



# Early Childhood STEM Week 2026



## DAY 3 – STEM IN THE CLASSROOM (March 25)

### INFANT & TODDLER ACTIVITIES



#### **1. Stack and Knock**

**Age:** Infants & Young Toddlers

**Description / Instructions:**

Provide soft and hard blocks for children to stack and knock down. Adults stay nearby, narrating actions and encouraging exploration.

**Materials:**

- Soft blocks
- Wooden blocks

**Recommended Setting:**

Floor/block area

**Advanced Vocabulary:**

- Stack
- Tall
- Fall
- Balance

**Extended Activities:**

- Stack with adult support
- Add blocks of different sizes

**Make It Easier:**

- Use large soft blocks

**Make It More Advanced:**

- Encourage stacking higher

**DRDP 2025 Measures Targeted:**

- **SCI 1:** Cause and Effect
- **PD 4:** Fine Motor Manipulative Skills
- **ATL 1:** Engagement, Attention, and Persistence

## **2. Push, Pull, Slide**

**Age:** Toddlers

### **Description / Instructions:**

Children explore pushing, pulling, and sliding objects across the floor.

### **Materials:**

- Toy wagons
- Boxes
- Mats

### **Recommended Setting:**

Open classroom space

### **Advanced Vocabulary:**

- Push
- Pull
- Slide
- Move

### **Extended Activities:**

- Add light vs. heavy objects

### **Make It Easier:**

- Use lightweight toys

### **Make It More Advanced:**

- Compare the effort needed

### **DRDP 2025 Measures Targeted:**

- **PD 2:** Gross Locomotor Movement Skills
- **SCI 1:** Cause and Effect
- **SED 4:** Relationships and Interactions with Peers

## **3. Light and Reflection**

**Age:** Toddlers

### **Description / Instructions:**

Children explore reflections using mirrors and light sources.

***Created by Maria Teresa Ruiz, STANCOE  
Used with permission for EC STEM Week 2026***

**Materials:**

- Shatterproof mirrors
- Flashlights

**Recommended Setting:**

Sensory area

**Advanced Vocabulary:**

- Light
- Reflect
- Bright

**Extended Activities:**

- Move the light closer/farther

**Make It Easier:**

- Use the mirror only

**Make It More Advanced:**

- Use two mirrors

**DRDP 2025 Measures Targeted:**

- **ATL 2:** Curiosity, Interest, and Initiative
- **SCI 1:** Cause and Effect
- **MATH 1:** Spatial Thinking

## PRESCHOOL ACTIVITIES



### 4. Building Strong Structures

**Age:** Preschool

**Description / Instructions:**

Children build structures and test their stability.

**Materials:**

- Blocks

- Cardboard
- Tape

**Recommended Setting:**

Construction area

**Advanced Vocabulary:**

- Structure
- Strong
- Balance
- Stable

**Extended Activities:**

- Test with weights

**Open-Ended Questions:**

- What makes it strong?

**Make It Easier:**

- Build with fewer blocks

**Make It More Advanced:**

- Add height limits

**DRDP 2025 Measures Targeted:**

- **ATL 3:** Problem-Solving
- **ATL 4:** Planning
- **FLD 2:** Using Language (Expressive)

**5. Classroom Engineering Challenge**

**Age:** Preschool

**Description / Instructions:**

Children design a structure to solve a classroom problem (e.g., a bridge, shelf, or ramp).

**Materials:**

- Recyclables
- Blocks

**Recommended Setting:**

Construction / Makerspace area

**Advanced Vocabulary:**

- Engineer
- Design
- Improve

**Extended Activities:**

- Redesign after testing

**Open-Ended Questions:**

- How can we make it better?

**Make It Easier:**

- Offer example

**Make It More Advanced:**

- Add constraints

**DRDP 2025 Measures Targeted:**

- **ATL 3:** Problem-Solving
- **ATL 4:** Planning
- **SCI 2:** Inquiry Through Observation and Investigation

**6. Pattern Play**

**Age:** Preschool

**Description / Instructions:**

Children create patterns using classroom materials.

**Materials:**

- Beads
- Blocks

**Recommended Setting:**

Table area

**Advanced Vocabulary:**

- Pattern
- Repeat

**Extended Activities:**

- Copy peer patterns

**Open-Ended Questions:**

- What comes next?

**Make It Easier:**

- AB patterns

**Make It More Advanced:**

- ABC patterns

**DRDP 2025 Measures Targeted:**

- **MATH 2:** Classification
- **FLD 1:** Understanding Language (Receptive)

**7. Sink or Float**

**Age:** Preschool

**Description / Instructions:**

Children test objects in water.

**Materials:**

- Bin
- Objects

**Recommended Setting:**

Sensory area

**Advanced Vocabulary:**

- Sink
- Float

**Extended Activities:**

- Sort results

**Open-Ended Questions:**

- Why do you think?

**Make It Easier:**

- Fewer objects

**Make It More Advanced:**

- Predict outcomes

**DRDP 2025 Measures Targeted:**

- **SCI 2:** Inquiry Through Observation and Investigation
- **FLD 2:** Using Language (Expressive)

**8. Sound and Vibration Lab**

**Age:** Preschool

**Description / Instructions:**

Explore sound using classroom items.

**Materials:**

- Rubber bands
- Containers

**Recommended Setting:**

Music/Makerspace area

**Advanced Vocabulary:**

- Vibrate
- Sound

**Extended Activities:**

- Compare sounds

**Open-Ended Questions:**

- How did you change it?

**Make It Easier:**

- One material

**Make It More Advanced:**

- Combine sounds

**DRDP 2025 Measures Targeted:**

- **SCI 1:** Cause and Effect
- **SCI 2:** Inquiry Through Observation and Investigation

**9. Classroom Problem Solvers**

**Age:** Preschool

**Description / Instructions:**

Children solve real classroom challenges.

**Materials:**

- Open-ended materials

**Recommended Setting:**

Whole classroom

**Advanced Vocabulary:**

- Problem
- Solution

**Extended Activities:**

- Try another solution

**Open-Ended Questions:**

- What else could work?

**Make It Easier:**

- Adult modeling

**Make It More Advanced:**

- Peer collaboration

**DRDP 2025 Measures Targeted:**

- **ATL 3:** Problem-Solving
- **ATL 4:** Planning

- **SED 4:** Relationships and Interactions with Peers

## **10. STEM Reflection Circle**

**Age:** Preschool

### **Description / Instructions:**

Children reflect on classroom STEM experiences.

### **Materials:**

- Visual supports, charts, pictures

### **Recommended Setting:**

Circle time

### **Advanced Vocabulary:**

- Reflect
- Explain

### **Extended Activities:**

Draw reflections

Document reflections

### **Open-Ended Questions:**

- What did you learn?

### **Make It Easier:**

- Yes/no prompts

### **Make It More Advanced:**

- Peer questions

### **DRDP 2025 Measures Targeted:**

- **SCI 2:** Inquiry Through Observation and Investigation
- **SCI 3:** Documentation and Communication of Inquiry
- **FLD 6:** Writing