# **Orange Public Schools**

Office of Curriculum & Instruction 2019-2020 Mathematics Curriculum Guide



## **Newcomers Academy**

Grade 1 Mathematics Pacing Guide 2019-2020

Module 1: Sums and Differences		
Торіс	Lesson	Lesson Objective/ Supportive Videos
Topic A:	Lesson 1	Analyze and Describe embedded numbers (to 10) using 5-groups and number bonds https://www.youtube.com/watch?v
Numbers and Decompositions	Lesson 2	Reason about embedded numbers in varied configurations using num- ber bonds. https://www.youtube.com/watch?v
	Lesson 3	See and describe numbers of objects using 1 more within 5-group configu- rations. <u>https://www.youtube.com/watch?v</u>
	Lesson 4	Represent situations with number bonds. Count from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total. <u>https://www.youtube.com/watch?v</u>
<b>Topic B:</b> Counting On from Embedded	Lesson 5	Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total. <u>https://www.youtube.com/watch?v</u>
Numbers	Lesson 6	Represent situations with number bonds. Count on from one embedded number or part to totals of 8 and 9 and generate all expressions for each total. https://www.youtube.com/watch?y
	Lesson 7	Represent situations with number bonds. Count on from one embedded number or part to totals of 8 and 9 and generate all expressions for each total. <u>https://www.youtube.com/watch?v</u>
	Lesson 8	Represent all the number pairs of 10 as number bond diagrams from a giv- en scenario and generate all expressions equal to 10. <u>https://www.youtube.com/watch?v</u>
	Lesson 9	Solve unknown math stories by drawing, writing equations, and making statements of the solution. <u>https://www.youtube.com/watch?v</u>
Topic C: Addition	Lesson 10	Solve math stories by drawing and using 5-group cards. <u>https://www.youtube.com/watch?v</u>
Word Problems	Lesson 11	Solve add to with change unknown math stories as a context for counting by drawing, writing equations, and making statements of the solution. <u>https://www.youtube.com/watch?v</u>

Topic C:	Lesson	Solve add to with change unknown math stories using 5-group cards.
Addition Word	12	https://www.youtube.com/watch?v
Problems	Lesson 13	add to with change unknown stories from equations.
		https://www.youtube.com/watch?v
Topic D:	Lesson	Count on up to 3 more using numeral and 5-group cards and fingers to
Stratogics for	14	track the change.
Counting On		https://www.youtube.com/watch?v
Counting On	Lesson	Count on up to 3 more using numeral and 5-group cards and fingers to
	15	track the change.
		https://www.youtube.com/watch?v
	Lesson	Count on to find the unknown part in missing addend equations such as 6 +
	16	= 9. Answer, "How many more to make 6, 7, 8, 9, and 10?"
		https://www.youtube.com/watch?v
	Lesson	Understand the meaning of the equal sign by pairing equivalent expres-
	17	https://www.youtube.com/watch?y
Topic E:		
The	Lesson	Understand the meaning of the equal sign by pairing equivalent expres-
Commutative	18	sions and constructing true number sentences.
Commutative Broporty of	10	https://www.youtube.com/watch?v
Addition and the	Lesson	Represent the same story scenario with addends repositioned (the commu-
Equal Sign	19	https://www.voutube.com/watch?v
1 0		https://www.youtube.com/watchev
		Apply the commutative property to count on from a larger addend
	Lesson	Apply the commutative property to count on normanalger addend.
	20	https://www.youtube.com/watch?v
	Lesson	Visualize and solve doubles and doubles plus 1 with 5-group cards.
	21	https://www.voutube.com/watch?v
	21	
Topic F:	Losson	Look for and make use of repeated reasoning on the addition chart by solv-
Development of	22	ing and analyzing problems with common addends.
Addition	22	https://www.youtube.com/watch?v
Fluency within		
10	Losson	Look for and make use of structure on the addition chart by looking for and
	22	coloring problems with the same total.
	25	https://www.youtube.com/watch?v
	Lesson	Practice to build fluency with facts to 10.
	24	https://www.voutube.com/watch?v

<b>Topic G:</b> Subtraction as an	Lesson 25	Solve add to with change unknown math stories with addition and re- late to subtraction. Model with materials and write corresponding num- ber sentences. https://www.youtube.com/watch?y
Unknown Addend & Topic H:	Lesson 30	Solve add to with change unknown math stories with drawings, relating addition and subtraction. https://www.youtube.com/watch?v
Subtraction Word Problems	Lesson 28/29	Solve take from with result unknown math stories with math drawings, true number sentences and statements, using horizontal marks to cross off what is taken away. <u>https://www.youtube.com/watch?v</u> Solve take apart with addend unknown math stories with math draw- ings, equations, and statements, circling the known part to find the un- known. <u>https://www.youtube.com/watch?v</u>
	Lesson 31	Solve take from with change unknown math stories with drawings. https://www.youtube.com/watch?v
	Lesson 32	Solve put together/take apart with addend unknown math stories. https://www.youtube.com/watch?v
	Lesson 33	Model 0 less and 1 less pictorially and as subtraction number sentences. <u>https://www.youtube.com/watch?v</u>
<b>Topic I:</b> Decomposition Strategies for Subtraction	Lesson 34	Model $n - n$ and $n - (n - 1)$ pictorially and as subtraction sentences. <u>https://www.youtube.com/watch?v</u>
	Lesson 35	Relate subtraction facts involving fives and doubles to corresponding de- compositions. https://www.youtube.com/watch?v
	Lesson 36	Relate subtraction from ten to corresponding decompositions. https://www.youtube.com/watch?v
	Lesson 37	Relate subtraction from nine to corresponding decompositions. <u>https://www.youtube.com/watch?v</u>
Topic J:	Lesson 38	Look for and make use of repeated reasoning and structure using the addi- tion chart to solve subtraction problems. <u>https://www.youtube.com/watch?v</u>
Subtraction Fluency Within 10	Lesson 39	Analyze the addition chart to create sets of related addition and subtrac- tion facts. <u>https://www.youtube.com/watch?v</u>

Module 2: Introduction to Place Value through		
Addition and Subtraction within 20		
Торіс	Lesson	Student Lesson Objective/ Supportive Videos
	Lesson 1	Solve word problems with three addends, two of which make ten.
Topic A:		https://www.youtube.com/watch?v
Counting on or	Lesson 2	Use the associative and commutative properties to make ten with three addends
Making Ten to		https://www.youtube.com/watch?v
Unknown and	Lesson 3 &	Make ten when one addend is 9.
Total Unknown	4	
Problems		https://www.youtube.com/watch?v
		<u>Inters://www.youtube.com/watch?v</u>
	Lesson 6	https://www.voutube.com/watch?v
	Lessons 7	Make ten when one addend is 8
	&8	https://www.youtube.com/watch?v
		https://www.youtube.com/watch?v
	Lessons	Compare efficiency of counting on and making ten when one addend
	5&9	is 8 or 9
		https://www.youtube.com/watch?v
		<u>Inteps.//www.youtube.com/watch?v</u>
	Lesson 10	Solve problems with addends of 7, 8 or 9
		https://www.youtube.com/watch?v
		Colucionaria mahlama with subtraction of 0 from 10
Topic B:	Lesson 12	Solve word problems with subtraction of 9 from 10
Counting On or		https://www.youtube.com/watch?y=oo8aEztLMmI
Taking from		
Result	Lesson 13	Solve word problems with a subtraction of 9 from 10
Unknown and		https://www.voutube.com/watch?v=8CitSBQQh80
Total	Lesson 14	Subtraction of 9 from teen numbers
Unknown		
Problems		https://www.youtube.com/watch?v
	Lesson 15	Model subtraction of 9 from teen numbers
		https://www.youtube.com/watch?v

	Lesson 16	Relate counting on to making ten and taking from ten
		https://www.youtube.com/watch?v
Tonic B:	Lesson 17	Model subtraction of 8 from teen numbers
Counting On or		
Taking from		https://www.youtube.com/watch?v
Ten to Solve	Lesson 18	Model subtraction of 8 from teen numbers
Result		https://www.youtube.com/watch?y
Unknown and		Compare the counting on technique and the take from 10 technique
Total	Lesson 19	compare the counting on teeningue and the take from 10 teeningue
Unknown		https://www.youtube.com/watch?v
Problems		Subtract 7 8 and 9 from teen numbers
	Lesson	https://www.voutube.com/watch?v
	20	
	Lesson 21	Share and critique peer solution strategies for take from with result
		the teens
		https://www.voutube.com/watch?v
Topic C:	Losson 22	Solve word problems with unknown addends and relate counting on
	Lesson 22	to the take from ten technique
Strategies for		https://www.voutube.com/watch?v
Solving Change	Lesson 23	Solve word problems with unknown changes involving addition and
Adana	2033011 23	subtraction
Addend		https://www.youtube.com/watch?v
Unknown	Lesson 25	Use understanding of the equal sign to find two different addends
Problems		that add up to the same number
		https://www.youtube.com/watch?v
	Lesson 26	Using one ten as a unit to describe teen numbers using the format:
		https://www.voutubo.com/watch2v
Topic D:	1	Solve addition and subtraction problems by thinking of teen numbers
Varied	Lesson 27	as 1 ten and some ones
Problems		https://www.youtube.com/watch?v
with	Lesson 28	Solve addition problems using ten as a unit, write two-step solutions
Decomposi-		https://www.youtube.com/watch?v
tions	Lesson 29	Solve subtraction problems using ten as a unit, write two-step solu-
of		tions
Toon		https://www.youtube.com/watch?v
Numbers as 1		
Ones		

Торіс	Lesson	Student Lesson Objective/ Supportive Videos
<b>Topic A:</b> Indirect Comparison in Length	Lesson 1	Compare length directly and consider the importance of aligning end- points <u>https://www.youtube.com/watch?v=47MnZV6jo74&amp;list=PLvolZqLMhJmk7</u> <u>mcZ7SxjWhYG1YISZ4oYC</u>
	Lesson 2	Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string <u>https://www.youtube.com/watch?v=n6h8qNI9K0s&amp;list=PLvolZqLMhJmk7</u> <u>mcZ7SxjWhYG1YISZ4oYC&amp;index=2</u>
	Lesson 3	Order three lengths using indirect comparison. <u>https://www.youtube.com/watch?v=t_WQWtPLfHI&amp;list=PLvolZqLMhJmk7</u> <u>mcZ7SxjWhYG1YISZ4oYC&amp;index=3</u>
<b>Topic B:</b> Standard Length Units	Lesson 4	Express the length of an object using centimeter cubes as length units to measure with no gaps or overlaps. <u>https://www.youtube.com/watch?v=AvoB3V0zwGA&amp;list=PLvolZqLMhJmk</u> <u>7mcZ7SxjWhYG1YISZ4oYC&amp;index=4</u>
	Lesson 5	Rename and measure with centimeter cubes, using their standard unit name of centimeters <u>https://www.youtube.com/watch?v=eYKOcSGpXLI&amp;list=PLvolZqLMhJmk7</u> <u>mcZ7SxjWhYG1YISZ4oYC&amp;index=5</u>
	Lesson 6	Order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving compare with difference un- known word problems. <u>https://www.youtube.com/watch?v=Rv8zVuajJFY&amp;list=PLvolZqLMhJmk7m</u> <u>cZ7SxjWhYG1YISZ4oYC&amp;index=6</u>

## Module 3: Ordering and Comparing Length Measurements as Numbers

<b>Topic C:</b> Non-Standard and Standard Length Units	Lesson 7	Measure the same objects from Topic B with different nonstandard units simultaneously to see the need to measure with a consistent unit. <u>https://www.youtube.com/watch?v=OCI6erDDryM&amp;list=PLvolZqLMhJmk7</u> <u>mcZ7SxjWhYG1YISZ4oYC&amp;index=7</u>
	Lesson 8	Understand the need to use the same units when comparing measure- ments with others <a href="https://www.youtube.com/watch?v=07KPutlHkYw&amp;list=PLvolZqLMhJmk7">https://www.youtube.com/watch?v=07KPutlHkYw&amp;list=PLvolZqLMhJmk7</a> <a href="mailto:mcZ7SxjWhYG1YlSZ4oYC&amp;index=8">mcZ7SxjWhYG1YlSZ4oYC&amp;index=8</a>
	Lesson 9	Answer compare with difference unknown problems about lengths of two different objects measured in centimeters <u>https://www.youtube.com/watch?v=iyagzy05G8c&amp;index=9&amp;list=PLvolZqL</u> <u>MhJmk7mcZ7SxjWhYG1YISZ4oYC</u>

Module 4: Place Value, Comparison,		
Addition and Subtraction to 40		
Торіс	Lesson	Student Lesson Objective/ Supportive Videos
Topic A:	Lesson 1	Compare the efficiency of counting by ones and counting by tens <u>https://www.youtube.com/watch?v</u>
	Lesson 2	Use the place value chart to record and name tens and ones within a two-digit number <a href="https://www.youtube.com/watch?v">https://www.youtube.com/watch?v</a>
	Lesson 3	Interpret two-digit numbers as either tens and some ones or as all ones. https://www.youtube.com/watch?v
	Lesson 4	Write and interpret two-digit numbers as addition sentences that combine tens and ones <u>https://www.youtube.com/watch?v</u>
	Lesson 5	Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number https://www.youtube.com/watch?v
	Lesson 6	Use dimes and pennies as representations of tens and ones <u>https://www.youtube.com/watch?v</u>
Topic B:	Lesson 7	Compare two quantities, and identify the greater or lesser of the two given numerals. https://www.youtube.com/watch?v
Comparison of Two-Digit Num- bers	Lesson 8	Compare quantities and numerals from left to right <u>https://www.youtube.com/watch?v</u>
	Lesson 9 &10	Use the symbols >, =, and < to compare quantities and numerals <u>https://www.youtube.com/watch?v</u> <u>https://www.youtube.com/watch?v</u>
Topic C:	Lesson 11	Add and subtract tens from a multiple of 10. https://www.youtube.com/watch?v
Subtraction of Tens	Lesson 12	Add tens to a two-digit number. https://www.youtube.com/watch?v

<b>Topic D:</b> Addition of Tens or Ones to a	Lesson 13 &14	Use counting on and the make ten strategy when adding across a ten. <u>https://www.youtube.com/watch?v</u>
Two-Digit		https://www.youtube.com/watch?v
Number	Lesson 15	Use single-digit sums to support solutions for analogous sums to 40
		https://www.youtube.com/watch?v
	Lesson 16 &17	Add ones and ones or tens and tens
		https://www.youtube.com/watch?v
	Lesson 18	Share and critique peer strategies for adding two-digit numbers.
		https://www.youtube.com/watch?v
	Lesson 19	apart with total unknown and add to with result unknown word problems.
<b>Topic E:</b> Varied		https://www.youtube.com/watch?v
Problem Types within 20	Lesson 20 &21	Recognize and make use of part–whole relationships within tape diagrams when solving a variety of problem types <u>https://www.youtube.com/watch?v</u> <u>https://www.youtube.com/watch?v</u>
	Lesson 22	Write word problems of varied types https://www.youtube.com/watch?v
	Lesson 22	Write word problems of varied types https://www.youtube.com/watch?v
	Lesson 23	Interpret two-digit numbers as tens and ones, including cases with more than 9 ones
Topic F:		
Addition of Tens and Ones to a Two-Digit	Lesson 24 &25	Add a pair of two-digit numbers when the ones digits have a sum less than or equal to 10
Number		https://www.youtube.com/watch?v https://www.youtube.com/watch?v

	Lesson 26 &27	Add a pair of two-digit numbers when the ones digits have a sum greater than 10
Topic F:		https://www.voutuba.com/watch?v
Addition of Tens and Ones to a Two-Digit		https://www.youtube.com/watch?v
	Lesson	Add a pair of two-digit numbers when the ones digits have a sum
	26 &27	greater than 10
Number		https://www.youtube.com/watch?v
	Lesson	Add a pair of two-digit numbers with varied sums in the ones
	28-29	
		https://www.youtube.com/watch?v

Module 5: Identifying, Composing, and Partitioning Shapes		
Торіс	Lesson	Student Lesson Objective/ Supportive Videos
<b>Topic A:</b> Attributes of Shapes	Lesson 1	Classify shapes based on defining attributes using examples, variants, and non-examples. https://www.youtube.com/watch?v
	Lesson 2	Find and name two-dimensional shapes including trapezoid, rhombus, and a square as a special rectangle, based on defining attributes of sides and corners <u>https://www.youtube.com/watch?v</u>
	Lesson 3	Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points <u>https://www.youtube.com/watch?v</u>
Topic B:	Lesson 4	Create composite shapes from two-dimensional shapes https://www.youtube.com/watch?v
Part–Whole Relationships	Lesson 5	Compose a new shape from composite shapes https://www.youtube.com/watch?v
Within Composite Shapes	Lesson 6	Create a composite shape from three-dimensional shapes and describe the composite shape using shape names and positions <u>https://www.youtube.com/watch?v</u>
<b>Topic C:</b> Halves and	Lesson 7	Name and count shapes as parts of a whole, recognizing relative sizes of the parts https://www.youtube.com/watch?v
Quarters of Rectangles and Circles	Lesson 8 &9	Partition shapes and identify halves and quarters of circles and rectangles <u>https://www.youtube.com/watch?v</u> <u>https://www.youtube.com/watch?v</u>
	Lesson 10	Construct a paper clock by partitioning a circle and tell time to the hour <u>https://www.youtube.com/watch?v</u>
<b>Topic D:</b> Application of Halves to Tell Time	Lesson 11	Recognize halves within a circular clock face and tell time to the half-hour <u>https://www.youtube.com/watch?v</u>
	Lesson 12	Recognize halves within a circular clock face and tell time to the half-hour <u>https://www.youtube.com/watch?v</u>
	Lesson 13	Recognize halves within a circular clock face and tell time to the half-hour <u>https://www.youtube.com/watch?v</u>

## Module 6: Place Value, Comparison Addition and Subtraction to 10

Торіс	Lesson	Student Lesson Objective/ Supportive Videos
Topic A:	Lesson 1	Solve compare with difference unknown problem types.
Comparison		https://www.youtube.com/watch?y
Word		
Problems	Lesson 2	Solve compare with bigger or smaller unknown problem types
		https://www.youtube.com/watch?v
	Lesson	Use the place value chart to record and name tens and ones within a two-
	3	Write and interpret two-digit numbers to 100 as addition sentences that
		combine tens and ones
		https://www.youtube.com/watch?v
	Lesson 4	Write and interpret two-digit numbers to 100 as addition sentences that
Topic B:		combine tens and ones
Numbers to 120		https://www.youtube.com/watch?v
	Lesson 5	Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number
	&6	Use the symbols $>$ , =, and $<$ to compare quantities and numerals to 100.
		https://www.youtube.com/watch?v
		https://www.youtube.com/watchev
	Lesson 7	Count and write numbers to 120. Use Hide Zero cards to relate num-
		bers 0 to 20 to 100 to 120.
		https://www.youtube.com/watch?v
	Lesson 8	Count to 120 in unit form using only tens and ones. Represent num-
		pers to 120 as tens and ones on the place value chart.
		https://www.youtube.com/watch?v
	Lesson 9	Represent up to 120 objects with a written numeral.
		https://www.youtube.com/watch?v

Topic C:	Lesson	Add a multiple of 10 to any two-digit number within 100.
	11	https://www.youtube.com/watch?y
	Lesson	Add a pair of two-digit numbers when the ones digits have a sum less than or equal to 10
Addition to 100	12	https://www.youtube.com/watch?v
using Place	Lesson	Add a pair of two-digit numbers when the ones digits have a sum greater
Value	13 &14	than 10 using decomposition.
Understanding		https://www.youtube.com/watch?v
		Add a pair of two- digit numbers when the ones digits have a sum greater
	Lesson 15-17	than 10 with drawing. Record the total below.
	Lesson	Add a pair of two- digit numbers when the ones digits have a sum greater
	16-17	than 10 with drawing. Record the total below.
Topic D:	Lesson	Add a pair of two-digit numbers with varied sums in the ones and com-
Varied Place Value	18	pare the results of different recording methods.
Strategies for Addition to 100	Lesson 19	Solve and share strategies for adding two-digit numbers with varied sums.
	Lesson	Identify pennies, nickels, and dimes by their image, name, or value.
	20	Decompose the values of nickels and dimes using pennies and nickels.
	Lesson	Identify guarters by their image, name, or value. Decompose the value
Topic E:	21	of a quarter using pennies, nickels, and dimes.
Coins and		
Their Values	22	the value of any coin.
	Lesson	Count on using pennies from any single coin.
	23	
	Lesson 24	Use dimes and pennies as a representation of numbers to 120.

<b>Topic F:</b> Varied Problem Types Within 20	Lesson 25-26	Solve compare with bigger or smaller unknown problem types.
	Lesson 27	Share and critique peer strategies for solving problems of varied types.
Topic G:LessoCulminating28-29ExperiencesLesso30	Lesson 28-29	Celebrate progress in fluency with adding and subtracting within 10 (and 20).
	Lesson 30	Create folder covers for work to be taken home illustrating the year's learning.

Modifications				
Special Education/ 504:	English Language Learners:			
<ul> <li>-Adhere to all modifications and health concerns stated in each IEP.</li> <li>-Give students a Menu, allowing students to pick assignments from different levels based on difficulty.</li> <li>-Accommodate Instructional Strategies: reading aloud text, graphic organizers, one-on-one instruction, class website (Google Classroom), handouts, definition list with visuals, extended time</li> <li>-Allow students to demonstrate understanding of a problem by drawing the picture of the answer and then explaining the reasoning orally and/or in writing , such as Read-Draw-Write</li> <li>-Provide breaks between tasks, use positive reinforcement, use proximity</li> <li>-Assure students have experiences that are on the Concrete- Pictorial- Abstract spectrum by using manipulatives</li> <li>-Common Core Approach to Differentiate Instruction: Students with Disabilities (pg 17-18)</li> <li>-Strategies for Students with 504 Plans</li> </ul>	<ul> <li>Use manipulatives to promote conceptual understanding and enhance vocabulary usage</li> <li>Provide graphic representations, gestures, drawings, equations, realia, and pictures during all segments of instruction</li> <li>During i-Ready lessons, click on "Español" to hear specific words in Spanish</li> <li>Utilize graphic organizers which are concrete, pictorial ways of constructing knowledge and organizing information</li> <li>Use sentence frames and questioning strategies so that students will explain their thinking/ process of how to solve word problems</li> <li>Utilize program translations (if available) for L1/ L2 students</li> <li>Reword questions in simpler language</li> <li>Make use of the ELL Mathematical Language Routines (click here for additional information)</li> <li>Scaffolding instruction for ELL Learners</li> <li>Common Core Approach to Differentiate Instruction: Students with Disabilities (pg 16-17)</li> </ul>			
Gifted and Talented:	Students at Risk for Failure:			
<ul> <li>Elevated contextual complexity</li> <li>Inquiry based or open ended assignments and projects</li> <li>More time to study concepts with greater depth</li> <li>Promote the synthesis of concepts and making real world connections</li> <li>Provide students with enrichment practice that are imbedded in the curriculum such as: <ul> <li>Application / Conceptual Development</li> <li>Are you ready for more?</li> </ul> </li> <li>Common Core Approach to Differentiate Instruction: Students with Disabilities (pg. 20)</li> <li>Provide opportunities for math competitions</li> <li>Alternative instruction pathways available</li> </ul>	<ul> <li>Assure students have experiences that are on the Concrete- Pictorial- Abstract spectrum</li> <li>Modify Instructional Strategies, reading aloud text, graphic organizers, one-on-one instruction, class website (Google Classroom), inclusion of more visu- als and manipulatives, Field Trips, Google Expedi- tions, Peer Support, one on one instruction</li> <li>Assure constant parental/ guardian contact through- out the year with successes/ challenges</li> <li>Provide academic contracts to students/ guardians</li> <li>Create an interactive notebook with samples, key vocabulary words, student goals/ objectives.</li> <li>Always plan to address students at risk in your learning tasks, instructions, and directions. Try to an- ticipate where the needs will be and then address them prior to lessons.</li> <li>Common Core Approach to Differentiate Instruc- tion: Students with Disabilities (pg 19)</li> </ul>			

## **21st Century Life and Career Skills:**

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of

#### study.

https://www.state.nj.us/education/cccs/2014/career/9.pdf				
<ul> <li>CRP1. Act as a responsible and contributing citizen and employee.</li> <li>CRP2. Apply appropriate academic and technical skills.</li> <li>CRP3. Attend to personal health and financial well-being.</li> <li>CRP4. Communicate clearly and effectively and with reason.</li> <li>CRP5. Consider the environmental, social and economic impacts of decisions.</li> <li>CRP6. Demonstrate creativity and innovation.</li> </ul>	<ul> <li>CRP7. Employ valid and reliable research strategies.</li> <li>CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>CRP9. Model integrity, ethical leadership and effective management.</li> <li>CRP10. Plan education and career paths aligned to personal goals.</li> <li>CRP11. Use technology to enhance productivity.</li> <li>CRP12. Work productively in teams while using cultural global competence.</li> </ul>			
Students are given an opportunity to commu use of technical language. They are encourag ical thinking and emphasize the importance mediums of technology, such as digital learni	nicate with peers effectively, clearly, and with the ged to reason through experiences that promote crit- of perseverance. Students are exposed to various ing, calculators, and educational websites.			

## **Technology Standards:**

All students will be prepared to meet the challenge of a dynamic global society in which they participate, contribute, achieve, and flourish through universal access to people, information, and ideas. https://www.state.nj.us/education/cccs/2014/tech/

## **8.1 Educational Technology:**

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

- A. **Technology Operations and Concepts:** Students demonstrate a sound understanding of technology concepts, systems and operations.
- B. **Creativity and Innovation:** Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
- C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- D. **Digital Citizenship:** Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
- E. **Research and Information Fluency:** Students apply digital tools to gather, evaluate, and use of information.
- F. Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

#### 8.2 Technology Education, Engineering, Design, and Computational Thinking -Programming:

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

- A. The Nature of Technology: Creativity and Innovation- Technology systems impact every aspect of the world in which we live.
- B. **Technology and Society:** Knowledge and understanding of human, cultural, and societal values are fundamental when designing technological systems and products in the global society.
- C. **Design:** The design process is a systematic approach to solving problems.
- D. Abilities in a Technological World: The designed world in a product of a design process that provides the means to convert resources into products and systems.
- E. **Computational Thinking: Programming-**Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.

Interdisciplinary Connections:				
English Language Arts:				
RF.1.4	Read with sufficient accuracy and fluency to support comprehension.			
W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.			
SL.1.1	Participate in collaborative conversations with diverse partners about <i>grade 1 topics and texts</i> with peers and adults in small and larger groups.			