Trimester	Unit Title	Recommended Instructional Days					
1	<b>Basic Facts and Relationships</b>	nips 16 - 20 Days					
Domain							
Strand:	Strand:						
<ul> <li>2.OA.A.1- Represent and solve problems involving addition and subtraction. Use addition and subtraction within 100 to solve one- and two- steps world problems, involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</li> <li>2.OA.B.2- Add and subtract within 20. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit number.</li> <li>2.0A.C.4 - Work with equal groups of objects to gain foundations for multiplication. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</li> </ul>							
Major Cluster Supporting Cluster	O Additional Cluster						
Progress Indicator:							
Mathematical Practices:							
<ol> <li>Make sense of problems and persevere in solv</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reference</li> <li>Model with mathematics.</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reference</li> </ol>	ving them. eason of others. easoning.						

#### Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-CLKS within Unit

#### **Essential Questions:**

- Lesson 3.1- How can you use double facts to find sums for near double facts?
- Lesson 3.2- What are some ways to remember sum?
- Lesson 3.3- How is the make a ten strategy used to find sums?
- Lesson 3.4- How do you add three numbers?
- Lesson 3.5- How are addition and subtraction related?
- Lesson 3.6- What are some ways to remember differences?
- Lesson 3.7- How does getting to 10 in subtraction help when finding difference?
- Lesson 3.8- How are bar models used to show addition and subtraction problems?
- Lesson 3.9- How are number sentences used to show addition and subtraction situations?
- Lesson 3.10- How can acting it out help when solving a problem about equal groups?

#### Essential Understandings:

- Lesson 3.1- Use double facts as a strategy for finding sums for near double facts.
- Lesson 3.2- Recall sums for basic facts using properties and strategies.
- Lesson 3.3- Recall sums for addition facts using the make a ten strategy.
- Lesson 3.4- Find sums of three addends by applying the Commutative and Associative Properties of Addition.
- Lesson 3.5- Use the inverse relationship of addition and subtraction to recall basic facts.
- Lesson 3.6- Recall differences for basic facts using mental strategies.
- Lesson 3.7- Find differences on a number line to develop the mental strategy of decomposing to simplify facts.
- Lesson 3.8- Use bar models to represent a variety of addition and subtraction situations.
- Lesson 3.9- Write equations to represent and solve a variety of additional and subtraction situations.
- Lesson 3.10- Solve problems involving equal groups by using the strategy act it out.

# <u>Vocabulary</u>

- sums
- addends
- differences

# **Suggested Activity Description:**

Personal Math Trainer, Tutorial Videos, Vocabulary Game, Reading Grab and Go Activity, Explore and Guided/Independent Practice related to the NJSLS, Evaluation Online Activity, Essential Question Discussion and Check –In, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Success for English Learners Activity, Performance Task

# Interdisciplinary Connections:

**STEM Activity:** In Chapter 3, children extend their understanding of basic facts and the relationship between addition and subtraction, by practicing subtraction facts. These same topics are often used in the development of various science concepts and process skills. Help children make the connection between math and science through the S.T.E.M. activities and activity worksheets found at Think Central.

In Chapter 3, children connect math and science with the S.T.E.M. activity It's in the Air! and the accompanying worksheets (pages 95 and 96). Through this S.T.E.M. Activity, children will connect the GO Math! Chapter 3 concepts and skills with the breathing rates of various animals by finding the difference between the breathing rates of two animals. It is recommended that this S.T.E.M. activity be used after Lesson 3.7.

#### Science:

1. Explain to children that living things have different needs. Animals and plants are living things with some of the same needs, such as water and air. Animals have other needs, such as food and shelter. The needs of plants also include light and nutrients from the soil. • Have children name 6 animals and 5 plants. Ask them to find how many living things in all are in the two lists. 11 living things

2. Discuss with children the properties of flowering plants, including color. As the children name the colors of various flowering plants, write this information on the board. • Have children write addition sentences to show various combinations of flowers. For example, for the flowers above, they might write 4 + 5 = 9. • Have children explain a strategy they can use to find the sum.

# Social Studies:

1. Discuss with children the importance of rules in the classroom and at school. Explain that rules help people stay safe. For example, it is a rule not to run in the hallways so people do not get hurt. • Have children list 3 safety rules for the classroom and 4 safety rules for the school. Ask them to find how many rules in all are in the two lists. 7 rules • You may wish to have children make posters with the rules that can be displayed.

2. Discuss the calendar with children. Review how to identify the days of the week and the dates for those days. Ask questions such as "How many Mondays are in the month?" • Have children solve this problem. Mimi plays soccer every Tuesday and Friday. How many times does she play this month? • Have children count the number of Tuesdays and the number of Fridays in the current month. Then have them write a number sentence for the problem and solve.

# Language Arts:

1. Vocabulary Builder pg. 161 - **Visualize It** Make sure children understand that they should sort the Review Words and record them in the Venn diagram. Have children share how they sorted the words and tell how they decided to place each one. **Understand Vocabulary** You may want to remind children that addition sentences have a plus sign and subtraction sentences have a minus sign.

2. Doubles Fun on the Farm - (From the Grab and Go Differentiated Center Kit)

3. Game Time! - (From the Grab and Go Differentiated Center Kit)

Spot Light On: Recognizing similarities and differences of people and communities; variations in families.

Social and Emo <i>Comp</i>	tional Learning: etencies	Social and Emotional Learning: Sub-Competencies				
SEL Competencies: • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making		<ul> <li>Recognizing the importance of self-confidence in handling daily tasks and challenges.</li> <li>Demonstrate an awareness of the expectations for social interactions in a variety of ways.</li> <li>Demonstrate an understanding of the need for mutual respect when viewpoints differ.</li> <li>Identify and apply ways to persevere through alternative methods to achieve goals.</li> <li>Utilize positive communication and social skills to interact effectively with others.</li> <li>Develop, implement, and model effective problem solving and critical thinking skills.</li> </ul>				
Assessment To show evidence of meeting the s engage	s (Formative) tandard/s, students will successfully e within:	Assessments (Summative) To show evidence of meeting the standard/s, students will successfully complete:				
Formative Assessments: • Teacher Observations • Exit Tickets Journals • Homework/Classwork • Te	• Quizzes • Self Assessments • Math eacher created assessments	Benchmarks & Summative Assessments: Chapter/Unit Assessments • Standardized Tests • District Assessments • Project-based Assessments				
Differentiated Student Access to Content: Teaching and Learnin <u>g <i>Resources/Materials</i></u>						
Core Resources	CoreAlternateResourcesCore ResourcesIEP/504/At-Risk/ESL		Gifted & Talented Core Resources			
Go Math Workbook, IXL,ST MATH 60 minutes a week, Personal Math Trainer, Math on the Spot Videos, My HRW, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, ST Math, Edulastic, Achieve the	Math Workbook, IXL,ST TH 60 minutes a week, sonal Math Trainer, Math on the t Videos, My HRW, Khan ademy, Illustrative Mathematics, rm360, TeacherTube, BrainPOP, ckle, LearnZillion, MobyMax, Math, Edulastic, Achieve the		ST Math special projects, G& T tasks, Enrichment worksheets, Art of Problem Solving, Leveled assessments			

# Grade 2 Mathematics Unit 3 Basic Facts and Relationships

Core, Desmos						
Supplemental Resources						
<ul> <li>Technology:</li> <li>Chromebooks • Online math manipulatives</li> <li>Other:</li> <li>Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives</li> </ul>						
Differentiated Student Access to Content: Recommended <u>Strategies &amp; Techniques</u>						
Core Resources	Alternate Core Resources IEP/504/At-Risk/ESL	ELL Core Resources	Gifted & Talented Core			
Deliver instruction utilizing varied learning styles including audio, visua and tactile/kinesthetic, provide individual instruction as needed, mod assessments and/or rubrics, repeat	l, Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake test for additional credit, provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks.	Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect student to related			
	Disciplinary Concept(s): Creativit	y and Innovation				
NJSLS CAREER	Core Ideas:	Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills				

**READINESS, LIFE** 

LITERACIES & KEY SKILLS	Performance Expectation/s:         9.4.5.CL3: Participate in a brainstorming session with individuals we perspectives to expand one's thinking about a topic of curiosity				
	Career Readiness, Life Literacies, & Key Skills Practices				
	<ul> <li>Act as a responsible and contributing community member and employee.</li> <li>Attend to financial well-being.</li> <li>Consider the environmental, social and economic impacts of decisions.</li> <li>Demonstrate creativity and innovation.</li> <li>Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>Model integrity, ethical leadership and effective management.</li> <li>Plan education and career paths aligned to personal goals.</li> <li>Use technology to enhance productivity, increase collaboration and communicate effectively.</li> <li>Work productively in teams while using cultural/global competence.</li> </ul>				

New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)									
	Amistad Law: N.J.S.A. 18A 52:16A-88		Holocaust Law: N.J.S.A. 18A:35-28		LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35	X	Diversity & Inclusion: N.J.S.A. 18A:35-4.36a		Standards in Action: <i>Climate Change</i>