



Stafford Township School District

Gifted and Talented Curriculum Grade 3

Mission Statement

The mission of the Stafford Township School District is to promote excellence in an environment that engages students in meaningful learning experiences. In partnership with students, dedicated staff, families, and community, the district provides a strong educational foundation that will empower our students to:

- Achieve their unique potential
- Embrace self-directed, lifelong learning
- Develop the skills necessary for appropriate risk-taking and responsible decision-making
- Respect themselves and others
- Problem-solve individually and collaboratively
- Become contributing members of a diverse, global society

Philosophy

The Stafford Township School District Gifted and Talented program fosters a love of learning. We believe in a program where each student's passion can be explored.

We are committed to a model that values differentiated instruction, one in which classroom teachers work to tailor instruction and content to match student ability level. Our Gifted and Talented program is designed to address the unique social and emotional needs of students by promoting self-understanding, awareness of needs, and cognitive and affective growth.

We hope to inspire and support this special group of learners to embrace challenges and opportunities.

The intent of all levels of Gifted and Talented programming is to honor the "whole child, every child" in developing student competencies that forge lifelong learners and create Global and World changers!

The Stafford Township School District believes that meeting the needs of all students is paramount to providing a thorough and efficient education. Our goal is to empower students to reach their highest potential; physically, academically, emotionally and socially. Students will find the challenge and support needed to help them function in a world that requires:

- Competence in academics and the arts;
- Excellence in communications;
- Adaptability, creativity, and critical thinking;
- Valuing of diversity; and
- Development of character

The New Jersey Student Learning Standards (NJSLS) in ELA, Mathematics, and Next Generation Science Standards (NGSS), are intended to promote higher levels of learning for all students, emphasizing analytical thinking, reasoning, and

problem-solving skills. These standards provide a rigorous framework for instruction at each grade level in terms of content and progression of skills. As gifted and talented students typically grasp curriculum concepts more quickly and deeply than peers their age, they also need additional learning experiences that extend and enrich the standards and require students to apply complex, creative, and innovative thinking to authentic problems.

In order to identify and provide for the many diverse talents of our students, we have developed an enrichment triad model for grades 3-6. This model has been adapted from Joseph Renzulli's Schoolwide Enrichment Program and is based upon the Enrichment Triad Model, which was developed and field tested over a ten year period throughout the United States and Canada (Renzulli, 1990). At the heart of the model is differentiation of instruction. The Enrichment Triad Model is based upon the following four general goals:

- To improve the extent and quality of enrichment for all students and promote excellence throughout the school environment;
- To provide various types and levels of enrichment to a broader spectrum of the school population than usually served in traditional gifted programs;
- To integrate the program within the classroom, with opportunities to enhance learning experiences in a collaborative pull-out setting;
- To minimize concerns about exclusiveness and the negative attitudes that are often expressed toward students participating in only special programs for the gifted.

Interdisciplinary Connections: Language Arts, Math, Science, Social Studies, Technology

Unit 1: Designing Bridges - Civil Engineering		Duration: 32 days (September – January)
Standards		
ELA Standards		
W.3.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	
NJSLSA.SL1.	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	
SL.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.	
SL.3.1.D	Explain their own ideas and understanding in light of the discussion.	
Science Standards		
SL.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.	
Math Standards		
3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding	
3-PS2-1	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	
Technology Standards		
8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.	
8.1.5.E.1	Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.	
21st Century Life and Careers		
<p>Century Life and Career Skills: 21st century life and career skills enable students to make informed decisions that prepare them to engage as active citizens in a dynamic global society and to successfully meet the challenges and opportunities of the 21st century global workplace. http://www.state.nj.us/education/aps/cccs/career/</p> <p>9.1 Personal Financial Literacy</p> <p>This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.</p>		

<p>9.2 Career Awareness, Exploration, and Preparation This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p> <p>9.3 Career and Technical Education This standard outlines what students should know and be able to do upon completion of a CTE Program of Study.</p> <p style="text-align: center;">Career Ready Practices</p> <p>CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. 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</p>	
Essential Understandings	Essential Questions
<p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> ● There are many differences between cultures that affect the way of life in each culture ● Engineers must consider criteria and constraints when solving a problem ● Forces act on structures in many different directions ● Two equivalent forces acting on a structure in opposite directions will balance one another ● Materials can be used in different ways to accomplish different design tasks ● Testing and designing can improve the performance of any technology 	<ul style="list-style-type: none"> ● How can you use a series of steps, called the Engineering Design Process, to design solutions to problems? ● How do criteria and constraints affect solving any problem? ● How does testing and redesigning improve the performance of any technology?
Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i>	Assessments

<p>Using the Engineering Design Process - Ask, Imagine, Plan, Create, and Improve - to solve a problem related to civil engineering and building a bridge.</p>	<p>Formative Assessments</p> <ul style="list-style-type: none"> • Observe students' contribution to class discussions • Note taking for each lesson <p>Summative Assessments</p> <ul style="list-style-type: none"> • Build and test the strength and stability of a bridge <p>Benchmark Assessments</p> <ul style="list-style-type: none"> • Teacher Created Rubric to assess each student's design and creation using Tinkercad <p>Alternative Assessments</p> <ul style="list-style-type: none"> • Stop & Jot Activities • Student Conversation Rubric • Drawing a Sketch or Picture to Show Comprehension of an Assignment with Verbal Explanation • Teacher Created Projects with Scoring Rubrics • Work Samples • Teacher Observation Checklist
<p>Knowledge and Skills</p>	
<p>Content</p>	<p>Skills</p>
<p><i>Students will know...</i></p> <ul style="list-style-type: none"> • Learn how to engage effectively in a range of collaborative discussions and activities • Learn how to ask and answer questions to clarify understanding of student centered activities • Present their ideas about a topic using relevant facts and details to support their points • Learn about, test, and experience how force and motion plays a role in designing different types of technologies • Experience how constraints put on the creating of a technology make it more challenging to complete. 	<p><i>Students will be able to ...</i></p> <ul style="list-style-type: none"> • Discuss some of the problems, criteria, constraints, and solutions associated with designing bridges • Identify some of the forces that act on a structure • Describe the role of civil engineers in identifying and addressing the forces acting on a structure • Analyze testing data and draw conclusions about how the shape and structure of a bridge affect how much weight it can support • Brainstorm how they might use different materials and ways that they might change the shape of material in a bridge design • Test the strength and stability of their bridge designs and analyze test results

	<ul style="list-style-type: none"> • Improve the bridge designs based on testing results and analyses
Instructional Plan	
Suggested Activities	Resources
Students will read a story, and trace the use of the Engineering Design Process. The main character introduces his readers to his Mexican culture and a multi-cultural family unit and how their interactions hinder and help solve the problem presented. Students will be involved in a class discussion about cultural differences and family dynamics.	<ul style="list-style-type: none"> • Book - <i>Javier Builds a Bridge</i> • Map of the United States
Students will examine several different structures and observe how each is affected by a force.	<ul style="list-style-type: none"> • Notebooks to record results • All supplies needed for this activity are listed in the teacher's edition under Lesson #2
Students will create three different types of bridges out of index cards and test them to see how much weight they can support	<ul style="list-style-type: none"> • Types of bridges - beam, arch, and deep beam • Index Cards • Notebooks to record results • Additional supplies needed for this activity are listed in the teacher's edition under Lesson #3
Students will use the Engineering Design Process to design a bridge made from paper and other materials and then test and improve their bridges using the evaluation criteria of strength and stability.	<ul style="list-style-type: none"> • Notebooks to record results • Paper - lined, construction, copy • Additional supplies needed for this activity are listed in the teacher's edition under Lesson #4
Literature	
<ul style="list-style-type: none"> • <i>Javier Builds a Bridge</i> 	
Websites	
www.eie.org	Engineering is Elementary
http://careercornerstone.org/civileng/civileng.htm	Career Cornerstone Center
http://www.asce.org	American Society of Civil Engineers
Accommodations & Modifications	

English Language Learners

- Provide extra time
- Pre-Teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema
- Build background knowledge
- Work toward longer passages as skills in English increase
- Use visuals
- Teacher models reading aloud daily
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)

Basic Skills

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema
- Build background knowledge

Economically Disadvantaged

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons

- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema
- Build background knowledge

Special Education/504 Plans

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications/504 plan

Gifted and Talented

- Higher level questioning
- Students design questions
- Choice board to extend learning
- Expose to sophisticated vocabulary
- Extend reading response to further enrich understanding (see extension activities in unit binder)
- Discuss how readers and writers are connected
- Create comic strip showing connections to reading lives: illustrate and caption
- Create poem using rich adjectives and detailed illustrations
- Write paragraph in notebook about things they are passionate about
- Have students choose someone in their family they would write a biography about and why
- Collect artifacts to decorate notebook at home- discuss with class
- Have students create a poster showing their favorite reading spot
- Have students create anchor charts to explain strategy taught to hang around the room
- Students can expand on discussions with family members in their notebooks
- Expand reading genre while independent reading to reflect a well-rounded book bag
- Complete appendix pages at home with independent reading
- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum •
- Organize and offer flexible small group learning activities
- Teach cognitive and methodological skills

- Use center, stations, or contracts
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Students at risk of school failure

- Provide peer tutoring
- Use a strong student as a “buddy”
- Use books on tape
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Provide high interest topics
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources

Unit 2: Cleaning an Oil Spill - Environmental Engineer		Duration: 24 days (January – April)
Standards		
ELA Standards		
W.3.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	
Science Standards		
3-LS4-3.	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	
3-LS4-4	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	
SL.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.	
SL.3.1.D	Explain their own ideas and understanding in light of the discussion.	
Math Standards		
3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding	
Technology Standards		
8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.	
8.1.5.E.1	Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.	
21st Century Life and Careers		
<p>Century Life and Career Skills: 21st century life and career skills enable students to make informed decisions that prepare them to engage as active citizens in a dynamic global society and to successfully meet the challenges and opportunities of the 21st century global workplace. http://www.state.nj.us/education/aps/cccs/career/</p> <p>9.1 Personal Financial Literacy This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.</p> <p>9.2 Career Awareness, Exploration, and Preparation This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p>		

<p>9.3 Career and Technical Education This standard outlines what students should know and be able to do upon completion of a CTE Program of Study.</p> <p style="text-align: center;">Career Ready Practices</p> <p>CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. 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</p>	
Essential Understandings	Essential Questions
<p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> ● Environmental engineers help to solve problems related to the environment and lessen impacts on local ecosystems ● Environmental problems are almost never isolated because all parts of the ecosystem are connected ● Engineers often use models to make predictions about how something might impact the environment ● Even small amounts of pollution have a negative impact on an ecosystem 	<ul style="list-style-type: none"> ● How can you use a series of steps, called the Engineering Design Process, to design solutions to problems? ● How does even the smallest amount of pollution have an impact on an entire ecosystem? ● Are environmental problems isolated in only certain parts of an ecosystem?
Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i>	Other Assessments
<p>Using the Engineering Design Process - Ask, Imagine, Plan, Create, and Improve - to solve a problem related to environmental engineering and creating a process for cleaning up an oil spill.</p>	<p>Formative Assessments</p> <ul style="list-style-type: none"> ● Observe students' contribution to class discussions ● Note taking for each lesson <p>Summative Assessments</p>

	<ul style="list-style-type: none"> ● Clean up the simulated oil spill with their process and supplies <p>Benchmark Assessments</p> <ul style="list-style-type: none"> ● Teacher Created Rubric to assess each student’s design and creation using Tinkercad <p>Alternative Assessments</p> <ul style="list-style-type: none"> ● Stop & Jot Activities ● Student Conversation Rubric ● Drawing a Sketch or Picture to Show Comprehension of an Assignment with Verbal Explanation ● Teacher Created Projects with Scoring Rubrics ● Work Samples ● Teacher Observation Checklist
Knowledge and Skills	
Content	Skills
<p><i>Students will know...</i></p> <ul style="list-style-type: none"> ● Learn how to engage effectively in a range of collaborative discussions and activities ● Learn how to ask and answer questions to clarify understanding of student centered activities ● Present their ideas about a topic using relevant facts and details to support their points ● Learn that the impact of pollution is far reaching in an ecosystem and the clean-up process is a long and ongoing process. ● Understand that the smallest amount of human interference in an ecosystem can alter if for many generations. 	<p><i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Discuss the work of environmental engineers and their role in cleaning up pollution ● Explain how one change in an ecosystem may be related to other changes ● Explain how changes in soil and water pH can affect the health of an ecosystem ● Conduct controlled experiments to evaluate materials, methods, and tools available for containing and cleaning an oil spill ● Evaluate the different material for use in containing an oil spill based on their observations and experimental results ● Utilize prior knowledge of how well various material and tools work to contain or remove oil to inform their designs ● Improve their clean-up process designs, taking into account evaluation of their prior designs

Instructional Plan	
Suggested Activities	Resources
Students will read the story and trace the use of the Engineering Design Process. The main character, Tehya, is part of the Elwha Klallam Tribe of Washington State. The tribe is committed to the protection of nature and the wisdom that prior generations puts forth. The students will discuss the customs and how they differ from the student's. Students will also discuss what is valuable to them and how they protect those items from harm.	<ul style="list-style-type: none"> ● Book - <i>Tehya's Pollution Solution</i> ● Videos of the Elwha Klallam tribe are listed in the teacher's edition under Lesson #1
Students will test the pH of soil and water in certain areas of a fictional town and then compare current pH data from select sites with historical pH data to locate possible sources of pollution.	<ul style="list-style-type: none"> ● Notebooks to record results ● All supplies needed for this activity are listed in the teacher's edition
Students will use a controlled experiment to examine different materials and methods used to clean oil spills and discuss the advantages and disadvantages of each.	<ul style="list-style-type: none"> ● Notebooks to record results ● All supplies needed for this activity are listed in the teacher's edition
Students will use the Engineering Design Process to design, implement, evaluate, and improve a process for cleaning an oil spill. Does that the oil have the least impact on the surrounding ecosystem?	<ul style="list-style-type: none"> ● Notebooks to record results ● All supplies needed for this activity are listed in the teacher's edition
Literature	
<ul style="list-style-type: none"> ● <i>Tehya's Pollution Solution</i> 	
Websites	
www.eie.org	Engineering is Elementary
https://www.nps.gov/olym/learn/nature/elwha-ecosystem-restoration.htm	National Park Service
https://www.epa.gov/pesticide-incidents/report-spills-and-environmental-violations	EPA
Accommodations & Modifications	
English Language Learners	

- Provide extra time
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- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema
- Build background knowledge
- Work toward longer passages as skills in English increase
- Use visuals
- Teacher models reading aloud daily
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)

Basic Skills

- Pre-teach vocabulary using visuals and gestures
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- Activate schema
- Build background knowledge

Economically Disadvantaged

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers

- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema
- Build background knowledge

Special Education/504 Plans

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications/504 plan

Gifted and Talented

- Higher level questioning
- Students design questions
- Choice board to extend learning
- Expose to sophisticated vocabulary
- Extend reading response to further enrich understanding (see extension activities in unit binder)
- Discuss how readers and writers are connected
- Create comic strip showing connections to reading lives: illustrate and caption
- Create poem using rich adjectives and detailed illustrations
- Write paragraph in notebook about things they are passionate about
- Have students choose someone in their family they would write a biography about and why
- Collect artifacts to decorate notebook at home- discuss with class
- Have students create a poster showing their favorite reading spot
- Have students create anchor charts to explain strategy taught to hang around the room
- Students can expand on discussions with family members in their notebooks
- Expand reading genre while independent reading to reflect a well-rounded book bag
- Complete appendix pages at home with independent reading
- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum •
- Organize and offer flexible small group learning activities
- Teach cognitive and methodological skills
- Use center, stations, or contracts

- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Students at risk of school failure

- Provide peer tutoring
- Use a strong student as a “buddy”
- Use books on tape
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Provide high interest topics
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources

Unit 3: Coding	Duration: 16 days (April – June)
Standards	
ELA Standards	
W.3.6	With guidance and support from adults, use technology to produce and publish writing as well as to interact and collaborate with others.
RI.3.7.	Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
SL.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
SL.3.1.D	Explain their own ideas and understanding in light of the discussion.
Science Standards	
SL.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
Technology Standards	
8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
ISTI.1c	Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
ISTI.1d	Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.
21st Century Life and Careers	
<p>Century Life and Career Skills: 21st century life and career skills enable students to make informed decisions that prepare them to engage as active citizens in a dynamic global society and to successfully meet the challenges and opportunities of the 21st century global workplace. http://www.state.nj.us/education/aps/cccs/career/</p> <p>9.1 Personal Financial Literacy This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.</p> <p>9.2 Career Awareness, Exploration, and Preparation This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.</p> <p>9.3 Career and Technical Education This standard outlines what students should know and be able to do upon completion of a CTE Program of Study.</p>	

	Career Ready Practices	
	<p>CRP1. Act as a responsible and contributing citizen and employee.</p> <p>CRP2. Apply appropriate academic and technical skills.</p> <p>CRP4. Communicate clearly and effectively and with reason.</p> <p>CRP5. Consider the environmental, social and economic impacts of decisions.</p> <p>CRP6. Demonstrate creativity and innovation.</p> <p>CRP7. Employ valid and reliable research strategies.</p> <p>CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</p> <p>CRP10. Plan education and career paths aligned to personal goals.</p> <p>CRP11. Use technology to enhance productivity.</p> <p>CRP12. Work productively in teams while using cultural global competence</p>	
9.1.4.A.1	Recognize a problem and brainstorm ways to solve the problem individually or collaboratively	
9.1.4.B.1	Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking.	
Essential Understandings		Essential Questions
<p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> ● Programming is a basic literacy in the digital age ● Coding is a lifelong skill ● They will explore the real world application of math concepts ● Coding teaches problem solving ● Learning to code develops creativity ● Coding is a medium for storytelling 		<ul style="list-style-type: none"> ● How can you use creative computing to build the skill sets of logical thinking, problem solving, collaboration, and communication?
Evidence of Student Learning		
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i>		Other Assessments
Using available coding sites for students to move at their own pace through scaffold lessons to learn concepts and apply them creatively.		<p>Formative Assessments</p> <ul style="list-style-type: none"> ● Observe students' contribution to class discussions ● Weekly projects completion ● Testing their projects to determine glitches <p>Summative Assessments</p> <ul style="list-style-type: none"> ● Create coding projects based on available sites and student interests <p>Benchmark Assessments</p>

	<ul style="list-style-type: none"> Teacher Created Rubric to assess each student's design and creation using Tinkercad <p>Alternative Assessments</p> <ul style="list-style-type: none"> Stop & Jot Activities Student Conversation Rubric Drawing a Sketch or Picture to Show Comprehension of an Assignment with Verbal Explanation Teacher Created Projects with Scoring Rubrics Work Samples Teacher Observation Checklist
Knowledge and Skills	
Content	Skills
<p><i>Students will know...</i></p> <ul style="list-style-type: none"> Learn how to engage effectively in a range of collaborative discussions and activities Learn how to ask and answer questions to clarify understanding of student centered activities Become aware of the many (job) options that coding/programming provides. Experience different sites and see that coding/programming can and has been used to enhance many parts of their day to day activities. 	<p><i>Students will be able to ...</i></p> <ul style="list-style-type: none"> Use block based programming language Scratch that will teach basic programming logic Become familiar with 7 block types: statements, loops, booleans, conditions, variables, and procedures Utilize their creativity to add personal touches to their programming Create an online journal for documenting their design process and reflections Pursue personal learning interests
Instructional Plan	
Suggested Activities	Resources
Teacher conducts an introduction to scratch and the range of projects students will be able to create by showing the scratch overview video and some sample projects that they will find engaging and inspiring.	<ul style="list-style-type: none"> Online source - scratch https://vimeo.com/29457909
Students will set up a scratch account and a journal to keep track of your notes and reflections on the process of designing projects.	<ul style="list-style-type: none"> Online source - scratch Journal - either online or paper journal
Students will engage in designing and creating characters, animated stories and games.	<ul style="list-style-type: none"> Online source - scratch

Students will be able to personalize activities that are personally meaningful and relevant.	<ul style="list-style-type: none"> ● Online source - scratch
Students will be using available coding sites to design and create a logical code whose end result completes a specific task put forth to all students at the beginning of the unit of study (Game Design, animations or Storytelling).	<ul style="list-style-type: none"> ● Online source - scratch
Students will be sharing their animated stories and games with each other for constructive feedback.	<ul style="list-style-type: none"> ● Online source - scratch
Students will be reflecting on their work by offering opportunities for learners to review and rethink their creative practices.	<ul style="list-style-type: none"> ● Online source - scratch
Literature	
<ul style="list-style-type: none"> ● Self-selected reading 	
Websites	
www.cs-first.com	Computer Science First
www.Scratch.mit.edu https://vimeo.com/29457909	Scratch
www.sphero.com	Sphero
Accommodations & Modifications	
English Language Learners <ul style="list-style-type: none"> ● Provide extra time ● Pre-Teach vocabulary using visuals and gestures ● Chunk texts ● Summarize as you go ● Preview lessons ● Graphic organizers ● Highlight key words ● Sentence starters ● Prompting and cuing 	

- Activate schema
- Build background knowledge
- Work toward longer passages as skills in English increase
- Use visuals
- Teacher models reading aloud daily
- Provide peer tutoring

Use a strong student as a “buddy” (does not necessarily have to speak the primary language)

Basic Skills

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema

Build background knowledge

Economically Disadvantaged

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cuing
- Activate schema

Build background knowledge

Special Education/504 Plans

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated

- Use large print books, Braille, or books on CD (digital text)

Follow all IEP modifications/504 plan

Gifted and Talented

- Higher level questioning
- Students design questions
- Choice board to extend learning
- Expose to sophisticated vocabulary
- Extend reading response to further enrich understanding (see extension activities in unit binder)
- Discuss how readers and writers are connected
- Create comic strip showing connections to reading lives: illustrate and caption
- Create poem using rich adjectives and detailed illustrations
- Write paragraph in notebook about things they are passionate about
- Have students choose someone in their family they would write a biography about and why
- Collect artifacts to decorate notebook at home- discuss with class
- Have students create a poster showing their favorite reading spot
- Have students create anchor charts to explain strategy taught to hang around the room
- Students can expand on discussions with family members in their notebooks
- Expand reading genre while independent reading to reflect a well-rounded book bag
- Complete appendix pages at home with independent reading
- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum •
- Organize and offer flexible small group learning activities
- Teach cognitive and methodological skills
- Use center, stations, or contracts
- Organize integrated problem-solving simulations

Propose interest-based extension activities

Students at risk of school failure

- Provide peer tutoring
- Use a strong student as a “buddy”
- Use books on tape
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction

- Provide immediate praise and feedback
- Provide high interest topics
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources

**Stafford Township School District
Grade 3
Gifted and Talented Pacing Guide**

Unit 1: Designing Bridges – Civil Engineering	September - January 32 Days
Unit 2: Cleaning an Oil Spill – Environmental Engineer	January-April 24 Days
Unit 3: Coding	April-June 16 Days