

Common Core Math—No Bones About It: Designing Knee Braces

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. Reasons 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.

Grade	Lesson #	Common Core Math Cluster or Practice	Common Core Math Standard
1	3, 4	Operations and Algebraic Thinking 1.OA: <ul style="list-style-type: none"> • Represent and solve problems involving addition and subtraction. • Add and subtract within 20. • Work with addition and subtraction equations. 	1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions. 1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. 1.OA.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.
1	2, 4	Measurement and Data 1.MC: <ul style="list-style-type: none"> • Represent and interpret data. 	1.MD.4: Organize, represent, and interpret data with up to three categories: ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
2	3, 4	Operations and Algebraic Thinking 2.OA: <ul style="list-style-type: none"> • Represent and solve problems involving addition and subtraction. 	2.OA.1: Use addition and subtraction within 100 to solve one-and two- step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

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		<ul style="list-style-type: none"><li data-bbox="512 383 884 407">• Add and subtract within 20.	2.OA.2: Fluently add and subtract within 20 using mental strategies.