Mathematics

Topic Name: Step-up To Grade 1 **Resource: enVision Math 2.0, Pearson, 2016** **Duration: June** **Step-Up To Grade 1- (10 days)**

Enduring Understandings

Step-Up To Grade 1

- Parts of a whole is one interpretation of addition. Addition equations can be used to show parts of a whole.
- Facts with sums 6 through 10 can be broken into 5 plus some more.
- Two numbers can be added in any order and the sum will stay the same,
- A missing part of a whole is one interpretation of subtraction. Subtraction equations can be used to show a missing part of a subtraction situation.
- Addition and subtraction have an inverse relationship. This relationship can be used to solve subtraction facts; every subtraction fact has a related addition fact.
- Three numbers can be grouped and added in any order.
- The decade numbers are built on groups of ten. The oral names are similar but not the same as the number of tens counted.
- Counting forward by 1s to 120 follows the same place-value counting rules as counting forward by 1s to two-digit numbers.
- When objects are grouped in sets of 10 and leftovers (ones), counting the groups of ten and adding ones tells how many there are in all. Numbers can be used to tell how many.
- 1 more, 1 less, 10 more, 10 less express a relationship between 2 numbers.

Essential Questions

Step-Up to First Grade

- How can I apply what I have learned to future math concepts?

Focus of Standards			
Student Outcomes	**Skills**	**Assessments**	**Resources**
Step-Up - I can write equations to show the parts and the whole, - I can use a ten-frame to help solve addition facts with 5 and 10. - I can use the same addends to write two different equations with the same sum. - I can write equations to find the missing part of a whole. - I can use addition facts I know to help me solve subtraction problems. - I can find different strategies to add these numbers, - I can count by 10s to 120. - I can count by 1s to 120. - I can count and write numbers by tens and ones. - I can find numbers that are more or less than a	- Solving problems - Understanding concepts - Reasoning	**Formative** - Diagnostic assessment - Exit tickets - Round robin group work - Analysis of homework - Class polls - Show of hands: 1 for all set, 2 for just ok, 3 for help - One thing I learned/One thing I need work on **Summative** - End topic tests	*Envision Math 2.0* **Digital** - *Student and Teacher eTexts* - *Interactive Math story* - *Home-School Connection* **Classroom Math Materials** - Counters - Connecting cubes - Tape - Cube trains - Objects of different sizes - Different sized cups

given number.		Post group topic • EOY tests • SGO tests **Benchmark** • Diagnostic Assessment • Pearson benchmark tests **Alternative** • Math diagnosis and intervention system 2.0 • Reteaching Set • Online Learning ○ Games • Higher Order Thinking Problems • Leveled homework and practice • Center games • One on one conferencing	• Balance scale • Paper bag • Measuring cups, books • Number cards 0 - 10 • Number cards 11 - 20 • Double ten-frame • Place-value blocks

Vocabulary

Step Up To Grade 1
Add, equals, equation, plus, sum, difference, minus, subtract, ones tens, more, less

NJ Student Learning Standards

Step Up

Cliffside Park Public Schools   Kindergarten

Operations and Algebraic Thinking

1.OA.A.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.B.3 Apply properties of operations as strategies to add and subtract.1 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.)

1.OA.B.4 Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.

1.OA.C.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.D.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.

Number and Operations in Base Ten

1.NBT.A.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.B.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. . . .

1.NBT.B.2c Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 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.B.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.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Standards for Mathematical Practice

MP1. Make 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.

Career Ready Practices
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.

NJSLS Technology Standards
8.1 Educational Technology
E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.
8.2 Technology Education, Engineering, Design, and Computational Thinking
E. Computational Thinking: Programming: Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.
8.2.2.E.1 List and demonstrate the steps to an everyday task.

Interdisciplinary Connections
NJSLS for ELA and Science are introduced, developed, and practiced in the context of learning math content and engaging in mathematical practices.
ELA

- RI.K.3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- L.K.6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

Science

- K-PS2-1 Scientists use different ways to study the world.
- K-LS1-1 Scientists look for patterns and order when making observations about the world.

NJSLS: 21st Century Life and Careers

Key Subjects and 21st Century: Themes Mastery of key subjects and 21st century themes is essential to student success. Key subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics. In addition, schools must promote an understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into key subjects:

• Relate the following standards to careers that involve mathematics

9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals
9.2.4.A.4 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.

Integrated Differentiation/Accommodations/Modifications *(Alternate Modes of Instruction and Support)*		
Modifications to Support Gifted and Talented Students	**Modifications to Support English Language Learners**	**Modifications to Support Our Learners (Students with IEPs/504s and At-Risk Learners**
Provide appropriate challenge for wide ranging skills and development areas. Participate in inquiry and project-based learning units of study Assigning roles within partnerships Differentiated supports: content, process, product, environment	Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary) Pair visual prompts with verbal presentations Front load and immerse students in literacy and language experiences related to content Provide students with visual models, sentence stems, concrete objects, and hands-on materials. Model procedures for life skills. Collaboration between ELL and general education teacher to maximize learning	Review student individual educational plan and/or 504 plan. Establish procedures for accommodations and modifications for assessments as per IEP/504. Establish procedures for modification of classwork and homework as per IEP/504. Modify classroom environment to support academic and physical needs of the students as per IEP/504. Provide appropriate accommodations, instructional adaptations, and/or modifications as determined by the IEP or 504 team. Differentiation through content, process, product, environment Provide Title I services to students not meeting academic standards in ELA and/or Math. Provide instructional adaptations and interventions in the general education classroom. Modify classroom environment to support student needs. Differentiated instruction

		Basic Skills
		Intensive individual intervention

Sources
New Jersey Student Learning Standards (2016) http://www.state.nj.us/education/cccs/2016/math/standards.pdf
New Jersey Student Learning Standards: Technology (2014) - http://www.state.nj.us/education/cccs/2014/tech/8.pdf
New Jersey Student Learning Standards: ELA (2014) - https://www.state.nj.us/education/cccs/2016/ela/k.pdf
New Jersey Science and Engineering Practices - https://www.state.nj.us/education/aps/cccs/science/resources/QRk2.pdf
New Jersey Career Awareness, Exploration, and Preparation -https://www.state.nj.us/education/cccs/2014/career/92.pdf
Pearson enVision 2.0 (2016) https://www.pearsonrealize.com/index.html#/