

# STEM Experiences for All Children at Home

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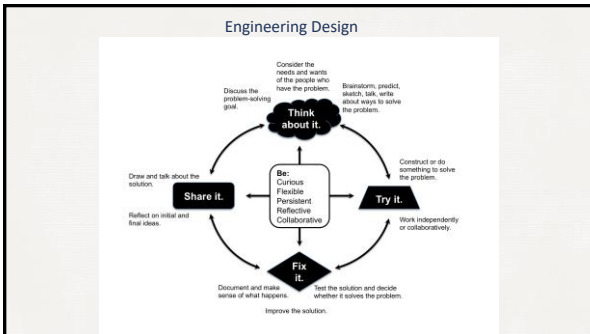
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## Two Phases of Exploration

- x **Open Exploration:** Initial experiences with the relevant science that build a foundation
- x **Focused Exploration:** more specific investigation of key science concepts that emerge from children's interests and questions in Open Exploration



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### UDL Key Questions for STEM Activities

1. Are you providing several different materials of the same type to explore the concept? (e.g. several different thickness of balls, several different sizes and textures of balls)
2. Do children have several opportunities to try and repeat the activity?
3. Are children able to use more than one sense to explore the activity or concept?
4. Are you using media to document the children' learning? Are you showing the children' the pictures and recalling the activities?
5. Are the materials accessible with scaffolds based on the mobility of the children?
6. Are you incorporating preferred items, reinforcers, or adults to support the child?
7. Are you asking the child to complete the activities when they are well rested and fed?
8. Do children have the necessary supports for communication about the activity?
9. Is the environment set up with limited distractions and choices?
10. Are you using multiple modes of assessment to assess the product, process, and thinking skill development, such as photos, checklists, and discussion with the child?




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### Muncha! Muncha! Muncha!

By Candance Fleming

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**Baby Bear has problems!**

Goldilocks Engineering

- ✗ Baby Bear needs his porridge protected.
- ✗ Baby Bear needs a new chair.
- ✗ Baby Bear needs somewhere to sleep.

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creativewithkids.com

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Marble Runs

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### You can also split your content

Where is it already happening, or could be soon?

- X **Legos and blocks**—add blocks of different materials
- X **Bath and sink play**—add pumps, spray bottles, pipes, foam
- X **Sand and dirt play**—add toy construction vehicles, scoops, funnels, buckets, pulleys
- X **Kitchen**—use pots, pans and colanders, and cups
- X **Paper and Cardboard tubes** and balls/marbles

**Adjust for all learners & ages**

Entry point:


- X Vary how you get children started on their designing

Process:

- X Vary the steps children are expected to follow as they design
- X Vary the materials and tools provided
- X Vary the design challenges that are assigned

Product:

- X Vary the final outcome that children share with classmates and teachers



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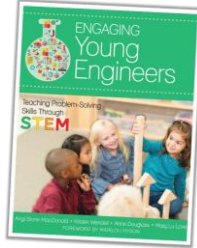
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## Giveaway

We're giving away 3 FREE copies of  
**Engaging Young Engineers!**

Three attendees will be selected at random  
and emailed after the webinar.



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## Coffee Chats

Looking for more professional  
development opportunities?

<http://bit.ly/BrookesCoffeeChats>

*New presentations added weekly!*



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## COVID-19 Resources

- Recommended reading
- Downloadable resources
- Professional development webinars

[bit.ly/COVID-Brookes-EC](http://bit.ly/COVID-Brookes-EC)



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**QUESTIONS?**

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