Randolph Township Schools Randolph Elementary Schools

Grade 4-5 Library/ Media Curriculum

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

Elementary Education

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EDUCATION EXHIBIT 6 – 8/16/16

Randolph Township Schools Department of Elementary Library/ Media Grades 4-5 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 4-5 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 4-5 curriculum fosters the development of a greater appreciation for the diversity of literature and individual differences. Additionally, students are encouraged to explore the impact of technology on all aspects of society. Throughout the curriculum, students will communicate through programming, digital presentations, and applications to convey thoughts and ideas in a global society.

Curriculum Pacing Chart Grade 4-5 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

Library/ Media UNIT I: Library Citizenship

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
AASL 1.1.1 Follow an inquiry- based process in seeking knowledge in curricular subjects, and make the real-world connection for using this	Knowledge is gained by seeking information from diverse sources, contexts, disciplines and cultures.	How can we show respect for age, gender, position, or culture of a wide variety of literature and library materials?
process in own life. AASL 1.1.2- Use prior and	The Library/ Media Center is a place to inquire and access a variety of resources while creating new knowledge.	What print and digital resources are available in the Library/ Media Center?
background knowledge as context for new learning.	KNOWLEDGE	SKILLS
AASL 1.1.8 Demonstrate mastery of technology tools for accessing	Students will know:	Students will be able to:
information and pursuing inquiry.	Resources are written for a variety of purposes and audiences.	Understand that readers read for various reasons.
AASL 1.1.9 Collaborate with others to broaden and deepen understanding.		Develop an appreciation for the individual differences of each reader's selections.
AASL 1.4.1 Monitor own information-seeking processes for	Inquiry provides opportunities for readers to identify appropriate resources.	Recognize applicable resources for seeking information.
effectiveness and progress, and adapt as necessary.		Choose a relevant resource based on the topic of inquiry.
CCSS SL.5.1 Engage effectively in a range of collaborative discussions		Locate and access icons and resources.
(one-on-one, in groups, and teacher-led) with diverse partners on <i>grade</i> 5 topics and texts, building on	Readers establish routines in the Library/ Media Center.	Interact in a Makerspace through collaboration, creativity, and acceptance of individual thoughts and ideas.

others' ideas and expressing their own clearly.

CCSS SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

CCSS SL.5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

NJCCCS 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems. **VOCABULARY:** gender, culture, diversity, disability, inquiry, resources

KEY TERMS: context, discipline, online subscription, Makerspace

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

- Create a desktop screen to highlight the online resources available
- Design a poster or multimedia presentation that demonstrates a book choice based on diversity

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

- Mini lessons for each of the following: readers read for various reasons, diversity in literature and student choice, identifying appropriate resources, locate and retrieve resources
- Independently access online resources to support lesson tasks
- Participate in creative and innovative tasks in a Makerspace

Library/ Media UNIT I: Library Citizenship

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
5 Weeks	Appreciation of literature diversity Understanding online resources support learning	Mentor Text The Dewey Deception by Ralph Raab Book Fair Day by Lynn Plourde The Junkyard Wonders by Patricia Polacco. The London Eye Mystery by Siobhan Dowd Rain Reign by Ann M. Martin Rules by Cynthia Lord El Deafo by Cece Bell My Librarian is a Camel by Margriet Ruurs Biblioburro by Jeanette Winter Programs/ Online Resources Wordle ABCya Word Clouds Makerspace Playbook

Library/ Media UNIT II: Digital Citizenship

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
AASL 1.2.7 Display persistence by continuing to pursue information to gain a broad perspective.	Technology allows people to think critically, make informed decisions and actively participate in society.	How can technology influence the way people think?
AASL 2.1.6 Use the writing process, media and visual literacy, and technology skills to create	Technology enables people to make advancements in medicine, science and the arts.	How do technological advancements affect the way people live?
products that express new understandings.	Digital citizens recognize their responsibilities in global interactions.	What are the characteristics of a digital citizen?
AASL 2.3.1 Connect understanding to the real world.	KNOWLEDGE	SKILLS
AASL 3.1.6 Use information and technology ethically and	Students will know:	Students will be able to:
responsibly. AASL 3.3.7 Respect the principles	The media presents information to persuade, inform and entertain the public.	Identify how the media influences public attitudes by analyzing content for author's purpose.
of intellectual freedom. CCSS SL.5.5 Include multimedia components (e.g., graphics, sound)	New technology is designed to improve everyday life of people and continues to create career opportunities internationally.	Explore examples of cutting-edge technology and describe how these inventions impact future applications.
and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	Digital citizens understand an individual's rights of ownership.	Use a coding application to simplify a task. Define plagiarism and recognize the consequences of copying published work.
NJCCCS 8.1.5.D.1 Understand the need for and use of copyrights.		Practice correct citation to avoid copyright infringement.

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NJCCCS 8.1.5.D.2 Analyze the
resource citations in online
materials for proper use.

NJCCCS 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.

NJCCCS 8.1.5.D.4 Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.

Responsible Internet users are aware of a digital footprint's impact.

Readers establish routines in the Library/ Media Center.

VOCABULARY: plagiarism, credit, paraphrase, works cited, resource list, bibliography, piracy, originality, coding.

KEY TERMS: Creative Commons, 3-D printing, work cited, copyright infringement, author's purpose, intellectual property, laser printing, copy and paste, social impact, Makerspace.

Explain the concept of intellectual property by demonstrating appropriate responsible, legal and ethical use of information resources.

Choose educational internet websites.

Demonstrate good character by resisting cyberbullying.

Understand 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)

• Collaboratively create a video to demonstrate media bias and slant on a shared topic. Use print and digital sources to support perspective, then accurately create a works cited document to list sources

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

- Mini lessons for each of the following: author's purpose, effects of media bias on the public, 3-D printing and its potential, career opportunities in coding, citing sources, Creative Commons, plagiarism, web design, Internet safety
- Utilize coding to demonstrate how technology can be applied in the workplace
- Participate in creative and innovative tasks in a Makerspace

Library/ Media UNIT II: Digital Citizenship

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
5 Weeks	Internet safety and digital footprint Impact of coding on society	Mentor Text Bully by Patrica Polacco Your digital footprint Digital safety Programs/ Online Resources Code.org Tynker Scratch SNAP Credible Sources Tutorial Socrative Plagiarism Kahoot Plagiarism Game Easybib Weebly Animoto What is 3-d Printing 3-D printing video Project Ignite Brain Pop (Copyright, Cyber-bullying, Digital Etiquette, Media Literacy, Online Safety, Online Sources, Social Networking) Makerspace Playbook

Library/ Media UNIT III: Literature Appreciation

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
AASL 1.1.6- Read, view, and listen for information presented in any format (e.g., textual,	Readers must differentiate between fiction and factual events while reading a text.	Why should readers distinguish between fact and fiction?
visual, media, digital) in order to make inferences and gather meaning.	Identify how various literary elements influence/inform the reader's experience of literature.	How do literary elements aid in comprehension?
AASL 2.1.6 Use the writing process, media and visual	KNOWLEDGE	SKILLS
literacy, and technology skills to create products that express	Students will know:	Students will be able to:
new understandings.	Factual events can be included in a work of fiction to enhance understanding and enjoyment.	Utilize factual events to understand a work of fiction.
AASL 3.1.3 Use writing and speaking skills to communicate new understandings effectively.	Readers need to consider how interpretation of facts expands their understanding.	Identify strategies to find information to support their understanding.
AASL 4.1.3 Respond to	When interpreting texts, literary elements are helpful.	Recognize and examine literary elements.
literature and creative expressions of ideas in various formats and genres.		Apply knowledge of literary elements to deepen understanding of a text.
AASL 4.2.4 Show an appreciation for literature by electing to read for pleasure and expressing an interest in various literary genres.	Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests.	Makers utilize tools and resources while interacting in a Makerspace.

CCSS RL.5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

CCSS RL.5.6 Describe how a narrator's or speaker's point of view influences how events are described.

CCSS SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

VOCABULARY:

Fact, fiction, literary elements, character, setting, tone, plot, subplot, foreshadow, imagery, genre, symbolism, perspective, setting, point of view, external and internal conflict.

KEY TERMS: Makerspace

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

- Utilizing a text identify how facts contribute to the story and present their findings
- Modify a literary element of a text and present the change in the medium of choice

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

- Mini lessons: literary elements, genres, fact/fiction
- Distinguish between fiction and historical fiction using search strategies on Destiny
- Participate in creative and innovative tasks in a Makerspace

Library/ Media UNIT III: Literature Appreciation

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Distinguish between fact and fiction Demonstrate understanding of genres	Mentor Text Number the Stars by Lois Lowry Terrible Things by Eve Bunting Pink and Say by Patricia Pollaco Programs/ Online Resources Five Elements of a Story - YouTube video Smart Exchange - Literary Elements Part 1 Safari Montage - "Saving Zasha" Safari Montage - "I Survived the Shark Attacks of 1916" Destiny.rtnj.org Makerspace Playbook

Library/ Media UNIT IV: Technology Applications

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
AASL 4.4.6 Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.	Computers need data, humans need information. Data is quantitative, whereas information generated from data can be evaluated.	How does data differ from information?
CCSS SL.5.1 Engage effectively in a range of collaborative discussions	Learners require valid and timely information, which is generated and represented from data in the form of charts and graphs.	How can data be managed and shared?
(one-on-one, in groups, and teacher-led) with diverse partners on <i>grade</i> 5 topics and texts, building on others' ideas and expressing their	Applications vary in their ability to perform complex tasks.	How can applications be used to store, organize and present data?
own clearly.	KNOWLEDGE	SKILLS
CCSS SL.5.4 Report on a topic or text or present an opinion,	Students will know:	Students will be able to:
sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main	Data is accurate, organized, measurable, valid, relevant and complete.	Describe characteristics of data.
ideas or themes; speak clearly at an understandable pace.	Knowledge evolves from information. Information is derived from data.	Compare and contrast data, information and knowledge by using a graphic organizer.
CCSS SL.5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations	Databases help learners gather information.	Use online databases to research a real world problem.
when appropriate to enhance the development of main ideas or themes.	Data can be organized for evaluation and results can be graphically displayed.	Chart data using a spreadsheet.

CCSS SL.5.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

NJCCCS 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.

NJCCCS 8.1.5.A.3 Use a graphic organizer to organize information about problem or issue.

NJCCCS 8.1.5.A.4 Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.

NJCCCS 8.1.5.A.5 Create and use a database to answer basic questions.

NJCCCS 8.1.5.A.6 Export data from a database into a spreadsheet; analyze and produce a report that explains the analysis of the data.

Applications have various functions to help learners manage data.

Data can be used to present possible solutions to real world issues.

Data needs to be qualitative to be valuable.

Databases can be created to generate new content.

Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and interests.

VOCABULARY:

Data, output, database, information, knowledge, average, sum, sort, filter, format, cell, column, row, tab, table, query, import, heading, formula, fill, pie chart, bar chart, shading.

KEY TERMS:

Problem solving, real world problems, data results, MS Excel, toolbar, Makerspace

Demonstrate features of MS Excel spreadsheet (fill, average, sum, sort, filter, format).

Analyze data findings and present concluding statements.

Rate validity of data by using specific criteria.

Evaluate a database with tables, queries and reports.

Makers utilize tools and resources while interacting in a Makerspace.

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

- Improve the design of a spreadsheet by using a software program
- Use online databases to collect information on a real world issue and participate in a debate

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

- Identify digital databases (online dictionaries and encyclopedias, National Geographic)
- Use MS Excel to design spreadsheets and graphs
- Combine data to create new findings
- Participate in creative and innovative tasks in a Makerspace

Library/ Media

UNIT IV: Technology Applications

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
6 weeks	Understanding real world applications of technology Presenting ideas through the use of technology applications	Mentor Text It's a Book by Lane Smith Programs/ Online Resources Online Dictionary Fact Monster Internet Public Library National Geographic Kiddle DK Findout MS Excel tutorial From Education World Excel Lesson plans MS Access tutorials MS Access tutorials MS Access help – from Lynda Makerspace Playbook

Library/ Media UNIT V: Information Literacy

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
AASL 4.4.6 Evaluate own ability to select resources that are engaging and appropriate for personal interests and	Effective researchers determine a purpose when asking a question.	What is the purpose of a question?
needs. CCSS RI.5.1 Quote accurately from a	The research process requires using a variety of resources to ensure validity.	How do researchers know information is reliable and accurate?
text when explaining what the text says explicitly and when drawing inferences from the text.	Critical readers judge, compare and analyze information from multiple sources.	How does the writer's perspective affect how the reader evaluates information?
CCSS RI.5.2 Determine two or more main ideas of a text and explain how	Technology is a tool that can be used for collecting, organizing, and sharing information.	How does technology impact research and communication?
they are supported by key details; summarize the text.	KNOWLEDGE	SKILLS
CCSS RI.5.7 Draw on information from multiple print or digital sources,	Students will know:	Students will be able to:
demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.	Information literacy refers to a set of skills that enable people to recognize when information is needed, then locate, evaluate and effectively use that information.	Define and explain information literacy.
demonstrating the ability to locate an answer to a question quickly or to	enable people to recognize when information is needed, then locate, evaluate and effectively use that	Define and explain information literacy. Identify and describe a need for information.
demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. NJCCCS 8.1.5.A.1 Select and use the appropriate digital tools and resources	enable people to recognize when information is needed, then locate, evaluate and effectively use that information. The first step in the information literacy process is	

	1.44	
NICCCC 0.1.5 D.4 Understand disital	letters, surveys, maps, photos, articles and more.	print and digital resources to successfully fulfill informational need.
NJCCCS 8.1.5.D.4 Understand digital citizenship and demonstrate an		informational need.
understanding of the personal	Students who are information literate access	Practice using specific keywords in a search.
consequences of inappropriate use of	information efficiently and effectively.	Fractice using specific keywords in a search.
technology.	information efficiently and effectively.	
technology.	Critical thinkers discriminate between fact and	Evaluate the reliability of print and digital resources.
NJCCCS 8.1.8.D.2 Demonstrate the	opinion.	Evaluate the remainity of print and digital resources.
application of appropriate citations to	ориноп.	Compare information within multiple print and
digital content.		digital sources.
digital content.		digital sources.
NJCCCS 8.1.8.D.4 Assess the	Students who are information literate evaluate	Evaluate information for trustworthiness by
credibility and accuracy of digital	information critically and thoughtfully.	reflecting on author's perspective and potential bias.
content.	mionimion on one many und unoughway.	position of the second
	An author's favorable or unfavorable bias can	Apply evaluative criteria to determine the relevance
NJCCCS 8.1.5.E.1 Use digital tools to	influence presentation of information.	of the information.
research and evaluate the accuracy of,	•	
relevance to, and appropriateness of	Useful resources should be selected and irrelevant	Synthesize strategies to record results of information
using print and non-print electronic	information can be dismissed.	searching by paraphrasing and note-taking.
information sources to complete a		
variety of tasks.	Responsible scholars give credit to other researchers	Compose a citation document.
	by acknowledging their ideas.	
NJCCSC 8.1.8.E.1 Effectively use a		
variety of search tools and filters in	New information can be presented through	Create a presentation of new information using
professional public databases to find	illustration, a written composition, a 3D model, a	multimedia techniques.
information to solve a real world	video or other formats.	
problem.		Communicate new information to peers and adults.
	Makanana and locations for students to areate	Makers utilize tools and resources while interacting
	Makerspaces are locations for students to create, tinker, make, and explore their own thoughts and	in a Makerspace.
	interests.	ili a Makerspace.
	interests.	
	VOCABULARY: compile, evaluate, research,	
	organize, information, cite, plagiarism, database,	
	query, URL, keywords, perspective	
	query, orth, ney north, perspective	

	KEY TERMS: online sources, Works Cited, Evaluation of Information, subject terms, resource-based learning, Makerspace	
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ASSESSMENT EVIDENCE: Students will show their learning by:

- Creating a presentation of new findings using video, Prezi, PowerPoint, or other media
- Determine a research topic of interest, locate resources, evaluate usefulness of resources, and compose a citation document

KEY LEARNING EVENTS AND INSTRUCTION:

- Record "What I need to know" statements to outline informational needs
- Form open-ended, relevant questions on a topic
- Identify keywords and search terms
- Independently locate multiple resources in the Library/ Media Center
- Assess resources for quality and relevance to topic
- Independently evaluate resources for bias, discrepancies, and reliability
- Record information using note taking strategies
- Organize information from several print and digital resources and cite sources used
- Communicate new information effectively to an audience
- Actively reflect on and individually improve end product(s)
- Participate in creative and innovative tasks in a Makerspace

Library/ Media

UNIT V: Information Literacy

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
8 Weeks	Evaluate informational resources Locate relevant sources Develop multimedia presentations	Mentor Text But I Read It on the Internet! by Toni Buzzeo The Pirates of Plagiarism by Lisa Downey Programs/ Online Resources BrainPOP video "Citing Sources" Citing Sources for Kids BrainPOP video "Critical Reasoning" BrainPOP video "Note-taking Skills" BrainPOP video "Paraphrasing" BrainPOP video "Plagarism" Citing Sources from ReadWriteThink.org Teaching Information Literacy Skills Prezi True Flix Freedom Flix National Geographic

Library/ Media UNIT VI: Programming

STANDARDS / GOALS:	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS
CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.	As in all writing, there are conventions to writing code.	Why is structure important in writing?
CT.L2-01. Use the basic steps in	Code should be written for efficiency and readability.	How does editing improve writing?
algorithmic problem solving to design solutions.	Solving problems requires perseverance and communication skills.	Why is developing a strong work ethic essential to success?
CT.L2-06. Describe and analyze a sequence of instructions being followed.	KNOWLEDGE	SKILLS
ionowed.	Students will know:	Students will be able to:
CT.L2-08. Use visual representations of problem states, structures, and data.	Syntax refers to the spelling and grammar of a programming language.	List commonly used syntax (ex: commas, proper sentence structure) and understand its relationship to programming language.
CT.L2-12. Use abstraction to decompose a problem into subproblems.	Computers only understand instructions if the programmer uses the correct syntax.	Identify and edit incorrect syntax in a program.
CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.	Programmers use looping to execute multiple instructions up to a desired number of times.	Demonstrate looping techniques in a coding program.
CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.	Programmers make decisions using "if-then-else" statements to improve a programs' efficiency.	Apply higher level coding skills by using loops/iterations and "if-then-else" statements to improve the program's efficiency.
CT.L3A-03. Explain how sequence,	Programmers locate errors and revise code continually.	Find errors in written examples of code and revise.

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selection, iteration, and recursion are building blocks of algorithms	Makerspaces provide opportunities to explore coding.	Makers utilize tools and resource to code in a Makerspace.
	VOCABULARY: iteration, blocks, execute, loop, initialize, looping, repetition, debug, syntax, efficient, elegant, comments, decision, readability, persistence, programming, coding, navigate, language, revise, rewrite, software, hardware, revision	
	KEY TERMS: If-then-else statements, conditional statements, problem solving, Makerspace	

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

• Design an interactive program for others to navigate (Scratch, Tynker, or Code.org) including iterations and conditional statements

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

- Write clear objectives for a program's completion
- Plan the program by defining the problem
- Begin with the end in mind by planning the solution
- Code the program (Scratch, Tynker or Code.org)
- Test the program, evaluate results, and revise as needed
- Revise a peer's program by rewriting code
- Participate in creative and innovative coding tasks in a Makerspace

Library/ Media UNIT VI: Programming

SUGGESTED TIME ALLOTMENT	CONTENT-UNIT OF STUDY	SUPPLEMENTAL UNIT RESOURCES
8 weeks	Understand basic coding principles Analyze coding programs Create code for unique programs	Mentor Text Nick and Tesla series by Bob Pflugfelder Coding games in Scratch by John Woodcock Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math by Majed Marji DK Workbooks: Coding in Scratch: Games Workbook by John Woodcock Programs/ Online Resources Code.org (Flappy birds) Khan Academy Debugging activity Scratch CodeMonkey Hopscotch iPad app Brain Pop "computer programming"

Appendix A

Library/ Media Crosswalk

Grades K-1

	September October	November December January	February	March	April	May	June
Media	Digital Citizenship	Technology Applications			Progran	nming	
	(5 weeks)	(6 weeks)	(8 weeks)				
		Makerspace (Sept.	-June)				
Library	Library Citizenship	Literature Appreciation			Info	rmation L	iteracy
	(5 weeks)	(6 weeks)				(6 weeks	s)

Grades 2-3

	September October	November December January	February	March	April	May	June	
Media	Digital Citizenship	Technology Applications		Introd	uction to	Programn	ning	
TVICUIU	(5 weeks)	(6 weeks)	Introduction to Programming (8 weeks)					
		Makerspace (Sept.	-June)					
Library	Library Citizenship	Literature Appreciation			Info	rmation L	iteracy	
	(5 weeks)	(6 weeks)				(6 weeks)	

Grades 4-5

September October	November December January	February	March	April	May	June
		1				
Digital Citizenship	Technology Applications			Progran	nming	
(5 weeks)	(6 weeks)	(8 weeks)				
	Makerspace (Sept.	-June)				
Library Citizenship	Literature Appreciation			Info	rmation L	iteracy
(5 weeks)	(6 weeks)				(6 weeks	TION EXHIBIT 6 8/10
	Digital Citizenship (5 weeks) Library Citizenship	Digital Citizenship Technology Applications (5 weeks) (6 weeks) Makerspace (Sept. Library Citizenship Literature Appreciation	Digital Citizenship Technology Applications (5 weeks) (6 weeks) Makerspace (SeptJune) Library Citizenship Literature Appreciation	Digital Citizenship Technology Applications (5 weeks) (6 weeks) Makerspace (SeptJune) Library Citizenship Literature Appreciation	Digital Citizenship Technology Applications Program (5 weeks) (6 weeks) (8 weeks) Makerspace (SeptJune) Library Citizenship Literature Appreciation Info	Digital Citizenship Technology Applications Programming (5 weeks) (8 weeks) Makerspace (SeptJune) Library Citizenship Literature Appreciation Information L