

Cluster 3: Stories with Addition and Subtraction
Duration: 4-5 Weeks
<p>Content Standards: This list includes standards that will be addressed in this cluster, but not necessarily mastered, since all standards are benchmarks for the end of the year. Please note the recommendations in the Important Considerations section of this cluster for more information.</p> <p>NC.3.NBT.2 Add and subtract whole numbers up to and including 1000.</p> <ul style="list-style-type: none"> • Use estimation strategies to assess reasonableness of answers. • Model and explain how the relationship between addition and subtraction can be applied to solve addition and subtraction problems. • Use expanded form to decompose numbers and then find sums and differences. <p>NC.3.OA.8 Solve two-step word problems involving addition, subtraction, and multiplication, representing problems using equations with a symbol for the unknown number.</p>
<p>Mathematical Practices:</p> <ol style="list-style-type: none"> 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.
<p>What is the mathematics? The focus of the work with addition and subtraction in third grade is to build on the conceptual understanding developed in second grade and to develop procedural fluency within 1000. Work with NC.3.OA.8 begins in this cluster as students have now had experiences with multiplication and can begin to think about two-step word problems with addition and subtraction and some simple multiplication.</p> <p>Students will:</p> <ul style="list-style-type: none"> • Understand that the base-ten structure of our number system is useful when adding and subtracting numbers. They utilize and understand the place value of 3-digit numbers and work with numbers up to and including 1,000. • Understand the relationship between addition and subtraction and how that relationship can be used to solve one- and two-step problems. • Practice, refine, and develop efficient strategies to add and subtract and solve different types of story problems. They can use landmark numbers, decompose numbers to make friendly numbers, and choose an appropriate strategy for a specific set of numbers. • Share their thinking about how to make sense of and solve problems. • Solve two-step story problems
<p>Important Considerations:</p> <ul style="list-style-type: none"> • Pay attention to the addition and subtraction problem types that students worked with in previous grades. Story contexts in third grade should include all addition and subtraction problem types and should include two-step story problems with addition and subtraction up to 1000 (ex. On Monday, 28 kindergartners and 34 first graders from Smith Elementary School

went to the science museum. On Tuesday, 19 second graders went to the museum. How many more students went to the museum on Monday than Tuesday?).

- Note that addition and subtraction is with models, whole number and decomposition strategies, and strategies based on place value. Mastery of the standard algorithm is not an expectation until fourth grade.
- Note that estimation is more than the procedure for rounding. Students use estimation to judge if their solution makes sense (ex. When adding 125 and 290, my answer should be less than 500. This does not require formal rounding to the nearest hundred. Rather a student might reason that a number less than 200 plus a number less than 300 is going to be less than 500.