



While you are waiting for Teacher Time to begin...

- Download the Viewer's Guide found in the Resources widget. You will use your Viewer's Guide to follow along with us during the webinar.
- Use the yellow "Ideas" widget to share new ideas with each other that are related to infant toddler engineering.



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**TEACHER TIME**

Little Scientists: Exploring **Engineering** with Infants and Toddlers

February 4, 2020

**Hosts:** Judi Stevenson-Garcia & Treshawn Anderson

**Guest Expert:** Dawson Nichols, iLABS



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STEAM for Infants, Toddlers & Preschoolers



Science    Technology    Engineering    Art    Math

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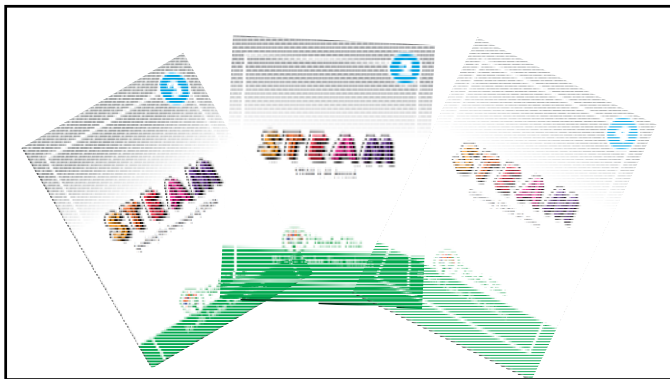
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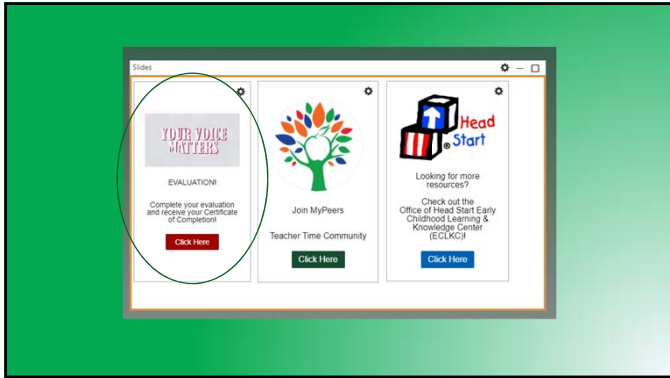
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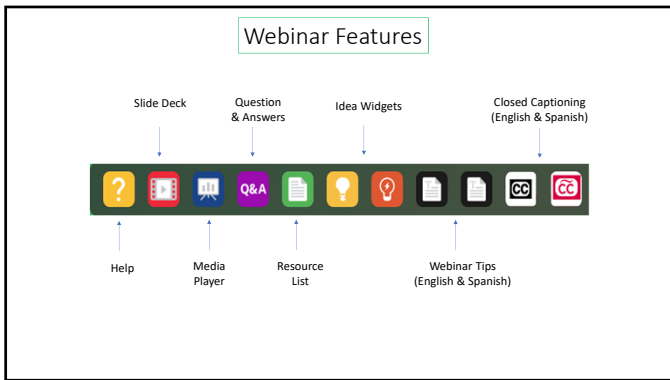
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### Technical Tips

- Enable Adobe Flash Player on your computer
- Press f5 to refresh your browser
- Log off your VPN
- Close any open browsers



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## Viewer's Guide

NCECDL National Center on Early Childhood Development, Teaching and Learning  
2019-2020 TEACHER TIME  
SITE: SCIENTISTS - EXPLORING ENGINEERING WITH INFANTS AND TODDLERS

**Viewer's Guide**

The research guide summarizes the key ideas for teaching ENGINEERING with infants and toddlers. It also has reflection questions and activities to consider your teaching about how you have addressed learning using engineering. You can also find additional resources in the Resource section of the guide.

**1. Engaging Environments**

<b>ENVIRONMENT ENHANCED ENGINEERING MATERIALS</b>	
<b>HOW CAN WE MAKE OUR ENVIRONMENT MORE ENGAGING FOR INFANTS AND TODDLERS?</b>	
<b>ACCESSIBLE ENGINEERING MATERIALS</b> <b>WHAT ARE SOME WAYS TO MAKE IT MORE ACCESSIBLE?</b>	

NCECDL National Center on Early Childhood Development, Teaching and Learning  
 1500 North 17th Street, Suite 1000, Denver, CO 80202 | Phone: 303.733.8000 | Email: [ncecdl@denverpost.com](mailto:ncecdl@denverpost.com)

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## STEAM for Infants, Toddlers & Preschoolers

Science
Technology
Engineering
Art
Math

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### Engineering in Early Childhood

- Using materials
- Designing
- Crafting
- Testing how things work
- Problem solving
- Combining materials and objects in new ways
- Building structures

Engineering helps us understand how and why things work.

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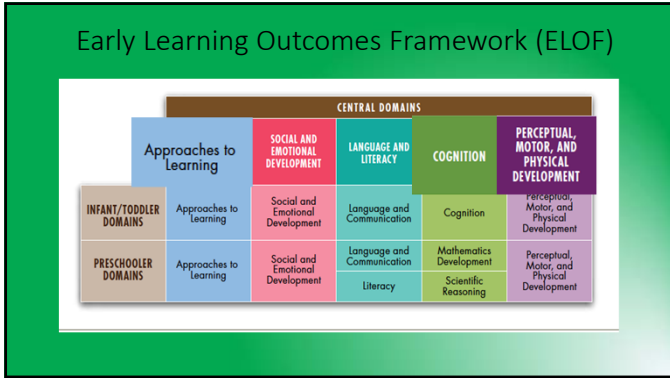
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Children observe and experiment to learn physical rules, such as cause and effect.

They explore when they see something that violates those rules.

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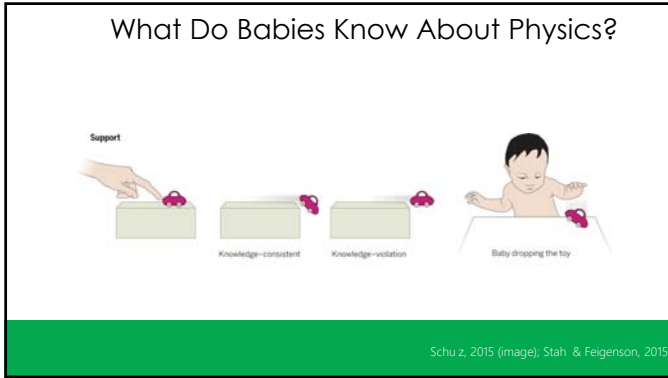
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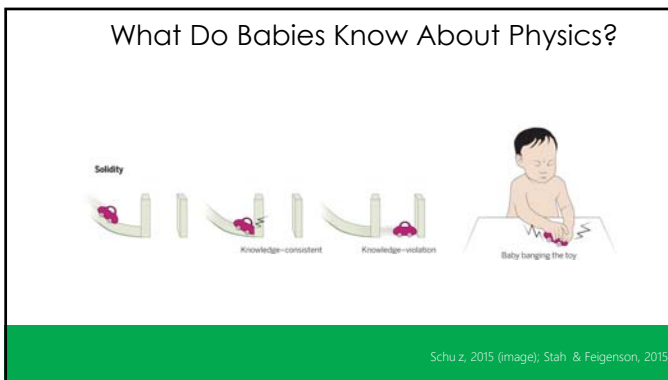
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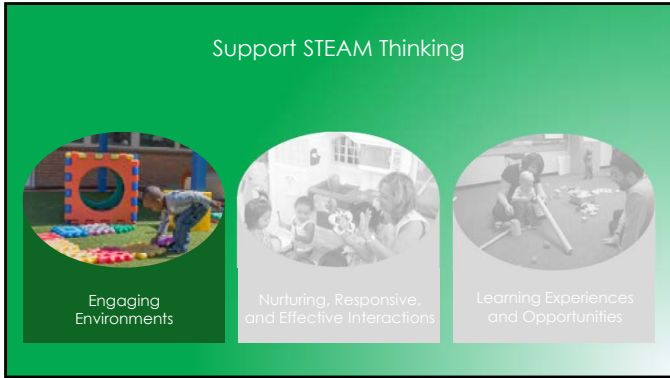
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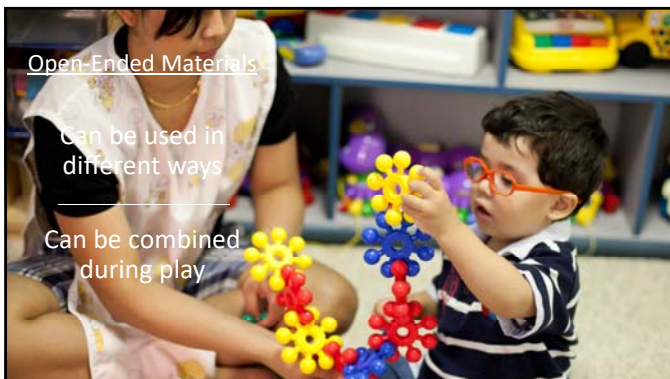
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Varied Materials

Nest, stack, open/close, build, put together/take apart

New/interesting

Represent families

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Accessible Materials

Accessed easily and independently

Larger/fewer

Modified so all children can use them

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Teacher Time Minute

What are your favorite open-ended engineering materials?


Teacher Time

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Use the **Ideas Widget** to share your favorite open-ended engineering materials



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Support STEAM Thinking



Engaging Environments      Nurturing, Responsive, and Effective Interactions      Learning Experiences and Opportunities

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Nurturing, Responsive, and Effective Interactions

Children feel safe.

Children experience consistent, positive interactions with caring adults.

Adults actively engage with children during their explorations.



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Describe what children are doing

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Use scaffolding during play & exploration

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Provide explanations and reasons

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Encourage communication

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Support children who are  
DLLS

Use home language when possible

Record children's responses for later translation

Learn simple phrases

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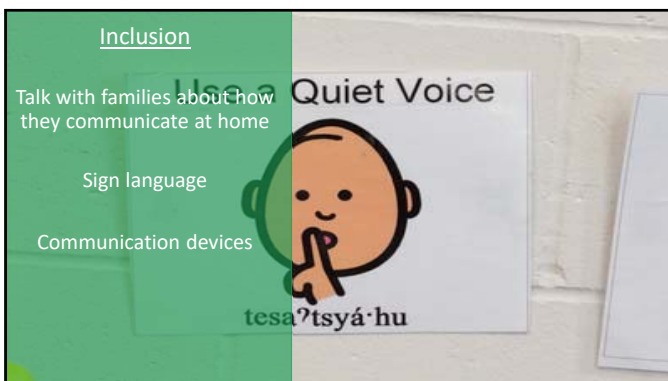
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Inclusion

Talk with families about how they communicate at home

Sign language

Communication devices

Use a Quiet Voice

tesaʔttsyá·hu

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Support children who are DLLS

Ask parents for words in child's home language

Make connections between home language and English

Use gestures and repeating sentence patterns



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**STEAM**

Speaking the Language of STEAM

Teacher Time

Use with Teacher Time Webinars

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Engineering

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Describe what children are doing

Use scaffolding during play and exploration

Provide explanations and reasons

Encourage communication

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Teacher Time Minute

How do teachers encourage engineering thinking?



Teacher Time

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- Describe what children are doing
- Use scaffolding during play and exploration
- Provide explanations and reasons
- Encourage communication

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### Support STEAM Thinking



- Engaging Environments
- Nurturing, Responsive, and Effective Interactions
- Learning Experiences and Opportunities

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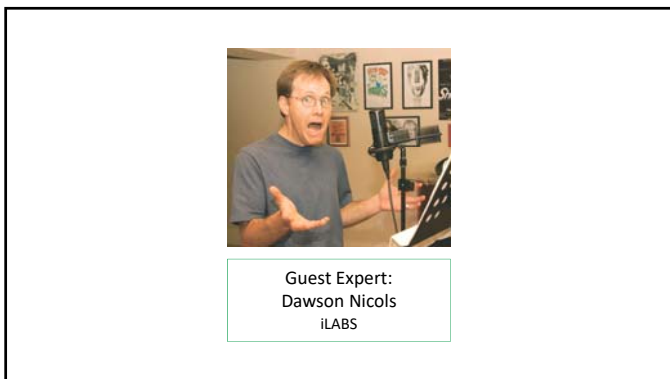
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Guest Expert:  
Dawson Nicols  
iLABS

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Learning Experiences & Opportunities

Stacking  
Ramps  
Balance  
Motion  
Build an enclosure

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Engineering + the Arts =

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Engineering + the Arts =

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### Support STEAM Thinking



Engaging Environments

Nurturing, Responsive, and Effective Interactions

Learning Experiences and Opportunities

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HEAD START TEACHING PRACTICES

Teaching Practices

Promoting Adult-Child Interactions that Support Higher-Order Thinking and Language Skills

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**STEAM**  
Speaking the Language of STEAM

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myP MyPeers

Effective Teaching Practices

Education Leaders Community

HEAD START SCHOOL CONNECTIONS

HOME VISITING COMMITMENT

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**DUAL LANGUAGE LEARNER CELEBRATION WEEK SPRING INTO PRACTICE**

Join the Celebration & Spring into Practice!

- Sign up for the DLL Celebration Week Learning Experience on the Individualized Professional Development Portfolio (IPD) on the ECLWC
- Join the Culturally and Linguistically Responsive Practices (CLRP) MyPeers Community to share ideas and get resources

Go to the IPD and sign up! The focus will be:

- Tuesday, Feb. 18:** Value of Supporting Home Language Learning and English
- Wednesday, Feb. 19:** Intentionally Creating a Welcoming Environment
- Thursday, Feb. 20:** Making Connections for Children Who Are DLLs and Their Families
- Friday, Feb. 21:** Spring into Action!

**JOIN US ON THE PD**

#BrilliantDualLanguageLearners

ECOTL

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**Upcoming Episodes**

**March 3**  
Exploring **ENGINEERING** with Preschoolers

**April 7**  
Exploring **MATH** with Infants and Toddlers

ELOF2GO  
Your Health ELOF Ages 2-5 to 5

MIELOF  
So ELOF about Benefits of systematic health for young girls

T4T  
Text4Teachers

Ready DLL

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