

Pine Hill Public Schools Curriculum

Content Area:	Science		
Course Title/ Grade Level:	Grade 2		
Unit 1:	Life Science: Frogs/Toads		2 Weeks
Unit 2:	Life Science: Rainforest		3 weeks
Unit 3:	Life Science: Plants/Energy		5 weeks
Unit 4:	Physical Science: Forces		5 weeks
Unit 5:	Physical Science: Light		5 weeks
Date Created or Revised:	June 2012		
BOE Approval Date:	8/28/12		

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Life Science (Frogs and Toads)		Unit #: 1
Course or Grade Level: Science – Grade 2		Length of Time: 2 Weeks
Date Created: 6/18/12		BOE Approval Date:
Pacing	2 Weeks	
Essential Questions	Why does a pond support the growth of amphibians?	
Content	<ul style="list-style-type: none"> -Frog lifecycle -Differences between frogs and toads -Habitat of amphibians 	
Skills	<ul style="list-style-type: none"> -compare the stages of a frog life cycle -compare and contrast frogs and toads -illustrate the habitat of an amphibian 	
Assessments	<ul style="list-style-type: none"> • Formative: Tests, Quizzes, Teacher Observation, Student participation • Summative: graded booklets and science journals 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • TBD 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • Reading programs and writing journals 	
Lesson resources / Activities	<ul style="list-style-type: none"> • read books about frogs & toads • make various individual booklets about frogs & toads • watch video on frogs & toads • venn diagram 	

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Standard: 5.3 Life Science

Strand(s): C. Interdependence D. Heredity and Reproduction

Content Statement(s):	CPI # / CPI(s):
	5.3.2.C.2 Identify the characteristics of a habitat that enable the habitat to support the growth of many different plants and animals.
	5.3.2.D.2 Determine the characteristic changes that occur during the life cycle of plants and animals by examining a variety of species, and distinguish between growth and development.

21st Century Themes

Global Awareness	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	Critical Thinking and Problem Solving	Communication and Collaboration	Information Literacy
Media Literacy	ICT Literacy	Life and Career Skills	

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Life Science (rainforest)		Unit #: 2
Course or Grade Level: Science – Grade 2		Length of Time: 3 weeks
Pacing	3 weeks	
Essential Questions	Why does a rainforest support the growth of plants and animals?	
Content	<ul style="list-style-type: none"> - characteristics of the rainforest - locations of rainforest 	
Skills	<ul style="list-style-type: none"> -identify plants and animals in the rainforest -label and demonstrate the layers of the rainforest -identify the location of a rainforest on a map 	
Assessments	Formative: Tests, Quizzes, Teacher Observation, Student participation Summative: graded booklets and science journals	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • TBD 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • TBD 	
Lesson resources / Activities	<ul style="list-style-type: none"> • Booklet on Rain Forests • Layers of the Rain Forest Chart • Distance learning 	

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Standard: 5.3 Life Science

Strand(s): C. Interdependence

Content Statement(s):	CPI # / CPI(s):
	5.3.2.C.1 Describe the ways in which organisms interact with each other and their habitats in order to meet basic needs.
	5.3.2.C.2 Identify the characteristics of a habitat that enable the habitat to support the growth of many different plants and animals.
	5.3.2.C.3 Communicate ways that humans protect habitats and/or improve conditions for the growth of the plants and animals that live there, or ways that humans might harm habitats.

21st Century Themes

Global Awareness	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	Critical Thinking and Problem Solving	Communication and Collaboration	Information Literacy
Media Literacy	ICT Literacy	Life and Career Skills	

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Life Science (plants/energy)		Unit #: 3
Course or Grade Level: Science – Grade 2		Length of Time: 5 weeks
Pacing	5 weeks	
Essential Questions	Why do plants require energy to grow and survive? How do parts of the plant affect the growth?	
Content	-Plant stages -Plant parts -Needs of plants -Sunlight	
Skills	-Identify parts of plants -Track plant growth -Identify different edible plant parts -Compare plants with and without sunlight	
Assessments	Formative: Tests, Quizzes, Teacher Observation, Student participation Summative: graded booklets and science journals	
Interventions / differentiated instruction	• TBD	
Inter-disciplinary Connections	• TBD	
Lesson resources / Activities	Plant seeds & chart growth of plants Plant booklet Aluminum foil experiment	

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Standard: 5.3 Life Science

Strand(s): B. Matter and Energy Transformations

Content Statement(s):	CPI # / CPI(s):
	5.3.2.B.1 Describe the requirements for the care of plants and animals related to meeting their energy needs.
	5.3.2.B.2 Compare how different animals obtain food and water. 5.3.2.B.3 Explain that most plants get water from soil through their roots and gather light through their leaves.

21st Century Themes

Global Awareness	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	Critical Thinking and Problem Solving	Communication and Collaboration	Information Literacy
Media Literacy	ICT Literacy	Life and Career Skills	

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Physical Science (forces)		Unit #: 4
Course or Grade Level: Science – Grade 2		Length of Time: 5 weeks
Pacing	5 weeks	
Essential Questions	How far can an object travel using various forces and surfaces?	
Content	-pushing or pulling of an object -speed of an object -affects of surface on movement -attraction of magnets to metal objects	
Skills	-examine how types of surfaces determine an objects path -measure the distance an object travels based on force and speed -compare and contrast the pushing or pulling of an object -categorize objects that are magnetic	
Assessments	Formative: Tests, Quizzes, Teacher Observation, Student participation Summative: science journals and experiments	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • TBD 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • TBD 	
Lesson resources / Activities	-car building activity -tug of war -playground equipment(slide/swings)	

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Standard: 5.2 Physical Science

Strand(s): E. Forces and Motion

Content Statement(s):	CPI # / CPI(s):
	5.2.2.E.2 Predict an object’s relative speed, path, or how far it will travel using various forces and surfaces.
	5.2.2.E.3 Distinguish a force that acts by direct contact with an object (e.g., by pushing or pulling) from a force that can act without direct contact (e.g., the attraction between a magnet and a steel paper clip).

21st Century Themes

Global Awareness	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	Critical Thinking and Problem Solving	Communication and Collaboration	Information Literacy
Media Literacy	ICT Literacy	Life and Career Skills	

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Physical Science (light)		Unit #: 5
Course or Grade Level: Science – Grade 2		Length of Time: 5 weeks
Pacing	5 weeks	
Essential Questions	Why do we need light to see a rainbow?	
Content	-differences between light and dark - rainbows	
Skills	-distinguish differences between objects in the light and darkness	
Assessments	Formative: Tests, Quizzes, Teacher Observation, Student participation Summative: science journals and experiments	
Interventions / differentiated instruction	• TBD	
Inter-disciplinary Connections	• TBD	
Lesson resources / Activities	-using a mirror, flashlight and water to	

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Standard: 5.2 Physical Science

Strand(s): C. Forms of Energy

Content Statement(s):	CPI # / CPI(s):
	5.2.2.C.2 Apply a variety of strategies to collect evidence that validates the principle that if there is no light, objects cannot be seen.

21st Century Themes

Global Awareness	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	Critical Thinking and Problem Solving	Communication and Collaboration	Information Literacy
Media Literacy	ICT Literacy	Life and Career Skills	