



CPE Family Engagement Resource Guide

CPE Resources for Use by Facilitators or Educators

Interactive Exhibit Guides

Three Count Play Explore (CPE) **guides** on interactive exhibits related to STEAM (science, technology, engineering, arts, and math) topics that offer detailed descriptions of the following:

- exhibit purpose
- set up, including suggested space and materials
- things to do before launching the exhibit
- facilitation ideas
- activities related to the exhibit
- adaptations for activities

Light and Shadow Play Interactive Exhibit



- **Design:** Create a space to explore the art and science of light.
- **Build:** Use several small, bright light sources, paper cutouts, kitchen utensils, a low table, and long white craft paper. Gather a variety of objects that create interesting shadows and reflections.
- **Play:** Rearrange light sources and physical material. Observe the lights and shadows. Experiment with cause and effect, reflection, and refraction.

Sensing Sand Interactive Exhibit



- **Design:** Create a space for a sensory exploration of sand and clay.
- **Build:** Use sand or natural clay. Extend the learning with children's books and computer technology.
- **Play:** Engage in self-discovery and social interaction while exploring sensory materials. Create, explore emotions, and develop cooperative skills.

Vertical Wind Tube Interactive Exhibit



- **Design:** Create a vertical air tube to float a variety of objects.
- **Build:** Use an electric fan, wooden hoops and dowels, and clear flexible plastic. Gather everyday objects such as paper, cotton balls, scarves, and cupcake liners.
- **Play:** Test how different objects interact with the wind. Explore flight, cause and effect, wind resistance, and aerodynamics.



Engaging Families in Early Math

A **research brief** that describes:

- family beliefs and feelings about math
- home math activities that build children's early math knowledge
- ways that educators can support families in offering math at home



Building M.A.T.H. Packs: Supporting Children's Math Explorations at Home

A **guide** that:

- describes how Math Activity Take Home (M.A.T.H.) packs support families to engage children in math activities before, during, and after reading a book
- includes suggested content and considerations for creating packs focused on math or other STEAM topics



Family Engagement Events: Promoting Early Math and Science Skills

A **guide** that:

- describes the benefits of family engagement events
- outlines the planning process, such as choosing a theme, gathering material, and promoting events
- suggests STEAM-focused CPE resources





CPE Resources to Be Shared with Families or Educators

Count Play Explore for Families and Educators

A **website** for families and educators that offers:

- book guides
- activities related to book guides
- videos

Book Guides: Discovering the Math and STEAM Explorers

Guides that:

- focus on STEAM topics
- include family activities
- offer conversation guides and questions that promote math and science thinking and vocabulary
- connect to California learning foundations and standards for easy use by educators
- and effect, reflection, and refraction.



Activities

Handouts that:

- relate to the book guides on the CPE website
- may inspire activities offered at family STEAM events
- may offer ideas for learning setting play areas or centers
- use materials with little or no cost.



"I'm Ready!" Videos

Videos that:

- show families engaging in math and other STEAM topics
- are based on families' everyday routines and activities
- highlight playful learning

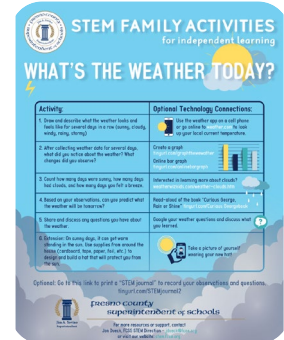




Count Play Explore Issues

Set of 12 **handouts** that:

- provide ideas for early math and science family engagement experiences in three areas—counting, playing, and exploring
- may be shared at a family STEAM experience, added to a M.A.T.H. or STEAM pack, or included in a newsletter
- offer links to videos, activities, and online games



Nurturing Early Math Minds: A Guide for Families

A **handout** about family math that:

- describes the important role of families in children's math learning
- includes ways to explore math in everyday, playful routines
- may be shared at a family STEAM experience, added to a M.A.T.H. or STEAM pack, or included in a newsletter

