

**Belvidere Cluster Wide
Mathematics Curriculum
1st grade
Updated Fall 2018**

All Belvidere Cluster curriculum and instruction areas are aligned to the New Jersey Student Learning Standards (NJSLs) in accordance with the NJ Department of Education's curriculum implementation requirements.

Interdisciplinary Connections

English Language Arts
Science and Scientific Inquiry (Next Generation)
Social Studies
Technology
Visual and Performing Arts

Technology Standards and Integration

iPads
eSpark
Go Math online resources
Xtra Math
Interactive SmartBoard activities

NJSLA Technology

8.1.2.A.2

Create a document using a word processing application.

8.1.2.A.4

Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.B.1

Create a story about a picture taken by the student on a digital camera or mobile device.

8.1.P.C.1

Collaborate with peers by participating in interactive digital games or activities.

8.1.2.E.1

Use digital tools and online resources to explore a problem or issue.

**CAREER EDUCATION
(NJDOE CTE Clusters)**

Education & Training
Finance
Information Technology
Science, Technology, Engineering & Mathematics (STEM)

21st Century Skills/ Themes

Financial, Economic, Business and Entrepreneurial Literacy
Creativity and Innovation
Critical Thinking
Problem Solving

Communication
Collaboration
Information Literacy

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- 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.
- CRP9. Model integrity, ethical leadership and effective management.
- 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.

Integrated Accommodations and Modifications

Special Education

- Printed copy of board work/notes provided
- Additional time for skill mastery
- Assistive technology
- Behavior management plan
- Center-Based Instruction
- Check work frequently for understanding
- Computer or electronic device utilization
- Extended time on tests/ quizzes
- Have student repeat directions to check for understanding
- Highlighted text visual presentation
- Modified assignment format
- Modified test content
- Modified test format
- Modified test length
- Multiple test sessions
- Multi-sensory presentation
- Preferential seating
- Preview of content, concepts, and vocabulary
- Reduced/shortened written assignments
- Secure attention before giving instruction/directions
- Shortened assignments
- Student working with an assigned partner
- Teacher initiated weekly assignment sheet
- Use open book, study guides, test prototypes
- Cubing activities
- Exploration by interest
- Flexible grouping
- Goal setting with students
- Jigsaw
- Mini workshops to re-teach or extend skills
- Open-ended activities
- Think-Pair-Share
- Varied supplemental materials

ELL

- Allowing students to correct errors (looking for understanding)

Teaching key aspects of a topic Eliminate nonessential information Using videos, illustrations, pictures, and drawings to explain or clarify allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slideshows, videos, etc.) to demonstrate student's learning

Allowing students to correct errors (looking for understanding)

Allowing the use of note cards or open-book during testing

Decreasing the amount of work presented or required

Having peers take notes or providing a copy of the teacher's notes

Modifying tests to reflect selected objectives

Providing study guides

Reducing the number of answer choices on a multiple choice test

Tutoring by peers

Explain/clarify key vocabulary terms

At Risk

Allowing students to correct errors (looking for understanding)

Teaching key aspects of a topic Eliminate nonessential information allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slideshows, videos, etc.) to demonstrate student's learning

Allowing students to select from given choices .

Allowing the use of note cards or open-book during testing

Collaborating (general education teacher and specialist) to modify vocabulary, omit or modify items to reflect objectives for the student, eliminate sections of the test, and determine how the grade will be determined prior to giving the test decreasing the amount of work presented or required .

Having peers take notes or providing a copy of the teacher's notes

Marking students' correct and acceptable work, not the mistakes

Modifying tests to reflect selected objectives

Providing study guides

Reducing the number of answer choices on a multiple choice test

Tutoring by peers

Using authentic assessments with real-life problem-solving

Using true/false, matching, or fill in the blank tests in lieu of essay tests using videos, illustrations, pictures, and drawings to explain or clarify

Flexible grouping

Goal setting with students

Jigsaw

Mini workshops to re-teach or extend skills Open-ended activities

Think-Pair-Share

Varied supplemental materials

Gifted and Talented

Alternative formative and summative assessments

Choice boards

Games and tournaments

Group investigations

Independent research and projects Interest groups for real world application

Learning contracts

Leveled rubrics

Multiple intelligence options

Personal agendas

Project-based learning
Problem-based learning
Stations/centers
Think-Tac-Toes
Tiered activities/assignments
Tiered products _____

504

Printed copy of board work/notes provided
Additional time for skill mastery
Assistive technology
Behavior management plan
Center-Based Instruction
Check work frequently for understanding
Computer or electronic device utilization
Extended time on tests/ quizzes
Have student repeat directions to check for understanding
Highlighted text visual presentation
Modified assignment format
Modified test content
Modified test format
Modified test length
Multiple test sessions
Multi-sensory presentation
Preferential seating
Preview of content, concepts, and vocabulary
Reduced/shortened written assignments
Secure attention before giving instruction/directions
Shortened assignments
Student working with an assigned partner
Teacher initiated
 weekly assignment sheet
Use open book, study guides, test prototype
Exploration by interest
Flexible grouping
Goal setting with students
Mini workshops to re-teach or extend skills
Open-ended activities
Think-Pair-Share
Varied supplemental materials

Mathematics Curriculum 1st Grade Calendar Math Unit Plan – On Going	
Title: Calendar Math	
Grade Level: 1	Approximate Length of Time: 1 week
Unit Summary: This unit will introduce students to the First Grade daily calendar routines. These routines will be used throughout the year to foster students' understanding of mathematics.	
Learning Targets	
PARCC Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Operations and Algebraic Thinking	
Cluster: Add and Subtract within 20	
Standard #:	Standard:
1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.
Domain: Number and Operations in Base Ten	
Cluster: Extend the counting sequence	
Standard #:	Standard:
1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
Cluster: Understand Place Value	
1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones.
Domain: Measurement and Data	
Cluster: Tell and write time.	
Standard # :	Standard:
1.MD.3	Tell and write time in hours and half-hours using analog and digital clocks.
Cluster: Represent and Interpret Data	
Standard # :	Standard:
1.MD.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Question:	Unit Enduring Understandings:
<ul style="list-style-type: none"> How can you use numbers to help with daily classroom routines? 	<ul style="list-style-type: none"> Numbers can be used daily. Number sense develops through experience.
Unit Objective:	
<ul style="list-style-type: none"> Students will be able to participate daily in classroom routines that involve math. 	
Evidence of Learning	

<p>Possible Formative Assessments:</p> <ul style="list-style-type: none"> ● SMART Response questions used throughout the unit. ● Workbook pages
<p>Possible Summative Assessments:</p> <ul style="list-style-type: none"> ● Unit Checklist
<p>Possible Benchmark Assessments:</p> <ul style="list-style-type: none"> ● Go Math Benchmark ● Unit Assessment
<p>Possible Alternative Assessments:</p> <ul style="list-style-type: none"> ● Choice boards - projects ● Skit
Suggested Lesson Plan
Topics
Topic #1: Calendar Routines
Topic #2: Days of the Week
Topic #3: Number of Days of School
Topic #4: Weather
Topic #5: Time
Topic #6: Number of the Day
Topic #7: Beat the Clock
<p>Materials and Curriculum Resources:</p> <ul style="list-style-type: none"> ● https://njctl.org/courses/math/1st-grade/calendar-math/ ● Calendar, clocks, counting cards
Lesson Components
<p>21st Century Skills</p> <ul style="list-style-type: none"> ● Financial, Economic, Business, and Entrepreneurial Literacy <p>21st Century Themes</p> <ul style="list-style-type: none"> ● Critical Thinking and Problem Solving ● Communication and Collaboration ● Life and Career Skills <p>CRP3. Attend to personal health and financial well-being.</p> <p>CRP4. Communicate clearly and effectively and with reason.</p> <p>CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</p> <p>CRP9. Model integrity, ethical leadership and effective management.</p> <p>CRP10. Plan education and career paths aligned to personal goals.</p>

1st Grade Unit Plan #: 1 Numbers to 120	
Title: Numbers to 120	
Grade Level: 1	Approximate Length of Time: 3 Weeks
Unit Summary: Students will study the structure of the whole number system. They will write, read (numeral and words), order and compare numbers to 120. They will identify patterns in skip counting, distinguish between odd and even, and become fluent with a number line and number grid.	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Number and Operations in Base Ten (NBT)	
Clusters: - Extend the counting sequence. - Understand place value. - Use place value understanding and properties of operations to add and subtract.	
Standard #s:	Standards:
1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. (Not assessed until unit 5)
Domain: Standards for Math Practice	
Standard#:	Standard:
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions:	Unit Enduring Understandings:
<ul style="list-style-type: none"> ● What patterns exist in number names that can be used to understand and represent larger numbers? ● How can words and symbols be used to illustrate the comparison of numbers? ● What is the meaning of less than, greater than and equal to? ● How are ordinal numbers used in everyday? 	<ul style="list-style-type: none"> ● Numbers can be used to count, label, order, identify, measure and describe things and experiences. ● Quantities can be compared using number words or numerals.
Unit Objectives:	
<ul style="list-style-type: none"> ● <i>Students will be able to compare two given numbers between 0-100.</i> ● <i>Students will be able to count to 120.</i> ● <i>Students will be able to mentally find 10 more or less than a given number.</i> 	
Evidence of Learning	
Possible Formative Assessments:	
<ul style="list-style-type: none"> ● SMART Response Questions used throughout unit ● Quizzes ● Hold up number cards that are 10 more or 10 less than number shown ● Observation ● Homework 	

Summative Assessment:	
<ul style="list-style-type: none"> • Unit Test • Chapter tests • complete a 100 grid • Drawings 	
Possible Benchmark Assessments:	
<ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
Possible Alternative Assessments:	
<ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
Suggested Lesson Plan	
Topics	Timeframe
Topic #1: Reading & Writing Numbers <ul style="list-style-type: none"> • What is a Number? • Number Writing 0-5 • Lab: Five Frame Game • Number Writing 6-10 • Lab: Ten Frame Memory • Tricky Teens • Tally Marks • Lab: Craft Stick Tallies 	5 days
Topic #2: Exploring the Number Line & Number Grid <ul style="list-style-type: none"> • Number Line • Number Grid 	2 days
Topic #3: More Than, Less Than <ul style="list-style-type: none"> • One More... One Less • Comparing Numbers • Using Symbols to Compare Numbers • Lab: Comparison Symbol Cards 	3 days
Topic #4: Skip Counting <ul style="list-style-type: none"> • Skip Counting By 2 • Skip Counting By 10 • Skip Counting By 5 • Lab: Skip Counting Puzzles 	3 days
Topic #6: Review/Unit Assessment	2 days
Materials and Curriculum Resources:	
<ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/numbers-to-120/ • Counting cubes, manipulatives, counting/number cards 	
Extra Resources	
<ul style="list-style-type: none"> • http://www.raftbayarea.org/ideas/Stack%20em%20High.pdf • http://www.raftbayarea.org/ideas/Roll%20Over%20and%20Over.pdf • approved classroom textbooks 	
Lesson Components	
21st Century Skills	
<ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy 	
21st Century Themes	
<ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills 	

CRP3. Attend to personal health and financial well-being.
CRP4. Communicate clearly and effectively and with reason.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP9. Model integrity, ethical leadership and effective management.
CRP10. Plan education and career paths aligned to personal goals.

Belvidere Cluster Wide Mathematics Curriculum 1st Grade Unit Plan # 2 Addition to 20	
Title: Addition to 20	
Grade Level: 1	Approximate Length of Time: 4 Weeks
Unit Summary: Students will gain an understanding of addition facts to 20. They will use counters, connecting cubes, the number line and the number grid to help them initially. They will also discover patterns in addition such as	

plus 1, plus 0, plus 10, and doubles. They will then use all of this knowledge to find a missing addend.

Learning Targets

PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

Domain: Operations and Algebraic Thinking (OA)

Clusters:

- Represent and solve problems involving addition and subtraction
- Understand and apply properties of operations and the relationship between addition and subtraction

Standard #s	Standards
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.3	Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i>
1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i>

Domain: Standards for Math Practice

Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.

Unit Essential Questions:

- How do pictures and objects help us solve addition problems?
- Why can you add addends in any order?
- Why is counting on helpful when solving an addition sentence?

Unit Enduring Understandings:

- We make generalizations and use symbols to represent mathematical ideas.
- Proficiency with basic facts aids estimation and computation of larger and smaller numbers.
- We must apply and adapt a variety of strategies to

<ul style="list-style-type: none"> • What does the equation sign mean? • How do you solve a missing addend problem? 	<p>solve problems.</p> <ul style="list-style-type: none"> • Numbers are related and manipulated for real world problem solving
<p>Unit Objectives:</p> <ul style="list-style-type: none"> • <i>Students will solve addition problems using objects, drawings, a number line, and a number grid.</i> • <i>Students will explore the commutative and associative properties of addition.</i> • <i>Students will relate addition to combining two groups of objects.</i> • <i>Students will understand that the equal sign is used to show two even groups.</i> 	
<p>Evidence of Learning</p>	
<p>Possible Formative Assessments:</p> <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Modeling with Manipulatives • Homework • Classwork • Quick Check with whiteboard • Observation 	
<p>Possible Summative Assessment:</p> <ul style="list-style-type: none"> • Unit Test 	
<p>Possible Benchmark Assessments:</p> <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
<p>Possible Alternative Assessments:</p> <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
<p>Suggested Lesson Plan</p>	
<p>Lessons</p>	<p>Timeframe</p>
Topic #1: Parts and Whole	1 Day
Topic #2: Adding with Manipulatives	1 Day
Topic #3: Addition Sentences	1 Day
Topic #4: Word Problems	1 Day
Topic # 5: Addition on the Number Line & Number Grid Lab – RAFT – Pick a Stick	2 Days
Topic #6: Addition Patterns -Adding Zero -Counting On 1,2,3 -Adding Ten -Patterns when Adding 10 -Doubles -Doubles Plus One	6 Days
Topic #7: Turn Around Facts Lab – Turn Around Fact Game	1 Day
Topic #8: Making 10 -with Frames -with Hands	2 Days
Topic #9: Missing Addends -Missing Addend -Missing Addends with a Number Grid Lab – RAFT – Zero Wins	2 Days

Topic #10: 3 Addends	1 Day
Topic #11: Review/Unit Assessment	2 Days
Materials and Curriculum Resources:	
<ul style="list-style-type: none"> • https://njectl.org/courses/math/1st-grade/addition-to-20/ • http://www.raftbayarea.org/ideas/Pick%20a%20Stick.pdf • http://www.raftbayarea.org/ideas/Zero%20Wins.pdf • Approved Classroom Textbooks 	
Lesson Components	
<p>21st Century Skills</p> <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy <p>21st Century Themes</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills <p>CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals.</p>	

Belvidere Cluster-wide Mathematics Curriculum 1st Grade Unit Plan #: 3 Subtraction to 20	
Title: Subtraction to 20	
Grade Level: 1	Approximate Length of Time: 4 Weeks
<p>Unit Summary: Students will gain an understanding of subtraction facts to 20. They will use counters, connecting cubes, the number line and the number grid to help them initially. They will also discover patterns in subtraction such as subtract all, zero, and ten. They will also learn strategies such as counting back, get to the ten, and fact families. They will then use all of this knowledge to find missing numbers.</p>	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	

Domain: Operations and Algebraic Thinking (OA)	
Clusters: - Represent and solve problems involving addition and subtraction - Understand and apply properties of operations and the relationship between addition and subtraction - Add and subtract within 20 - Work with addition and subtraction equations	
Standard #s:	Standards:
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.3	Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i>
1.OA.4	Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.</i>
1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i>
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions: <ul style="list-style-type: none"> How do you solve a subtraction sentence using objects and drawings? Why is counting back helpful when solving a subtraction sentence? How do operations relate to each other? How do I find differences by using related addition facts? 	Unit Enduring Understandings: <ul style="list-style-type: none"> We make generalizations and use symbols to represent mathematical ideas. Proficiency with basic facts aids estimation and computation of larger and smaller numbers. We must apply and adapt a variety of strategies to solve problems. Numbers are related and manipulated for real world problem solving
Unit Objectives: <ul style="list-style-type: none"> Students will solve subtraction problems using objects, drawings, a number line, and a number grid. 	

- Students will use patterns to help solve subtraction sentences and decompose a number leading to 10.
- Students will learn fact families to help them find missing numbers.

Evidence of Learning

Possible Formative Assessments:

- SMART Response Questions used throughout unit
- Quizzes
- Homework
- Classwork
- Observation
- Exit ticket

Summative Assessment:

- Unit Test
- Performance task-Use a deck of cards to create two addends equations and solve

Possible Benchmark Assessments:

- Go Math Benchmark
- Unit Assessment

Possible Alternative Assessments:

- Choice boards - projects
- Skit
- Demonstration
- Journaling
- Conferencing

Suggested Lesson Plan

Topics	Timeframe
Topic #1: Intro to subtraction -Real World Subtraction with Manipulatives -Subtraction Sentences -Number Stories -Comparing Groups	4 days
Topic # 2: Tools to help us subtract -Subtraction on a Number Line -Subtraction on a Number Grid	2 Days
Topic #3: Subtraction patterns -Subtraction Zero -Subtracting All -Subtracting 1,2,3 -Subtracting Ten -Patterns when Subtracting 10 Lab – RAFT – Zero Wins	5 days
Topic #3: Fact Families -Fact Families Lab –Fact Family Domino Grab -Fact Triangles Lab – RAFT – Math Action Goes Both Ways	3 days
Topic #4: Missing Number	2 days
Topic #5: Get to the 10	2 days
Topic #6: Review/Unit Assessment	2 days

Materials and Curriculum Resources:

- <https://njctl.org/courses/math/1st-grade/subtraction-to-20/>
- <http://www.raftbayarea.org/ideas/Math%20Action%20Goes%20Both%20Ways.pdf>
- <http://www.raftbayarea.org/ideas/Zero%20Wins.pdf>

Approved Classroom Textbooks

Lesson Components
<p>21st Century Skills</p> <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy <p>21st Century Themes</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills <p>CRP3. Attend to personal health and financial well-being.</p> <p>CRP4. Communicate clearly and effectively and with reason.</p> <p>CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</p> <p>CRP9. Model integrity, ethical leadership and effective management.</p> <p>CRP10. Plan education and career paths aligned to personal goals.</p>

Belvidere Clusterwide Mathematics Curriculum 1st Grade Unit Plan #: 4 Place Value	
Title: Place Value	
Grade Level: 1	Approximate Length of Time: 3 Weeks
<p>Unit Summary: The students will gain an understanding of the ones and tens place value. They will use this information to help compare two digit numbers using comparison symbols.</p>	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Numbers and Operations in Base Ten	
<p>Clusters:</p> <ul style="list-style-type: none"> - Understand place value. - Use place value understanding and properties of operations to add and subtract. 	

Standard #s:	Standards:		
1.NBT.2	<p>Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> - 10 can be thought of as a bundle of ten ones — called a “ten.” - The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. - The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 		
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.		
Domain: Standards for Math Practice			
Standard #	Standard		
MP1	Making sense of problems and persevere in solving them.		
MP2	Reason abstractly and quantitatively.		
MP3	Construct viable arguments and critique the reasoning of others.		
MP4	Model with mathematics.		
MP5	Use appropriate tools strategically.		
MP6	Attend to precision.		
MP7	Look for and make use of structure.		
MP8	Look for and express regularity in repeated reasoning.		
<table border="1"> <tr> <td> Unit Essential Questions: <ul style="list-style-type: none"> • How does the position of a digit in a number affect its value? • How are place value patterns repeated in numbers? </td> <td> Unit Enduring Understanding: <ul style="list-style-type: none"> • In two digit numbers each digit represents a value in the tens and/or ones place. </td> </tr> </table>		Unit Essential Questions: <ul style="list-style-type: none"> • How does the position of a digit in a number affect its value? • How are place value patterns repeated in numbers? 	Unit Enduring Understanding: <ul style="list-style-type: none"> • In two digit numbers each digit represents a value in the tens and/or ones place.
Unit Essential Questions: <ul style="list-style-type: none"> • How does the position of a digit in a number affect its value? • How are place value patterns repeated in numbers? 	Unit Enduring Understanding: <ul style="list-style-type: none"> • In two digit numbers each digit represents a value in the tens and/or ones place. 		
Unit Objectives: <ul style="list-style-type: none"> • <i>Students will distinguish between the tens and ones place value.</i> • <i>Students will compare two digit numbers according to their value.</i> 			
Evidence of Learning			
Possible Formative Assessments: <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Modeling with ten blocks 			
Summative Assessment: <ul style="list-style-type: none"> • Unit Test 			
Possible Benchmark Assessments: <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 			
Possible Alternative Assessments: <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 			
Suggested Lesson Plan			
Topics	Timeframe		
Topic #1: Digits Lab – RAFT – Abacus Primer	2 days		

Topic #2: Base Ten Blocks	1 day
Topic #3: Ones & Tens Lab – RAFT – Give & Take	7 days
Topic #4: Comparing Lab – RAFT – Place Your Number Value	3 days
Review & Unit Test	2 days
Materials and Curriculum Resources:	
<ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/place-value/ • http://www.raftbayarea.org/ideas/Abacus%20Primer.pdf • http://www.raftbayarea.org/ideas/Give%20and%20Take.pdf • http://www.raftbayarea.org/ideas/Place%20Your%20Number%20Value.pdf • Approved Classroom Textbooks 	
Lesson Components	
<p>21st Century Skills</p> <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy <p>21st Century Themes</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills <p>CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals.</p>	

Belvidere Cluster Wide Mathematics Curriculum 1st Grade Unit Plan: #5 - 2 Digit Addition	
Title: Two Digit Addition	
Grade Level: 1	Approximate Length of Time: 3 Weeks
Unit Summary: Students will gain an understanding of two digit addition.	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Number and Operations in Base Ten	
Cluster: - Use place value understanding and properties of operations to add and subtract.	
Standard #s:	Standards:

1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions: <ul style="list-style-type: none"> • How do operations affect numbers? • What makes a computational strategy both effective and efficient? • How can I use what I know about tens and ones to add two-digit numbers? 	Unit Enduring Understandings: <ul style="list-style-type: none"> • How to add multiples of ten within 100. • How to add two digit numbers with and without regrouping.
Unit Objectives: <ul style="list-style-type: none"> • Students will add multiples of ten mentally • Students will add two digit numbers with and without regrouping. 	
Evidence of Learning	
Possible Formative Assessments: <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Exit ticket • Observation • Homework • Classwork 	
Possible Summative Assessment: <ul style="list-style-type: none"> • Unit Test 	
Possible Benchmark Assessments: <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
Possible Alternative Assessments: <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
Suggested Lesson Plan	
Topics	Timeframe
Topic #1: Adding with tens <ul style="list-style-type: none"> • Adding Multiples of Ten to Multiples of Ten w/ Blocks 	5 days

<ul style="list-style-type: none"> • Adding Multiples of Ten and 2 Digit Numbers w/ Blocks • Lab: Hidden Picture Partner • Adding Ten in our Head • Patterns when Adding Ten • Adding Multiples of Ten in our Head • Lab – RAFT – Apple Math 	
<p>Topic #2: Two digit plus one digit without regrouping/</p> <ul style="list-style-type: none"> • Two Digit Plus One Digit Pt 1 • Two Digit Plus One Digit Pt 2 • Two Digit Plus Two Digit Pt 1 • Two Digit Plus Two Digit Pt 2 • Lab – RAFT Carpet Square Math 	4 days
<p>Topic #3: Two digit plus one digit with regrouping</p> <ul style="list-style-type: none"> • Introduction to Regrouping • Regrouping Without Blocks • Lab: Two Digit Addition Roll • More Regrouping • Lab: Addition with Regrouping Book • Lab: Two Digit Addition Domino 	4 days
Topic #4: Review/Assessment	2 days
<p>Materials and Curriculum Resources:</p> <ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/2-digit-addition/ • http://www.raftbayarea.org/ideas/Apple%20Match.pdf • http://www.raftbayarea.org/ideas/Carpet%20Square%20Math.pdf • Approved Classroom Textbook 	
Lesson Components	
<p>21st Century Skills</p> <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy <p>21st Century Themes</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills <p>CRP3. Attend to personal health and financial well-being.</p> <p>CRP4. Communicate clearly and effectively and with reason.</p> <p>CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.</p> <p>CRP9. Model integrity, ethical leadership and effective management.</p> <p>CRP10. Plan education and career paths aligned to personal goals.</p>	

**Belvidere Cluster Wide
Mathematics Curriculum
1st Grade
Unit Plan #: 6 Two-digit Subtraction**

Title: Two Digit Subtraction	
Grade Level: 1	Approximate Length of Time: 3 Weeks
Unit Summary: Students will gain an understanding of subtracting 10 and multiples of 10. They will use the base ten blocks along with place value concepts to help aid their understandings. The students will be introduced to subtracting 1 and 2 digit numbers from a 2 digit number.	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Number and Operations in Base Ten	
Cluster: - Use place value understanding and properties of operations to add and subtract.	
Standard #s:	Standards:
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
Domain: Standards for Math Practice		
Standard #	Standard	
MP1	Making sense of problems and persevere in solving them.	
MP2	Reason abstractly and quantitatively.	
MP3	Construct viable arguments and critique the reasoning of others.	
MP4	Model with mathematics.	
MP5	Use appropriate tools strategically.	
MP6	Attend to precision.	
MP7	Look for and make use of structure.	
MP8	Look for and express regularity in repeated reasoning.	
Unit Essential Questions:		Unit Enduring Understanding:
<ul style="list-style-type: none"> • How can I use what I know about tens and ones to subtract two-digit numbers? • What pattern is seen when subtracting 10? • How can using number relationships help me solve subtraction problems for two digit numbers? 		<ul style="list-style-type: none"> • When subtracting 10, the tens place goes down one and the ones place stays the same. • When subtracting 2 digit numbers, you subtract the ones first and then the tens.
Unit Objectives:		
<ul style="list-style-type: none"> • <i>Students will subtract ten from multiples of 10.</i> • <i>Students will mentally subtract 10 from two digit numbers.</i> • <i>Students will subtract multiples of 10 from multiples of 10.</i> • <i>Students will subtract 1 and 2 digit numbers from 2 digit numbers without regrouping.</i> 		
Evidence of Learning		
Possible Formative Assessments:		
<ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Homework • Observation • Classwork 		
Summative Assessment:		
<ul style="list-style-type: none"> • Unit Test • Performance Assessment modeling with base ten blocks 		
Possible Benchmark Assessments:		
<ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 		
Possible Alternative Assessments:		
<ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 		
Suggested Lesson Plan		
Topics		Timeframe
Topic #1: Subtracting Ten		5 days
Topic #2: Subtracting Multiples of Ten		3 days
Quiz #1		1 day

Lab: Subtracting Ten Dice Roll	
Topic #3: Two Digit Minus One Digit	1 day
Topic #4: Two Digit Minus Two Digit	3 days
Quiz #2	1 day
Lab: Subtraction Spin	
Topic #5: Review/Assessment	2 days
Lab: Subtraction Around the Room	
Materials and Curriculum Resources:	
<ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/2nd-digit-subtraction/ • Approved classroom textbooks 	
Lesson Components	
21st Century Skills <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy 21st Century Themes <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration • Life and Career Skills CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals.	

Belvidere Cluster Wide Mathematics Curriculum 1st Grade Unit Plan #: 7	
Title: Time	
Grade Level: 1	Approximate Length of Time: 2 Weeks
Unit Summary: Students will gain an understanding of time to the hour and half-hour. They will demonstrate fluency in telling time in both digital and analog format.	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Measurement and Data	
Cluster: - Tell and write time.	
Standard #:	Standard:
1.MD.3	Tell and write time in hours and half-hours using analog and digital clocks.
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.

MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions: <ul style="list-style-type: none"> • What tools are used to measure time? • Why is telling time important? • How do we use clocks to tell time? • What is the difference between analog and digital time? 	Unit Enduring Understandings: <ul style="list-style-type: none"> • Telling time is an essential life skill • Time can be written and read in analog and digital format • An hour is more time than a minute
Unit Objectives: <ul style="list-style-type: none"> • <i>Students will read and write time to the hour and half hour on an analog clock.</i> • <i>Students will read and write time to the hour and half hour on a digital clock.</i> • <i>Students will distinguish between the minute hand and the hour hand.</i> 	
Evidence of Learning	
Possible Formative Assessments: <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Observation • Matching analog and digital clocks • Time Cards 	
Possible Summative Assessment: <ul style="list-style-type: none"> • Unit Test 	
Possible Benchmark Assessments: <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
Possible Alternative Assessments: <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
Suggested Lesson Plan	
Topics	Timeframe
Topic #1: Numbers & Hands of a Clock Lab – Paper Clocks Activity	3 days
Topic #2: Time to the Hour (Analog and Digital) Lab - Time to the Hour Memory	2 days
Topic #3: Time to the Half Hour (Analog & Digital)	3 days
Topic #4: Combination of Time Skills Lab – I Have Who Has Game	1 day
Topic #5: Review/Assessment	1 day
Materials and Curriculum Resources: <ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/time/ • Approved Classroom Textbooks 	
Lesson Components	

21st Century Skills

- Financial, Economic, Business, and Entrepreneurial Literacy

21st Century Themes

- Critical Thinking and Problem Solving
- Communication and Collaboration
- Life and Career Skills

CRP3. Attend to personal health and financial well-being.**CRP4. Communicate clearly and effectively and with reason.****CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.****CRP9. Model integrity, ethical leadership and effective management.****CRP10. Plan education and career paths aligned to personal goals.**

Belvidere Cluster-Wide Mathematics Curriculum 1st Grade Unit Plan # 8 Length	
Title: Length	
Grade Level: 1	Approximate Time: 2 Weeks
Unit Summary: The students will gain an understanding of nonstandard and standard length measurement. This unit will also teach students how to compare the length of two and three objects and order objects based on their length.	
Learning Targets	
PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters	
Domain: Measurement and Data	
Custer: - Measure lengths indirectly and by iterating length units	
Standard #s:	Standards:
1.MD.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.MD.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. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i>
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions: <ul style="list-style-type: none"> • What are the tools of measurement and how are they used? • Why do we measure? • Why do we have different tools to measure? 	Unit Enduring Understandings: <ul style="list-style-type: none"> • Objects have distinct attributes that can be measured. • Measurement is a way to describe and compare objects. • A specific process is used to measure objects. • Measurement helps us understand and describe our world.
Unit Objectives: <ul style="list-style-type: none"> • <i>Students will successfully use blocks, their bodies and other non-standard objects to measure items by placing them end to end.</i> • <i>Students will compare the length of two and three objects.</i> • <i>Students will order items based on their length.</i> 	
Evidence of Learning	
Possible Formative Assessments: <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Performance Tasks: Measure and record length of objects by whole number of length units, order objects by length, compare lengths of objects. 	
Summative Assessment: <ul style="list-style-type: none"> • Unit Test • Performance Task - measure a variety of objects 	
Possible Benchmark Assessments: <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
Possible Alternative Assessments: <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
Suggested Lesson Plan	
Topics	Timeframe
Topic #1: Comparing Objects <ul style="list-style-type: none"> • Comparing Two Objects • Comparing Three Objects • Ordering Three Objects 	3 days
Topic #2: Measuring with Blocks	2 days

<ul style="list-style-type: none"> ● Using Blocks to Measure ● Lab: Comparison Game ● Using Blocks to Measure Pt. 2 	
Topic #3: Measuring with Nonstandard Objects <ul style="list-style-type: none"> ● Classroom Items to Measure ● Lab: RAFT – Measure Up 	1 day
Topic #4: Using a “Ruler” to Measure	2 days
Topic #5: Measuring with Our Body <ul style="list-style-type: none"> ● Using Our Body to Measure ● Measuring in Feet ● Lab: Foot Measuring 	
Topic #5: Review/Assessment	2 days
Materials and Curriculum Resources: <ul style="list-style-type: none"> ● https://njctl.org/courses/math/1st-grade/length/ ● http://www.raftbayarea.org/ideas/Measure%20Up.pdf ● Approved Classroom Textbooks 	
Lesson Components	
21st Century Skills <ul style="list-style-type: none"> ● Financial, Economic, Business, and Entrepreneurial Literacy 21st Century Themes <ul style="list-style-type: none"> ● Critical Thinking and Problem Solving ● Communication and Collaboration ● Life and Career Skills CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals.	

**Belvidere Cluster Wide
Mathematics Curriculum
1st Grade
Unit Plan #: 9 Geometry**

Title: Geometry

Grade Level: 1

Approximate Length of Time: 4 Weeks

Unit Summary:

Students will gain an understanding of two-dimensional and three-dimensional shapes and the relationships between them. Students will observe, describe, compare, classify, represent, and build 2-D & 3-D shapes. They will learn to use geometric language to describe and identify important features of shapes. In addition, the students will divide shapes into equal parts and label the parts as $\frac{1}{2}$ and $\frac{1}{4}$.

Learning Targets

PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

Domain: Geometry

Cluster:

- Reason with shapes and their attributes.

Standard #s:

Standards:

1.G.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.

1.G.2

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

1.G.3

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these

	examples that decomposing into more equal shares creates smaller shares.
Domain: Standards for Math Practice	
Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.
Unit Essential Questions: <ul style="list-style-type: none"> • How do we show an equal part of something? • How are numbers used to show fractions? • How can I identify and describe solid figures by describing the faces, edges, and sides? • What are the attributes of shapes? 	Unit Enduring Understandings: <ul style="list-style-type: none"> • Objects can be described and compared using their geometric attributes. • Parts of a whole can be represented as fractions.
Unit Objectives: <ul style="list-style-type: none"> • <i>Students will describe 2D & 3D shapes by their attributes.</i> • <i>Students will compose 2D & 3D shapes.</i> • <i>Students will divide shapes into equal shares.</i> 	
Evidence of Learning	
Possible Formative Assessments: <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Homework • Classwork • Identify shapes within the classroom • Observation • Exit Ticket 	
Possible Summative Assessment: <ul style="list-style-type: none"> • Unit Test 	
Possible Benchmark Assessments: <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
Possible Alternative Assessments: <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
Suggested Lesson Plan	
Topics	Timeframe
Topic #1: 2D Shapes - 2D Shapes Lab – RAFT – I Can Find a Shape Like That	2 days
Topic #2: Attributes	4 days

<ul style="list-style-type: none"> - Sides and Corners - Open & Closed - Sorting by Attributes Lab – RAFT – Shape Fun	
Topic #3: Composite Shapes	1 Day
Topic #4: Orientation	1 Day
Topic #5: 3D Shapes <ul style="list-style-type: none"> - Faces and Corners - Rectangular Prisms & Cubes - Cones, Cylinders, & Spheres 	4 days
Topic #6: Fractions <ul style="list-style-type: none"> - Introductions - Halves - Fourths/Quarters 	5 days
Topic #5: Review/Assessment	2 days
Materials and Curriculum Resources: <ul style="list-style-type: none"> ● https://njctl.org/courses/math/1st-grade/geometry/ ● http://www.raftbayarea.org/ideas/1%20can%20Find%20a%20Shape%20like%20That.pdf ● http://www.raftbayarea.org/ideas/Shape%20Fun.pdf ● Approved Cluster Textbooks 	
Lesson Components	
21st Century Skills <ul style="list-style-type: none"> ● Financial, Economic, Business, and Entrepreneurial Literacy 21st Century Themes <ul style="list-style-type: none"> ● Critical Thinking and Problem Solving ● Communication and Collaboration ● Life and Career Skills CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals.	

**Belvidere Cluster Wide
Mathematics Curriculum
1st Grade
Unit Plan #: 10 Data**

Title: Data

Grade Level: 1

Approximate Length of Time: 2 Weeks

Unit Summary:

Students will gain an understanding of bar graphs, picture graphs, and Venn diagrams. They will pose questions and collect and sort information about data. Students will also compare information represented on the graphs or diagram.

Learning Targets

PARCC ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

Domain: Measurement and Data

Cluster:

- Represent and interpret data

Standard #:

Standard:

1.MD.4

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Domain: Standards for Math Practice

Standard #	Standard
MP1	Making sense of problems and persevere in solving them.
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP5	Use appropriate tools strategically.
MP6	Attend to precision.
MP7	Look for and make use of structure.
MP8	Look for and express regularity in repeated reasoning.

<p>Unit Essential Questions:</p> <ul style="list-style-type: none"> • How does a graph give information without many words? • When do we use graphs? • Why do we use graphs? • What are some ways to gather, record, and use data on a graph? 	<p>Unit Enduring Understandings:</p> <ul style="list-style-type: none"> • Graphs help us understand information • Graphs convey data in a concise way
<p>Unit Objectives:</p> <ul style="list-style-type: none"> • <i>Students will draw and interpret picture graphs.</i> • <i>Students will draw and interpret bar graphs.</i> • <i>Students will accurately read and write tally marks.</i> • <i>Students will use Venn diagrams to compare two or more objects.</i> 	
<p>Evidence of Learning</p>	
<p>Possible Formative Assessments:</p> <ul style="list-style-type: none"> • SMART Response Questions used throughout unit • Quizzes • Create tally charts, surveys, and tables as a class 	
<p>Possible Summative Assessment:</p> <ul style="list-style-type: none"> • Unit Test 	
<p>Possible Benchmark Assessments:</p> <ul style="list-style-type: none"> • Go Math Benchmark • Unit Assessment 	
<p>Possible Alternative Assessments:</p> <ul style="list-style-type: none"> • Choice boards - projects • Skit • Demonstration • Journaling • Conferencing 	
<p>Suggested Lesson Plan</p>	
<p>Topics</p>	<p>Timeframe</p>
<p>Topic #1: Tallies - Tally Marks - Tally Chart</p>	<p>2 days</p>
<p>Topic #2: Picture Graphs</p>	<p>1 day</p>
<p>Topic #3: Bar Graphs - Bar Graph Lab – Candy Graph</p>	<p>2 days</p>
<p>Topic #4: How Many More/How Many Less Lab – RAFT – Dinosaur, Dinosaur</p>	<p>1 day</p>
<p>Topic #5: Subtracting to Compare</p>	<p>1 day</p>
<p>Topic #6: Venn Diagrams</p>	<p>1 day</p>
<p>Topic #7: Review/Assessment</p>	<p>2 days</p>
<p>Materials and Curriculum Resources:</p> <ul style="list-style-type: none"> • https://njctl.org/courses/math/1st-grade/data/ • http://www.raftbayarea.org/ideas/Dinosaur%20Dinosaur.pdf • Approved Classroom Textbooks 	
<p>Lesson Components</p>	
<p>21st Century Skills</p> <ul style="list-style-type: none"> • Financial, Economic, Business, and Entrepreneurial Literacy 	
<p>21st Century Themes</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving 	

- Communication and Collaboration
- Life and Career Skills

CRP3. Attend to personal health and financial well-being.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP9. Model integrity, ethical leadership and effective management.

CRP10. Plan education and career paths aligned to personal goals.