TECH TALES

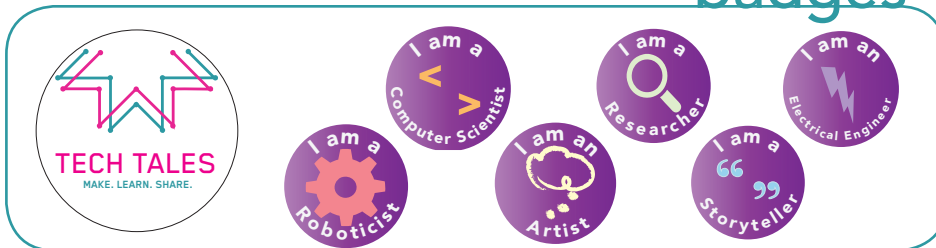## MAKE. LEARN. SHARE.

DAY 5: SHARING
Celebration

For the past several weeks families have been learning about circuitry and programming, and working on their design projects— a robotic diorama that tells a family story. The program ends with families putting the finishing touches on their designs and then presenting them in a culminating showcase and celebration.

badges

TECH TALES
MAKE. LEARN. SHARE.

I am a Computer Scientist

I am a Researcher

I am an Electrical Engineer

I am a Roboticist

I am an Artist

I am a Storyteller

materials

Light meal
Projector and slides
Full hummingbird kit + computers
Craft materials

Hummingbird troubleshooting guides
Certificates of completion
Final badges
Backpack Check-in forms

workshop day 5

1. WELCOME & SHARING
Eating a meal together
Sharing any progress from last week

2. STORYTELLING
Share a story, introduce theme

3. EXPLORING
Final build/rehearse time
Presentations and celebration

4. ACKNOWLEDGING
Recognition of work
Issue badges and certificates
Clean up

workshop day 5

EATING & SET-UP
20 minutes

Today's theme is Celebration! Today we celebrate our accomplishments and recognize each other's strengths.

Welcome families as they arrive. Provide food and drinks to share together.

materials

Light meal to share
Paperware, cutlery, drinks with lids
Projects in progress

background info

The fields of engineering, computer science, and art all produce products that have intended audiences. The projects families have been developing live at the intersection of these fields.

The design needs to be a sound engineering design that implements relevant coding and represent a design aesthetic that clearly and powerfully communicates their story.

Families in our workshops were often ready to get started on their dioramas right away, and this day would usually begin informally as they were building while eating and asking for assisitance with their projects.

STORYTELLING
15 minutes

Gather families together. Read a picture book or share a traditional cultural story. If the participants are comfortable sharing, offer the option for a family to share a personal story or read a book.
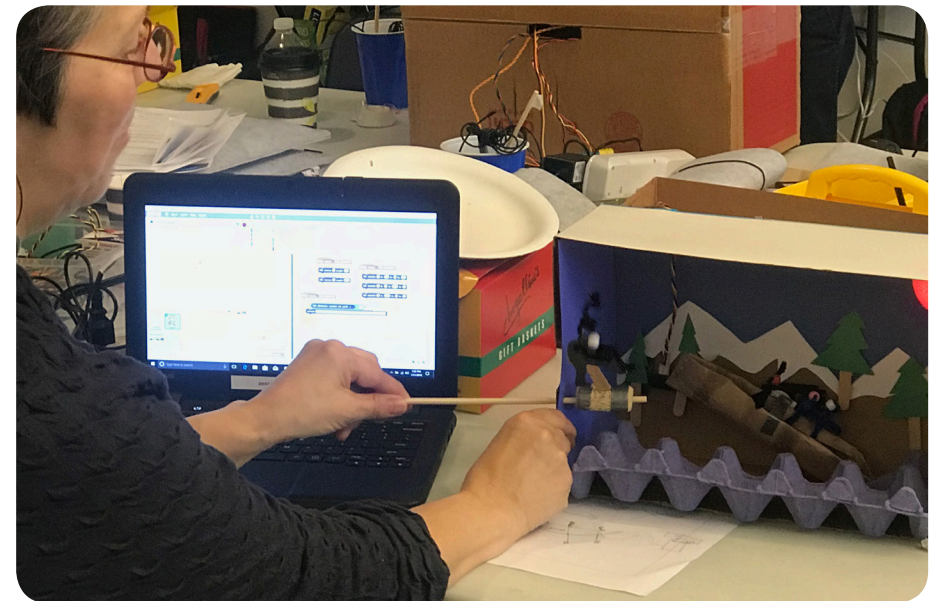
materials

Book, Visiting storyteller
Tech Tales Diorama Guidelines sheet

DAILY THEME
5 minutes

Demonstrate telling your story about a completed diorama. Describe your challenges and process.

Let families know they can rehearse their presentations with a facilitator/helper before talking in front of the whole group. This may help them feel comfortable sharing with others.

background info

In our workshop, Amharic-speaking families shared their expertise by reading a bilingual Amharic and English book, *"Am I small?: Ene tenese nane?"* by Philipp Winterberg, to the group.

workshop day 5

FINAL DESIGN & REHEARSAL TIME

30-40 minutes

materials

Final presentation guidelines Computers	Full Hummingbird kit Craft materials

Families spend time finishing their dioramas and rehearsing their stories.

Note what they need for the final presentation:
(1) completed dioramas, (2) short, written paragraph describing their story, and (3) a way to present their story to each other.

Each family will get a few minutes to tell their story, why it was important to them, and share their diorama. In addition, each family should talk about what their next project might be or what they want to do more of. While they are finalizing their designs, determine a presentation order.

PRESENTATION & CELEBRATION

60 minutes

Welcome any visitors to the space and introduce to them to the group. Gather families around each of the dioramas as you move around the room to hear their presentations.

It's okay if the dioramas are not finished! This is a time to listen to each story respectfully and share the work they have done. Families may feel like they need to rush to finish their own dioramas while others are talking, but assure them that their projects do not need to be perfect or even totally finished. Whatever state they are in is great!

FAMILY STORY PRESENTATIONS

In our workshops, we followed this fomat:
Each family took about five minutes to present story, then five minutes to talk about their technical work. We encouraged other families to ask questions about the story or how they made their project for about five more minutes.

Prompt questions:
- What was the most challenging part of making your project? (possible answers include: programming, a piece falling apart, working together)
- What did you do to make it work?
- What are you most proud of?
- Is there anything you would do if you had more time?

materials

Video and/or still cameras   Presentation guidelines

background info

Recording the presentations in video or photo is a meaningful memento for each family. Giving families copies later commemorates their work and gives them something to share their experience with others. Share printed photos of families with their projects so they can have a memory of the moment.
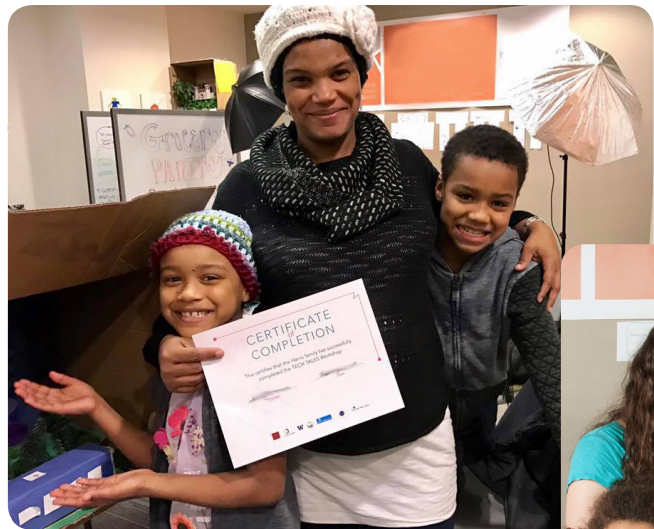

workshop day 5

REFLECTION
5 minutes

CELEBRATION

Congratulate families on all their amazing work and thank them for their time and commitment!

- Ask families to reflect and share which role they learned the most about it or which activities each individual most identified with.

- Award culminating badge for participating in all the roles

- Award certificate of completion to each family

materials

Badges
Certificates of completion

Flyers for upcoming events

CLEAN UP

- **Clean up building materials and return any borrowed tools.**

- **Announce any upcoming workshops or booster days**

- **Collect equipment:**
  The dioramas will have all the robotics materials built into them! In our workshops, we have allowed families to keep their dioramas for an extra week or two before pulling all the Hummingbird parts out of them to use in future workshops. The families often did more work on them at home and kept their boxes after the parts were taken out.

  You may decide if this will work for your capacity. If you will be running Tech Tales workshops again, keeping one working example is a great idea. Backpacks can be returned and signed back in at the end of this session, or when families return their robotics kits.

BADGES
facilitator background

WEEK 5: TECH TALES BADGE

- The purpose of the single badge of Session Five is to mark and commemorate the completion of their project, whatever state it is in.

- Since families present their dioramas to other families and participants ask each other questions about their building and creating experiences, the reflection that badges generally prompt isn't as necessary. However, there is an opportunity for them to think about the work they did over the course of the workshops.

MORE RESOURCES

Tech Tales STEM for All video
http://stemforall2018.videohall.com/presentations/1144

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workshop day 5

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