INTRODUCTION

| This Pennsylvania Learns iTunes U course is a collection of resources to support teaching and learning in the Grade 2 classroom. The content of this course is organized around the Grade 2 Mathematics Pennsylvania Core Instructional Framework. We believe that Pennsylvania teachers know what is needed to support their instructional design and delivery as well as what engages students in their own learning. For those reasons, the materials and resources provided in this course were curated by teachers. This course is not a curriculum. It is a collection of assets aligned to Pennsylvania Core Standards to support teaching and learning. |
Welcome to the Grade 2 Mathematics Pennsylvania Learns iTunes U course. We are setting the stage for this course by providing you with background information about Pennsylvania Mathematics Core Standards and the Standards for Mathematical Practice.

Pennsylvania Core Standards: The State Board approved the final Chapter 4 regulations on September 12, 2013. The Independent Regulatory Review Commission (IRRC) approved the final regulation on November 21, 2013. With publication of Chapter 4 in the Pennsylvania Bulletin, the new regulations took effect on March 1, 2014.

As part of the new regulations, Pennsylvania’s Core Standards offer a set of rigorous, high-quality academic expectations in Mathematics that all students should master by the end of each grade level. The PA Core Standards are robust and relevant to the real world and reflect the knowledge and skills our young people need to succeed in life after high school, in both post-secondary education and a globally competitive workforce.

REVIEW the “Teacher Resources” and “Student Resources” section of the PA Core Implementation section of the SAS Portal. [http://www.pdesas.org/Standard/PACore](http://www.pdesas.org/Standard/PACore)
The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report Adding It Up: This report explores how students in pre-K through fifth grade learn mathematics and highlights the importance of the inclusion of the following in teaching and learning: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

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<tr>
<th>Module Title</th>
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</thead>
<tbody>
<tr>
<td>About the Standards for Mathematical Practice and Content</td>
<td>The eight Standards of Mathematical Practice: 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others. 4 Model with mathematics. 5 Use appropriate tools strategically. 6 Attend to precision. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning. The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years.</td>
<td>LEARN how the standards improve teaching, make learning more engaging, create shared expectations, and cultivate lifelong learning for students.</td>
<td>NCTM and The Hunt Institute have produced a series of videos to enhance understanding of the mathematics that students need to succeed in college, life, and careers. Beginning in the primary grades, the videos address the importance of developing a solid foundation for algebra, as well as laying the groundwork for calculus and other postsecondary mathematics coursework. The series also covers the Standards for Mathematical Practice elaborated in the PA Core Standards for Mathematics and examines why developing conceptual understanding requires a different approach to teaching and learning.</td>
<td><a href="https://itunes.apple.com/us/itunes-u/hunt-institute-ccss-series/id461816983?mt=10">https://itunes.apple.com/us/itunes-u/hunt-institute-ccss-series/id461816983?mt=10</a></td>
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<td>Standards for Mathematical Practice</td>
<td>The Standards for Mathematical Practice are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. The content standards which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.</td>
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<td>Standards for Mathematical Content</td>
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<td>DEEPEN your understanding of the PA Core Standards shifts in mathematics.</td>
<td>This course is intended to deepen your understanding of the PA Core Standards shifts in mathematics. It is designed to stimulate thinking around designing and delivering instruction matched to the Standards and how this may change your classroom practice. The content describes how the Standards differ from previous Standards and thoroughly explains the Shifts of focus, coherence and rigor.</td>
<td></td>
<td><a href="https://itunes.apple.com/us/course/ccss-for-teachers-math-shifts/id679843407">https://itunes.apple.com/us/course/ccss-for-teachers-math-shifts/id679843407</a></td>
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Module Title | Message | Assignment / Call to Action (200 Character Max) | Content Directions | Resource / URL | Alternative to IOS or Notes
---|---|---|---|---|---
Module 1: Addition and Fluency of Sums and Differences to 20 and Word Problems to 100 | Students begin Grade 2 with extensive experience working with numbers to 10. Module 1 establishes a motivating, differentiated fluency program in the first few weeks to provide each student with enough practice to achieve mastery of the expected fluencies (i.e., adding and subtracting within 20 and within 100) by the end of the year. Students learn to represent and solve problems using addition and subtraction: a practice that will also continue throughout the year. |  |  |  |  

**About Module 1**

Focus Standards for Module 1
- CC.2.2.2.A.1 - Represent and solve problems involving addition and subtraction within 100.
- CC.2.2.2.A.2 - Use mental strategies to add and subtract within 20.

Important Standards for Module 1
- CC.2.2.2.A.2 - Use mental strategies to add and subtract within 20.

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.
- MP5. Use appropriate tools strategically.
- MP6. Attend to precision.

Mathematical Practices resource page on SAS

In Module 1, students will focus on addition and subtraction strategies for numbers up to 20 using mental math, properties of operations, and place value.

In Module 1, students will be able to:
- Add and Subtract within 20: Apply properties of operations as strategies to add and subtract.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.
- Fluently add and subtract within 20 using mental strategies.
- Understand subtraction as an unknown-addend problem.
- Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.

Click on the “i” button beside each resource/url to find additional information and/or step by step instructions. Watch YouTube videos on Viewpure.com to eliminate ads.

**Numbers and Operations: Add and Subtract Within 20.**

- TEACHING mathematical reasoning to add and subtract within 20. Refer to pages 9 & 10 of the North Carolina standards.
  - http://www.doe.state.nc.us/docs/curriculum/mathematics/scos/2.pdf

- TEACHING adding and subtracting within 100 using mental strategies. This is an excellent resource to support the teaching of mathematical reasoning. The video teaches numbers up to 100 and provides a good example of students explaining the strategies they used to solve problems.
  - https://www.teachingchannel.org/videos/grade-1-

- TEACHING strategies to add and subtract within 20. View the videos on this page that give strategies for adding and subtracting numbers to 20. “You will need to create a FREE account in order to access video”
  - https://learnzillion.com/session_plan/9044-
  - https://learnzillion.com/session_plan/9041-


1
Strategies Work Addition and Subtraction

Properties of Operations: Numbers and Operations

In this lesson, students apply properties of operations as strategies to add and subtract (commutative property of addition; associative property of addition).

TEACHING the relationship between addition and subtraction. Use this link to view a video on subtracting.

https://www.teach2learn.org/lessons/grade/7/topic/subtract-within-20

TEACHING students to solve addition and subtraction number stories with manipulatives. Use this lesson as a guide to teach addition and subtraction stories with manipulatives. Use larger numbers than examples given.

http://www.illustrativemathematics.org/tasks/assets/common-core-standards/tasks/1396

TEACHING students to understand that addition and subtraction are inverse operations. This lesson reinforces addition and subtraction as inverse operations. There are problems to solve as well as a rubric for grading and samples of student work.

http://www.mathematics.org.uk/shares/examplesAPP.pdf

TEACHING students to solve an addition or subtraction problem within 20. Use the IncredibAll problems to add and subtract as strategies to add and subtract within 10. Equations lesson above problems solved. There are problems to solve as well as a rubric for grading and samples of student work.


TEACHING students to use mental math strategies to add and subtract within 20. Use this lesson to help students develop number sense and reasoning skills.

https://www.teach2learn.org/lessons/grade/2/topic/composing-numbers-within-10

I CAN find the missing numbers to 10. Use the APP 10 Frame. Fill develop automatically composing numbers to ten.


I CAN add to 20 using a 10 Frame. Play the add game to add to 20, using a 10 Frame as a model.

http://www.illustrativemathematics.org/tasks/assets/common-core-standards/tasks/4566

I CAN add and subtract within 20 using a number line. Choose Medium level to use a number line to add and subtract within 20. Also offers an easy level to review adding and subtracting within 10.

http://www.mathway.com/teajump/index.html

I CAN use mental math strategies to add and subtract within 20. Use this website to practice making numbers to 20.


I CAN solve number stories. Use the APP Math Word Problems to solve word problems with visuals.


FREE version, can get upgrade for $2.99.

Numbers and Operations: Properties of Operations

In this lesson, students apply properties of operations as strategies to add and subtract (commutative property of addition; associative property of addition).

TEACHING the properties of operations as strategies to add and subtract. Watch this video to help students understand addition and subtraction facts and how they are related.

https://www.mathantics.org/lessons/hub/grade/2/lesson/add-sub/addition-and-subtraction-properties.html

I CAN solve related addition and subtraction problems. Solve the addition and subtraction problems listed. Take a screen shot of one of the problems solved.

https://www.mathantics.org/lessons/hub/grade/2/lesson/add-sub/addition-and-subtraction-properties.html

I CAN explain how addition and subtraction are related. Use the Show Me App (or any creations app) Bring in the screenshot. Explain how the two problems are related and how you know.


Numbers and Operations: Why Addition and Subtraction Strategies Work

In this lesson, students explain why addition and subtraction strategies work, using place value and the properties of operations.


http://www.dpi.state.nc.us/educators/standards/mathematics/topic/2nd-grade.html

TEACHING students to use the properties of operations to compose a number within 20 and explain my reasoning. Illustrative Mathematics activity that encourages students to use two or more digits to reach a target number and then explain their reasoning.

https://www.illustrativemathematics.org/tasks/1058
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<tbody>
<tr>
<td>Numbers and Operations: Subtraction As An Unknown-Addend Problem</td>
<td>I CAN use place value and properties of operations to add and subtract.</td>
<td>In this lesson, students understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.</td>
<td>TEACHING about subtraction as an unknown-addend problem. Watch this video that provides visuals to teach.</td>
<td><a href="http://www.youtube.com/watch?v=videoID">http://www.youtube.com/watch?v=videoID</a></td>
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<td></td>
<td>I CAN use place value and properties of operations to add and subtract work.</td>
<td>Use the record feature to draw and explain your thinking.</td>
<td>TEACHING how to solve missing addend problems with bar models. Watch this video to help provide visuals for teaching missing addends.</td>
<td><a href="http://www.youtube.com/watch?v=videoID">http://www.youtube.com/watch?v=videoID</a></td>
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<td>I CAN solve addition and subtraction problems with bar models.</td>
<td>Choose Number Up to 50 and Part-Whole Models (2 Parts)</td>
<td>TEACHING students to find the missing number. A game that students can play to demonstrate this skill. Teacher will need to explain.</td>
<td><a href="http://www.mathplayground.com/illustrations.html">http://www.mathplayground.com/illustrations.html</a></td>
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<td>I CAN identify fact families.</td>
<td>Use the number frame app to model the different equations with colored chip. Write the equation to match each chip model and take a screen shot. Repeat for each part of the problem.</td>
<td>I CAN solve facts by using fact families</td>
<td><a href="http://www.mathplayground.com/illustrations.html">http://www.mathplayground.com/illustrations.html</a></td>
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<td></td>
<td>I CAN use mental math to add and subtract within 20.</td>
<td>Select “Add and Subtract” and then the first “Mental Math:” for numbers to 20.</td>
<td>I CAN use mental math to add and subtract within 20.</td>
<td><a href="http://www.youtube.com/watch?v=videoID">http://www.youtube.com/watch?v=videoID</a></td>
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<td>TEACHING students to solve word problems calling for the addition of three whole numbers whose sum is less than or equal to 20.</td>
<td>In this lesson, students learn to solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.</td>
<td>Lesson plan that provides lesson ideas as well as accommodations, extensions and center ideas.</td>
<td><a href="http://www.nationalgeographic.com/kids/education/math/">http://www.nationalgeographic.com/kids/education/math/</a></td>
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<td>TEACHING students how to solve addition and subtraction number stories.</td>
<td>View this video to gain more information about solving addition and subtraction number stories.</td>
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<td><a href="http://viewpure.com/4A4AlknPvU">http://viewpure.com/4A4AlknPvU</a></td>
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<td>TEACHING students how to compose numbers to 20 using three digits.</td>
<td>NCTM lesson that involves adding the digits of a three digit number to equal a certain sum. Students must create different combinations of numbers that equal that sum. Can be adapted for sums to 20.</td>
<td>NCTM lesson that involves adding the digits of a three digit number to equal a certain sum. Students must create different combinations of numbers that equal that sum. Can be adapted for sums to 20.</td>
<td><a href="http://illuminations.nctm.org/Lesson.aspx?id=906">http://illuminations.nctm.org/Lesson.aspx?id=906</a></td>
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<td>TEACHING how to write and solve word problems.</td>
<td>This lesson teaches students how to write and solve word problems. Students can use these strategies to create word problems with three whole numbers.</td>
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<td><a href="http://betterlesson.com/lesson/495542/the-recipe-for-a-great-word-problem">http://betterlesson.com/lesson/495542/the-recipe-for-a-great-word-problem</a></td>
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<tr>
<td>TEACHING students how to add three whole numbers whose sum is less than or equal to 20.</td>
<td>In this lesson teachers can access information on a lesson plan that describes a game. Use “Part A” for numbers to 20. Can be played as a game in partners. “Part B” can be used for sums to 100.</td>
<td>In this lesson teachers can access information on a lesson plan that describes a game. Use “Part A” for numbers to 20. Can be played as a game in partners. “Part B” can be used for sums to 100.</td>
<td><a href="http://www.insidemathematics.org/assets/problems-of-the-month/got-your-number.pdf">http://www.insidemathematics.org/assets/problems-of-the-month/got-your-number.pdf</a></td>
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<td>I CAN create a word problem that involves adding three whole numbers whose sum is less than or equal to 20.</td>
<td>Use the digit cards from the lesson above. Have students open the ShowMe App (or any creations app), write their three digits on the screen, solve the addition problem, and record a story problem that uses the three digits.</td>
<td>Use the digit cards from the lesson above. Have students open the ShowMe App (or any creations app), write their three digits on the screen, solve the addition problem, and record a story problem that uses the three digits.</td>
<td><a href="https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8">https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8</a></td>
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<td>I CAN solve word problems with three addends whose sum is equal to or less than 20.</td>
<td>Choose Biggest Number 20, then Part Whole Model- 3 Parts</td>
<td>Choose Biggest Number 20, then Part Whole Model- 3 Parts</td>
<td><a href="http://www.mathplayground.com/add3digit.html">http://www.mathplayground.com/add3digit.html</a></td>
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# Module 2: Addition/Subtraction with Length, Weight, Capacity, Time Measurement

## About Module 2

In Module 2, students learn to measure and estimate using standard units for length and solve measurement word problems involving addition and subtraction of length. A major objective is for students to use measurement tools with the understanding that linear measurement involves an iteration of units and that the smaller a unit, the more iterations are necessary to cover a given length. An underlying goal for this module is for students to learn the meaning of a “unit” in different contexts (e.g., capacity, length, weight). This understanding serves as the foundation of arithmetic, measurement, and geometry in elementary school. In particular, units play a central role in the next module and in the addition and subtraction algorithms of Module 4.

## Focus Standards in Module 2

- CC.2.4.2.A.1 - Measure and estimate lengths in standard units using appropriate tools.
- CC.2.4.2.A.6 - Extend the concepts of addition and subtraction to problems involving length.

## Standards for Mathematical Practice

- MP# 1. Make sense of problems and persevere in solving them
- MP# 3. Construct viable arguments and critique the reasoning of others
- MP# 5. Use appropriate tools strategically
- MP# 6. Attend to precision

Mathematical Practices resource page on SAS

## In Module 2, students will be able to:

1. Measure the length of an object by selecting and using appropriate tools.
2. Measure the same length with different-sized units.
3. Measure to determine how much longer one object is than another.
4. Estimate lengths using various units.
5. Use addition and subtraction within 100 to solve word problems involving lengths.
6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points.

## Measurement, Data and Probability: Measuring Length Using the Appropriate Tool.

In this lesson, students measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

### TEACHING students how to measure to the nearest inch and centimeter.

- Read Page 24 of the North Carolina unpacked standards for a detailed description of this Standard.
- [http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf](http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf)

### TEACHING students how to measure to the nearest inch.

- Watch video to learn about measuring to the nearest inch using a ruler.
- [https://learnzillion.com/lesson_plans/6036-measure-using-a-ruler](https://learnzillion.com/lesson_plans/6036-measure-using-a-ruler)

### TEACHING to measure to the nearest centimeter.

- Watch video on measuring to the nearest centimeter.
- Only watch to 3:18

### I CAN measure using the correct tool.

- Choose the tool to correctly measure.

### I CAN explain how to measure.

- Use the Shoe Me APP (or another creation APP). Take a picture of at least 3 tools you would use to measure. Explain how these tools would be used. Give an example of something you would measure (you can take a picture and import) for each tool you used.
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<tr>
<td>Problems to Solve Word Using Addition Probability</td>
<td>I CAN measure to the nearest centimeter and meter.</td>
<td>Use this link to measure to the nearest centimeter.</td>
<td><a href="https://www.mathway.com/">https://www.mathway.com/</a></td>
<td><a href="https://www.mathway.com">Assignment / Call to Action</a></td>
<td></td>
</tr>
<tr>
<td>Problems to Solve Word Using Addition Probability</td>
<td>I CAN measure myself to the nearest centimeter and compare.</td>
<td>Measure your ear, height of your body, and foot in centimeters. Then, look at what animal compared to your ear, height of your body, and foot measurements.</td>
<td><a href="http://www.wowmoholy.com">http://www.wowmoholy.com</a></td>
<td><a href="http://www.wowmoholy.com">Assignment / Call to Action</a></td>
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<tr>
<td>Measurement, Data and Probability: Measuring the Same Length with Different Units</td>
<td>In this lesson, students measure the same length with different-sized units then discuss why the measurement made with the smaller unit is more than the measurement made with the larger unit and vice versa.</td>
<td>TEACHING students how to measure using two different units.</td>
<td>Use this link to locate a lesson plan on measuring an object twice, using two different measuring tools.</td>
<td><a href="https://www.mathway.com">Assignment / Call to Action</a></td>
<td></td>
</tr>
<tr>
<td>Measurement, Data and Probability: Determining How Much Longer One Object is from Another</td>
<td>In this lesson, students measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</td>
<td>TEACHING students how to compare lengths.</td>
<td>View this video to compare lengths.</td>
<td><a href="https://www.mathway.com">Assignment / Call to Action</a></td>
<td></td>
</tr>
<tr>
<td>Measurement, Data and Probability: Estimating Length Using Different Units</td>
<td>In this lesson, students estimate lengths using units of inches, feet, centimeters, and meters.</td>
<td>TEACHING students how to estimate measurements and finding actual length of objects.</td>
<td>Use this link to solve the problems listed.</td>
<td><a href="https://www.mathway.com">Assignment / Call to Action</a></td>
<td></td>
</tr>
<tr>
<td>Measurement, Data and Probability: Using Addition and Subtraction to Solve Word Problems</td>
<td>In this lesson, students use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units by using drawings and equations with a symbol for the unknown number to represent the problem.</td>
<td>TEACHING about addition and subtracting lengths.</td>
<td>Read Page 25 of the North Carolina unpacked standards for a detailed description of this Standard.</td>
<td><a href="https://www.mathway.com">Assignment / Call to Action</a></td>
<td></td>
</tr>
<tr>
<td>Module Title</td>
<td>Message</td>
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<td>Content Directions</td>
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</tr>
<tr>
<td>TEACHING students to add and subtract involving length.</td>
<td>View this lesson plan to help students to solve word problems using length.</td>
<td><a href="http://www.navigationstechdata.com/tecchomes/0/Homework/0B5E0092/m2lesson0.pdf">http://www.navigationstechdata.com/tecchomes/0/Homework/0B5E0092/m2lesson0.pdf</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I CAN solve word problems using length.</td>
<td>Solve the word problems that involve length.</td>
<td><a href="http://www.mrnussbaum.com/grade_2_standards/lengthwordproblems">http://www.mrnussbaum.com/grade_2_standards/lengthwordproblems</a></td>
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</tr>
<tr>
<td>Measurement, Data and Probability: Represent Whole Numbers as Lengths on a Number Line</td>
<td>Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, and represent whole-number sums and differences within 100 on a number line diagram.</td>
<td></td>
<td><a href="http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf">http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf</a></td>
<td></td>
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</tr>
<tr>
<td>I CAN use the number line to show my work for the number story.</td>
<td>Use the APP Number Line to demonstrate proper hops on the number line to solve the number story from above.</td>
<td><a href="https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8">https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8</a></td>
<td><a href="https://www.mathlearningcenter.org/web-apps/number-line/">https://www.mathlearningcenter.org/web-apps/number-line/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I CAN use a number line to solve problems involving length.</td>
<td>Import the task into Educreations and draw a number line to solve.</td>
<td><a href="https://www.illustrativemathematics.org/content-standards/2/MD/B/6/tasks/1081">https://www.illustrativemathematics.org/content-standards/2/MD/B/6/tasks/1081</a></td>
<td><a href="https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8">https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8</a></td>
<td>Frog and Toad on a Number Line</td>
<td></td>
</tr>
<tr>
<td>Module Title</td>
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<tr>
<td><strong>Module 3: Place Value, Counting, and Comparison of Numbers to 1000</strong></td>
<td>All arithmetic algorithms are manipulations of place value units: ones, tens, hundreds, etc. In Module 3 students extend their understanding of base-ten notation and apply their understanding of place value to count and compare numbers to 1000.</td>
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</tbody>
</table>

**About Module 3**

- **CC.2.1.2.B.1** - Use place value concepts to represent amounts of tens and ones and to compare three-digit numbers.
- **CC.2.1.2.B.2** - Use place value concepts to read, write, and skip count to 1000.

**Focus Standards in Module 3**

- **MP 2. Reason abstractly and quantitatively**
- **MP 7. Look for and make use of structure**
- **MP 8. Look for and express regularity in repeated reasoning**

**Mathematical Practices** resource page on SAS

**Students will focus on reading, writing, and counting numbers up to 1000. Students will also compare numbers up to three-digits.**

**In Module 3, students will be able to:**

- Understand the place value of three digit numbers.
- Count and skip count within 1000.
- Read and write numbers to 1000.
- Count and skip count within 1000. Students will also compare numbers up to three-digits.
- Compare two three-digit numbers.

Click on the "x" button beside each resource/url to find additional information and/or step by step instructions. Watch YouTube videos on Viewpure.com to eliminate ads.

**Numbers and Operations: Place Value**

In this lesson, students will understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>TEACHING</td>
<td>a three-digit number represents amounts of hundreds, tens and ones.</td>
<td>Game ideas for students to bundle sticks to make 10s and 100.</td>
<td><a href="https://www.csmath.com/teaching/grade-2/gradedos/grade-ten-ten-bundles.pdf">https://www.csmath.com/teaching/grade-2/gradedos/grade-ten-ten-bundles.pdf</a></td>
</tr>
<tr>
<td>I CAN</td>
<td>represent three-digit numbers using base ten blocks.</td>
<td>Use the base ten blocks to represent numbers in 100s, 10s, and 1s. Take a screen shot of your work.</td>
<td><a href="https://itunes.apple.com/us/app/number-pieces-gradedos/-/i=87594803&amp;mt=2">https://itunes.apple.com/us/app/number-pieces-gradedos/-/i=87594803&amp;mt=2</a></td>
</tr>
<tr>
<td>I CAN</td>
<td>represent three-digit numbers using base ten blocks and expanded form.</td>
<td>Use the Show Me App (or any creations app) and import the image of the base ten blocks (see above). Use the record feature to explain what the base ten blocks represent.</td>
<td><a href="https://itunes.apple.com/us/app/gradedos-classroom-sub/-/i=394007040?mt=8">https://itunes.apple.com/us/app/gradedos-classroom-sub/-/i=394007040?mt=8</a></td>
</tr>
</tbody>
</table>

**Numbers and Operations: Counting and Skip-Counting**

In this lesson, students count within 1000, skip count by 5s, 10s, and 100s.

| TEACHING skip counting by 10s using the number line and 100s chart. | iTunes Podcast teaching skip counting by 10s using a number line and 100s chart. Designed for grade 1, but a good introduction to skip counting using a number line and 100s chart. | [https://itunes.apple.com/us/app/number-line-by-ten/-/i=445066279?mt=8](https://itunes.apple.com/us/app/number-line-by-ten/-/i=445066279?mt=8) |
| I CAN skip count within 1000 by 5s, 10s, and 100s. | The Number Line App to practice skip counting by 5s up to 20. Import a screen into the Show Me App to explain your thinking. | [https://itunes.apple.com/us/app/number-line-by-ten/-/i=5751816894?mt=8](https://itunes.apple.com/us/app/number-line-by-ten/-/i=5751816894?mt=8) |
| I CAN skip count within 1000 by 5s, 10, and 100s. | 00L Website to practice skip counting by 2s, 5s and 10s to 100. Provides an example if the student makes an error. | [https://itunes.apple.com/us/app/grade-2-digit-counting/-/i=8443465590?mt=8](https://itunes.apple.com/us/app/grade-2-digit-counting/-/i=8443465590?mt=8) |
I CAN skip count within 1000 by 2s, 5s, 10s, and 100s.


I CAN read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

These videos use base ten blocks and expanded form to represent numbers in the hundreds.

I CAN compare two three-digit numbers using the >, =, and < symbols.

This website provides practice for comparing two three-digit numbers using the >, =, and < symbols.

I CAN compare two three-digit numbers using the >, =, and < symbols, ordering from least to greatest, and identifying numbers that come next.

This website provides practice opportunities for comparing two three-digit numbers in a variety of ways. The website provides video tutorials for students to watch when the answer is incorrect.

Alternative to IOS or Notes


https://www.splashmath.com/math-skills/second-grade

http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf

https://learnzillion.com/lesson_plans/4828-read-numbers


http://illuminations.nctm.org/Lesson.aspx?id=3691

https://www.illustrativemathematics.org/illustrations/144

http://www.cpalms.org/Public/PreviewResourceLesson/Preview/32615

http://www.ixl.com/math/grade-2/writing-numbers-up-to-1000-in-words


http://www.adaptedmind.com/pgamev68full.php?

http://www.adaptedmind.com/gradelistresponsive.php?grade=1
Module 4: Addition and Subtraction of Numbers to 1000

**About Module 4**

In Module 4, students continue to work with place value units to understand the addition and subtraction algorithms of numbers up to 1000. This work deepens their understanding of base-ten, place value, and properties of operations. It also challenges them to apply their knowledge to one-step and two-step word problems. During this module, students also continue to develop one of the required fluencies of the grade: addition and subtraction within 100.

**Focus Standards in Module 4**

- CC.2.1.2.B.3 - Use place value understanding and properties of operations to add and subtract within 1000.
- CC.2.2.2.A.1 - Represent and solve problems involving addition and subtraction within 100.

**Standards for Mathematical Practice**

- MP# 1. Make sense of problems and persevere in solving them
- MP# 2. Reason abstractly and quantitatively
- MP# 3. Construct viable arguments and critique the reasoning of others
- MP# 4. Model with mathematics
- MP# 5. Use appropriate tools strategically
- MP# 8. Look for and express regularity in repeated reasoning

**Mathematical Practices resource page on SAS**

Students will be working on adding and subtracting numbers up to 1000. Students will also be able to solve one and two step word problems during this Module.

In Module 4, students will be:

- Apply properties of operations as strategies to add and subtract up to 100 (commutative property of addition; associative property of addition).
- Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.
- Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

**Numbers and Operations: Applying Properties of Operations**

In this lesson, students apply properties of operations as strategies to add and subtract (commutative property of addition, associative property of addition) up to 100.

**TEACHING addition strategies using place value and the properties of operations.**

Video introduces addition strategies using place value. Models the process and the importance of explaining your thinking.

**I CAN explain why addition works using place value and the properties of operations.**

Use the Learnzillion lesson noted above. Pause the video at a problem to be solved (eg. 2:00). Have students use the ShowMe App to solve the problem; record a verbal explanation of their solution and draw to explain their thinking.

**TEACHING addition and subtraction strategies using place value and properties of operations.**

Instructional video models how to explain using addition to explain subtracting using number lines and place value.

**Alternative to IOS or Notes**

**Learnzillion requires a FREE teacher account.**

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**About Module 4**

In Module 4, students continue to work with place value units to understand the addition and subtraction algorithms of numbers up to 1000. This work deepens their understanding of base-ten, place value, and properties of operations. It also challenges them to apply their knowledge to one-step and two-step word problems. During this module, students also continue to develop one of the required fluencies of the grade: addition and subtraction within 100.

**Focus Standards in Module 4**

- CC.2.1.2.B.3 - Use place value understanding and properties of operations to add and subtract within 1000.
- CC.2.2.2.A.1 - Represent and solve problems involving addition and subtraction within 100.

**Standards for Mathematical Practice**

- MP# 1. Make sense of problems and persevere in solving them
- MP# 2. Reason abstractly and quantitatively
- MP# 3. Construct viable arguments and critique the reasoning of others
- MP# 4. Model with mathematics
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**Mathematical Practices resource page on SAS**

Students will be working on adding and subtracting numbers up to 1000. Students will also be able to solve one and two step word problems during this Module.

In Module 4, students will be:

- Apply properties of operations as strategies to add and subtract up to 100 (commutative property of addition; associative property of addition).
- Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.
- Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

**Numbers and Operations: Applying Properties of Operations**

In this lesson, students apply properties of operations as strategies to add and subtract (commutative property of addition, associative property of addition) up to 100.

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Use the Learnzillion lesson noted above. Pause the video at a problem to be solved (eg. 2:00). Have students use the ShowMe App to solve the problem; record a verbal explanation of their solution and draw to explain their thinking.

**TEACHING addition and subtraction strategies using place value and properties of operations.**

Instructional video models how to explain using addition to explain subtracting using number lines and place value.

**Alternative to IOS or Notes**

**Learnzillion requires a FREE teacher account.**

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**About Module 4**

In Module 4, students continue to work with place value units to understand the addition and subtraction algorithms of numbers up to 1000. This work deepens their understanding of base-ten, place value, and properties of operations. It also challenges them to apply their knowledge to one-step and two-step word problems. During this module, students also continue to develop one of the required fluencies of the grade: addition and subtraction within 100.

**Focus Standards in Module 4**

- CC.2.1.2.B.3 - Use place value understanding and properties of operations to add and subtract within 1000.
- CC.2.2.2.A.1 - Represent and solve problems involving addition and subtraction within 100.

**Standards for Mathematical Practice**

- MP# 1. Make sense of problems and persevere in solving them
- MP# 2. Reason abstractly and quantitatively
- MP# 3. Construct viable arguments and critique the reasoning of others
- MP# 4. Model with mathematics
- MP# 5. Use appropriate tools strategically
- MP# 8. Look for and express regularity in repeated reasoning

**Mathematical Practices resource page on SAS**

Students will be working on adding and subtracting numbers up to 1000. Students will also be able to solve one and two step word problems during this Module.

In Module 4, students will be:

- Apply properties of operations as strategies to add and subtract up to 100 (commutative property of addition; associative property of addition).
- Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.
- Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

**Numbers and Operations: Applying Properties of Operations**

In this lesson, students apply properties of operations as strategies to add and subtract (commutative property of addition, associative property of addition) up to 100.

**TEACHING addition strategies using place value and the properties of operations.**

Video introduces addition strategies using place value. Models the process and the importance of explaining your thinking.

**I CAN explain why addition works using place value and the properties of operations.**

Use the Learnzillion lesson noted above. Pause the video at a problem to be solved (eg. 2:00). Have students use the ShowMe App to solve the problem; record a verbal explanation of their solution and draw to explain their thinking.

**TEACHING addition and subtraction strategies using place value and properties of operations.**

Instructional video models how to explain using addition to explain subtracting using number lines and place value.

**Alternative to IOS or Notes**

**Learnzillion requires a FREE teacher account.**
<table>
<thead>
<tr>
<th>Module Title</th>
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</thead>
<tbody>
<tr>
<td>I CAN use place value and properties of addition and subtraction to explain my answer.</td>
<td>Use the Learning Module lesson noted above. Practice the video at a problem to be solved (eg. 214). Have students use the ShowMe App to solve the problem, record a verbal explanation of their solution and draw to explain their thinking.</td>
<td>TEACHING adding two-digit numbers with regrouping using place value and base ten.</td>
<td><a href="http://files.make-100.pdf">http://files.make-100.pdf</a></td>
<td><strong>For Learning you will need to create a free account.</strong></td>
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</tr>
<tr>
<td>TEACHING adding two-digit numbers with regrouping using place value and base ten.</td>
<td></td>
<td>NCTM Illuminations lesson plan that teaches students to add and represent numbers with base ten blocks. Assessments and extensions included.</td>
<td><a href="http://illuminations.nctm.org/lesson.aspx?id=668450919">http://illuminations.nctm.org/lesson.aspx?id=668450919</a></td>
<td></td>
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</tr>
<tr>
<td>Numbers and Operations: Solve One- and Two-Step Word Problems</td>
<td>In this lesson, students use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.</td>
<td>TEACHING students how to add and subtract using multi-step word problems.</td>
<td><a href="http://www.mathplayground.com/madhUNT_2digit_add/subtract_100.html">http://www.mathplayground.com/madhUNT_2digit_add/subtract_100.html</a></td>
<td></td>
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</tr>
<tr>
<td>I CAN solve one and two step word problems that involve addition and subtraction within 100.</td>
<td>Use the Number pieces app to write a number story for the number sentence: 35+42=? Write a word problem, solve it using the base ten blocks.</td>
<td>I CAN solve number stories using bar models.</td>
<td>Choose Number 1-50 and Part Whole Model - 2 Parts</td>
<td><a href="http://app/thinking-blocks/add/number-pieces/">http://app/thinking-blocks/add/number-pieces/</a></td>
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</tr>
<tr>
<td>I CAN solve number stories using bar models.</td>
<td>Click on “Add Within 100” and “Word Problems”</td>
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<tr>
<td>I CAN solve number stories.</td>
<td>Use this link to solve addition and subtraction number stories.</td>
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</tr>
<tr>
<td>Numbers and Operations: Adding Up To Four Two-Digit Numbers</td>
<td>In this lesson, students add up to four two-digit numbers using strategies based on place value and properties of operations.</td>
<td>TEACHING adding up to four 2-digit numbers.</td>
<td><a href="http://www.dpi.state.nc.us/curriculum/mathematics/scos/2.pdf">http://www.dpi.state.nc.us/curriculum/mathematics/scos/2.pdf</a></td>
<td></td>
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</tr>
<tr>
<td>TEACHING students how to add four 2-digit numbers.</td>
<td>This provides teachers several videos to refer to when teaching adding 2-digit numbers.</td>
<td>TEACHING students how to add three 2-digit numbers.</td>
<td></td>
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</tr>
<tr>
<td>TEACHING students to add three 2-digit numbers.</td>
<td>This is a game for students to practice adding three 2-digit numbers.</td>
<td>I CAN solve number stories using bar models.</td>
<td>Choose Number 1-50 and Part Whole Model - 3 Parts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers and Operations: Students Add and Subtract Within 1000</td>
<td>In this lesson, students add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and the relationship between addition and subtraction; relate the strategy to a written method. The students demonstrate an understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</td>
<td>TEACHING students about adding and subtracting within 1000.</td>
<td>View the North Carolina unpacked standards focusing on Page 19.</td>
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<td></td>
</tr>
<tr>
<td>Module Title</td>
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<tr>
<td>TEACHING students how to add or subtract within 1000.</td>
<td>This link provides teachers with many strategies for adding or subtracting within 1000.</td>
<td><a href="https://learnzillion.com/resources/72274-use-models-and-drawing-strategies-to-add-and-subtract-within-1000-level-2-7">https://learnzillion.com/resources/72274-use-models-and-drawing-strategies-to-add-and-subtract-within-1000-level-2-7</a></td>
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<tr>
<td>I CAN add to 1000.</td>
<td>Practice adding numbers to 1000.</td>
<td><a href="https://www.mathplayground.com/mathplayground-early-math-add-subtraction.htm">https://www.mathplayground.com/mathplayground-early-math-add-subtraction.htm</a></td>
<td>-</td>
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</tr>
<tr>
<td>I CAN subtract within 1000.</td>
<td>Practice subtracting numbers to 1000.</td>
<td><a href="https://www.mathplayground.com/mathplayground-early-math-add-subtraction.htm">https://www.mathplayground.com/mathplayground-early-math-add-subtraction.htm</a></td>
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</table>
In Module 5, students extend their understanding of a unit to build the foundation for multiplication and division. Making equal groups of “four apples” (up to four) that can then be counted: 1 four, 2 fours, 3 fours, etc. Relating the new unit to the one used to create it develops the idea of multiplication: 3 groups of 4 apples equal 12 apples (or 3 fours are 12).

About Module 5

Focus Standards in Module 5

CC.2.2.2.A.3 - Work with equal groups of objects to gain foundations for multiplication.

Standards for Mathematical Practice

MP# 2. Reason abstractly and quantitatively
MP# 3. Construct viable arguments and critique the reasoning of others
MP# 8. Look for and express regularity in repeated reasoning

Mathematical Practices resource page on SAS

Teachers will find in Module 5 resources for making equal groups, odd and even numbers, and building arrays.

In Module 5, students will be able to:

1. Use Doodle Buddy to create groups of objects.
2. Below each group they should label if the group is “odd” or “even.”
3. Write an equation below the illustration.

Click on the “i” button beside each resource/url to find additional information and/or step by step instructions. Watch YouTube videos on Viewpure.com to eliminate ads.

GRADE 2 MODULE 5

Module Title | Message | Assignment / Call to Action | Content Directions | Resource / URL | Alternative for iOS or Notes
--- | --- | --- | --- | --- | ---
Module 5: Preparation for Multiplication and Division | In this lesson, students determine whether a group of objects (up to 20) has an odd or even number. | TEACHING students to identify quantities that can create equal groups by using doubles facts. | https://learnzillion.com/lesson_plans/6891 | LearnZillion requires a FREE account. |
<p>|  | and write an equation to express an even number as a sum of two equal addends. | TEACHING students how to determine if a number is odd or even by looking at the ones place. | <a href="https://learnzillion.com/lesson_plans/6901">https://learnzillion.com/lesson_plans/6901</a> | |
| A Group of Objects (up to 20) Have An Odd or Even Number of Members? | In this lesson, students determine whether a group of objects (up to 20) has an odd or even number of members and write an equation to express an even number as a sum of two equal addends. | TEACHING students how to determine even numbers by dividing a number into pairs. | <a href="https://learnzillion.com/lesson_plans/6913">https://learnzillion.com/lesson_plans/6913</a> | |
|  | | TEACHING students how to determine even numbers by dividing a number into pairs. | <a href="https://learnzillion.com/lesson_plans/6914">https://learnzillion.com/lesson_plans/6914</a> | |
|  | | TEACHING students how to determine even numbers by dividing a number into pairs. | <a href="https://learnzillion.com/lesson_plans/6915">https://learnzillion.com/lesson_plans/6915</a> | |
|  | | TEACHING students how to determine even numbers by dividing a number into pairs. | <a href="https://learnzillion.com/lesson_plans/6916">https://learnzillion.com/lesson_plans/6916</a> | |
|  | | A Group of Objects (up to 20) Have An Odd or Even Number of Members? | TEACHING students about odd and even numbers. | Read page 11 of the North Carolina unpacked standards. | <a href="https://dpi.state.nc.us/department/mathematics/scos/docs/curriculum/wheel.pdf">https://dpi.state.nc.us/department/mathematics/scos/docs/curriculum/wheel.pdf</a> |
| Equal Groups of Objects | In this lesson, students make equal groups of objects and count them, partition a set into equal groups, and arrange a group of objects into an array. | TEACHING students how to determine even numbers by dividing a number into pairs. | <a href="http://s.math.teachingresources.com/supportfiles/even-odd.svg.pdf">http://s.math.teachingresources.com/supportfiles/even-odd.svg.pdf</a> | |
|  | | This is an activity for students to engage in to actively explore even and odd numbers. | <a href="https://learnzillion.com/lesson_plans/7027">https://learnzillion.com/lesson_plans/7027</a> | |
|  | | 1. Use Doodle Buddy to create groups of objects. 2. Below each group they should label if the group is “odd” or “even.” 3. Write an equation below the representation. | <a href="https://s.githubusercontent.com/doodle-buddy/sketches/itunes.apple.com/us/store/apps/details?id=611452042%20wheel.pdf">https://s.githubusercontent.com/doodle-buddy/sketches/itunes.apple.com/us/store/apps/details?id=611452042%20wheel.pdf</a> | |
|  | | Do Level A only. Show your thinking in the Show Me App. You may use the number pieces app if that is helpful and import it into the Show Me App. | <a href="https://s.firebaseio.com/app/number-pieces/sb14/02/27/vnd8">https://s.firebaseio.com/app/number-pieces/sb14/02/27/vnd8</a> | |</p>
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<tbody>
<tr>
<td>Using addition to find the total number of objects.</td>
<td>In this lesson, students use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</td>
<td>TEACHING how to represent an array with addition equations.</td>
<td>TEACHING how to draw an array to match a repeated addition sentence.</td>
<td><a href="https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8">https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8</a></td>
<td><a href="https://play.google.com/store/apps/details?id=com.morriscook.explaineverything&amp;hl=en">https://play.google.com/store/apps/details?id=com.morriscook.explaineverything&amp;hl=en</a></td>
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<td>TEACHING how to represent an array with repeated addition.</td>
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<td>An activity for students where they build arrays.</td>
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<td>A task for students to solve involving arrays.</td>
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<td><a href="https://www.illustrativemathematics.org/content-standards/2/OA/C/4/tasks/3">https://www.illustrativemathematics.org/content-standards/2/OA/C/4/tasks/3</a></td>
</tr>
</tbody>
</table>
Module Title: Comparison, Addition and Subtraction with Length and Money

About Module 6
Module 6 provides another opportunity for students to practice their algorithms and problem-solving skills with perhaps the most well-known, interesting units of all—dollars, dimes, and pennies. As they study money and length, students represent data given by measurement and money data using picture graphs, bar graphs, and line plots. Students also delve into measuring time.

Focus Standards in Module 6
CC.2.4.2.A.3 - Solve problems and make change using coins and paper currency with appropriate symbols.
CC.2.4.2.A.4 - Represent and interpret data using line plots, picture graphs, and bar graphs.
CC.2.4.2.A.2 - Tell and write time to the nearest five minutes using both analog and digital clocks.

Standards for Mathematical Practice
MP# 1: Make sense of problems and persevere in solving them
MP# 2: Reason abstractly and quantitatively
MP# 4: Model with mathematics
MP# 5: Use appropriate tools strategically
MP# 8: Look for and express regularity in repeated reasoning

Measurement Time and Money, Represent and Interpret Data
Students will be exploring time, money, and interpreting data throughout Module 6.

In Module 6, students will be able to:
- Solve word problems involving money.
- Make a line plot to show measurement data.
- Draw a picture graph and a bar graph to represent data.
- Tell and write time from analog and digital clocks to the nearest five minutes.

Click on the "i" button beside each resource/url to find additional information and/or step by step instructions. Watch YouTube videos on Viewpure.com to eliminate ads.

Measurement Time and Money, Represent and Interpret Data: Solve Word Problems
Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

TEACHING students word problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ¢ appropriately. View the North Carolina Standards on page 29 for more information. [http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/2.pdf]

TEACHING students word problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ¢ appropriately. A series of videos regarding solving money related math problems. [https://learnzillion.com/resources/75493-solve-word-problems-involving-money-using-sketching-visual-representations-2-md-8]

TEACHING students word problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ¢ appropriately. A game for students to play regarding money. [http://www.smathteachingsources.com/support/teach/money-board.pdf]

TEACHING students how to solve number stories regarding money. A task for students to solve regarding money and number sentences. [https://www.bruinymath.com/grade/3/purchase-do-you-have-enough-money-up-to-1-dollar]

I CAN solve addition and subtraction number stories using coins. Use the link to solve addition and subtraction number stories. [http://www.us.doe/illinois/illinois-mathematics/grade/2/purchases-do-you-have-enough-money-up-to-1-dollar]

I CAN solve word problems using coins. Use this link to solve number stories. [http://www.thearcademy.org/math/teaching/geometry/grade/3/purchases-do-you-have-enough-money-up-to-1-dollar]
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<tbody>
<tr>
<td>Measurement Time and Money, Represent and Interpret Data: Line Plots and Measurement Data</td>
<td>Make a line plot to show measurement data of the lengths of several objects to the nearest whole-number unit.</td>
<td>TEACHING about line plots.</td>
<td>View this video for more information about creating a line plot from a set of data. Use the line plot to answer questions.</td>
<td><a href="https://www.khanacademy.org/math/early-math/early-math-measur">https://www.khanacademy.org/math/early-math/early-math-measur</a>...</td>
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<tr>
<td>I CAN analyze line plots to answer questions.</td>
<td>Use link to solve problems on line plots.</td>
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<td>I CAN interpret line plots.</td>
<td>Follow the link to solve line plot problems.</td>
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<tr>
<td>I CAN create line plots.</td>
<td>Follow this link to create line plots.</td>
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<td>I CAN represent data on a line plot.</td>
<td>Choose 2nd Grade. Click <em>Data, Represent Data on a Line Plot</em> and answer the questions.</td>
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<tr>
<td>I CAN create a line plot.</td>
<td>Measure everyone’s pencil in the classroom to the nearest inch. Using the APP Doodlebuddy, create a line plot of the lengths. Choose stamps to use to create line plot points and data.</td>
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Measurement Time and Money, Represent and Interpret Data: Represent A Data Set With Up To Four Categories. In this lesson, students draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in the graph. | I CAN create a bar graph. | Use the 2nd Grade Splash Math APP to solve picture and bar graph problems (click 2nd grade, Date, Represent data on picture or bar graph) | Follow this link to solve problems on line plots. | | |
| I CAN compare the data on the bar graph. | Using the Show Me APP (or another creation APP), import the screenshot of the bar graph. Explain to your audience what number was the smallest and largest in your set of data. What was the difference between your two numbers? | | | | |
| I CAN create bar graphs using the data provided. | Use the Kids Math Graphs APP to create bar graphs | | | | |

Measurement Time and Money, Represent and Interpret Data: Telling and Writing Time In this lesson, students tell and write time from analog and digital clocks to the nearest five minutes. | TEACHING students how to tell time. | A series of videos regarding telling time. | | | |
<p>| I CAN tell time. | View this video to tell time to the nearest hour. | | | |</p>
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## GRADE 2 MODULE 7

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<tr>
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<tbody>
<tr>
<td>Module 7: Angles, Faces, and Vertices of Shapes, &amp; Fractions of Shapes</td>
<td>In Module 7, students investigate, describe, and reason about the composition and decomposition and of shapes to form other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.</td>
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<tr>
<td>Focus Standards in Module 7</td>
<td><strong>CC.2.3.2.A.1</strong> Analyze and draw two- and three-dimensional shapes having specified attributes. <strong>CC.2.3.2.A.2</strong> Use the understanding of fractions to partition shapes into halves, quarters, and thirds.</td>
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<tr>
<td>Standards for Mathematical Practice</td>
<td><strong>MP# 2. Reason abstractly and quantitatively</strong> <strong>MP# 3. Construct viable arguments and critique the reasoning of others</strong> <strong>MP# 4. Model with mathematics</strong> <strong>MP# 6. Attend to precision</strong></td>
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<tr>
<td>About Module 7</td>
<td>In Module 7 students begin to explore two and three dimensional shapes. Students will also begin to develop their understanding of dividing circles and rectangles equally.</td>
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<td>In Module 7, students will be able to:</td>
<td>• Recognize and draw shapes having specified attributes. • Partition circles and rectangles into two, three, or four equal shares.</td>
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<td>Click on the &quot;i&quot; button beside each resource/url to find additional information and/or step by step instructions. Watch YouTube videos on Viewpure.com to eliminate ads.</td>
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### Geometry: Recognizing and Drawing Shapes

In this lesson, students recognize and draw shapes having specified attributes. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

#### TEACHING identification of a triangle, quadrilateral, pentagon, hexagon, and cube.

**I CAN practice identifying shapes and their attributes.**

Go to Geometry, then select two dimensional shapes.

[http://viewpure.com/xgQJcN-hMpc](http://viewpure.com/xgQJcN-hMpc)

**I CAN practice creating the shapes.**

Choose Play.


**I CAN form shapes to add to an independent glossary to demonstrate knowledge of the shapes.**

Use the Geoboard App to form and take screenshots of shapes on the pegboard. Create a triangle, quadrilateral, pentagon, and hexagon.


**I CAN create, label, and define shapes in a shape glossary.**

Import screenshots of individual shapes into the Show Me App or any "creation" app and label shapes and their attributes.

[http://media-cache-ak0.pinimg.com/736x/de/e4/0a/6dee40ab17f17095e2f7c4ed4241e946.jpg](http://media-cache-ak0.pinimg.com/736x/de/e4/0a/6dee40ab17f17095e2f7c4ed4241e946.jpg)


### Geometry: Partitioning Circles and Rectangles

In this lesson, students partition circles and rectangles into two, three, or four equal shares; recognize that equal shares of identical wholes need not have the same shape.

#### TEACHING students to partition circles and rectangles.

Refer to the North Carolina Unpacked standards for more information on this standard.


#### TEACHING students the definition of partition and equal shares.


**I CAN partition a circle and rectangle to display 2 equal halves and 4 equal quarters.**

Save as an image and import into the Show Me App to color.


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