

Common Core Math—To Get to the Other Side: Designing Bridges

Engineering is Elementary units are designed primarily to teach engineering skills and habits of mind. In doing so, all units also reinforce and link to other content areas. The math practices and standards addressed by this unit are listed below.

Math Practices Embedded Throughout the Unit:

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.

Grade	Lesson #	Common Core Math Cluster or Practice	Common Core Math Standard
1	4	Operations and Algebraic Thinking <ul style="list-style-type: none">• Add and subtract within 20.• Work with addition and subtraction equations.	1.0A.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 1.OA.D.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
1	4	Numbers and Operations in Base 10 <ul style="list-style-type: none">• Extend the Counting Sequence	1.NBT.A.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
2	4	Numbers and Operations in Base 10 <ul style="list-style-type: none">• Use place value understanding and properties of operations to add and subtract.	2.NBT.B.6: Add up to four two-digit numbers using strategies based on place value and properties of operations.

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Grade	Lesson #	Common Core Math Cluster or Practice	Common Core Math Standard
3	4	Operations and Algebraic Thinking <ul style="list-style-type: none">Represent and solve problems involving multiplication and division.	3.OA.A.1: Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
5	4	Numbers and Operations in Base 10 <ul style="list-style-type: none">Understand the place value system.	5.NBT.A.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left.