



BOE Approved 8/18

Cliffside Park Public Schools

Kindergarten

Mathematics

Topic Name: Topic 9: Count Numbers to 20

Resource: enVision Math 2.0, Pearson, 2016

Duration: February

Topic 9 (9 days)

Enduring Understandings

Topic 9

- There is a unique symbol that goes with each number word.
- You use the count sequence to count from any number within 20. Numbers become greater when you count on.
- Counting tells how many are in a set, regardless of their arrangement or the order in which they are counted. The last number said when counting a set is the total. Counting is cumulative.
- Good math thinkers know how to think about words and numbers to solve problems.

Essential Questions

Topic 9

- Why does each number need its own symbol?
- Why do you write every number in a different way?
- Is there another way to show how many besides drawing a picture?
- Why does every number look different?
- When you count from one number to another, which number do you count?
- How do you know the number of objects does not change when you rearrange the objects?
- When can you get more than one possible answer to a problem when counting?

Focus of Standards



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Student Outcomes	Skills	Assessments	Resources
<p>Topic 9</p> <ul style="list-style-type: none"> ● I can count and write the numbers 11 and 12. ● I can count and write the numbers 14, 14 and 15. ● I can count and write the numbers 16 and 17. ● I can count and write the numbers 18, 19, and 20. ● I can count forward from any number to a number within 20. ● I can count to find how many are in a group. ● I can use reasoning to count and write numbers to the number 20. 	<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>Alternative</p> <ul style="list-style-type: none"> ● Math diagnosis and intervention system 2.0 ● Reteaching Set 	<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 ● Number cards 0 - 10 ● Number cards 11 - 20 ● Double ten-frame



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		<ul style="list-style-type: none"> ● Online Learning <ul style="list-style-type: none"> ○ Games ● Higher Order Thinking Problems ● Leveled homework and practice ● Center games ● One on one conferencing 	
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Vocabulary Topic 9

Eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, grow

NJ Student Learning Standards: Math

Counting and Cardinality

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

K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

K.CC.B.4c Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger.

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.

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.



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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.



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- NJLSA.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.



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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#/		