How can museums advance parent-child engagement in STEM-rich tinkering and reflection?

Facilitated Orientations for Tinkering

Continuum of Open-Ended Tinkering Programs

Reflections After Tinkering

Story Hub: The Mini Movie Memory Maker

SNAPs: Short Narratives About Projects

Parents’ STEM Talk during Tinkering and Children’s STEM Talk in SNAPs

Children’s STEM Talk during Tinkering and STEM Talk in SNAPs

Value/Learning
- With Creation
  - We had a lot of fun building the car.
  - It was really hard to get the wheel to roll.
  - Today I learned how to use the saw.

- No Creation

Engineering Practice Talk
- Make it Roll w/Creation
- Make it Roll No Creation
- Woodshop w/Creation
- Woodshop No Creation

Engineering Practice Talk
- I took my car to the ramp to test it.
- We couldn’t find a piece that was long enough so we had to saw instead.
- We had to fix the wheel because it wasn’t rolling.

Tools Names and Functions
- Make It Roll
- Woodshop Plus

Tool Names and Functions
- Then I used the saw to cut the wood.
- We needed the glue gun to make it stick.

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