
  - Underserved children and families in their respective urban or rural communities.

Institute for Learning Innovation
Join us!

1. Pursue a state partnership and apply to be a state leadership team in 2017, 2018, or 2019.

2. Connect with your state’s NGCP collaborative, to receive communications about how to participate in upcoming Leap and other trainings.

3. Contact us!

   www.fi.edu/leap (+ videos!)

   www.ngcproject.org

   tcox@fi.edu & jskolnik@fi.edu
Americans who are likely to have visited a public library in the past year:

- 57% women
- 55% parents
- 55% 16- to 29-year-olds
- 52% Blacks
- 50% with household incomes < $30,000/year

1.5 billion visits total per year

STEM in Public Libraries: National Survey Results

# Hands-on and Art-based

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hands-on investigations</td>
<td>324</td>
<td>65%</td>
</tr>
<tr>
<td>2</td>
<td>Art-based STEM projects</td>
<td>254</td>
<td>51%</td>
</tr>
<tr>
<td>3</td>
<td>Demonstrations</td>
<td>187</td>
<td>37%</td>
</tr>
<tr>
<td>4</td>
<td>STEM-related reading programs</td>
<td>137</td>
<td>27%</td>
</tr>
<tr>
<td>5</td>
<td>Interactive exhibits</td>
<td>84</td>
<td>17%</td>
</tr>
<tr>
<td>6</td>
<td>Maker spaces</td>
<td>168</td>
<td>34%</td>
</tr>
<tr>
<td>7</td>
<td>Field trips</td>
<td>19</td>
<td>4%</td>
</tr>
<tr>
<td>8</td>
<td>Lectures</td>
<td>72</td>
<td>14%</td>
</tr>
<tr>
<td>9</td>
<td>Documentary showings</td>
<td>28</td>
<td>6%</td>
</tr>
<tr>
<td>10</td>
<td>Discussions</td>
<td>43</td>
<td>9%</td>
</tr>
<tr>
<td>11</td>
<td>Career-focused STEM learning programs</td>
<td>28</td>
<td>6%</td>
</tr>
<tr>
<td>12</td>
<td>Other: We do not offer STEM-rich learning experiences.</td>
<td>39</td>
<td>8%</td>
</tr>
<tr>
<td>13</td>
<td>Other: We do not offer STEM-rich learning experiences.</td>
<td>69</td>
<td>14%</td>
</tr>
<tr>
<td>14</td>
<td>STEM-related storytimes</td>
<td>246</td>
<td>49%</td>
</tr>
<tr>
<td>15</td>
<td>Observation/Looking experiences</td>
<td>142</td>
<td>28%</td>
</tr>
<tr>
<td>16</td>
<td>We do not offer STEM-rich learning experiences.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. We do not offer STEM-rich learning experiences.
## Targeted Ages

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-K</td>
<td>271</td>
<td>57%</td>
</tr>
<tr>
<td>2</td>
<td>Elementary students</td>
<td>414</td>
<td>87%</td>
</tr>
<tr>
<td>3</td>
<td>Middle school students</td>
<td>305</td>
<td>64%</td>
</tr>
<tr>
<td>4</td>
<td>High school students</td>
<td>179</td>
<td>38%</td>
</tr>
<tr>
<td>5</td>
<td>Young adults</td>
<td>100</td>
<td>21%</td>
</tr>
<tr>
<td>6</td>
<td>Adults</td>
<td>108</td>
<td>23%</td>
</tr>
<tr>
<td>7</td>
<td>Seniors</td>
<td>49</td>
<td>10%</td>
</tr>
<tr>
<td>8</td>
<td>Mixed ages (Families)</td>
<td>171</td>
<td>36%</td>
</tr>
</tbody>
</table>
| 9  | Other:                        | 15       | 3% :

Children aged **pre-K through middle school** are the most common target audience.

www.starnetlibraries.org
Upcoming 2018 STEM Programming Opportunities

February 18-24
Engineers Week

April 22
Earth Day

May 5
NASA InSight Launch

July/August
Parker Solar Probe Launch

October
Lights On Afterschool

October
International Observe The Moon Night

www.starnetlibraries.org
Sorting Games: How Big? How Far? How Hot?

This NASA® My Library Activity Guide will help library staff facilitate these sorting activities in large or small groups, with patrons from Pre-K to adult.

Open Activity

Content Area
Astronomy and Space

Age Group
Family
Pre-K
Early Elementary
Upper Elementary
Tweens (9-12)
Teens
Adults

Time to Complete Activity
10-20 minutes

Time needed to prep Activity
Under 5 minutes

Difficulty Level (by content)
Medium

Mess Level
Low

Write a review
Connect with State Libraries

- Consulting
- Coordination
- Communication
- Connecting
- Collecting
PORTAL to the Public
• Members of the Portal to the Public Network (PoPNet) partner with NASA@ My Library participant library branches.

• Each partnership co-designs programming to virtually connect library patrons with scientists who have gone through training to develop their engagement skills.

• Virtual programming is new for PoPNet but will strive to replicate the impacts we’ve seen in face-to-face interactions.
www.starnetlibraries.org
Science in Play is a progressive, next-generation learning experience for children and their families. Rich in loose parts and open-ended play, kids and adults are empowered to learn together and for life. We are combating the state’s school readiness statistics with a keen focus on 21st century learning skills – All through the power of play.

Science in Play 2Go is the mobile version. With key elements that embody the philosophies behind the Science Center’s permanent exhibit, *Science in Play2GO* is visiting libraries across Kentucky for 3-month residencies at no cost to the libraries or their visitors.
Thank You

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