



BOE Approved 8/18

Cliffside Park Public Schools

Kindergarten

Mathematics

Topic Name: Topic 6: Understand Addition

Resource: enVision Math 2.0, Pearson, 2016

Duration: December (12 days)

Enduring Understandings

- Addition can be shown in different ways such as with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, and equations.
- Adding one or more objects to an existing group is one interpretation of addition.
- Putting together parts to make a whole is one's interpretation of addition.
- Adding groups can be shown in an addition expression that uses the plus sign (+).
- Adding parts to make a whole is one interpretation of addition. Equations using + and = can be used to show parts of a whole.
- Objects, drawings, counting, and equations can be used to help solve addition problems involving adding to.
- Objects, drawings, counting, and equations can be used to help solve addition problems involving putting together.
- Patterns can be used to help solve addition problems.
- Good math thinkers use math they know to show and solve problems.

Essential Questions

- How can you show a number in two parts?
- How can you solve addition problems?
- How can you show addition problems?
- How can you show addition?
- What can you use to help you solve an addition word problem?
- How can you remember all addition problems with sums of 5?
- How can you use a model to solve a story problem?



Focus of Standards

Student Outcomes	Skills	Assessments	Resources
<p>Topic 6</p> <ul style="list-style-type: none"> • I can show numbers in many ways. • I can represent addition as adding to a number. • I can represent addition as putting two or more numbers together. • I can add numbers together, • I can write an equation to show addition. • I can use the plus sign and equal sign in an equation. • I can solve addition problems. • I can use equations to represent and explain addition. • I can use patterns to add numbers together. • I can model adding different numbers together by drawing, counting, or writing equations. 	<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 • Online Learning 	<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 • Index cards • Number cards 0-10 • Connecting cubes



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		<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

In all, join, addition sentence, add, plus sign, equal sign, equation, sum

NJ Student Learning Standards: Math

Operations and Algebraic Thinking

K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

K.OA.A.5 Fluently add and subtract within 5.

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).

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.



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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



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practices.

ELA

- RI.K.3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- NJSLA.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 <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#/>