



BOE Approved 8/18

Cliffside Park Public Schools

Grade 5

Mathematics

Topic Name: Topic 5: Use Models and Strategies to Divide Whole Numbers

Resource: enVision Math 2.0, Pearson, 2016

Duration: November

Topic 5 (10 days)

Enduring Understandings

Topic 5

- Division problems with dividends and divisors that are multiples of ten can be solved using basic facts and patterns. Multiplication can be used to check whether quotients are reasonable.
- Using compatible numbers is one of many estimation strategies that can be used to estimate a quotient. Multiplication can be used to check whether quotients are reasonable.
- Area models and arrays are two ways to represent division with multi-digit whole numbers.
- Dividing with 2-digit divisors is just an extension of the steps for dividing with 1-digit divisors. Estimation and place value can help determine the placement of digits in the quotient.
- Compatible numbers can be used to simplify division problems involving dividing 3-digit dividends by 2-digit multiples of ten. Estimation and number sense can be used to check whether quotients are reasonable.
- Estimation and place-value understandings can be used to determine where to place the first digit in a quotient.
- Dividing by 2-digit divisors is an extension of the standard algorithm for dividing with 1-digit divisors. Estimation can help determine the placement of digits and be used to check whether quotients are reasonable.
- Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.



Essential Questions

- What is the standard procedure for division and why does it work?
- How can patterns help you divide multiples of 10?
- How can compatible numbers to estimate quotients?
- How can you use area models to find quotients?
- How can you use partial quotients to solve division problems?
- What are the steps in dividing by a multiple of 10?
- How can you decide where to place the first digit of a quotient?
- How can you use estimation to decide if your quotient is reasonable?
- How can you make sense of problems and persevere in solving them?

Focus of Standards

Student Outcomes	Skills	Assessments	Resources
<p>Topic 5</p> <ul style="list-style-type: none"> ● I can use patterns to find quotients. ● I can estimate quotients. ● I can use models to help find quotients. ● I can find quotients of whole numbers. ● I can find the quotient when the divisor is a multiple of 10. ● I can decide where to place the first digit of the quotient when I divide whole numbers. ● I can use estimation to decide if a quotient is reasonable when dividing by 2-digit divisors. ● I can make sense of problems and keep working if I get stuck. ● I can multiply multi-digit whole numbers. 	<ul style="list-style-type: none"> ● Solving addition, subtraction, multiplication and division problems ● Construct math arguments in order to solve addition and subtraction problems. ● Understanding concepts ● Reasoning 	<p>Formative</p> <ul style="list-style-type: none"> ● Diagnostic assessment ● Study Island ● Kahoot! ● Exit tickets ● Round Robin group work <ul style="list-style-type: none"> ○ Open ended questions ○ May/may not be game activity ● Analysis of student homework 	<p>Texts</p> <ul style="list-style-type: none"> ● enVision math 2.0 <p>Digital</p> <ul style="list-style-type: none"> ● Student/Teacher eText ● Interactive math story ● Home-school connection <p>Classroom Math Materials</p> <ul style="list-style-type: none"> ● Colored chalk



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		<ul style="list-style-type: none">• Class polls<ul style="list-style-type: none">◦ Show of hands: 1 finger ok, 2 fingers need help, 3 fingers lost• One thing I learned/One thing I need work on <p>Summative</p> <ul style="list-style-type: none">• End topic tests• Group topic assessment• EOY test• SGO tests <p>Benchmark</p> <ul style="list-style-type: none">• Diagnostic assessment• Pearson benchmark tests• PARCC test <p>Alternative</p> <ul style="list-style-type: none">• Work paper from tests will also be graded for additional points if reasoning is clear and correct, even if answer is wrong	<ul style="list-style-type: none">• Colored pencils• Centimeter grid• Place-value blocks• Pencils• Markers• Paper
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		<ul style="list-style-type: none">• One on one conferencing• Oral presentation on math strand• Weekly time capsule:summary of what was learned• Topic Pattern search: find the thread in topic• Crosswords with math vocab	
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Vocabulary
Topic 5 and 6
No new vocabulary

NJ Student Learning Standards: Math

5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

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: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.**
- 8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- 8.1.5.A.3 Use a graphic organizer to organize information about a problem or issue.

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 Standards

- RI.5.1. Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.
- RI.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- RI.5.7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to



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solve a problem efficiently

Science

- 5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

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:

- Global Awareness
- Financial, Economic, Business and Entrepreneurial Literacy

9.1.8.B.7 Construct a budget to save for long-term, short-term, and charitable goals

9.1.8.C.2 Compare and contrast credit cards and debit cards and the advantages and disadvantages of using each.

9.1.8.C.5 Calculate the cost of borrowing various amounts of money using different types of credit (e.g., credit cards, installment loans, and mortgages) and compare the interest rates associated with each.



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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/g05.pdf New Jersey 21st Century Life and Careers 9.1 - https://www.state.nj.us/education/cccs/2014/career/91.pdf New Jersey Science and Engineering Practices - https://www.state.nj.us/education/aps/cccs/science/resources/QR35.pdf Pearson enVision 2.0 (2016) https://www.pearsonrealize.com/index.html#/		