

Using the MN ECIPs in Your Program: Scientific Thinking and Exploring Domain Participant Guide

(2 hours)

Last Updated January 2026

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Session Overview

Minnesota's Knowledge and Competency Framework (KCF) for Early Childhood Professionals Content Areas and Child Development Associate (CDA) Subject Areas

The Minnesota's Knowledge and Competency Framework for Early Childhood Professionals Content Areas and the Child Development Associate (CDA) Subject Areas are listed here to help participants understand what competencies, content, and subject areas are addressed in the training.

- KCF Content Area: I. Child Development and Learning
- CDA Subject Area: VIII. Understanding the principles of child development and learning

Course Description: Explore Scientific Thinking and Exploring domain from the Minnesota Early Learning Standards. Develop specific ideas and activities that can support the development of scientific thinking in a program. It is recommended to take Intro to the ECIPS prior to taking this course.

Learning Objectives

Throughout this training, participants will:

- Describe the purpose and structure of the ECIPs
- Identify indicators of the Scientific Thinking and Exploring domain in current classroom and indicate how these can be embedded into daily routines and activities
- Develop an action plan that includes at least one new strategy for integrating the Scientific Thinking and Exploring domain into the classroom or program setting

Session Outline

Section	Section Time	Key Concepts	Teaching Techniques	Learning Objective Met
A	15 minutes	Welcome/Introductions Objectives Review	Large Group Discussion	
B	30 minutes	Purpose of the ECIPs	Mini-Lecture Large Group Activity	1
C	15 minutes	Overview of Scientific Thinking and Exploring	Mini-Lecture Large Group Discussion	1
D	45 minutes	Practice and Application	Small Group Activity	2 & 3

Section	Section Time	Key Concepts	Teaching Techniques	Learning Objective Met
E	15 minutes	Objectives Review/Closing	Individual Reflection	
	Total Time: 2 hours			

The 8 Domains of the ECIPS

Domain	Components
Approaches to Learning	Curiosity and Inquisitiveness, Attentiveness, Imagination, Processing and Using Information
The Arts	Exploring the Arts, Using the Arts to Express ideas and Emotions
Language, Literacy, and Communication	Receptive Language (Listening and Understanding), Expressive Language (Communicating and Speaking), Emergent Reading, Writing
Mathematics	Number Knowledge, Measurement, Patterns, Geometry and Spatial Thinking, Data Analysis
Physical and Movement Development	Gross Motor, Fine Motor and Self-Care
Scientific Thinking and Exploring	Explore, Discover, Explain
Social & Emotional Development	Self and Emotional Awareness, Self-Regulation, Social Understanding and Relationships
Social Systems	Self-Identity, Family, and Community, Concept of Time, Environment, Geography, and Our Role in Society, Economics: Wants, Needs, and Choices, Technology

Components of the Scientific Thinking and Exploring Domain

- Explore (ST1–ST2) - Explore is when children notice things, get curious, and start investigating with their senses and tools. Children observe differences, ask questions, and use their senses and simple tools to explore materials.

- Discover (ST3–ST4) - Discover is when children try things out, test their ideas, and see what happens. They make simple plans, experiment through trial and error, classify materials, and begin forming early explanations.
- Explain (ST5–ST6) - Explain is when children talk about what happened, why it happened, and how they can use what they learned. Children describe materials, talk about cause and effect, make predictions, and apply knowledge to new situations.

Strategy or Activity for each component

- Explore (ST1–ST2)
- Discover (ST3–ST4)
- Explain (ST5–ST6)

Resources

Early Childhood Indicators of Progress: Minnesota’s Early Learning Standards 2028 version
- <https://dcyf.mn.gov/sites/default/files/2025-08/els-ecips-2028.pdf>