
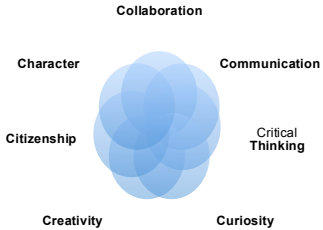


Content Area: Science	Course: Preschool Science	Grade Level: Preschool
	R14 The Seven Cs of Learning 	
Unit Titles	Length of Unit	
<ul style="list-style-type: none"> • Foundations for Learning in a Scientific Community 	<ul style="list-style-type: none"> • 6-8 weeks 	
<ul style="list-style-type: none"> • Supporting Emergent Scientists 	<ul style="list-style-type: none"> • Ongoing 	



Strands	Course Level Expectations
Physical Sciences	<ul style="list-style-type: none"> ● Observe different ways objects move (e.g., roll, bounce, spin, slide) and what happens when they interact (collide) ● Investigate how objects' speed and direction can be varied ● Determine cause and effect of push/pull/collision that make objects, start, stop and change direction ● Observe and compare and contrast attributes of materials that are related to their function (e.g., flexibility, transparency, strength) ● Evaluate the appropriateness of a material for a given purpose based upon its properties ● Observe how heating and cooling cause changes to properties of materials
Life Sciences	<ul style="list-style-type: none"> ● Observe features of plants and animals and explore function of features ● Compare and contrast basic features of living things (e.g., body parts and their uses) between and across groups ● Recognize changes in living things over their lifespan by observing similarities and differences between babies and adults ● Observe how a variety of living things obtain food as a source of energy for surviving ● Explore how animals depend upon the environment for food, water and shelter
Earth and Space Sciences	<ul style="list-style-type: none"> ● Describe common features of the earth (e.g., sky, land and water) and what is found there (e.g., birds, fish, stars) ● Observe, record, and note patterns regarding weather and the effects on the immediate environment ● Investigate how water interacts with other earth materials ● Investigate how humans use design solutions to adapt natural resources to meet basic needs

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Unit Title	Foundations for Learning in a Scientific Community	Length of Unit	6-8 weeks
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Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • How do we engage preschoolers in rich discussions about science and inquiry in large groups, small groups, and individually? • How do we provide experiences for preschoolers to observe, gather evidence, and design and test a solution in relation to scientific phenomena in our daily routines and in scientific investigations?
Standards*	S.36.1-3, S.48.1-3, S.60.1-6
Unit Strands & Concepts	<ul style="list-style-type: none"> • Questioning and Defining Problems • Investigating • Using Evidence • Design Cycle
Key Vocabulary	Classroom, Community, Scientist, Investigate, Centers, Rules

Standards based on CT Early Learning and Development Standards More information can be found at:
<http://www.ct.gov/oec/lib/oec/earlycare/elds/sections/standards.pdf>

Unit Title	Foundations for Learning in a Scientific Community	Length of Unit	6-8 weeks
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> ● Ways to discuss with science partners ● How to formulate scientific questions ● How to engage in collaborative investigations to describe phenomena or to explore cause and effect relationships ● Begin to distinguish evidence from opinion 	<ul style="list-style-type: none"> ● Ask simple questions related to things observed through the senses (“what” and “why”) ● Ask more detailed questions including the relationship between two things or cause and effect relationships ● Gather data by drawing, counting or otherwise documenting observations ● Give evidence from observations or investigations ● Cite examples to support their ideas ● Identify a problem and, with adult assistance, design a solution, test and refine design elements

Assessments:	PAF (Preschool Assessment Framework) Performance Standards: <ul style="list-style-type: none"> ● COG 9 Understands and interacts within the classroom with adults and peers ● P&S 3 Participates in teacher-led activities ● P&S 7 Interacts cooperatively with peers
Teacher Resources:	CT Preschool Curriculum Frameworks CT Preschool Assessment Frameworks

Unit Title	Supporting Emergent Scientists	Length of Unit	Ongoing
Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • How do we provide preschoolers with ample time to engage in scientific inquiry? • How do we provide preschoolers ample time to engage and inquire in scientific conversations with peers and adults? • How does investigating scientific phenomenon help us prepare to be better scientists? 		
Standards	S. 24. 2-7, S. 24. 10, S.36.5-9, S.48.5-9, S.60.7-15		
Unit Strands & Concepts	<ul style="list-style-type: none"> • Unity and Diversity of Life • Living Things & the Environment • Energy, Force and Motion • Matter and its Properties • Earth's Features & Weather • Earth and Human Activity 		
Key Vocabulary	Observation, Data, Conclusion, Living Thing, Lifespan, Environment, Weather, Speed, Direction, Push, Pill, Collision, Natural Resources		

Unit Title	Supporting Emergent Scientists	Length of Unit	Ongoing
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> • How living things grow and change through predictable stages (e.g., birth, growth, reproduction, death) • The characteristics of living things • Different ways objects can move (roll, bounce, spin, slide) • What the effect will be when objects collide • How heating and cooling cause changes to properties of materials (e.g., Ice melts when we bring it inside). • The common features of the Earth (sky, land, water) • How human use of natural resources impacts the environment • How humans use design solutions to adapt natural resources to meet basic needs (e.g., cut trees to build houses) 	<ul style="list-style-type: none"> • Observe and compare and contrast basic features of living things • Group and classify things based upon common features • With support provide examples of how animals depend on plants and other animals for food • Investigate how objects' speed and direction can be varied • With support make predictions and conduct simple experiments to change direction, speed and distance objects move • With support determine cause and effect of push/pull/collision that make objects, start, stop and change direction • Compare and contrast attributes of common materials related to their function • flexibility, transparency, strength) • With support observe, record, and note patterns regarding weather and the effects on the immediate environment (e.g., Rain over a period of days causes flooding. • Investigate how water interacts with other earth materials (e.g., sand, dirt, pebbles) • With support give examples of ways in which weather variables (hot/cold temperatures, amount and intensity of precipitation, wind speed affect us and/or cause changes to earth's features

Assessments:	PAF Performance Standards <ul style="list-style-type: none"> ● COG 1 Engages in scientific inquiry ● COG 9 Understands and interacts within the classroom with adults and peers ● P&S 3 Participates in teacher-led activities ● P&S 7 Interacts cooperatively with peers
Teacher Resources:	CT Preschool Curriculum Frameworks , CT Preschool Assessment Frameworks