

Pine Hill Public Schools Curriculum

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| Content Area: | | Technology | |
| Course Title/ Grade Level: | | Third Grade | |
| Unit 1: | Internet Safety | Duration: | September-October |
| Unit 2: | Computers to Communicate: Word Processing | Duration: | October-November |
| Unit 3: | Computers to Organize Information | Duration: | December |
| Unit 4: | Coding | Duration: | December |
| Unit 5: | Keyboarding and Word Processing | Duration: | January |
| Unit 6: | Computers to Communicate: Research & Non-Fiction | Duration: | Qtr. 3 |
| Unit 7: | STEAM & Year End Review | Duration: | Qtr. 4 |
| BOE Approved Revision: | | | |
| BOE Initial Adoption Date: | | August 23, 2016 | |

**Pine Hill Public Schools
Curriculum**

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|---|--|--|--|
| Unit Title Internet Safety | | Unit #: 1 | |
| Course or Grade Level: Third Grade | | Length of Time: September-October | |
| Pacing | 6 weeks/sessions | | |
| Essential Questions | What are my responsibilities as a member of an online community? What information is safe to share with others online? | | |
| Content | <ul style="list-style-type: none"> • Internet Safety | | |
| Skills | <ul style="list-style-type: none"> • Personal vs. Private Information • Online Expectations • Writing and Sending Emails | | |
| Assessments | <ul style="list-style-type: none"> • Student Work: worksheets, online assessments • Teacher Observation | | |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> • Peer/Partner work • Video Directions • Picture Icons | | |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> • Health: safety • ELA: writing | | |
| Lesson resources / Activities | <ul style="list-style-type: none"> • Teachers Pay Teachers Resource: Technology Teacher Planning Binder, Grade 3 • BrainPOP Jr. • NetSmartz Kids • Common Sense Media • Google Apps | | |

2014 NJCCCS

Standard: 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

Strand(s):D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

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| Content Statement(s): Demonstrate personal responsibility for lifelong learning. | CPI # / CPI(s): 8.1.5.D.3 Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media. |
| Exhibit leadership for digital citizenship. | 8.1.5.D.4 Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media. |

21st Century Themes

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

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|--|---------------------------|--|---------------------------------------|---|---------------------------------|---|----------------------|
| | Creativity and Innovation | | Critical Thinking and Problem Solving | x | Communication and Collaboration | x | Information Literacy |
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| | Media Literacy | x | ICT Literacy | x | Life and Career Skills |
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| Pine Hill Public Schools Curriculum | |
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| Unit Title Computers to Communicate: Word Processing | Unit #: 2 |
| Course or Grade Level: Third Grade | Length of Time: October-November |
| Pacing | 6 weeks/sessions |
| Essential Questions | How do we use a word processor to create documents? How can we apply what we know about Microsoft Word to use other word processors like Google Docs? |
| Content | <ul style="list-style-type: none"> • MS Word • Google Docs |
| Skills | <ul style="list-style-type: none"> • Create a document • Change font, size, color • Add picture/clip art • Save and Share work with others |
| Assessments | <ul style="list-style-type: none"> • Student Work • Teacher Observation • Unit Test |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> • Video Directions • Picture Icons |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> • ELA: writing, typing, formatting |
| Lesson resources / Activities | <ul style="list-style-type: none"> • Teachers Pay Teachers Resource: Technology Teacher Planning Binder, Grade 3 |
| 2014 NJCCCS | |
| Standard: 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. | |
| Strand(s): A. Technology Operations and Concepts: <i>Students demonstrate a sound understanding of technology concepts, systems and operations.</i> | |
| Content Statement(s): Understand and use technology systems. | CPI # / CPI(s): 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems. |
| Select and use applications effectively and productively. | 8.1.5.A.2 Format a document using a word processing application to enhance text and include graphics, symbols and/ or pictures. |

| <u>21st Century Themes</u> | | | | | | |
|---------------------------------------|---------------------------|---|---|---|---------------------------------|----------------------|
| | Global Awareness | | Financial, Economic, Business, and Entrepreneurial Literacy | | Civic Literacy | Health Literacy |
| <u>21st Century Skills</u> | | | | | | |
| | Creativity and Innovation | x | Critical Thinking and Problem Solving | x | Communication and Collaboration | Information Literacy |
| | Media Literacy | x | ICT Literacy | x | Life and Career Skills | |

| Pine Hill Public Schools Curriculum | |
|---|---|
| Unit Title Computers to Organize Information | Unit #: 3 |
| Course or Grade Level: Third Grade | Length of Time: December |
| Pacing | 2 weeks/sessions |
| Essential Questions | How do computers help us organize information? How can I use the computer to make information easy to share with others? |
| Content | <ul style="list-style-type: none"> MS Excel Google Sheets |
| Skills | <ul style="list-style-type: none"> Creating a Survey Table to organize results Graph data Sort data Analyze results |
| Assessments | <ul style="list-style-type: none"> Student Work Teacher Observation |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> Peer/Partner Work Picture Icons |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> Math: tallying, sorting data, graphing data, analyzing graphs |
| Lesson resources / Activities | <ul style="list-style-type: none"> http://oakdome.com/k5/lesson-plans/third-grade-lesson-plans.php |
| 2014 NJCCCS | |
| Standard: 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. | |
| Strand(s): A. Technology Operations and Concepts: <i>Students demonstrate a sound understanding of technology concepts, systems and operations.</i> | |

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| Content Statement(s): Select and use applications effectively and productively. | CPI # / CPI(s): 8.1.5.A.4 Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. 8.1.5.A.5 Create and use a database to answer basic questions. |
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21st Century Themes

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21st Century Skills

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

**Pine Hill Public Schools
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|---|---|---------------------------------|
| Unit Title Coding | | Unit #: 4 |
| Course or Grade Level: Third Grade | | Length of Time: December |
| Pacing | 2 weeks/sessions | |
| Essential Questions | How do people communicate with computers? How do people create computer applications? | |
| Content | <ul style="list-style-type: none"> ● Coding | |
| Skills | <ul style="list-style-type: none"> ● Creating an algorithm ● Debugging algorithm ● Create program ● Coding vocabulary | |
| Assessments | <ul style="list-style-type: none"> ● Student Work ● Teacher Observation | |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> ● Peer/Partner Work ● Picture Icons | |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> ● | |
| Lesson resources / Activities | <ul style="list-style-type: none"> ● Code.org, Course 1, Stage 7 | |
| 2014 NJCCCS | | |
| Standard: 8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming: | | |

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Strand(s): E. Computational Thinking: Programming: *Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.*

Content Statement(s):
Computational thinking and computer programming as tools used in design and engineering.

CPI # / CPI(s):
8.2.5.E.1 Identify how computer programming impacts our everyday lives
8.2.5.E.2 Demonstrate an understanding of how a computer takes input of data, processes and stores the data through a series of commands, and outputs information.
8.2.5.E.3 Using a simple, visual programming language, create a program using loops, events and procedures to generate specific output.
8.2.5.E.4 Use appropriate terms in conversation (e.g., algorithm, program, debug, loop, events, procedures, memory, storage, processing, software, coding, procedure, and data).

21st Century Themes

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

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

**Pine Hill Public Schools
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|---|---|--------------------------------|
| Unit Title Keyboarding & Word Processing | | Unit #: 5 |
| Course or Grade Level: Third Grade | | Length of Time: January |
| Pacing | 4 weeks/sessions | |
| Essential Questions | How can I become a more efficient typist? How does typing accurately help me complete tasks on the computer? | |
| Content | <ul style="list-style-type: none"> • Keyboarding • Word Processing | |
| Skills | <ul style="list-style-type: none"> • Typing • Hand placement • Word Processing skill application (font, size, color, graphics, copy/paste) | |
| Assessments | <ul style="list-style-type: none"> • Student Work: poem/presentation/story • Teacher Observation | |

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| | <ul style="list-style-type: none"> Weekly Typing Progress | | | | | |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> Peer/Partner Work Video Instructions Choice of keyboarding program | | | | | |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> ELA: typing fluently | | | | | |
| Lesson resources / Activities | <ul style="list-style-type: none"> Dance Mat Typing ABCya Typing Games Typingtest.com http://oakdome.com/k5/lesson-plans/word/i-have-a-dream-poem-generator.php | | | | | |
| 2014 NJCCCS | | | | | | |
| Standard: 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. | | | | | | |
| Strand(s): B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology. | | | | | | |
| Content Statement(s): Apply existing knowledge to generate new ideas, products, or processes. Create original works as a means of personal or group expression. | | | | CPI # / CPI(s): 8.1.5.B.1 Collaborative to produce a digital story about a significant local event or issue based on first-person interviews. | | |
| <u>21st Century Themes</u> | | | | | | |
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| <u>21st Century Skills</u> | | | | | | |
| x | Creativity and Innovation | | Critical Thinking and Problem Solving | x | Communication and Collaboration | Information Literacy |
| | Media Literacy | x | ICT Literacy | x | Life and Career Skills | |

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| Pine Hill Public Schools Curriculum | |
| Unit Title Computers to Communicate: Research and Non-fiction | Unit #: 6 |
| Course or Grade Level: Third Grade | Length of Time: Qtr. 3 |
| Pacing | 10 weeks/sessions |
| Essential Questions | How can I find information online efficiently? How can I remember new facts I've learned? How can I tell if I am getting information from an expert? How do I give credit to others for helping me learn? |

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| Content | <ul style="list-style-type: none"> ● Searching ● Note Taking ● Evaluating Sources ● Citing Sources |
| Skills | <ul style="list-style-type: none"> ● Using keywords ● Evaluating Sources ● Taking Notes ● Citing website or author of information |
| Assessments | <ul style="list-style-type: none"> ● Student Work: notes, worksheets, organizers ● Teacher Observation |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> ● Peer/Partner Work ● Leveled Graphic Organizers |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> ● Science: animals ● Social Studies: history, biographies ● ELA: reading comprehension, writing, note taking |
| Lesson resources / Activities | <ul style="list-style-type: none"> ● http://oakdome.com/k5/lesson-plans/third-grade-Q3-lesson-plans.php |

2014 NJCCCS

Standard: 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

Strand(s):

A. Technology Operations and Concepts: *Students demonstrate a sound understanding of technology concepts, systems and operations.*

D. Digital Citizenship: *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.*

E: Research and Information Fluency: *Students apply digital tools to gather, evaluate, and use information.*

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| Content Statement(s): Select and use applications effectively and productively. | CPI # / CPI(s): 8.1.5.A.3 Use a graphic organizer to organize information about problem or issue. |
| Advocate and practice safe, legal, and responsible use of information and technology. | 8.1.5.D.1 Understand the need for and use of copyrights. 8.1.5.D.2 Analyze the resource citations in online materials for proper use. |
| Evaluate and select information sources and digital tools based on the appropriateness for specific tasks. | 8.1.5.E.1 Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks. |

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| 21 st Century Skills | | | | | | | |
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| x | Media Literacy | x | ICT Literacy | x | Life and Career Skills | | |

| Pine Hill Public Schools Curriculum | |
|--|---|
| Unit Title STEAM & Year End Review | Unit #: 7 |
| Course or Grade Level: Third Grade | Length of Time: Qtr. 4 |
| Pacing | 10 weeks/sessions |
| Essential Questions | How do materials influence design? How are new products created? How does technology change the way people live and work? How does nature impact design? |
| Content | <ul style="list-style-type: none"> Engineering |
| Skills | <ul style="list-style-type: none"> Design process Blueprints Problem Solving Testing/Evaluating products |
| Assessments | <ul style="list-style-type: none"> Student Work: projects, graphic organizers, blueprints Teacher Observation |
| Interventions / differentiated instruction | <ul style="list-style-type: none"> Peer/Partner work Leveled graphic organizers |
| Inter-disciplinary Connections | <ul style="list-style-type: none"> Science: engineering, technology, nature, resources ELA: expository writing, persuasive writing |
| Lesson resources / Activities | <ul style="list-style-type: none"> Build a pollinator Build a bridge Build a tower Fix/Redesign a tool or toy |
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| Standard: 8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment. | |
| Strand(s): C. Design: <i>The design process is a systematic approach to solving problems.</i> D. Abilities for a Technological World: <i>The designed world is the product of a design process that provides the means to convert resources into products and systems.</i> | |

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| Content Statement(s): The attributes of design. | CPI # / CPI(s): 8.2.5.C.1 Collaborate with peers to illustrate components of a designed system. 8.2.5.C.2 Explain how specifications and limitations can be used to direct a product's development. |
| The application of engineering design. | 8.2.5.C.4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. 8.2.5.C.5 Explain the functions of a system and subsystems. |
| The role of troubleshooting, research and development, invention and innovation and experimentation in problem solving. | 8.2.5.C.6 Examine a malfunctioning tool and identify the process to troubleshoot and present options to repair the tool. 8.2.5.C.7 Work with peers to redesign an existing product for a different purpose. |
| Apply the design process. | 8.2.5.D.1 Identify and collect information about a problem that can be solved by technology, generate ideas to solve the problem, and identify constraints and trade-offs to be considered. 8.2.5.D.2 Evaluate and test alternative solutions to a problem using the constraints and trade-offs identified in the design process to evaluate potential solutions. |
| Use and maintain technological products and systems. | 8.2.5.D.3 Follow step by step directions to assemble a product or solve a problem. |

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21st Century Skills

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