

Pine Hill Public Schools Curriculum

Content Area:		Science	
Course Title/ Grade Level:		Science / Kindergarten	
Unit 1:	Plants/ Soil & Rocks/ Weather	Month:	September/ October
Unit 2:	Fall	Month:	November / December
Unit 3:	Arctic Life	Month:	January
Unit 4:	Shadows and Weather	Month:	February
Unit 5:	One Windy Spring	Month:	March
Unit 6:	Environment	Month:	April
Unit 7:	Life Cycles	Month:	May / June
Date Created or Revised:		July 2012 B. Newell/ C. Tunstall	
BOE Approval Date:		07/17/2012	

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Plants/ Soil & Rocks/ Weather		Unit #: 1
Course or Grade Level: Science – Grade K		Length of Time: September
Pacing	September	
Essential Questions	How does knowing the weather help you? How are soil, rocks, water, and air different? What do plants need to grow?	
Content	1. Plants 5.3.2.B.1, 5.4.P.E.1 Needs of plants Life cycle of a plant (apple tree) 2. Soil, rocks, water, air 5.4.P.C.1 Likenesses/ Difference 3. Weather 5.4.2.F.1 Types of weather How weather effects our daily life Sort materials	
Skills	Plants: Identify an apple as a plant and a living thing 5.3.2.B.1 Soil, rocks, water, air: Explore and describe characteristics about soil, rocks, water, and air. 5.4.P.E.1 Weather: Observe daily weather conditions 5.4.2.F.1 Weather: Worksheet short: Sort materials according to their physical properties. 5.2.2.A.1	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Poems about apples and weather Reading stories	
Lesson resources / Activities	Apple books – nonfiction Worksheet sort; Sort a set of materials to show how they are the same and different. For example. Water resistance test to show their physical differences.	
2009 NJCCCS		
Standard: 5.4, 5.3		
Strand(s):		
Content Statement(s):		CPI # / CPI(s):
		5.4.2.F.1, 5.3.2.B.1

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Fall		Unit #: 2
Course or Grade Level: Science – Grade K		Length of Time: November
Pacing	November	
Essential Questions	<ul style="list-style-type: none"> • Why do things change from season to season? 	
Content	<ol style="list-style-type: none"> 1. Fall 5.3.P.D.1 Leaves change over time Seasonal changes 2. Weather 5.4.2.F.1 Types of weather How weather effects our daily life 	
Skills	Fall: Observe leaf changes 5.3.P.D.1 Fall: Identify and observe changes over time/seasons 5.3.P.D.1 Weather: Observe daily weather conditions 5.4.2.F.1	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Poems or stories about leaves/trees and weather Weather graphing for each month	
Lesson resources / Activities	Books - nonfiction	
2009 NJCCCS		
Standard: 5.3, 5.4		
Strand(s):		
Content Statement(s):	CPI # / CPI(s):	
	5.4.2.F.1, 5.3.P.D.1	

**Pine Hill Public Schools
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Unit Title: Arctic Life		Unit #: 3
Course or Grade Level: Science – Grade K		Length of Time: January
Pacing	January	
Essential Questions	How does the weather change substances like water? What makes baby animals look like they do?	
Content	1. Solids vs. Liquids 5.2.2.A.2 Winter Snow 2. Animals 5.3.2.C.2, 5.3.2.D.1,5.3.2.E.1 Parents and their offspring (Penguins) Requirements for living things 3. Weather 5.4.2.F.1	
Skills	Solids vs. Liquids: Observe changes in matter for example: using ice and water 5.2.2.A.2 Animals: Observe similarities and differences between parents and their offspring/ animals. 5.3.2.D.1, 5.3.2.E.1 Weather: Observe Changes in Weather 5.4.2.F.1	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Poems or stories about winter, snow and penguins Weather graphing for each month	
Lesson resources / Activities	Books – nonfiction DVD related to topics Happy Feet- food chain, March of the Penguins, Pebble and the Penguin	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	CPI # / CPI(s):	
	5.2.2.A.2	
	5.3.2.D.1	
	5.3.2.E.1	
	5.4.2.F.1	

**Pine Hill Public Schools
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Unit Title: Shadows and Weather		Unit #: 4
Course or Grade Level: Science – Grade K		Length of Time: February
Pacing	February	
Essential Questions	How does the sunlight change things?	
Content	<ol style="list-style-type: none"> 1. Shadow 5.2.2.C.1, 5.2.2.C.2, 5.2.2.C.3 Groundhogs 2. Sun and Moon 5.4.2.A.1 3. Weather 5.4.2.F.1 	
Skills	<p>Shadow: Observe the sun’s effect on colored objects placed in full sunlight. (light vs. dark paper/clothing) 5.2.2.C.1</p> <p>Shadow: Experiment that if there is no light, objects cannot be seen. 5.2.2.C.2</p> <p>Sun and Moon: Observe the relationship between a light source, a solid object, and the resulting shadow. 5.2.2.C.3</p> <p>Sun and Moon: View moon during daytime according to availability. Without directly looking at the sun discuss how we can see when the sun is visible. Discuss sunrise, sunset 5.4.2.A.1</p> <p>Weather: Observe daily weather conditions 5.4.2.F.1</p>	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Poems or stories about groundhogs/shadows. Weather graphing for each month	
Lesson resources / Activities	TBD	

2009 NJCCCS

Standard:

Strand(s):

Content Statement(s):

CPI # / CPI(s):

5.4.2.A.1

5.2.2.C.3

5.2.2.C.2

5.2.2.C.1

5.4.2.F.1

**Pine Hill Public Schools
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Unit Title: One Windy Spring		Unit #: 5
Course or Grade Level: Science – Grade K		Length of Time: March
Pacing	March	
Essential Questions	How does air make things move?	
Content	<ol style="list-style-type: none"> 1. Wind / Air (Forces And Motion) 5.4.P.C.1, 5.2.2.E.1 2. Spring (Life Science – cycles of changes) 5.3.P.D.1 3. Weather 5.4.2.F.1 	
Skills	Wind and Air: Investigate and model the various ways that inanimate objects can move. 5.2.2.E.1 Wind and Air: Explore properties of air 5.4.P.C.1 Spring: Identify and observe changes over time/seasons 5.3.P.D.1 Weather: Observe daily weather conditions 5.4.2.F.1	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Reading books about wind and spring. Weather graphing for each month	
Lesson resources / Activities	kites, pinwheels, windsocks, books and DVDs	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	CPI # / CPI(s):	
	5.4.P.C.1	
	5.2.2.E.1	
	5.3.P.D.1	
	5.4.2.F.1	

**Pine Hill Public Schools
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Unit Title: Environment		Unit #: 6
Course or Grade Level: Science – Grade K		Length of Time: April
Pacing	April	
Essential Questions	What makes things the same? What makes things different? Why is it important to conserve water and respect our environment?	
Content	1. Earth Day 5.4.P.G.1, 5.4.2.G.1, 5.4.2.G.2, 5.4.2.G.3 Recycling Conservation Respect for the environment Rainforest 2. Weather 5.4.2.F.1 Rain Clouds Rainbows	
Skills	Earth Day: Sort and describe objects based on the materials of which they are made and their physical properties. 5.2.2.A.1 Earth Day: Discuss evaporation and condensation 5.4.2.G.1 Earth Day: Discuss the importance of water conservation. 5.4.2.G.2 Earth Day: Identify the basic needs of living organisms in their habitat. 5.4.2.G.3 Earth Day: To recognize the need to care for the environment (conservation, recycling, respect) 5.4.P.G.1 Weather: Observe daily weather conditions 5.4.2.F.1	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Weather graphing for each month	
Lesson resources / Activities	Reading books about Rainforest, Weather, Earth Day Teacher made worksheet on materials DVD: Fern Gully	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	CPI # / CPI(s):	
	5.4.P.G.1	
	5.4.2.G.2	
	5.4.2.G.3	
	5.4.2.F.1	

**Pine Hill Public Schools
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Unit Title: Life Cycles		Unit #: 7
Course or Grade Level: Science – Grade K		Length of Time: May/ June
Pacing	May/ June	
Essential Questions	Why are their changes throughout organism’s life cycles? How do things grow?	
Content	<ol style="list-style-type: none"> 1. Living and Nonliving 5.3.P.A.2, 5.3.2.A.1, 5.4.P.E.1 2. Life Cycles/Butterflies 5.3.2.D.2 3. Weather 5.4.2.F.1 	
Skills	<p>Living and Nonliving: Observe differences in the needs of various living things 5.2.2.A.1</p> <p>Living and Nonliving: Observe differences in living and nonliving things and group them according to the characteristics that they share. 5.3.P.A.2, 5.3.2.A.1</p> <p>Living and Nonliving: Discuss the effects of sunlight on living and nonliving things. 5.4.P.E..1</p> <p>Life Cycles: To understand life cycles of butterflies and frogs 5.3.2.D.2</p> <p>Weather: Observe daily weather conditions 5.4.2.F.1</p>	
Assessments	Teacher Observation of: Student Participation Class Projects	
Interventions / differentiated instruction	TBD	
Inter-disciplinary Connections	Weather graphing for each month	
Lesson resources / Activities	Compare plants that have been put in either sunlight or darkness.	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	CPI # / CPI(s):	
	5.2.2.A.1	
	5.3.P.A.2	
	5.4.P.E..1	
	5.3.2.D.2	
	5.4.2.F.1	