



Early Childhood STEM Week 2026



Day 1 – STEM Is All Around You (March 23)

Context: Center-based & Family Child Care

Age Bands: Infants (0–18 mo), Toddlers (18–36 mo), Preschool (3–5 yrs)

Approach: Play-based, inclusive, developmentally appropriate

DRDP: 2025 measures embedded in each activity

INFANT & TODDLER ACTIVITIES



1. Everyday Objects Exploration

Age: Infants & Young Toddlers

Description / Instructions:

Place a small collection of safe, everyday objects in a basket. Sit with the child and allow them to explore freely using their senses. Narrate what the child is doing.

Materials:

- Silicone spoon
- Soft cup
- Empty paper towel tube (cut lengthwise for safety)
- Fabric square
- Lid with no sharp edges

Recommended Setting:

Floor time / cozy exploration area

Advanced Vocabulary:

- Smooth
- Hard
- Soft
- Heavy
- Light

Extended Activities:

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

- Rotate objects weekly
- Add a mirror for reflection

Make It Easier:

- Offer one object at a time

Make It More Advanced:

- Group objects by texture or size

DRDP 2025 Measures Targeted:

- **ATL 1:** Engagement, Attention, and Persistence
- **SCI 2:** Inquiry Through Observation and Investigation
- **PD 4:** Fine Motor Manipulative Skills

2. Rolling and Moving

Age: Toddlers

Description / Instructions:

Encourage children to roll balls or cylindrical objects across the floor or down a slight incline. Observe cause-and-effect as objects move.

Materials:

- Balls of different sizes
- Paper towel tubes
- Pool noodles (cut short)

Recommended Setting:

Open floor space / outdoor patio

Advanced Vocabulary:

- Roll
- Fast
- Slow
- Down
- Stop

Extended Activities:

- Add ramps using cardboard
- Compare rolling speeds

Make It Easier:

- Roll objects back and forth with an adult

Make It More Advanced:

- Introduce angled ramps

DRDP 2025 Measures Targeted:

- **SCI 1:** Cause and Effect
- **PD 3:** Gross Motor Manipulative Skills
- **ATL 1:** Engagement, Attention, and Persistence

3. Water in Containers

Age: Toddlers

Description / Instructions:

Provide containers for filling, dumping, and pouring water. Support exploration without directing outcomes.

Materials:

- Plastic cups
- Small pitchers
- Shallow tub

Recommended Setting:

Outdoor sensory area

Advanced Vocabulary:

- Full
- Empty
- Pour
- Spill

Extended Activities:

- Add floating objects
- Introduce sand

Make It Easier:

- Use identical containers

Make It More Advanced:

- Compare which holds more

DRDP 2025 Measures Targeted:

- **ATL 3:** Problem-Solving
- **PD 4:** Fine Motor Manipulative Skills
- **MATH 1:** Spatial Thinking

PRESCHOOL ACTIVITIES -



4. STEM Scavenger Hunt

Description / Instructions:

Children search for items that roll, stack, or fit together. Document findings with drawings or photos.

Materials:

- Clipboards
- Paper
- Crayons

Recommended Setting:

Indoor classroom

Advanced Vocabulary:

- Observe
- Compare
- Function
- Material

Extended Activities:

- Create a class chart

Open-Ended Questions:

- What makes this object move?
- How is this item used?

Make It Easier:

- Hunt for one property (e.g., “things that roll”)

Make It More Advanced:

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- Sort by multiple attributes

DRDP 2025 Measures Targeted:

- **MATH 2:** Classification
- **FLD 1:** Understanding Language (Receptive)
- **ATL 2:** Curiosity, Interest, and Initiative

5. Ramps and Pathways

Description:

Children design ramps to move objects from one place to another.

Materials:

- Cardboard
- Blocks
- Cars or balls

Setting:

Construction area

Advanced Vocabulary:

- Ramp
- Steep
- Speed
- Gravity

Extended Activities:

- Measure distance traveled

Open-Ended Questions:

- What happens if we raise it higher?

Easier:

- Provide a pre-built ramp

Advanced:

- Add curves or obstacles

DRDP 2025 Measures Targeted:

- **SCI 2:** Inquiry Through Observation and Investigation
- **PD 3:** Gross Motor Manipulative Skills
- **FLD 2:** Using Language (Expressive)

6. Sorting Our World

Description:

Children sort classroom items by size, color, or use.

Materials:

- Baskets
- Mixed objects

Vocabulary:

- Sort
- Group
- Same
- Different

Extended Activities:

- Sort items by more than one attribute

Easier:

- Focus on just one attribute.

Advanced:

- Count the items and sort different attributes.

Open-Ended Questions:

- Why did you put those together?

DRDP 2025 Measures Targeted:

- **MATH 2:** Classification
- **ATL 1:** Engagement, Attention, and Persistence

7. Measuring Me

Description:

Children measure hands, feet, or classroom objects using nonstandard units.

Materials:

- Linking cubes
- String

Vocabulary:

- Measure
- Length
- Taller
- Shorter

Open-Ended Questions:

- What did you notice?

Extended Activities:

- Measure outdoor items/structures.

Easier:

- Use large items as non-standard units.

Advanced:

- Use standard units of measurement (rulers, measuring tape, etc).

DRDP 2025 Measures Targeted:

- **MATH 5:** Measurement
- **FLD 3:** Shared Communication and Conversation

8. Sound All Around**Description:**

Explore sounds made by everyday items.

Materials:

Pots
Lids
Shakers

Vocabulary:

- Loud

- Soft
- Vibrate

Extended Activities:

- Make instruments from recyclables.

Open-Ended Questions:

- What happens if we use a fast tempo?

Easier:

- Focus on a slow tempo

Advanced:

- Compare both tempos.

DRDP 2025 Measures Targeted:

- **SCI 2:** Inquiry Through Observation and Investigation
- **PD 4:** Fine Motor Manipulative Skills

9. Shadow Play

Description:

Use light to create shadows.

Materials:

- Flashlights
- Toys

Vocabulary:

Shadow

Light

Dark

Extended Activities:

- Ask children to trace the shadows.
- Create shadow puppets with recyclables.

Open-Ended Questions:

- What happens if we get the light closer/further to the object?

Easier:

- Explore the flashlight and large objects

Advanced:

- Add transparent/opaque/translucent objects.

DRDP 2025 Measures Targeted:

- **SCI 2:** Inquiry Through Observation and Investigation
- **FLD 3:** Shared Communication and Conversation

10. STEM Story Talk

Description:

Read a book and identify STEM ideas in the story.

Materials:

- STEM-themed picture book

Vocabulary:

- Predict
- Design
- Build

Open-Ended Questions:

- What problem did they solve?

Extended Activities:

- Imagine, plan, and build a contraption based on the story.

Easier:

- Focus on one concept at a time.

Advanced:

- Ask them to create their own problem based on their favorite story.

DRDP 2025 Measures Targeted:

- **FLD 1:** Understanding Language (Receptive)
- **FLD 5:** Alphabetics and Print Knowledge
- **ATL 1:** Engagement, Attention, and Persistence