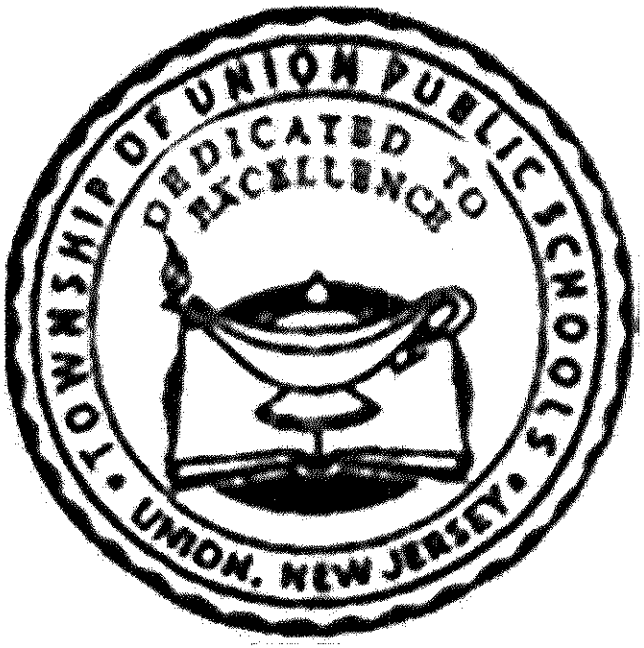
TOWNSHIP OF UNION PUBLIC SCHOOLS



Gifted and Talented (Grades K - 2)

Curriculum Guide

Mission Statement

The mission of the Township of Union Public Schools is to build on the foundations of honesty, excellence, integrity, strong family, and community partnerships. We promote a supportive learning environment where every student is challenged, inspired, empowered, and respected as diverse learners. Through cultivation of students' intellectual curiosity, skills and knowledge, our students can achieve academically and socially, and contribute as responsible and productive citizens of our global community.

Philosophy Statement

The Township of Union Public School District, as a societal agency, reflects democratic ideals and concepts through its educational practices. It is the belief of the Board of Education that a primary function of the Township of Union Public School System is to formulate a learning climate conducive to the needs of all students in general, providing therein for individual differences. The school operates as a partner with the home and community.

District Goals/Department

- Develop reading, writing, speaking, listening, and mathematical skills.
- Develop a pride in work and a feeling of self-worth, self-reliance, and self discipline.
- Acquire and use the skills and habits involved in 4Cs. (write this out)
- Develop a code of behavior based on moral and ethical principles.

- Work with others cooperatively.
- Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.
- Acquire a knowledge and understanding of Science, Technology, Engineering and Mathematics.
- Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.
- Appreciate and understand literature, art, music, and other cultural activities.
- Develop an understanding of the historical and cultural heritage.
- Develop a concern for the proper use and/or preservation of natural resources.

Course Description

The purpose for the district gifted and talented program is to provide appropriate educational services for students who have been identified as having or possessing exceptional academic abilities. Through a student-centered curriculum, both in depth and scope, the students will be challenged to maximize their full potential.

The Gifted and Talented programs for the gifted students surpasses appropriate grade level and place an emphasis on analysis, synthesis and evaluation. The gifted and talented creates opportunities for students to venture "outside of the box", to see beyond that which is apparent to the average learner, be innovative and creative in their thinking. The G&T program hone students' exceptional skills and encourage students to reach higher levels of productivity. The emphasis in grades kindergarten through eight will be placed on developing communications, collaboration, creativity, and critical thinking skills.

"In essence, gifted students have a right to educational experiences that meet their needs. In providing for those needs, we address the whole child with a total curriculum that integrates realms of learning within and across planned experiences, that provides for a progressive development of knowledge and skills and that enhances an appreciation of humanity." (Van-Tassel-Baska, J. (1988), Comprehensive Curriculum for Gifted Learners. Needham Heights, MA: Allyn and Bacon)

NJSLS.ELA-Literacy.SL.K.1
Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.

NJSLS.ELA-LITERACY.SL.K.1.A
Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).

NJSLS.ELA-LITERACY.SL.K.1.B
Continue a conversation through multiple exchanges.

NJSLS.ELA-LITERACY.SL.K.5
Add drawings or other visual displays to descriptions as desired to provide additional detail.

NJSLS.ELA-LITERACY.SL.K.6
Speak audibly and express thoughts, feelings, and ideas clearly.

NJSLS: Math-Mathematical Practices: (change to the

1. Model with mathematics.
2. Use appropriate tools strategically.
3. Attend to precision.
4. Look for and make use of structure.

5. Look for and express regularity in repeated reasoning.

NAGC Standard 1: Learning and Development- Educators, recognizing the learning and developmental differences of students with gifts and talents, promote ongoing self-understanding, awareness of their needs, and cognitive and affective growth of these students in school, home, and community settings to ensure specific student outcomes.

Gifted and Talented Academic Curriculum Units

Curriculum Units	Business	Science	Social Studies	Logic	Writing	Discussion, Observation, Formative and Summative Assessments
Kindergarten				2 x	2 x	2 x
Grade 1		x	x	x	2 x	x
Grade 2	x	2 x	x	x	x	x

Pacing Guide- Kindergarten

Content	**Number of Days**
Unit 1: Logic Thinking (X2)	Jan thru March
Unit 2: Creative, Analyzing Text; Writing (X2)	Feb thru May
Unit 3: Discussion and Observation	Jan thru June

Unit 1: Kindergarten Logic Thinking (X2)

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
Why do you think this works? Does it always? Why? Show how you might improve that? How might you show the differences and similarities between you and your classmates? What is an algorithm? What role does logic and algorithm play in coding? Can logic be applied to	Students will: Have an above grade level conversation with the gifted teacher using analytical vocabulary such as alternative, occurrences, resolved, etc. Discuss and expand upon what they like about school with their teacher. Solve basic logical puzzles such as word and number puzzles. Create a digital story of themselves using online	Students will: Discuss, analyze and formulate opinions upon what they like about their school and the community with their teacher. Solve basic logical puzzles and/or code using Hour of Code or paper and/or online logic puzzles. Create a digital story of themselves using online resources. Describe and compare measurable attributes in	Student discussion Completion and accuracy of puzzles **Formative Assessment** Rubric developed for the digital story Teacher observation **Summative Assessment** Project-based assessment using evaluative rubric.

everyday life?	resources.	their surrounding environment.	

Unit 2: Kindergarten Creative, Analyzing Text and Writing (X2)

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What the benefits of writing creatively? How does writing influence us? What is being communicated in the book, poem, art or article? How does reading/writing influence us?	Students will: Complete a performance-based assessment based upon their interpretation of a book (could be a picture book), poem, piece of art or article used in class. Have a discussion with the teacher using analytical vocabulary such as interpretation, compare and contract, opinion, appreciation, etc.	Students will: Be able to have an above grade level conversation with the gifted teacher. Be able to write, analyze and expand upon what they like about school with their teacher. Use above age and grade level vocabulary in their conversations.	Student discussion Completion and accuracy of puzzles **Formative Assessment** Rubric developed for digital story Teacher observation **Summative Assessment** Project-based assessment using evaluative rubric.

		Create a digital story and/or digital drawing based on their analysis of a book (could be a picture book), poem or article read in class. Describe and compare measurable attributes in two poems, books, videos, etc.	

Unit 3: Discussion and Observation (X2)

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
How is a gift's value determined? What constitutes the meaning of a gift? How can knowledge about gifts contribute to the demands of today's society?	Students will: Demonstrate gifted behaviors, both academically and socially. Display qualities that are above age and grade level.	Students will: Have an above grade level conversation with the gifted teacher. Discuss and expand upon what they like about school with their teacher. Use above age and grade level vocabulary in their conversations.	Teacher checklist Student discussion Teacher observation Performance-based assessment

Curriculum Units: Grade 1

Unit 1: Writing

Unit 2: Social Studies

Unit 3: STEM

Unit 4: Logic

Unit 5: Discussion and Observation

Pacing Guide - Grade 1

Content	Number of Days
Unit 1: Creative and Analytical Writing (X2)	Oct. – June
Unit 2: Social Studies: Culture and Society	Oct - Jan
Unit 3: STEAM (Science, Technology Engineering, Art and Mathematics)	Feb– June
Unit 4: Logical Thinking Skills	Oct - June
Unit 5: Discussion and Observation	On -Going

Unit 1: 1st Grade Writing

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What is an autobiography? What is individualization? How does the audience influence the format of your writing? What is the importance of sharing? How is your style of writing influenced by purpose? How do we evaluate writing? How can we use evaluation and reflection to improve our writing?	Students will: Identify and explore all of their talents other than their intellectual ability. Develop their individual talents and respect talents in others. Develop pro-social and conflict resolution skills to interact with their peers effectively. Increase their self-confidence and self-esteem, while developing a positive approach to life.	Students will: Weekly vocabulary Brainstorm and discuss their individuality. What makes me, me? Develop a digital story as an autobiography of themselves. Design a poem of "All About Me." Use puppets in various situations to increase their problem solving and conflict resolution techniques. Reflect in a self-journal using illustrations and narratives.	**Formative Assessments:** Group discussion/participation. Teacher observation. Peer assessment. Self-assessment. **Performance Assessments:** Presentation of autobiography. Rubric related to the projects completed by students.

What does it mean to be a "digital citizen"?		Share and discuss family traditions. Role play using puppetry retelling the story from one character's point of view. Understand what is means to be safe on the Internet.	

LANGUAGE ARTS LITERACY

NJSLS.ELALITERACY.SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.

NJSLS.ELALITERACY.SL.2.5 Use multimedia; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

NJSLS.ELALITERACY.SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 here for specific expectations.)

TECHNOLOGY

8.1 Technology Operations & Concepts: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.2 Technology Education, Engineering, and Design: All student will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they related to the individual, global society, and the environment.

Unit 2: 1st Grade Social Studies

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What makes up a community? Why do people live in certain communities? What is the importance of a community and how is it formulated? What role does culture play in community?	Students will: Construct a map of their communities. Examine characteristics and elements of their community. Explore the relationships of wants/needs and good/services of a community. Communicate with other communities. Present a fictitious community.	Students will: Illustrate features of a community. Brainstorm, plan, and create a fictitious community, including, but not limited to, goods/services, wants/needs, transportation. Construct a community map. Write a response to participating classes about their town using email and/or creating a slideshow. Contact a community representative such as Mayor,	Teacher checklist. Group discussion. Class participation Peer assessment. Self-assessment **Performance Assessment:** Present their interview of the community member to their classmates. **Formative Assessment** Teacher observation. Rubric developed for interview with a

		Town Council Members, Police Chief, Town Business Administrator, etc. and interview person regarding their community. Simulate a community using 2D imaging online services.	community member. A blog post will be used as a summative assessment for the interview assignment.

LANGUAGE ARTS LITERACY

WRITING

NJSLS.ELALITERACY.W.1.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

SPEAKING & LISTENING:

NJSLS.ELALITERACY.SL.1.4 Describe people, places, things, and events with relevant details expressing ideas and feelings clearly.

NJSLS.ELALITERACY.SL.1.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.

Unit 3: 1st Grade STEM

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What is STEM? What is STEM important today? What role does STEM place in your every life? In creating a playground, what elements of STEM would you use?	Students will: Compare and contrast the difference between 2D and 3D objects • Differentiate sides, faces, edges, and vertices • Create and illustrate different geometric designs with shapes • Organize and rearrange tangrams • Collect data, display a bar graph and analyze the information • Understand the job of an architect and engineer • Imagine and design a playground for children • Distinguish between shapes on their playgrounds	Students will: will classify different shapes, playing a game, to assess prior knowledge 1) Students will produce a list of different shapes they observe on a playground. 2) Students will present their playgrounds and letters to the class. 3) Students will assess their playgrounds with a rubric to see if they followed all of the directions. Students will problem solve for the owner of a	Teacher checklist. Group discussion. Class participation Peer assessment. Self-assessment **Performance Assessment:** Present their project of the playground to their classmates/principal. **Formative Assessment** Teacher observation.

	• Produce a map key for their playgrounds • Solve area and perimeter for their designs • Compile a persuasive letter • Present their playgrounds to the class	construction company. He would like to design a playground using geometric 2D and 3D shapes and patterns for his town, but he/she is unsure how to do it. The students will follow a checklist of criteria and create equipment within the perimeter given. Once they have designed their playgrounds, they will write a friendly letter to the owner of the construction company and persuade him why their playground design should be chosen for his town.	Persuasive Letter

MATHEMATICS

NJSLS.MATH.CONTENT.1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.

NJSLS.MATH.CONTENT.1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same size length units that span it with no gaps or overlaps.

NJSLS.MATH.CONTENT.1.G.A.1 Distinguish between defining attributes (e.g., triangles are closed and Three sided) versus non defining attributes (e.g., color, orientation, overall size); Build and draw shapes to possess defining attributes.

Next Generation Science Standards (NGSS): Grades K2

Engineering design in the earliest grades introduces students to "problems" as situations that people want to change. They can use tools and materials to solve simple problems, use different representations to convey solutions, and compare different solutions to a problem and determine which is best. Students in all grade levels are not expected to come up with original solutions, although original solutions are always welcome. Emphasis is on thinking through the needs or goals that need to be met, and which solutions best meet those needs and goals.

Engineering Design

35ETS11. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost

Unit 4: 1st Grade Logic

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
Can students synthesize information to deduce a logical conclusion? What is logic? What is an algorithm? What role does logic and algorithm play in coding? Can logic be applied to everyday life?	Students will be able to complete a basic level Sudoku puzzle. Students will understand techniques of cross hatching and elimination. Students will understand how to use matrixes to solved logical reasoning word problems. Students will be able to develop their algorithm in completing a task. Students will complete several levels on coding to make a character move and complete a task.	Students will complete various basic 4 x 4 and 6 x 6 Sudoku puzzles. Students will solve logical reasoning word problems. Students will solve other various logical reasoning puzzles. Students will create their own puzzles and share with classmates to complete. Using coding algorithms, students will choose to develop a sequence of instructions on: How to create a peanut butter and jelly sandwich,	Successful completion of logical reasoning puzzles. Group discussion. Class participation Peer assessment. Self guided assessment. Participation in Hour of Code where number of hours will be calculated via the website. **Formative Assessment:** Teacher observation. Completion of the Sudoko puzzles **Summative**

		How to write their assignment into an assignment book, Think about washing your hands: We know that you need to put soap on your hands, scrub, rinse, and dry them. What if we did it in a different order, like scrub, rinse, soap, dry? Would our hands be clean and dry at the end?"	**Assessments:** Students will create an assessment to evaluate their processes on using Logic in their assignments.

TECHNOLOGY:

8.1 Technology Operations & Concepts: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.2 Technology Education, Engineering, and Design: All student will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they related to the individual, global society, and the environment.

WRITING:
NJSLS.ELALITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
CCSS.ELALITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
NJSLS.ELALITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
Research to Build and Present Knowledge:
NJSLS.ELALITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Curriculum Units: Grade 2

Unit 1: Health

Unit 2: Business

Unit 3: Robotics

Unit 4: Science

Unit 5: Writing

Unit 6: Logic

Pacing Guide- Grade 2

Content	Number of Days
Unit 1: Health	Sept. – Nov.
Unit 2: Business	Nov. – Feb.
Unit 3: Robotics	Feb. - April
Unit 4: Science	April – June
Unit 5: Logic	On Going

Unit 1: 2nd Grade Health

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
Can you identify food to promote healthy living? What are the benefits and detriments of the food you eat? How does culture affect what you eat? What is a balanced diet? Why is it important to have a balanced diet? What are the components of a healthy lifestyle?	Students will: Identify and label the five basic food groups. Verbalize and demonstrate the importance of eating a balanced meal. Apply the understanding of healthy food choices to everyday living. Assess their own eating habits and present their findings. Understand the chemical changes that take place in foods when prepared. Interview chef or cook	Students will: Create a mobile that depicts the five basic food groups. Record their eating habits and food choices in a journal, then determine a course of action to improve their choices. Compare various food labels. Students will create a menu for a healthy restaurant. Present their interview with a chef or a cook. Understand the	**Formative Assessments:** Group discussion. Class participation Teacher observation. Peer assessment. Reflective assessment. Presentation of healthy menu for a restaurant. A formative assessment using Google forms will be used to check for understanding on the 5 basic food groups. A blog post will be

	regarding their, chef's or cook's favorite meal to prepare. (Aramark) Understand the culture of different foods.	importance of movement.	created by students on the different cultural foods they researched. Project-based assessment.

Unit 2: 2nd Grade Business

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What influences someone to buy a product? What marketing qualities of a cereal make a person want to buy a product? What is marketing and advertising as seen on TV or on the Internet? What is the importance of marketing?	Students will: Analyze and compare the basic elements of advertising. Create an original product and advertising campaign. Develop a product using graphics and design. Develop a business plan with advertising to propose to a lending institution. Understanding how marketing affects what	Students will: Brainstorm characteristics of a wide array of advertisements. Review and critique advertisements in media. Compare and contrast various products according to their distinctive elements. Example: Different types of cereals, cars, TVs, etc. Deliver a marketing commercial for an original product developed by the	**Formative Assessment**: Student-created cereal advertising campaign. Group discussion. Class participation Teacher observation. Peer assessment. Self assessment. **Summative Assessment:** Development of the Business Plan **Performance**

	they purchase.	students. Write an original commercial including a slogan for both projects.	**Assessment:** Rubric on presenting business plan for district competition.

CAREER READY PRACTICES:

CRP6. Demonstrate creativity and innovation.

CRP10. Plan education and career paths aligned to personal goals.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

LANGUAGE ARTS LITERACY

NJSLS.ELALITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
NJSLS.ELALITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
NJSLS.ELALITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.
NJSLS.ELALITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
Research to Build and Present Knowledge:
NJSLS.ELALITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Unit 3: 2nd Grade Robotics

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
What is a robot? How is it different from other machines? Why is it important for parts of a system to work together to solve a problem? How do new inventions (like robots) solve and/or create problems?	Students will: Think creatively to make a working model 1. Develop vocabulary and communication skills to explain how the model works 2. Reflect on how to find answers and imagine new possibilities 3. Brainstorm ideas and endeavor to bring some of them to fruition 4. Make fair tests by changing one factor and observing or measuring the effect 5. Make systematic observations and measurements 6. Think logically and create a program to produce a specific	Students will: Students will be able to independently use technology to program and create a working model of a robot, when giving a specific command (motion, sound, and patterns). Will be introduced to WeDo Lego programming robotics to the students. "The WeDo Activity Pack enables students to work as young scientists, engineers, mathematicians, and creative writers providing them with the	**Formative Assessment:** Group discussion. Class participation Teacher observation. Peer assessment. Self assessment. Reading fluency. Rubric for Robot assignment. **Performance**

	behavior 7. Write and present creative stories using models for visual and dramatic effects.	settings, tools, and tasks for completing cross curricular projects. The students will work together collaboratively by investigating, writing about, and discussing ideas they encounter using the models in these activities.	**Assessment:** Presentation of invention.

TECHNOLOGY:

8.1 Technology Operations & Concepts: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

8.2 Technology Education, Engineering, and Design: All student will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they related to the individual, global society, and the environment.

WRITING:

NJSLS.ELALITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

NJSLS.ELALITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

NJSLS.ELALITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

Research to Build and Present Knowledge:

NJSLS.ELALITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Unit 4: 2nd Grade Science

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
Do you understand how science is found in everyday life? Can you infer from observable phenomenon how the natural world works?	Students will understand the properties of the three states of matter. Students will understand the basic laws of motion and gravity. Students will understand the basic concept of buoyancy.	Students will create a "Matter Bottle" which will contain the materials representative of the three states of matter. Students will construct "balloon racers" which will demonstrate of motion. Students will construct "clay boats" whose buoyancy will be tested. Students will use "Oobleck" to extend their understanding of buoyancy as they create a space module that will stay afloat on Oobleck.	**Formative Assessments:** Group discussion. Class participation Teacher observation. Self assessment. Completed "Matter Bottle". "Balloon Racer" races. Test of "clay boats". Test of "Oobleck" space module.

NJ Student Learning Standards:

Science

2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. [Clarification Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.]

2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. * [Clarification Statement: Examples of properties could include, strength, flexibility, hardness, texture, and absorbency.]

2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. [Clarification Statement: Examples of pieces could include blocks, building bricks, or other assorted small objects.]

2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Engineering Design:

K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Unit 5: 2nd Grade Logic

Essential Questions	Instructional Objectives/ Skills and Benchmarks*(CPIs)*	Activities	Assessments
Can students synthesize information given in a word problem to deduce a logical conclusion? What logical conclusion do you formulate in synthesizing a word problem? Can you solve a Logic puzzle? Now that you understand what is an algorithm, how would this apply to your daily activities in school? What is coding? How does coding impact society today?	Students will be able to complete a 6 x 6 medium level Sudoku puzzle. Students will understand techniques of cross hatching and elimination. Students will understand how to use matrixes to solved logical reasoning word problems.	Students will complete various Logic puzzles from online resources such as Enchanted Learning, Hoagies' Gifted Education Page, etc. Students will solve logical reasoning word problems. Students will solve other various logical reasoning puzzles. Using coding algorithms, students will choose to develop a sequence of instructions on: walking from classroom to cafeteria, making a pizza/cookie, etc.	**Formative Assessments:** Successful completion of logical reasoning puzzles. Group discussion. Class participation Teacher observation. Peer assessment. Self guided assessment. **Summative Assessment:** Write a blog post on one of the assignments.

TECHNOLOGY:
8.1 Technology Operations & Concepts: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
8.2 Technology Education, Engineering, and Design: All student will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they related to the individual, global society, and the environment.

WRITING:
NJSLS.ELALITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
NJSLS.ELALITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
NJSLS.ELALITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
Research to Build and Present Knowledge:
NJSLS.ELALITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Resources

2014 New Jersey Core Curriculum Content Standards – Technology 8.1 and 8.2
http://www.state.nj.us/education/cccs/2014/tech/81.pdf

Common Core State Standards LAL http://www.corestandards.org/ELA-Literacy/

New Jersey Student Learning Standards – English Language Arts
http://www.state.nj.us/education/cccs/2016/ela/

Common Core State Standards Mathematics http://www.corestandards.org/Math/

New Jersey Student Learning Standards – Mathematics
http://www.state.nj.us/education/cccs/2016/math/standards.pdf

Next Gen Science Standards Appendix D- "All Standards, All Students: Making the Next Generation Science Standards Accessible to All Students.
http://www.nextgenscience.org/sites/default/files/Appendix%20D%20Diversity%20and%20Equity%206-14-13.pdf

New Jersey Student Learning Standards – Gifted and Talented Requirements
http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm

National Science Teachers Association, NGSS@NSTA STEM starts here. http://ngss.nsta.org/

New Jersey Learning Standards - Science http://www.state.nj.us/education/aps/cccs/science/

Hour of Code https://hourofcode.com/us

Code.org https://code.org/

Design Thinking for Educators – Design Thinking for Educators Toolkit
http://www.designthinkingforeducators.com/toolkit/

An Educator's Guide to Design Thinking
https://dschool.stanford.edu/sandbox/groups/k12/wiki/14340/attachments/e55cd/teacher%20takeaway.pdf?sessionID=504f34363797a96000a6d30546311896b070218c

StoryBird – Digital Story Telling - https://storybird.com/

Kathy Schrock's Guide to Everything – Digital Storytelling - http://www.schrockguide.net/digital-storytelling.html

21 Things 4 Students – Digital Storytelling - http://www.21things4students.net/21/18-digital-storytelling/

LEGO Mindstorms Education EV3 https://education.lego.com/en-us/middle-school/explore/c/ev3-solutions

P21 Partnership for 21st Century Learning Framework http://www.p21.org/our-work/p21-framework