Incorporating Science in the Infant & Toddler Classroom

Linking ITERS-3 Quality Features with Kentucky Early Learning Standards

Why This Matters

The ITERS-3 helps teachers create environments that foster exploration and discovery. The Kentucky Early Childhood Standards (KES) outline what infants and toddlers should know and be able to do. When we combine these frameworks, we support curiosity, observation, and early problem-solving, core foundations of science thinking.

1. ITERS-3: Activities – Exploration and Discovery

• Provide natural materials like shells, smooth stones, water, or sand for exploration.
• Encourage cause-and-effect play: knocking down blocks, pouring water, rolling balls.
• Create a “nature basket” or tray at child level for sensory investigation.
KELS Link: Curiosity in the environment; responds to sensory experiences.

2. ITERS-3: Interaction – Facilitating Thinking

• Use “wonder” questions: “What happens when you scoop the water?” “Why did it fall?”
• Narrate cause and effect as it happens: “You rolled the ball. It went fast!”
• Encourage repetition so children can test and observe outcomes.
KELS Link: Uses senses to explore; begins to predict what will happen.

3. ITERS-3: Space & Furnishings – Access to Materials

• Keep discovery materials visible and within reach.
• Provide a low shelf or floor basket for science exploration items.
• Include water play, light/shadow play, and objects with varied textures.
KELS Link: Explores physical characteristics of objects and materials.

4. ITERS-3: Program Structure – Child Choice & Teacher-Guided Exploration

• Schedule daily opportunities for free exploration with sensory or natural materials.
• Offer brief, intentional “science moments” (sink/float, texture comparisons).
• Follow children’s lead. Extend their curiosity through conversation.
KELS Link: Demonstrates curiosity and persistence in exploration.

Quick Reference Summary

Activities → Exploration materials and discovery play → KES: Curiosity
Interaction → Wonder questions and modeling thinking → KES: Uses senses
Space & Furnishings → Accessible science areas → KES: Physical exploration
Program Structure → Child choice and teacher-guided time → KES: Persistence in learning

Remember: Science begins with curiosity. Every time a child explores, tests, and wonders, they are already thinking like a scientist.