Randolph Township Schools
Randolph Elementary Schools

Grade 2-3 Library/ Media Curriculum

"Knowledge will bring you the opportunity to make a difference." ~ Claire Fagin

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EDUCATION EXHIBIT 5 – 8/16/16

Randolph Township Schools
Department of Elementary Library/ Media
Grades 2-3 Library/ Media Curriculum

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Randolph Township Schools

Mission Statement

We commit to inspiring and empowering all students in Randolph schools to reach their full potential as unique, responsible and educated members of a global society.

Randolph Township Schools
Affirmative Action Statement

Equality and Equity in Curriculum

The Randolph Township School district ensures that the district's curriculum and instruction are aligned to the state's standards. The curriculum provides equity in instruction, educational programs and provides all students the opportunity to interact positively with others regardless of race, creed, color, national origin, ancestry, age, marital status, affectional or sexual orientation, gender, religion, disability or socioeconomic status.

N.J.A.C. 6A:7-1.7(b): Section 504, Rehabilitation Act of 1973; N.J.S.A. 10:5; Title IX, Education Amendments of 1972

RANDOLPH TOWNSHIP BOARD OF EDUCATION
EDUCATIONAL GOALS
VALUES IN EDUCATION

The statements represent the beliefs and values regarding our educational system. Education is the key to self-actualization, which is realized through achievement and self-respect. We believe our entire system must not only represent these values, but also demonstrate them in all that we do as a school system.

We believe:

- The needs of the child come first
- Mutual respect and trust are the cornerstones of a learning community
- The learning community consists of students, educators, parents, administrators, educational support personnel, the community and Board of Education members
- A successful learning community communicates honestly and openly in a non-threatening environment
- Members of our learning community have different needs at different times. There is openness to the challenge of meeting those needs in professional and supportive ways
- Assessment of professionals (i.e., educators, administrators and educational support personnel) is a dynamic process that requires review and revision based on evolving research, practices and experiences
- Development of desired capabilities comes in stages and is achieved through hard work, reflection and ongoing growth

Randolph Township Schools
Department of Elementary Library/ Media
Grades 2-3 Library/ Media Curriculum

Introduction

The 21st century student is expected to have an inquiry-based education that can be applied to each content area throughout their academic career. This program supports all academic areas, promotes and instructs students in research, lifelong critical thinking habits, and the love of literature. Throughout this program, students will engage in content-specific projects that guide them in learning and applying technological skills necessary for success as global citizens.

The grade 2-3 curriculum is designed to enhance student understanding of literature concepts related to fiction and nonfiction text, character development, story elements, and author's purpose. In addition, students will be exposed to programming, application development, and coding. Throughout all aspects of the curriculum students, will learn the key characteristics of successful library and digital citizenship.

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Curriculum Pacing Chart
Grade 2-3 Library/Media

SUGGESTED TIME ALLOTMENT	UNIT NUMBER	CONTENT - UNIT OF STUDY
5 weeks	**I**	**Library Citizenship**
5 weeks	**II**	**Digital Citizenship**
6 weeks	**III**	**Literature Appreciation**
6 weeks	**IV**	**Technology Applications**
6 weeks	**V**	**Information Literacy**
8 weeks	**VI**	**Programming**

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT I: Library Citizenship

<table>
<tr><td rowspan="6">STANDARDS / GOALS:

AASL 1.1.1 Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life.

AASL 1.1.2- Use prior and background knowledge as context for new learning.

AASL 1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.

AASL 1.1.9 Collaborate with others to broaden and deepen understanding.

AASL 1.4.1 Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary.

AASL 1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process.

AASL 1.4.3 Monitor gathered information, and assess for gaps or</td><td>ENDURING UNDERSTANDINGS</td><td>ESSENTIAL QUESTIONS</td></tr>
<tr><td>The purpose of the online catalog is to locate resources.</td><td>• How do readers locate, access and choose informational resources from the online catalog?</td></tr>
<tr><td>The library/ media center is organized using a systematic method.</td><td>• How does this catalog system help to locate a book?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Resources are accessed through an online catalog.

Key words are important in searching for information.

Collections within a library are systemically organized.</td><td>Students will be able to:

Access the online catalog and navigate the options in a basic search.

Interpret and record call number, author, and title from an online catalog record to locate a book.

Identify and formulate key words for searching.

Select appropriate search parameters including keyword, title, subject, series, and author.

Apply standard shelf order practices related to left to right, top to bottom, while searching for a book.

Recognize and locate a book based on alphabetical order or by Dewey Decimal number.

Examine the ten categories within the Dewey</td></tr>
</table>

weaknesses. AASL 1.4.4 Seek appropriate help when it is needed. CCSS SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. CCSS SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. CCSS SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments.	Readers establish routines in a Makerspace. **VOCABULARY:** relevant, parameter, shelf order **KEY TERMS:** Dewey Decimal, call number, categories, basic search, keywords, catalog record, Makerspace	Decimal system. Interact in a Makerspace through collaboration, creativity, and acceptance of individual thoughts and ideas.

ASSESSMENT EVIDENCE: Students will show their learning by *(including but not limited to)***:**

- Create and conduct an interactive task for students to demonstrate their understanding of the various sections of the library
- Construct a model of an ideal library/media center based on previous lessons related to library set-up and key terms

KEY LEARNING EVENTS AND INSTRUCTION *(including but not limited to)***:**

- Mini lessons for each of the following: accessing Destiny, identify search options, interpreting catalog records, narrowing search criteria, formulating key words, modeling shelf order, and Dewey Decimal basics
- Students will generate a floor plan highlighting the various sections of the library
- Independently locate a given book by searching Destiny and recording the call number
- Dewey Decimal Spinner to explore the ten categories of the Dewey Decimal system
- Participate in creative and innovative tasks in a Makerspace

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT I: Library Citizenship

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
5 Weeks	Locating books using an online catalog Understanding the systematic organization of the library	**Mentor Text** *The Librarian from the Black Lagoon* by Mike Thaler *The Library Dragon* by Carmen Agra Deedy *What Marion Taught Willis* by Brook Berg *The Great Dewey Hunt* by Toni Buzzeo **Programs/ Online Resources** Destiny Online Public Access Catalog Brain Pop Jr. (Choosing a Book) Mrs. Lodges Library Order in the Library Call Number Order Alpha Fishing The Great Dewey Hunt – Smart Exchange Dewey Decimal Spinner Makerspace Playbook

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT II: Digital Citizenship

<table>
<tr><td rowspan="8">STANDARDS / GOALS:

AASL 1.1.2- Use prior and background knowledge as context for new learning.

AASL 1.1.3- Develop and refine a range of questions to frame the search for new understanding.

AASL 1.1.4- Find, evaluate, and select appropriate sources to answer questions.

AASL 1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.

AASL 1.1.9 Collaborate with others to broaden and deepen understanding.

AASL 1.2.2 Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.

AASL 1.2.3 Demonstrate creativity by using multiple resources and</td><td>ENDURING UNDERSTANDINGS</td><td>ESSENTIAL QUESTIONS</td></tr>
<tr><td>Digital citizens use and manage technology to become innovative problem solvers.</td><td>• Why is it important to be a technological problem solver?</td></tr>
<tr><td>Technology allows learners the opportunity to collaborate, communicate and connect to the world.</td><td>• How does technology impact the way people learn?</td></tr>
<tr><td>Digital citizens navigate the Internet safely by making informed choices.</td><td>• How do you use the Internet safely?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Using technology efficiently means choosing the correct technological resource.

Digital citizenship requires organizational skills.</td><td>Students will be able to:

Select the appropriate application or program for a specific purpose.

Understand capabilities and limitations of a program and find solutions to accomplish task.

Use a coding application to solve puzzles.

Organize documents for retrieval and collaboration by creating folders and uploading to the cloud.

Set up and organize bookmarks for educational websites.

Modify documents by electronically sharing with</td></tr>
</table>

formats. AASL 1.4.1 Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary. AASL 1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process. AASL 1.4.4 Seek appropriate help when it is needed. CCSS SL.3.4- Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. NJCCCS 8.1.2.A.3 Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each. NJCCCS 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments.	Responsible Internet users are aware of a digital footprint's impact. Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests. **VOCABULARY:** Cyberbully, browser, bookmark, favorites, database, shortcut, spam, chat room, user name, comments, likes, followers, sharing, application, Internet safety. **KEY TERMS:** technology literacy, social networking, personal responsibility, digital footprint, Makerspace.	classmates and teachers. Understand the potential impact of cyber-bullying and demonstrate good character online. Recognize the implications of a digital footprint. Makers utilize tools and resources while interacting in a Makerspace.

ASSESSMENT EVIDENCE: Students will show their learning by: *(including but not limited to)***:**

- Compose a document describing how to use the cloud to publish work
- Collaboratively create a presentation or document demonstrating Internet safety and acceptable use

KEY LEARNING EVENTS AND INSTRUCTION: *(including but not limited to)***:**

- Mini-lessons for each of the following: use a word processor, saving a document, creating folders, sharing documents, editing, web bookmarks/ favorites, Internet safety
- Internet safety web quest
- Use a coding platform, such as Scratch, to solve puzzles and write programs
- Participate in creative and innovative tasks in a Makerspace

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT II: Digital Citizenship

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
5 Weeks	Locating books using an online catalog Understanding the systematic organization of the library	**Mentor Text** *Piano and Laylee* series by Carmela Curatola Knowles Bully online story book Digital Citizenship *My Secret Bully* by Trudy Ludwig **Programs/ Online Resources** Scratch SNAP Welcome to the Web Internet Safety Common Sense Makerspace Playbook Brain Pop (Copyright, Cyber-bullying, Digital Etiquette, Media Literacy, Online Safety, Online Sources, Social Networking) MS Office 365/ Cloud Based System

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT III: Literature Appreciation

<table>
<tr><th>STANDARDS / GOALS:</th><th>ENDURING UNDERSTANDINGS</th><th>ESSENTIAL QUESTIONS</th></tr>
<tr><td rowspan="10">AASL 1.1.6 Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning.

AASL 2.1.6 Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.

AASL 3.1.3 Use writing and speaking skills to communicate new understandings effectively.

AASL 4.3.1 Participate in the social exchange of ideas, both electronically and in person.

AASL 4.3.2 Recognize that resources are created for a variety of purposes.

AASL 4.3.3 Seek opportunities for pursuing personal and aesthetic growth.

CCSS RI.3.1 Ask and answer</td><td>Readers inference to understand text.</td><td>• In what ways can inferencing help you to understand a story?</td></tr>
<tr><td>Readers use text features to deepen their understanding of the text.</td><td>• How can text features expand knowledge?</td></tr>
<tr><td>Readers use their prior knowledge to support understanding of the text.</td><td>• How do life experiences help readers understand a text?</td></tr>
<tr><td>Comprehension strategies contribute to a reader’s understanding of literature.</td><td>• Which strategies can be used to interpret different genres?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Central ideas assist the reader in comprehending the text.

Text features provide additional information.

Reader’s responses to literature are based upon connections to their own experiences.

Textual components in different genres support readers in gaining meaning.</td><td>Students will be able to:

Summarize a story using central ideas.

Identify a central theme using text evidence.

Apply text features during reading to facilitate understanding.

Explain text in terms of personal experience and prior knowledge.

Compare and contrast different genres.</td></tr>
</table>

questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. CCSS RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. CCSS RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. CCSS SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. CCSS SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests. **VOCABULARY:** schema, theme, text evidence, text features, fiction, nonfiction, genre, summarizing, table of contents, italics, captions, glossary, index, bold words **KEY TERMS:** literature, Makerspace	Makers utilize tools and resources while interacting in a Makerspace.

ASSESSMENT EVIDENCE: Students will show their learning by (including but not limited to):

- Synthesize understanding of literature through digital representation
- Demonstrate understanding of a character through kinesthetic demonstration

KEY LEARNING EVENTS AND INSTRUCTION (including but not limited to):

- Mini lessons: fiction/nonfiction, story elements, text features, author study, award winning books, choosing appropriate literature, reading strategies, genre, theme
- Present a book talk
- Participate in creative and innovative tasks in a Makerspace

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT III: Literature Appreciation

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Understanding fiction and nonfiction Identifying the importance of text features	**Mentor Text** *Joe Bright and the Seven Genre Dudes* by Jackie Mims Hopkins *What Do Authors Do?* by Eileen Christelow *Aunt Isabel Tells a Good One* by Kate Duke **Programs/ Online Resources** Safari Montage - Reading Fiction and Nonfiction Safari Montage – Case of the Missing Ending Safari Montage – Myths, Legends, Fables & Fairy Tales Brainpop – Literary Genres FollettShelf nonfiction ebooks Get Epic ebooks Makerspace Playbook

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT IV: Technology Applications

<table>
<tr><td rowspan="8">STANDARDS / GOALS:

AASL 2.1.4 Use technology and other information tools to analyze and organize information.

AASL 2.1.5 Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems.

AASL 2.1.6 Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.

CCSS SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

CCSS SL.3.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or</td><td>ENDURING UNDERSTANDINGS</td><td>ESSENTIAL QUESTIONS</td></tr>
<tr><td>Proficient users of technology demonstrate stamina and focus.</td><td>• How can people use digital devices most efficiently?</td></tr>
<tr><td>Knowledge of word processing/ desktop publishing operations are required for the 21st century learner.</td><td>• In a world of constant change, what skills should people learn?</td></tr>
<tr><td>Programmers can invent or improve engaging products.</td><td>• How can people use coding to innovate?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Choosing the best program and tools for the desired outcome is an essential skill.

Writing is a form of self- expression.

Programmers create video games by writing algorithms (code).</td><td>Students will be able to:

Select and use digital tools and resources to solve various problems and explore issues.

Apply desktop publishing strategies.

Format a document to modify and include graphics.

Distinguish between formal and informal language when writing.

Produce an original composition.

Use a simple programming language to create a game.</td></tr>
</table>

enhance certain facts or details. CCSS SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. NJCCCS 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. Select and use applications effectively and productively. NJCCCS 8.1.2.A.2 Create a document using a word processing application. NJCCCS 8.1.2.A.3 Compare the common uses of at least two different digital applications and identify the advantages and disadvantages of using each.	Problem solving is critical to coding success. Programmers share common language. Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests. **VOCABULARY:** Highlight, select, format, save, insert, tab, margin, indent, document, character, text, command, debug, loop, algorithm, design, program, programmer, designer, code, application, font, alignment, print, print preview, efficiency, spellcheck. **KEY TERMS:** Right click, block oriented programming, graphic organizers, interactive program, visually pleasing, readability, iterations, Makerspace.	Inspect an algorithm to correct errors. Use programming terminology in discussions. Makers utilize tools and resources while interacting in a Makerspace.

ASSESSMENT EVIDENCE: *(including but not limited to)*

Students will show their learning by:

- Create the code for a game using desktop publishing

KEY LEARNING EVENTS AND INSTRUCTION: *(including but not limited to)***:**

- Mini lessons for each of the following; design, desktop publishing, coding strategies (loops)
- Compare and contrast formal and informal writing using a graphic organizer
- Debate whether using texting language (emoticons, abbreviations, etc.) should be acceptable in today's school setting
- Create an original composition using MS Office 365/ Cloud based system

RANDOLPH TOWNSHIP SCHOOL DISTRICT

Library/ Media

UNIT IV: Technology Applications

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Understanding resources and tools in publishing Print or digital writing is a form of expression	**Mentor Text** *Coding Games in Scratch* by John Woodcock *Arthur's Computer Disaster* by Marc Brown *Desperate Dog Writes Again* by Eileen Christelow **Programs/ Online Resources** Glogster Wordle Blocky, Scratch Jr. Scratch Khan Academy Brain Pop Jr - Blogs Makerspace Playbook DK Find Out What is Scratch Scratch Window Scratch Sprites Programming Languages

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT V: Information Literacy

<table>
<tr><th>STANDARDS / GOALS:</th><th>ENDURING UNDERSTANDINGS</th><th>ESSENTIAL QUESTIONS</th></tr>
<tr><td rowspan="8">AASL 1.1.1 Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life.

AASL 1.1.3 Develop and refine a range of questions to frame the search for new understanding.

AASL 1.1.4 Find, evaluate, and select appropriate sources to answer questions.

AASL 1.1.5 Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.

AASL 2.1.1 Continue an inquiry-based research process by applying critical-thinking skills (analysis, synthesis, evaluation, organization) to information and knowledge in order to construct new</td><td>Inquiry guides research.</td><td>• What do readers need to start researching?</td></tr>
<tr><td>A variety of skills and strategies facilitate research.</td><td>• What skills and strategies are needed to gather information effectively, solve problems and conduct research?</td></tr>
<tr><td>Information must be evaluated and processed to determine accuracy, relevance and validity.</td><td>• How do readers evaluate information?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Research is driven by an understanding of what you want to learn.

Effective research requires the use of varied resources to gain or expand knowledge.

Some information will be useful, whereas other information will not be relevant or helpful.

In nonfiction texts, information is organized in</td><td>Students will be able to:

Develop and answer a question.

Recognize that a variety of sources offer different information.

Identify and extract relevant information in print and electronic resources.

Interpret information critically through reading, listening to and viewing primary sources.

Collect information from unique features of various</td></tr>
</table>

understandings, draw conclusions, and create new knowledge. AASL 3.1.6 Use information and technology ethically and responsibly. CCSS RI. 3.1 Ask and answer such questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. CCSS RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. CCSS RI.3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area.* CCSS RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. CCSS SL.3.1 Participate in collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts,*	various ways. Resources can be distinguished by need and validity. Acknowledging an author's contribution is an important aspect of the responsible use of information. Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests. **VOCABULARY:** Inquiry, research, relevance, evaluate, accuracy, validity, resources, key words, extract **KEY TERMS:** Work cited, bibliography, Makerspace	sources (captions, sidebars, illustrations). Evaluate the relevance of a resource based on research topic. Understand that sources need to be cited. Makers utilize tools and resources while interacting in a Makerspace.

building on others' ideas and expressing their own clearly. CCSS SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		

ASSESSMENT EVIDENCE: Students will show their learning by *(Including but not limited to):*

- Create a "How to" explaining the research process.
- Identify the elements of a citation

KEY LEARNING EVENTS AND INSTRUCTION *(Including but not limited to):*

- Mini lessons: Inquiry, Research, Evaluating Accuracy and Validity, Citing Sources, Key Words
- Navigating the library to locate resources
- Participate in creative and innovative tasks in a Makerspace

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT V: Information Literacy

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Evaluate information for research Understand information related to research	**Mentor Text** *Pirates of Plagiarism* by Kathleen Fox and Lisa Downey *When Marion Copied* by Brook Berg **Programs/ Online Resources** Smart Exchange – Beginning Research Safari Montage – Baffling Bibliography Researching for Information - PowerPoint How to Cite Sources – Learning Engineer website Building Research Skills – Gr.2/3 Scholastic website

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT VI: Programming

<table>
<tr><td rowspan="8">STANDARDS / GOALS:

AASL 4.2.1 Display curiosity by pursuing interests through multiple resources.

AASL 4.2.2 Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.

CCSS R.I.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures, using language that pertains to time, sequence and cause/effect.

CCSS.SL.3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

CCSS.L.3.6 Acquire and use accurately grade-appropriate conversational, general academic</td><td>ENDURING UNDERSTANDINGS</td><td>ESSENTIAL QUESTIONS</td></tr>
<tr><td>Programmers write algorithms (detailed step-by-step instruction) that tell the computer how to perform a task.</td><td>• How are algorithms used in programming?</td></tr>
<tr><td>Programs can quickly and accurately perform calculations or display results.</td><td>• How can coding be used to complete a task or solve a problem?</td></tr>
<tr><td>Programming is a form of literacy in the digital age.</td><td>• How is computer programming useful in real life?</td></tr>
<tr><td>KNOWLEDGE</td><td>SKILLS</td></tr>
<tr><td>Students will know:

Algorithms are detailed step-by-step directions used to solve a problem.

Before planning, programmers decide on the objective. Beginning with the end in mind is an important part of coding.

Before writing code, it is important to fully understand the problem.

Program output is decided by the programmer, who understands cause and effect.</td><td>Students will be able to:

Describe algorithms and explain how they impact an outcome.

Articulate the end goal by re-reading and verbalizing the problem.

Sketch a graphic organizer to show the different directions a program can take to solve a problem.

Illustrate the concept of cause and effect by using “if-then” statements.</td></tr>
</table>

and domain-specific words and phrases. NJCCCS 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual Environments. NJCCCS 8.1.5.A.3 Use a graphic organizer to organize information about problem or issue. NJCCCS 8.1.2.F.1 Use geographic mapping tools to plan and solve problems.	Cause refers to the why, and effect refers to the what. Critical decision making is a life skill. Coding allows learners to grasp programming concepts and computational thinking skills and understand the logic and science behind digital devices. Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests. **VOCABULARY:** algorithms, as a result, consequently, because of, consequent, feedback, result, instruction, direction, therefore, since, symbols **KEY TERMS:** cause and effect, flowchart, Makerspace	Express the relationship between cause and effect by creating visual examples. Evaluate and compare algorithms to select the most efficient path. Design and create an algorithm by writing code using Scratch or another coding platform. Makers utilize tools and resources while interacting in a Makerspace.

ASSESSMENT EVIDENCE: Students will show their learning by:

- Compose an algorithm using cause and effect for an everyday activity, such as steps for a morning routine
- Create a comic strip or other creative representation depicting a cause and effect relationship
- Use Scratch or similar platform to write a program demonstrating cause and effect

KEY LEARNING EVENTS AND INSTRUCTION:

- Follow a teacher-provided flowchart to explore different paths
- Build a flowchart by composing questions on objects (magnetic strips, Lego pieces or puzzle pieces) that lead to outcomes
- Use coding website (Code Monkey) to develop coding skills
- Create a flowchart using creatly.com
- Use sentence strips to connect “if” statements to “then” statements
- Participate in creative and innovative tasks in a Makerspace

RANDOLPH TOWNSHIP SCHOOL DISTRICT
Library/ Media
UNIT VI: Programming

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Using algorithms to solve problems Understanding basic coding principles	**Mentor Text** *Hello Ruby : Adventures In Coding by* Linda Liukas *If you Give a Mouse a Cookie* by Laura Numeroff *Lily's Purple Plastic Purse* by Kevin Henkes *The Day Jimmy's Boa Ate the Wash* by Steven Kellog *Strega Nona* by Tomie DePaola *Me on the Map* by Joan Sweeney Follow directions brain break video **Programs/ Online Resources** Code.org Codemonkey.org Scratch Creatly flowchart maker Cause and effect creation checklist

Appendix A

Library/ Media Crosswalk

Grades K-1

	September October	November December January	February March April May June
Media	Digital Citizenship (5 weeks)	Technology Applications (6 weeks)	Programming (8 weeks)
Makerspace (Sept.-June)			
Library	Library Citizenship (5 weeks)	Literature Appreciation (6 weeks)	Information Literacy (6 weeks)

Grades 2-3

	September October	November December January	February March April May June
Media	Digital Citizenship (5 weeks)	Technology Applications (6 weeks)	Programming (8 weeks)
Makerspace (Sept.-June)			
Library	Library Citizenship (5 weeks)	Literature Appreciation (6 weeks)	Information Literacy (6 weeks)

Grades 4-5

	September October	November December January	February March April May June
Media	Digital Citizenship (5 weeks)	Technology Applications (6 weeks)	Programming (8 weeks)
Makerspace (Sept.-June)			
Library	Library Citizenship (5 weeks)	Literature Appreciation (6 weeks)	Information Literacy (6 weeks)