

Pine Hill Public Schools Curriculum

Content Area:		Science	
Course Title/ Grade Level:		Science / Grade 3	
Unit 1:	Physical Science: Properties of Matter	Weeks:	6 weeks
Unit 2:	Physical Science: Forces In Motion	Weeks:	7 weeks
Unit 3:	Life Science: Organisms	Weeks:	7 weeks
Unit 4:	Earth Science: Fossils/Soil/Rocks/Minerals	Weeks:	4 weeks
Date Created or Revised:	June 19, 2012		
BOE Approval Date:	8/28/12		

**Pine Hill Public Schools
Science Curriculum**

Unit Title: Physical Science: Properties of Matter		Unit #: 1
Course or Grade Level: Science – Grade 3		Length of Time: 6 weeks
Date Created: 6/19/12		BOE Approval Date:
Pacing	6 weeks	
Essential Questions	What are the properties of solids, liquids, and gasses? What substances are used to compose objects? What is the weight, volume, and/or temperature of an object?	
Content	Matter Weight Volume Temperature Solids, liquids, gasses Single substance composition vs. more than one substance composition	
Skills	<ul style="list-style-type: none"> • Define new vocabulary • Identify what substances are used to compose objects. • Investigate the differences among solids, liquids, and gasses. • Determine the weight and volume of common objects. • Predict and explain what happens when a substance is heated then cooled. • Develop a set of rules to predict temperature changes of Earth materials. 	
Assessments	Summative: Tests or quizzes, Outlines, Reports, demonstration Formative: teacher observations, Science notebook, graphic organizers	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • Diagrams • Posters • Group work • Visual cues 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • Math lessons on volume • Math lessons on temperature 	
Lesson resources / Activities	<ul style="list-style-type: none"> • 3rd grade Science book: Chapter 11 • Strainers • wax warmer • Thermometer • buckets, clear bowls or beakers, 	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):		CPI # / CPI(s):
		5.1.4.A.1, 5.1.4.A.2, 5.1.4.A.3, 5.1.4.B.1, 5.1.4.B.2, 5.1.4.B.3, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3, 5.1.4.D.1, 5.1.4.D.2, 5.1.4.D.3, 5.2.4.A.1; 5.2.4.A.2; 5.2.4.A.3; 5.2.4.B.1;

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Unit Title: Physical Science: Forces In Motion		Unit #: 2
Course or Grade Level: Science – Grade 3		Length of Time: 7 weeks
Date Created: 6/19/12		BOE Approval Date:
Pacing	7 weeks	
Essential Questions	How does motion change position over a period of time? How do force and/or gravity change an object's motion, speed, and/or direction? How do materials interact with magnets?	
Content	Force Motion Speed Gravity Magnetic force	
Skills	<ul style="list-style-type: none"> • Define new vocabulary • Demonstrate through modeling that motion is a change in position over a period of time. • Identify the force that starts something moving or changes its speed or direction of motion. • Investigate and categorize materials based on their interaction with magnets. • Investigate, construct, and generalize rules for the effect that force of gravity has on balls of different sizes and weights. 	
Assessments	Summative: Tests or quizzes, Outlines, Reports, demonstration Formative: teacher observations, Science notebook, graphic organizers	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • Diagrams • Posters • Group work • Visual cues 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • Non fiction writing 	
Lesson resources / Activities	<ul style="list-style-type: none"> • 4th grade Science Book: Chapter 12- Lesson 1 & 2 • 3rd grade Science Book: Chapter 9 – Lesson 3 p. E26-27 • Quick Lab p. E27 • Magnets • Different size balls • Sand paper • Blocks of wood 	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):		CPI # / CPI(s):
		5.1.4.A.1, 5.1.4.A.2, 5.1.4.A.3, 5.1.4.B.1, 5.1.4.B.2, 5.1.4.B.3, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3, 5.1.4.D.1, 5.1.4.D.2, 5.1.4.D.3, 5.2.2.E.2; 5.2.4.E.1; 5.2.4.E.2; 5.2.4.E.3; 5.2.4.E.4;

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Unit Title: Life Science: Organisms		Unit #: 3
Course or Grade Level: Science – Grade 3		Length of Time: 7 weeks
Date Created: 6/19/12		BOE Approval Date:
Pacing	9 weeks	
Essential Questions	How do changes to the ecosystem effect organisms? How do you distinguish between living and non-living objects? What are the differences between species life cycles?	
Content	Living and non-living objects Organisms Life systems Energy sources Habitats Life Cycles Environmental Adaptations Ecosystems	
Skills	<ul style="list-style-type: none"> • Define new vocabulary • Develop and use evidence-based criteria to determine if an unfamiliar object is living or nonliving. • Compare and contrast structures that have similar functions in various organisms, and explain how those functions may be carried out by structures that have different physical appearances. • Describe the interactions of systems involved in carrying out everyday life activities. • Identify sources of energy (food) in a variety of settings (farm, zoo, ocean, forest). • Predict the biotic and abiotic characteristics of an unfamiliar organism’s habitat. • Compare the physical characteristics of the different stages of the life cycle of an individual organism, and compare the characteristics of life stages among species. • Model an adaptation to a species that would increase its chances of survival, should the environment become wetter, dryer, warmer, or colder over time. • Evaluate similar populations in an ecosystem with regard to their ability to thrive and grow. 	
Assessments	Summative: Tests or quizzes, Outlines, Reports, demonstration Formative: teacher observations, Science notebook, graphic organizers	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • Diagrams • Posters • Group work • Visual cues 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • Written predictions • Writing • Storytown: <i>Bats Love the Night</i> 	
Lesson resources / Activities	<ul style="list-style-type: none"> • 3rd grade Science Book: Chapter 1–Lesson 1; Chapter 2; Chapter 3-Lesson 1; Chapter 4 	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):		CPI # / CPI(s):
		5.1.4.A.1, 5.1.4.A.2, 5.1.4.A.3, 5.1.4.B.1, 5.1.4.B.2, 5.1.4.B.3, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3, 5.1.4.D.1, 5.1.4.D.2, 5.1.4.D.3, 5.1.4.D.4, 5.3.4.A.1, 5.3.4.A.2, 5.3.4.A.3, 5.3.4.B.1, 5.3.4.C.1, 5.3.4.D.1, 5.3.4.E.1, 5.3.4.E.2

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Unit Title: Earth Science: Fossils/Soil/Rocks/Minerals		Unit #: 4
Course or Grade Level: Science – Grade 3		Length of Time: 4 weeks
Date Created: 6/19/12		BOE Approval Date:
Pacing	4 weeks	
Essential Questions	How can you distinguish between terrestrial and marine fossils? How is soil formed? How can you categorize rocks and minerals?	
Content	Fossils Soil Rocks & Minerals	
Skills	<ul style="list-style-type: none"> • Use data gathered from observations of fossils to argue whether a given fossil is terrestrial or marine in origin. • Create a model to represent how soil is formed. • Categorize unknown samples as either rocks or minerals. 	
Assessments	Summative: Tests or quizzes, Outlines, Reports, demonstration Formative: teacher observations, Science notebook, graphic organizers	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • Diagrams • Posters • Group work • Visual cues 	
Inter-disciplinary Connections	<ul style="list-style-type: none"> • LAL: Magic School Bus stories • Graphic organizers: Storytown skills 	
Lesson resources / Activities	<ul style="list-style-type: none"> • 3rd grade Science Book: Chapter 5 • Rock collection and classification • 	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):		CPI # / CPI(s):
		5.1.4.A.1, 5.1.4.A.2, 5.1.4.A.3, 5.1.4.B.1, 5.1.4.B.2, 5.1.4.B.3, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3, 5.1.4.D.1, 5.1.4.D.2, 5.1.4.D.3, 5.4.4.B.1, 5.4.4.C.1, 5.4.4.C.2