

**NEW MILFORD PUBLIC SCHOOLS**  
**New Milford, Connecticut**



7<sup>th</sup> Grade Intro To Computer  
Applications

**June 2016**

Approved by the BOE December 2016

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## **Authors of Course Guide**

Korin Santovasi  
Jennifer Morrison

## **New Milford's Mission Statement**

The mission of the New Milford Public Schools, a collaborative partnership of students, educators, family and community, is to prepare each and every student to compete and excel in an ever-changing world, embrace challenges with vigor, respect and appreciate the worth of every human being, and contribute to society by providing effective instruction and dynamic curriculum, offering a wide range of valuable experiences, and inspiring students to pursue their dreams and aspirations.

**New Milford Public Schools**  
**Curriculum**  
**7th grade Computer Applications -Introduction to Basic Skills**

7th grade Computer Applications is taken by all 7th grade students. The class meets twice every 6 days for the entire school year and will be graded. The primary goal of this course is to provide students with a variety of computer skills that will be useful throughout the remainder of their education and provide a foundation for the technology skills they will use beyond school. Students will be introduced to basic word processing, and spreadsheets, as well as basic computational thinking and programming skills. Appropriate Digital Citizenship skills (taught in 6th grade) will be reinforced throughout the curriculum.

**New Milford Public Schools**  
**Curriculum**  
 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: Intro to Computer Organization	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 3 (Meets twice every 6 days)
<b>Identify Desired Results</b>	
<b>Common Core Standards</b>	
<ul style="list-style-type: none"> <li>● W7.8: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</li> <li>● W7.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</li> </ul>	
<b>Enduring Understandings</b> Generalizations of desired understanding via essential questions (Students will understand that ...)	<b>Essential Questions</b> Inquiry used to explore generalizations
<ul style="list-style-type: none"> <li>● Digital citizenship is an important life-long skill.</li> <li>● Using a networked computer requires following specific protocols.</li> </ul>	<ul style="list-style-type: none"> <li>● What are your responsibilities as a Digital Citizen</li> <li>● What is the impact of using a computer network as opposed to a single computer</li> </ul>
<b>Expected Performances</b> What students should know and be able to do	
Students will know the following: <ul style="list-style-type: none"> <li>● The definition of Digital Citizenship and how it may impact their lives.</li> <li>● The difference between hard drive, network drive and cloud drives for storage and how to access each</li> <li>● Best practices with regard to printing on networked printers</li> <li>● Best practices for organizing saved files</li> </ul> Students will be able to do the following: <ul style="list-style-type: none"> <li>● How to log into networked computers</li> <li>● How to save to and move between different drives (i.e. H drive, Google Drive, personal devices)</li> <li>● Print to a specific computer</li> <li>● Organize the files on their drives</li> </ul>	
<b>Character Attributes</b>	
<ul style="list-style-type: none"> <li>● Citizenship</li> <li>● Integrity</li> </ul>	

- Respect
- Honesty
- Perseverance

**Technology Competencies**

- ISTE Proposed Standards - Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal, ethical and self-aware.

**Develop Teaching and Learning Plan**

**Teaching Strategies:**

- Guide students through the processes necessary to access and use the networks
- Lead class in discussion of Digital Citizenship with emphasis on current concerns

**Learning Activities:**

- Participation in class discussion
- Writing letter regarding Digital Citizenship

**Assessments**

**Performance Task(s)**

Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)

**Other Evidence**

Application that is functional in a classroom context to evaluate student achievement of desired results

Goal: Create a document to move between drives and print

Role: Themselves

Audience: Their younger selves

Situation: Write a letter to your younger self discussing decisions you've made regarding your digital presence and giving yourself advice for your future digital life.

Product or Performance: A letter created, saved, moved between drives and printed.

Standards for Success:

- Appropriate advice given
- Document saved appropriately to a folder
- Downloaded to a network folder
- Printed to designated printer

- Follows directions
- Contributes to discussion

<b>Suggested Resources</b>	
<ul style="list-style-type: none"><li>• <a href="#">7<sup>th</sup> Grade Journal Template</a></li></ul>	

**New Milford Public Schools**  
**Curriculum**  
 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: <b>Word Processing</b>	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes:12 (Meets twice every 6 days)
<b>Identify Desired Results</b>	
<b>Common Core Standards</b>	
<ul style="list-style-type: none"> <li>● W7.8: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</li> <li>● W7.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</li> </ul>	
<b>Enduring Understandings</b> Generalizations of desired understanding via essential questions (Students will understand that ...)	<b>Essential Questions</b> Inquiry used to explore generalizations
<ul style="list-style-type: none"> <li>● The tool (application, software, or device) used for creating a document will depend on many factors - no one tool is best.</li> <li>● Good Digital Citizenship includes respecting copyright and citing sources.</li> </ul>	<ul style="list-style-type: none"> <li>● How can you decide which tool is best to use to create a document?</li> <li>● How can you properly use and cite material found on the Internet</li> </ul>
<b>Expected Performances</b>	
What students should know and be able to do	
<p>Students will know the following:</p> <ul style="list-style-type: none"> <li>● Different tools (applications) have different strengths and weaknesses.</li> <li>● How to locate and use Creative Commons Licensed images</li> <li>● How to cite sources from the Internet</li> </ul> <p>Students will be able to do the following:          Compare several different tools for creating text documents and evaluate their suitability for various situations.</p> <ul style="list-style-type: none"> <li>● Explore a word processing tool (Word, Office 360, Drive, Drive mobile, other options)</li> <li>● Use HELP or search tools to learn more about their tool.</li> </ul>	



- Research a current issue in technology.
- Use their tool (application) to write an article about a current issue in technology.
- Combine the group's articles into a newsletter

**Character Attributes**

- Citizenship
- Integrity
- Respect
- Honesty
- Perseverance

**Technology Competencies**

- ISTE Proposed New Standards - 6. Creator and Communicator
  - Students express ideas and generate learning artifacts by responsibly creating, repurposing and remixing digital assets.
  - Students share their work using digital formats and platforms best suited to their communication goals.
- 21st Century skills - Media Literacy: Analyze Media -Understand how and why media messages are constructed, and for what purposes
- 21st Century skills - Media Literacy: Create Media Products - Understand and utilize the most appropriate media creation tools, characteristics and conventions.

**Develop Teaching and Learning Plan**

<p>Teaching Strategies:</p> <ul style="list-style-type: none"> <li>● Create mini-lessons of word processing skills</li> <li>● Lead class discussion of different word processing tools</li> <li>● Demonstrate the use of HELP or other resources to learn how to accomplish specific word processing tasks</li> <li>● Guide class in brainstorming a list of current issues in technology that could be researched</li> </ul>	<p>Learning Activities:</p> <ul style="list-style-type: none"> <li>● Contribute to discussion</li> <li>● Researching a current technology issue</li> <li>● Writing an article for the class newsletter</li> </ul>
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**Assessments**

<b>Performance Task(s)</b>	<b>Other Evidence</b>
Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)	Application that is functional in a classroom context to evaluate student achievement of desired results
<p><b>Goal:</b> To practice word processing skills by writing an article for a newsletter.</p> <p><b>Role:</b> Reporter</p>	<ul style="list-style-type: none"> <li>● Participation in class discussions</li> <li>● Formative assessment (i.e. Exit Ticket or Journal entry)</li> </ul>

**Audience:** Self, Peers

**Situation:** You and your classmates will be creating an newsletter or other publication that will explore current issues in technology.

**Product or Performance:**

An article that explores an issue in technology including background information and exploring why it is relevant or important to middle school students.

Review an article written by a classmate and provide them with suggestions for edits, grammar, spelling, and content.

**Standards for Success:**

Rubric

### Suggested Resources

- [Rubric](#)
- Lucidpress
- [Creating a Template in Google Drive](#)
- [Creating a Template in Google Drive part 2](#)

# New Milford Public Schools

## Curriculum

### 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: <b>Spreadsheets</b>	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 15 (Meets twice every 6 days)
<b>Identify Desired Results</b>	
<b>Common Core Standards</b>	
<ul style="list-style-type: none"> <li>● W.7.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.</li> <li>● RST 6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).</li> </ul>	
<b>Enduring Understandings</b> Generalizations of desired understanding via essential questions (Students will understand that ...)	<b>Essential Questions</b> Inquiry used to explore generalizations
<ul style="list-style-type: none"> <li>● The tool (application, software, or device) used for creating a spreadsheet will depend on many factors - no one tool is best.</li> <li>● Spreadsheet tools have many functions that will be useful throughout their lives.</li> </ul>	<ul style="list-style-type: none"> <li>● What makes one spreadsheet tool more appropriate for some tasks than other spreadsheet tools?</li> <li>● What are the functions I will need as a student?</li> <li>● What are some functions I will need as an adult?</li> </ul>
<b>Expected Performances</b>	
What students should know and be able to do	
Students will know the following: <ul style="list-style-type: none"> <li>● What are some real world uses of spreadsheet tools</li> <li>● There are a variety of tools that can be used to create spreadsheets</li> <li>● No one tool will be suitable for every situation</li> </ul> Students will be able to do the following: <ul style="list-style-type: none"> <li>● Use a “test”(Vampire Project), a set list of tasks that spreadsheet programs should be able to accomplish, to compare several different spreadsheet applications.</li> <li>● Research uses for spreadsheet tools for students and adult personal use.</li> <li>● Create a portfolio of examples showing how spreadsheet tools can be used</li> </ul>	
<b>Character Attributes</b>	
<ul style="list-style-type: none"> <li>● Citizenship</li> <li>● Integrity</li> </ul>	

- Respect
- Honesty
- Perseverance

#### Technology Competencies

- ISTE Proposed Standards: Students make meaning for themselves and others by critically curating resources through digital tools.
  - Students plan and employ research strategies to locate information, resources or media for their intellectual or creative pursuits.

### Develop Teaching and Learning Plan

<p>Teaching Strategies:</p> <ul style="list-style-type: none"> <li>● Lead students in discussion of uses for spreadsheet applications from their own experience</li> <li>● Create generic directions for Vampire Project that could be applied to any spreadsheet application</li> <li>● Guide students through Vampire Project</li> <li>● Have students interview an adult to learn how they use spreadsheets in their personal and professional lives</li> </ul>	<p>Learning Activities:</p> <ul style="list-style-type: none"> <li>● Complete “Vampire Project”</li> <li>● Interview more than one adult to find how/if they use spreadsheet tools.</li> <li>● Research examples of spreadsheet uses.</li> <li>● Create several different spreadsheets (i.e. a color coded schedule of their classes, a budget - monetary or time based, results from a science lab, etc)</li> </ul>
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### Assessments

Performance Task(s)	Other Evidence
<p>Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)</p>	<p>Application that is functional in a classroom context to evaluate student achievement of desired results</p>
<p><b>Goal:</b> Create a product that shows examples of uses of spreadsheets, both from the Internet and self-generated.</p> <p><b>Role:</b> Teacher</p> <p><b>Audience:</b> Peers</p> <p><b>Situation:</b></p> <p><b>Product or Performance:</b> Product-slideshow, Pinterest style page or other media displaying examples and short descriptions</p>	<ul style="list-style-type: none"> <li>● Journal posts</li> <li>● Formative assessment</li> <li>● Vampire project</li> </ul>

**Standards for Success:**

Rubric

**Suggested Resources**

- [Middle School Spreadsheet Lessons](#)
- [Vampire Project Directions](#)
- [Pikotchart](#)
- [7<sup>th</sup> Grade Spreadsheet Project Rubric](#)

**New Milford Public Schools**  
**Curriculum**  
 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: Computer Coding - What is it?	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 2 (Meets twice every 6 days)
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**Identify Desired Results**

**Common Core Standards**

- W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- RST 6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

**Enduring Understandings**

Generalizations of desired understanding via essential questions  
 (Students will understand that ...)

- Students will understand that computer coding will soon be an integral part of their lives.
- Students will understand that knowing how to code will open new doors to them for schooling and job prospects.
- Students will understand that coding requires computational thinking and it's fun!
- Students will understand that there are many computer languages in the world today.

**Essential Questions**

Inquiry used to explore generalizations

- What is computer coding?
- What can I do with computer coding?
- How many different languages are there and why?
- What are the most widely used computer languages in the world today?

**Expected Performances**

What students should know and be able to do

**Students will know the following:**

- What coding is.
- The variety of coding languages that are out there and what the differences are.
- Resources that are out there to learn how to code.
- How to persevere and keep trying even when the assignments get tough!

**Students will be able to do the following:**

- Obtain general knowledge about what coding is and what can be done with it.
- Complete a journal entry
- Perseverance

<b>Character Attributes</b>	
<ul style="list-style-type: none"> <li>● Citizenship</li> <li>● Integrity</li> <li>● Respect</li> <li>● Honesty</li> <li>● Perseverance</li> </ul>	
<b>Technology Competencies</b>	
<ul style="list-style-type: none"> <li>● ISTE Proposed New Standards - 6. Creator and Communicator <ul style="list-style-type: none"> <li>○ Students express ideas and generate learning artifacts by responsibly creating, repurposing and remixing digital assets.</li> <li>○ Students share their work using digital formats and platforms best suited to their communication goals.</li> </ul> </li> <li>● 21st Century skills - Media Literacy: Analyze Media -Understand how and why media messages are constructed, and for what purposes</li> <li>● 21st Century skills - Media Literacy: Create Media Products - Understand and utilize the most appropriate media creation tools, characteristics and conventions.</li> </ul>	
<b>Develop Teaching and Learning Plan</b>	
<b>Teaching Strategies:</b> <ul style="list-style-type: none"> <li>● Leading class discussion</li> <li>● Reading articles on computer coding</li> <li>● Watching videos on computer coding</li> <li>● Providing resources to students to learn how to code</li> <li>● Very basic, introductory information on coding from students</li> </ul>	<b>Learning Activities:</b> <ul style="list-style-type: none"> <li>● Contributing to class discussion</li> <li>● Reading and comprehending articles about coding</li> <li>● Watching and learning from videos about computer coding</li> <li>● Exploring the internet resources provided by teacher</li> </ul>

<b>Assessments</b>	
<b>Performance Task(s)</b>	<b>Other Evidence</b>
Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)	Application that is functional in a classroom context to evaluate student achievement of desired results
Goal: To get a basic understanding of coding. Role: Themselves Audience: Themselves, peers, and teacher	<ul style="list-style-type: none"> <li>● Follows directions</li> <li>● Contributes to class discussions</li> <li>● Completes formative assessments (i.e. Exit ticket and/or Journal Entry)</li> </ul>

Situation: This is the first introductory lesson about coding. It will contain basic information, vocabulary, and resources.

Product or Performance: A journal entry

Standards for Success: Answer to journal entry

### **Suggested Resources**

- [What is computer coding/programming?](#)
- [popular programming languages](#)
- [learn how to code for free or very cheap](#)
- Google Drive
- Google Classroom



**New Milford Public Schools**  
**Curriculum**  
 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: Pencil Code	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 14 (Meets twice every 6 days)
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**Identify Desired Results**

**Common Core Standards**

- W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- RST 6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

**Enduring Understandings**

Generalizations of desired understanding via essential questions  
 (Students will understand that ...)

- Students will understand that Pencil Code is a great, free way to start learning how to code.
- Students will understand that Pencil Code uses a specific programming language called Coffee Script, which is a subscript of JavaScript.
- Students will understand that Pencil Code was invented by someone just like them and why they invented it.
- Students will understand what can be done on Pencil Code
- Students will understand that games and art can be created on Pencil Code.

**Essential Questions**

Inquiry used to explore generalizations

- What is Pencil Code?
- What programming language does Pencil Code use?
- Who invented Pencil Code and why?
- What can I do on Pencil Code?
- Can I create games and art on Pencil Code?
- What else can I create on Pencil Code?

**Expected Performances**

What students should know and be able to do

Students will know the following:

- The coding language that they are working in.
- How to make the turtle move and do what you tell it to in Pencil Code.
- How to complete a series of lessons from start to finish in Pencil Code.
- How to measure distances and angles.
- How to make arcs and circles and the degrees of a circle.

- How to persevere and keep trying even when the assignments get tough!
- What an algorithm is.

Students will be able to do the following:

- Complete a journal entry
- Complete a series of beginner and intermediate Pencil Code lessons
- Persevere!

#### Character Attributes

- Citizenship
- Integrity
- Respect
- Honesty
- Perseverance

#### Technology Competencies

- ISTE Proposed New Standards - 6. Creator and Communicator
  - Students express ideas and generate learning artifacts by responsibly creating, repurposing and remixing digital assets.
  - Students share their work using digital formats and platforms best suited to their communication goals.
- 21st Century skills - Media Literacy: Analyze Media -Understand how and why media messages are constructed, and for what purposes
- 21st Century skills - Media Literacy: Create Media Products - Understand and utilize the most appropriate media creation tools, characteristics and conventions.

### Develop Teaching and Learning Plan

#### Teaching Strategies:

- Leading class discussion
- Reading articles on computer coding
- Watching videos on computer coding
- Providing resources to students to learn how to code
- Modeling how to do the lessons with students
- Providing an example for students to look at before they begin

#### Learning Activities:

- Contributing to class discussion
- Reading and comprehending articles about coding
- Watching and learning from videos about computer coding
- Exploring the internet resources provided by teacher
- Completing a series of beginner and intermediate lessons in Pencil Code.

<b>Assessments</b>	
<b>Performance Task(s)</b>	<b>Other Evidence</b>
<p>Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)</p> <p>Goal: To learn how to use Pencil Code and complete a series of lessons</p> <p>Role: Themselves</p> <p>Audience: Themselves, peers, and teacher</p> <p>Situation: These lessons go from the beginner level to the intermediate level using Coffee Script</p> <p>Product or Performance: A journal entry and all of their completed lessons</p> <p>Standards for Success: Answer to journal entry and successfully completing all the lessons</p>	<p>Application that is functional in a classroom context to evaluate student achievement of desired results</p> <ul style="list-style-type: none"> <li>● Follows directions</li> <li>● Contributes to class discussions</li> <li>● Completes formative assessments (i.e. Exit ticket and/or Journal Entry)</li> </ul>

### Suggested Resources

- [teaching kids how to code!](#)
- [overview video](#)
- <https://pencilcode.net/>
- [learning how to build your own computer!](#)
- [a possible job you can get someday in computer programming!](#)
- <http://guide.pencilcode.net/>
- [a few books that are out there that teach kids how to code.](#)
- [cracking the code](#)
- [teaching kids to code from a very early age](#)
- [teaching kids how to code!](#)
- [why all kids should learn how to code.](#)
- [the Apple CEO, Tim Cook, talking about how important it is to teach kids how to code.](#)
- [why it is important to teach kids how to code no matter what their future career choice might be.](#)
- [how teaching kids to code gives them a skill for life!](#)
- Google Drive
- Google Classroom

# New Milford Public Schools

## Curriculum

### 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: Code.org	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 8 (Meets twice every 6 days)
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### Identify Desired Results

#### Common Core Standards

- W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- RST 6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

#### Enduring Understandings

Generalizations of desired understanding via essential questions  
(Students will understand that ...)

- Students will understand that code.org is a great website to learn computational thinking in a visual way.
- Students will understand that code.org uses a specific programming language called Blockly, which is a drag and drop language.
- Students will understand that code.org was invented by someone just like them and why they invented it.
- Students will understand what can be done on code.org
- Students will understand that games and art can be created on code.org

#### Essential Questions

Inquiry used to explore generalizations

- What is code.org?
- What programming language does code.org use?
- Who invented code.org and why?
- What can I do on code.org?
- Can I create games and art on code.org?
- What else can I create on code.org?

#### Expected Performances

What students should know and be able to do

Students will know the following:

- The coding language that they are working in.
- How to do the drag and drop.
- How to complete a series of lessons from start to finish in code.org.
- How to think ahead and plan out what they will need to do.

- How to persevere and keep trying even when the assignments get tough!
- Students will be able to do the following:
- Complete a journal entry
  - Complete a series of code.org lessons

**Character Attributes**

- Citizenship
- Integrity
- Respect
- Honesty
- Perseverance

**Technology Competencies**

- ISTE Proposed New Standards - 6. Creator and Communicator
  - Students express ideas and generate learning artifacts by responsibly creating, repurposing and remixing digital assets.
  - Students share their work using digital formats and platforms best suited to their communication goals.
- 21st Century skills - Media Literacy: Analyze Media -Understand how and why media messages are constructed, and for what purposes
- 21st Century skills - Media Literacy: Create Media Products - Understand and utilize the most appropriate media creation tools, characteristics and conventions.

**Develop Teaching and Learning Plan**

- Teaching Strategies:
- Leading class discussion
  - Reading articles on computer coding
  - Watching videos on computer coding
  - Providing resources to students to learn how to code
  - Modeling how to do the lessons with students
  - Providing an example for students to look at before they begin

- Learning Activities:
- Contributing to class discussion
  - Reading and comprehending articles about coding
  - Watching and learning from videos about computer coding
  - Exploring the internet resources provided by teacher
  - Completing a series of drag and drop lessons in code.org and comprehending what the actual programming is

## Assessments

<b>Performance Task(s)</b> Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)	<b>Other Evidence</b> Application that is functional in a classroom context to evaluate student achievement of desired results
<p>Goal: To learn how to use code.org and complete a series of lessons</p> <p>Role: Themselves</p> <p>Audience: Themselves, peers, and teacher</p> <p>Situation: This will contain a series of drag and drop lessons using Blockly</p> <p>Product or Performance: A journal entry and all of their completed lessons</p> <p>Standards for Success: Answer to journal entry and successfully completing all the lessons</p>	<ul style="list-style-type: none"><li>● Follows directions</li><li>● Contributes to class discussions</li><li>● Completes formative assessments (i.e. Exit ticket and/or Journal Entry)</li></ul>

## Suggested Resources

- [Minecraft as a learning tool!](#)
- [www.Code.org](http://www.Code.org)
- <http://codecombat.com/play>
- [the most popular programming languages in the world today!](#)
- [coding in different countries!](#)
- [science and coding!](#)
- [teaching coding in schools to prepare students for the 21st century!](#)
- [the economic importance of teaching coding to teens.](#)
- [whether or not we should be teaching poor kids to code.](#)
- [coding in schools around the world!](#)
- [why women make gifted coders!](#)
- Google Drive
- Google Classroom

# New Milford Public Schools

## Curriculum

### 7th grade Computer Applications

Committee Member(s): Korin Santovasi, Jennifer Morrison Unit Title: Scratch	Course/Subject: Computer Applications Grade Level: 7th Grade # of Classes: 6 (Meets twice every 6 days)
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### Identify Desired Results

#### Common Core Standards

- W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- RST 6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

#### Enduring Understandings

Generalizations of desired understanding via essential questions  
(Students will understand that ...)

- Students will understand that Scratch is a great website to create things from scratch!
- Students will understand that Scratch uses a bunch of different programming languages including: Squeak, Flash, Python, PHP, SQL, Mongo, Java, JavaScript, HTML, and Cascading Style Sheets (CCS)
- Students will understand that Scratch was invented by students at M.I.T. and why they invented it.
- Students will understand what can be done on Scratch
- Students will understand that games and art can be created on Scratch

#### Essential Questions

Inquiry used to explore generalizations

- What is Scratch?
- What programming language does Scratch use?
- Who invented Scratch and why?
- What can I do on Scratch?
- Can I create games and art on Scratch?
- What else can I create on Scratch?

#### Expected Performances

What students should know and be able to do

Students will know the following:

- The coding language that they are working in.
- How to complete a series of lessons from start to finish in Scratch.
- How to think ahead and plan out what they will need to do.
- How to persevere and keep trying even when the assignments get tough!

Students will be able to do the following:

- Complete a journal entry
- Complete a series of Scratch lessons
- Perseverance!
- Create a game or other activity on their own

**Character Attributes**

- Citizenship
- Integrity
- Respect
- Honesty
- Perseverance

**Technology Competencies**

- ISTE Proposed New Standards - 6. Creator and Communicator
  - Students express ideas and generate learning artifacts by responsibly creating, repurposing and remixing digital assets.
  - Students share their work using digital formats and platforms best suited to their communication goals.
- 21st Century skills - Media Literacy: Analyse Media -Understand how and why media messages are constructed, and for what purposes
- 21st Century skills - Media Literacy: Create Media Products - Understand and utilize the most appropriate media creation tools, characteristics and conventions.

**Develop Teaching and Learning Plan**

**Teaching Strategies:**

- Leading class discussion
- Reading articles on computer coding
- Watching videos on computer coding
- Providing resources to students to learn how to code
- Modeling how to do the lessons with students
- Providing an example for students to look at before they begin

**Learning Activities:**

- Contributing to class discussion
- Reading and comprehending articles about coding
- Watching and learning from videos about computer coding
- Exploring the internet resources provided by teacher
- Completing the Scratch activities and then completing a game or activity that they create on their own

**Assessments**

**Performance Task(s)**

**Other Evidence**



Authentic application to evaluate student achievement of desired results designed according to GRASPS (one per marking period)	Application that is functional in a classroom context to evaluate student achievement of desired results
<p>Goal: To learn how to use Scratch, complete a series of lessons, and create something on their own.</p> <p>Role: Themselves</p> <p>Audience: Themselves, peers, and teacher</p> <p>Situation: This will contain a series of lessons for students to complete and will culminate with them creating their own game or activity</p> <p>Product or Performance: A journal entry, all of their completed lessons, and a completed game or activity that they create</p> <p>Standards for Success: Answer to journal entry, successfully completing all the lessons, and creating a game or activity on their own.</p>	<ul style="list-style-type: none"> <li>● Follows directions</li> <li>● Contributes to class discussions</li> <li>● Completes formative assessments (i.e. Exit ticket and/or Journal Entry)</li> </ul>
<b>Suggested Resources</b>	
<ul style="list-style-type: none"> <li>● <a href="https://scratch.mit.edu/">https://scratch.mit.edu/</a></li> <li>● <a href="http://learnscratch.org/">http://learnscratch.org/</a></li> <li>● <a href="#">why kids should learn programming.</a></li> <li>● <a href="#">learning how to code.</a></li> <li>● <a href="#">teaching kids how to code.</a></li> <li>● <a href="#">teaching kids how to code!</a></li> </ul>	