Beginnings Publishing House, Inc.

Home Wisdom

Bridge Math™

Scope and Sequence

Like the other courses by *Beginnings Publishing House*, ***Bridge Math*** is typically done in three sessions per week. In this seven-week course, Dr. Dobbins will walk students, step by step, through methods for organizing and solving the kinds of problems they will face in their science courses. The skills they learn will be invaluable for solving practical problems in every aspect of life from business, to home economics, to professional science practice.

The lesson titles and subject content are as follows:

Lesson 1: Do I Count? *The difference between dealing with counted and measured quantities.*

Lesson 2: Put a Label on That Number! *Introduction to the factor-label system (the scientific method for organizing problems).*

Lesson 3: When Change Is Good *Changing units of measure (e.g., from teaspoons to milliliters) using the factor-label system.*

Lesson 4: Unit Conversion by Number *A step-wise logical approach to unit-factor conversions.*

Lesson 5: I Can See You're Getting Smarter *Converting units twice or more within a single problem.*

Lesson 6: When the Going Gets Tough…Get Organized *How unit conversions simplify problems with ugly units.*

Lesson 7: Ptarget Practice *Precision and accuracy (and how to know the difference).*

Lesson 8: It's True, But Is It Significant? *Rounding numbers to correctly report precision.*

Lesson 9: Show Your Significance *Reporting the correct level of precision from mathematical operations.*

Lesson 10: Don't Multiply Your Lack of Significance *How to prevent exaggerated precision when multiplying and dividing.*

Lesson 11: Adding and Subtracting with Precision *How to prevent exaggerated precision when adding and subtracting.*

Lesson 12: Numbers Great and Small *Abbreviating large and small numbers as powers of ten.*

Lesson 13: Scientifically Speaking *Accepted scientific shorthand for large and small numbers—"Scientific notation."*

Lesson 14: How Difficult Is Difficult? *How to make a math problem difficult. (And, therefore, how to simplify and solve a seemingly difficult problem.)*

Lesson 15: The Problem with Words *Recognizing sources of difficulty in word problems.*

Lesson 16: Plug and Solve *Plugging numbers into given equations and solving.*

Lesson 17: Write It Yourself *Building your own equations to solve problems.*

Lesson 18: Do S'more *Practice problems.*

Lesson 19: Do S'more S'more *Practice problems, and graduation from this course.*

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