



BOE Approved 8/18

Cliffside Park Public Schools

Kindergarten

Mathematics

Topic Name: Topic 10: Compose and Decompose Numbers 11 to 19

Topic 11: Count Numbers to 100.

Resource: enVision Math 2.0, Pearson, 2016

Duration: March

Topic 10 (9 days)

Topic 11 (9 days)

Enduring Understandings

Topic 10

- Numbers 11-19 can be represented as 10 and some more.
- The number 11, 12, and 13 can be decomposed as the sum of 10 and some ones.
- The number 14, 15, and 16 can be decomposed as the sum of 10 and some ones.
- The number 17, 18, and 19 can be decomposed as the sum of 10 and some ones.
- Good math thinkers use patterns in math to help them solve problems.

Topic 11

- Counting patterns can be seen on a hundreds chart in both the rows and the columns.
- Decade numbers such as 10, 20, ... and 100 are used to name groups of 10. You can count by tens to 100 by counting only the decade numbers.
- Numbers are counted and written in a specific sequence on a hundred chart.
- Using counting patterns on the hundred chart can help when counting on from any number from 1 to 100.
- Good math thinkers look for patterns in math to solve problems.



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Essential Questions

Topic 10

- How can you write an equation to describe numbers that are greater than 10?
- How can you write an equation to break apart numbers that are greater than 10?
- How does seeing number patterns help you solve problems?

Topic 11

- How can you find patterns when you count?
- How can you use patterns to find missing numbers to 50?
- How can you count by tens to 100?
- How can you count to any number from 10 to 100?
- How does using a hundred chart help you count from any number to another?
- Think about numbers that are made of tens and ones. What are some ways you can count on by these numbers?



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Focus of Standards			
Student Outcomes	Skills	Assessments	Resources
<p>Topic 10</p> <ul style="list-style-type: none"> I can use drawings and equations to make the numbers 11, 12, and 13. I can make the numbers 14, 15, and 16. I can make the numbers 17, 18, and 19. I can find parts of the numbers 11, 12, and 13. I can find parts of the numbers 14, 15, and 16. I can find parts of the numbers 17, 18, and 19. I can use patterns to make and find the parts of number to 19. <p>Topic 11</p> <ul style="list-style-type: none"> I can use patterns to count to 30. I can use patterns to count to 50. I can skip count by 10s to 100. I can count to the number 100 by using tens and ones. I can count forward from any number to 100 by ones. I can count by tens and ones from any number up to 100. I can count on from any number counting by tens and ones. 	<ul style="list-style-type: none"> Solving problems Understanding concepts Reasoning 	<p>Formative</p> <ul style="list-style-type: none"> Diagnostic assessment Exit tickets Round robin group work Analysis of homework Class polls <ul style="list-style-type: none"> Show of hands: 1 for all set, 2 for just ok, 3 for help One thing I learned/One thing I need work on <p>Summative</p> <ul style="list-style-type: none"> End topic tests Post group topic EOY tests SGO tests <p>Benchmark</p> <ul style="list-style-type: none"> Diagnostic Assessment Pearson benchmark tests 	<p>Envision Math 2.0</p> <p>Digital</p> <ul style="list-style-type: none"> <i>Student and Teacher eTexts</i> <i>Interactive Math story</i> <i>Home-School Connection</i> <p>Classroom Math Materials</p> <ul style="list-style-type: none"> Counters Connecting cubes Hundred chart Number cards 3 - 9 Number cards 11 - 20 Ten-frame Double Ten-frame Index Cards



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		<p>Alternative</p> <ul style="list-style-type: none"> ● Math diagnosis and intervention system 2.0 ● Reteaching Set ● Online Learning <ul style="list-style-type: none"> ○ Games ● Higher Order Thinking Problems ● Leveled homework and practice ● Center games ● One on one conferencing 	
<p>Vocabulary Topic 10 How many more?</p> <p>Topic 11 Column, ones, pattern, tens, decade, hundreds chart</p>			
<p>NJ Student Learning Standards: Math</p> <p>Topic 10 Counting and Cardinality K.CC.B.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.</p> <p>Number and Operations in Base Ten K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>			



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Topic 11

Counting and Cardinality

K.CC.A.1 Count to 100 by ones and by tens.

K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

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



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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



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9.2.4.A.4 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.



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



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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#/>