PATHWAY 2 CAREERS

P2C Math Bridge

VERTICAL ALIGNMENT



PATHWAY 2 CAREERS

P2C Math Bridge: Strengthening Skills Through Real-World Connections

P2C Math Bridge offers 175 scaffolded lessons designed to reinforce foundational math skills from grades 4–7 and close learning gaps. Each lesson integrates practical, career-connected examples that bring meaning and context to core concepts.

Whether used for targeted review, intervention, or skill-building, Math Bridge provides educators with a flexible, standards-aligned resource that meets every learner where they are and helps them move forward with confidence.

Each Bridge lesson is vertically aligned to show how foundational 4th–7th grade skills build toward readiness for higher-level topics. Teachers with access to Bridge can use the vertical alignment guide to cross-reference upcoming units in pre-algebra, geometry, or algebra with the corresponding Bridge lessons that target prerequisite concepts. For example, a teacher preparing to launch a unit on slope and linear equations might review the vertical alignment guide to identify lessons on unit rates, ratios, and fraction operations—skills that underpin conceptual understanding of rate of change.

This guide includes:

- A vertical alignment and pacing guide for each course:
  - Pre-Algebra - Page 3
  - Geometry - Page 12
  - Algebra I - Page 21



See how P2C Math Bridge can benefit *your* learners and goals. Schedule a personalized demo: p2c.org/contact/

About Pathway2Careers (P2C)

At Pathway2Careers (P2C), we believe that when education becomes relevant, learners fully engage. Our mission is straightforward: revolutionize education by challenging the current approach and motivating student learning through career-connected relevance. This mission drives our vision of improving students' prospects by connecting the time and energy they spend in the classroom with meaningful career paths. In doing so, we aim to transform not just the future prosperity of individual students, but the economies of entire communities.

What sets P2C apart is our commitment to evidence-based solutions. Every product, resource, and strategy we design is grounded in rigorous research. By uncovering, exploring, and sharing the most timely and relevant findings—and through the insights generated by our in-house research team—we tackle the biggest challenges facing education today. Our approach ensures that the career-connected learning experiences we create are not only innovative but also effective.

Learn more at p2c.org

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P2C Math: Bridge & Pre-Algebra

Vertical Alignment & Pacing Guide

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Pacing Guidance

P2C Math, Bridge offers teachers who are actively teaching a core 8th grade or high school math course—such as Pre-Algebra, Algebra 1, Geometry, or Algebra 2 a robust supplemental resource to reteach or pre-teach concepts when students show a lack of readiness for grade-level standards. For those with access to Bridge, teachers might pull in a Bridge lesson or segment to review operations with rational numbers before introducing linear equations, or to reinforce proportions before tackling slope. This model is most used with pull-out groups, small-group reteach, after-school tutoring, or an intervention blocks, but can also be applied in whole-group instruction when a gap is shared by many students. Flexibility and responsiveness are key features of this model.

The Supplemental Model is designed to be flexibly implemented alongside a school's existing curriculum and pacing guides. This model empowers teachers to select lessons or lesson components "à la carte," based on the specific learning goals of the moment. This responsive approach allows for maximum integration with grade-level instruction while minimizing disruptions to the core instructional flow.

Each Bridge lesson is vertically aligned to show how foundational 4th–7th grade skills build toward readiness for higher-level topics. Teachers with access to Bridge can use the vertical alignment guide to cross-reference upcoming units in pre-algebra with the corresponding Bridge lessons that target prerequisite concepts. For example, a teacher preparing to launch a unit on slope and linear equations might review the vertical alignment guide to identify lessons on unit rates, ratios, and fraction operations—skills that underpin conceptual understanding of rate of change.

To support intentional, just-in-time instruction and address learning gaps efficiently, this vertical alignment guide is tailored for the supplemental implementation model. This guide is designed to align Bridge lessons to the progression of concepts found in a traditional pre-algebra curriculum. It serves as a strategic tool for teachers to identify which foundational Bridge lesson(s) vertically support the core content they are preparing to teach.

On the following pages, **Bridge lessons are inserted directly into the pacing guide of P2C Math, Pre-Algebra.** These Bridge lessons are visually distinguished— using color coding and listed as Illustration Type. The lessons are positioned before the corresponding core lessons they support. For instance, before a pre-algebra lesson on writing and solving proportions, the guide may suggest using the Bridge lesson "Understanding Ratios." This placement indicates that the foundational concept of ratios is a prerequisite skill that underpins students' ability to engage with the grade-level task of solving proportions. Teachers can use this guidance proactively as a pre-teaching tool or responsively as a re-teaching strategy when formative assessments indicate gaps in readiness.

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	Title	Type	Career(s)	Number of Days
1. TRANSFORMATIONAL GEOMETRY				**13-21**
B-11.1	Geometry Definitions	Illustration	Video Game Designers	1
B-11.3	Graphing in the Coordinate Plane	Illustration	Tour Guides and Escorts	0.5-1
B-11.4	Plotting Two-Dimensional Figures	Illustration	Geographic Information System Analysts (GIS Analysts)	0.5-1
P-1.1	Translations	Exploration	Multiple	1
P-1.2	Apply Translations	Application	Computer Numerically Controlled Tool Programmers	1-2
P-1.3	Reflections	Exploration	Multiple	1
P-1.4	Apply Reflections	Application	Automotive Engineers	1-2
P-1.5	Rotations	Exploration	Multiple	1
P-1.6	Apply Rotations	Application	Aerospace Engineering and Operations Technologists and Technicians	1-2
P-1.7	Investigate Symmetry	Application	Carpenters	1-2
P-1.8	Congruent Figures	Exploration	Multiple	1
P-1.9	Use Rigid Motions to Show Congruent Figures	Application	Special Effects Artists and Animators	1-2
P-1.10	Dilations	Exploration	Multiple	1
P-1.11	Apply Dilations	Application	Interior Designers	1-2
P-1.12	Similar Figures	Exploration	Multiple	1-2
P-1.13	Perimeters and Areas of Similar Figures	Exploration	Multiple	1-2
2. EQUATIONS AND INEQUALITIES				**18-21**
B-3.4	Ordering Numbers	Illustration	Forest Fire Prevention Specialists	1
B-3.5	Operations with Numbers	Illustration	Benefits Specialists	0.5
B-3.6	Mental Computation	Illustration	Construction Managers	0.5
B-3.7	Order of Operations	Illustration	Nursing Professors	0.5-1
P-2.1	Operations with Rational Numbers	Exploration	Multiple	1-2
B-6.2	Expressions	Illustration	Retail Supervisors	1
P-2.2	Simplify Expressions	Exploration	Multiple	1-2

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	Title	Type	Career(s)	Number of Days
B-6.3	Writing and Solving Equations	Illustration	Nurse Anesthetists	1
P-2.3	Variables and Equations	Application	Facilities Managers	1-2
P-2.4	Solve One-Step Equations	Exploration	Multiple	1
P-2.5	Apply Solving One-Step Equations	Application	Cargo and Freight Agents	1-2
P-2.6	Solve Two-Step Equations	Exploration	Multiple	1
P-2.7	Apply Solving Two-Step Equations	Application	Loan Officers	1-2
P-2.8	Solve Multi-Step Equations	Exploration	Multiple	1
P-2.9	Solve Equations with Variables on Both Sides	Exploration	Multiple	1-2
P-2.10	Solve Break-Even Problems	Application	Fundraising Managers	1-2
P-2.11	Rewrite Formulas	Application	Registered Nurses	1-2
B-6.8	Introduction to Inequalities	Illustration	Climate Change Policy Analysts	1
B-6.10	Writing and Solving Inequalities	Illustration	Fuel Cell Engineers	1
P-2.12	Solve One-Step Inequalities	Exploration	Multiple	1
P-2.13	Solve Two-Step Inequalities	Exploration	Multiple	1
P-2.14	Apply Solving Inequalities	Application	Water Resource Specialists	1-2
3. Angle Relationships				**6-11**
B-11.7	Adding and Subtracting Angles	Illustration	Manufacturing Engineers	0.5-1
P-3.1	Parallel Lines and Transversals	Exploration	Multiple	1-2
P-3.2	Apply Properties of Parallel Lines	Application	Structural Iron and Steel Workers	1-2
P-3.3	Angle Relationships in Triangles	Exploration	Multiple	1-2
P-3.4	Apply Angle Relationships in Triangles	Application	Robotics Engineers	1-2
P-3.5	Angle-Angle Similarity	Exploration	Multiple	1
P-3.6	Apply Similar Triangles	Application	Firefighters	1-2
P-3-P	Geometry	Project (Information Technology)	Web and Digital Interface Designers	3-6
4. Proportional Relationships				**11-19**
B-7.1	Understanding Ratios	Illustration	Licensed Vocational Nurses	1
P-4.1	Write and Solve Proportions	Exploration	Multiple	1
P-4.2	Apply Writing and Solving Proportions	Application	Compliance Officers	1-2
B-7.2	Understanding Rates	Illustration	Commercial Divers	1

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	Title	Type	Career(s)	Number of Days
B-7.6	Unit Rates	Illustration	Loading Equipment Supervisors	1
P-4.3	Slope of a Line	Exploration	Multiple	1-2
P-4.4	Use the Slope of a Line	Application	Surveyors	1-2
P-4.5	Write Equations for Proportional Relationships	Exploration	Multiple	1
P-4.6	Apply Equations for Proportional Relationships	Application	Food Scientists and Technologists	1-2
B-7.8	Percents as Ratios	Illustration	Marketing Managers	1
B-7.9	Percents and Rates	Illustration	Online Merchants	1
P-4.7	Solve Percent Problems	Application	Sales Representatives, Wholesale and Manufacturing	1-2
B-12.5	Slope with Similar Triangles	Illustration	Groundskeepers	1-2
B-7.10	Unit Rates as Slope	Illustration	Business Intelligence Analysts	1-2
P-4.8	Graph Proportional Relationships	Exploration	Multiple	1-2
P-4.9	Apply Graphs of Proportional Relationships	Application	Manufacturing Engineers	1-2
P-4.10	Compare Proportional Relationships	Exploration	Multiple	1
P-4.11	Apply Comparisons of Proportional Relationships	Application	Biological Science Teachers, Postsecondary	1-2
5. FUNCTIONS				**14-21**
B-4.8	Numerical and Geometrical Patterns	Illustration	Art Therapists	0.5-1
B-4.10	Relations	Illustration	Customer Service Representatives	0.5-1
P-5.1	Relations and Functions	Exploration	Multiple	1
B-4.11	Functions and Relationships	Illustration	Barbers	1
P-5.2	Representations of Functions	Exploration	Multiple	1-2
P-5.3	Linear Equations in Two Variables	Exploration	Multiple	1
P-5.4	Apply Linear Equations in Two Variables	Application	Dental Hygienists	1-2
P-5.5	Interpret Rate of Change and Initial Value	Exploration	Multiple	1
P-5.6	Apply Rate of Change and Initial Value	Application	Soil and Plant Scientists	1-2
P-5.7	Write Equations for Linear Functions	Exploration	Multiple	1
P-5.8	Apply Equations Written for Linear Functions	Application	Commercial Pilots	1-2

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	Title	Type	Career(s)	Number of Days
P-5.9	Identify Parallel and Perpendicular Lines	Application	Civil Engineers	1-2
P-5.10	Graph Linear Equations in Two Variables	Exploration	Multiple	1
P-5.11	Interpret Intercepts of Graphs of Linear Equations	Application	Athletic Trainers	1-2
P-5.12	Compare Functions	Exploration	Multiple	1
P-5.13	Nonlinear Functions	Exploration	Multiple	1
P-5.14	Apply Nonlinear Functions	Application	Food Service Managers	1-2
P-5-P	Functions	Project (Information Technology)	Information Technology Project Managers	3-6
6. Systems of Linear Equations				**10-17**
B-8.1	Evaluating Functions using Graphs	Illustration	Massage Therapists	1
B-8.4	Comparing Tables of Values	Illustration	Search Marketing Strategists	0.5-1
B-8.5	Comparing Graphs and Equations	Illustration	Business Professors	0.5-1
B-8.7	Solving Equations by Graphing	Illustration	Veterinary Technicians	1
P-6.1	Solve Systems of Linear Equations by Graphing	Exploration	Multiple	1
P-6.2	Apply Solving Linear Systems by Graphing	Application	Business Operations Specialists	1-2
P-6.3	Solve Systems of Linear Equations by Substitution	Exploration	Multiple	1-2
P-6.4	Apply Solving Linear Systems by Substitution	Application	Credit Counselors	1-2
P-6.5	Solve Systems of Linear Equations by Adding or Subtracting	Exploration	Multiple	1
P-6.6	Solve Systems of Linear Equations by Multiplying First	Exploration	Multiple	1
P-6.7	Apply Solving Linear Systems by Elimination	Application	Personal Financial Advisors	1-2
B-8.8	Comparing Inequalities	Illustration	Clinical Research Coordinators	1
P-6.8	Solve Manufacturing Tolerance Problems	Application	Ophthalmic Laboratory Technicians	1-2
P-6.9	Solve Mixture Problems	Application	Chemists	1-2
P-6.10	Solve Special Types of Systems of Linear Equations	Exploration	Multiple	1-2
P-6-P	Expressions and Equations	Project (Information Technology)	Information Security Analysts	3-6

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	Title	Type	Career(s)	Number of Days
7. Statistics and Probability				**11-17**
B-9.1	Introduction to Statistics	Illustration	Health Informatics Specialists	1
B-9.4	Central Tendency	Illustration	Athletes	1
B-9.5	Measures of Variability	Illustration	Neurodiagnostic Technologists	1
B-9.7	Displaying Data on Stem and Leaf Plots and Dot Plots	Illustration	Substance Abuse Counselors	1
B-9.8	Displaying Data on Histograms and Box Plots	Illustration	Administrative Services Managers	1
P-7.1	Scatter Plots	Exploration	Multiple	1
P-7.2	Apply Scatter Plots	Application	Medical Scientists, except Epidemiologists	1-2
P-7.3	Interpret Trend Lines	Exploration	Multiple	1-2
P-7.4	Draw and Use Trend Lines	Exploration	Multiple	1
P-7.5	Apply Trend Lines	Application	Paralegals and Legal Assistants	1-2
B-9.9	Displaying Data on Circle Graphs and Frequency Tables	Illustration	Human Resources Managers	1
B-10.1	Introduction to Probability	Illustration	Occupational Safety Technicians	1
B-10.2	Theoretical and Experimental Probability	Illustration	Bioinformatics Technicians	1-2
B-10.7	Probabilities with and without Replacement	Illustration	Computer Scientists	1
P-7.6	Display Data from Two-Way Tables	Application	Data Scientists	1-2
P-7.7	Make Two-Way Frequency Tables	Exploration	Multiple	1
P-7.8	Interpret Two-Way Frequency Tables	Exploration	Multiple	1
P-7.9	Apply Two-Way Frequency Tables	Application	Health Education Specialists	1-2
P-7.10	Two-Way Relative Frequency Tables	Exploration	Multiple	1
P-7.11	Apply Two-Way Relative Frequency Tables	Application	Operations Research Analysts	1-2
P-7-P	Statistics and Probability	Project (Information Technology)	Computer User Support Specialists	3-6
8. Exponents and Scientific Notation				**11-20**
B-4.1	Factors	Illustration	Flight Attendants	1
P-8.1	Exponents	Exploration	Multiple	0
B-5.3	Evaluating Exponents	Illustration	Database Architects	0.5-1

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	Title	Type	Career(s)	Number of Days
B-5.7	Order of Operations with Exponents	Illustration	Engineering Professors	1
P-8.2	Multiplication Properties of Exponents	Exploration	Multiple	1-2
P-8.3	Division Properties of Exponents	Exploration	Multiple	1-2
P-8.4	Zero and Negative Exponents	Exploration	Multiple	1-2
P-8.5	Apply Properties of Exponents in Software Development	Application	Software Developers	1-2
P-8.6	Apply Properties of Exponents Using Orders of Magnitude	Application	Atmospheric, Earth, Marine and Space Sciences Teachers, Postsecondary	1-2
P-8.7	Apply Properties of Exponents in Ecology	Application	Industrial Ecologists	1-2
B-1.4	Place Value	Illustration	Audiologists	0.5-1
B-5.5	Powers of 10	Illustration	Biochemists	0.5-1
P-8.8	Scientific Notation	Exploration	Multiple	1
P-8.9	Compute with Scientific Notation	Exploration	Multiple	1
P-8.10	Apply Scientific Notation in Earth Science	Application	Geoscientists	1-2
P-8.11	Apply Scientific Notation in Forensic Science	Application	Forensic Science Technicians	1-2
P-8.12	Estimating Quantities	Exploration	Multiple	1-2
9. Real Numbers and the Pythagorean Theorem				**9-15**
B-5.11	Inverse of an Exponent	Illustration	Government Property Inspectors	1
P-9.1	Find Square Roots	Exploration	Multiple	0
B-13.9	Developing Area Formulas	Illustration	Art Directors	1-2
P-9.2	Apply Finding Square Roots	Application	Landscape Architects	1-2
P-9.3	Find Cube Roots	Exploration	Multiple	1
B-3.2	Converting Rational Numbers	Illustration	Commodities Brokers	1
B-3.3	Inverse Operations with Rational Numbers	Illustration	Optometrists	1
P-9.4	Rational Numbers	Exploration	Multiple	1
P-9.5	Irrational Numbers	Exploration	Multiple	1
P-9.6	The Pythagorean Theorem	Exploration	Multiple	1-2
P-9.7	Apply the Pythagorean Theorem	Application	Plumbers, Pipefitters and Steamfitters	1-2
B-13.6	Length in the Coordinate Plane	Illustration	Geodetic Surveyors	1

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	Title	Type	Career(s)	Number of Days
P-9.8	Find Distances Using the Pythagorean Theorem	Application	Architectural and Civil Drafters	1-2
P-9.9	The Converse of the Pythagorean Theorem	Exploration	Multiple	1-2
P-9.10	Apply the Converse of the Pythagorean Theorem	Application	Construction and Building Inspectors	1-2
P-9-P	The Number System	Project (Information Technology)	Web Developers	3-6
10. Measurement and Volume				**9-14**
B-13.5	Units of Measurement	Illustration	Travel Guides	0.5-1
B-13.13	Area and Circumference of Circles	Illustration	Shuttle Drivers	1
P-10.1	Find Circumference and Area of Circles	Exploration	Multiple	1
P-10.2	Apply Area of Circles	Application	Market Research Analysts and Marketing Specialists	0
B-14.6	Volume by Inspection	Illustration	Dock Workers	0.5-1
B-14.7	Volume of Prisms and Cylinders	Illustration	Environmental Engineers	1
P-10.3	Find Volume of Cylinders	Exploration	Multiple	1
P-10.4	Apply Volume of Cylinders	Application	Geological Technicians	1-2
P-10.5	Find Volume of Cones	Exploration	Multiple	1
P-10.6	Apply Volume of Cones	Application	Chefs and Head Cooks	1-2
P-10.7	Find Volume of Spheres	Exploration	Multiple	1
P-10.8	Apply Volume of Spheres	Application	Secondary School Teachers	1-2
P-10.9	Find Volume of Composite Solids	Exploration	Multiple	1-2
P-10.10	Apply Volume of Composite Solids	Application	Mobile Heavy Equipment Mechanics	1-2

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PATHWAY 2 CAREERS

P2C Math: Bridge & Geometry

Vertical Alignment & Pacing Guide

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Pacing Guidance

P2C Math, Bridge offers teachers who are actively teaching a core 8th grade or high school math course—such as pre-algebra, algebra 1, geometry, or algebra 2 a robust supplemental resource to reteach or pre-teach concepts when students show a lack of readiness for grade-level standards. For those with access to Bridge, teachers might pull in a Bridge lesson or segment to review operations with rational numbers before introducing linear equations, or to reinforce proportions before tackling slope. This model is most used with pull-out groups, small-group reteach, after-school tutoring, or an intervention blocks, but can also be applied in whole-group instruction when a gap is shared by many students. Flexibility and responsiveness are key features of this model.

The Supplemental Model is designed to be flexibly implemented alongside a school's existing curriculum and pacing guides. This model empowers teachers to select lessons or lesson components "à la carte," based on the specific learning goals of the moment. This responsive approach allows for maximum integration with grade-level instruction while minimizing disruptions to the core instructional flow.

Each Bridge lesson is vertically aligned to show how foundational 4th–7th grade skills build toward readiness for higher-level topics. Teachers with access to Bridge can use the vertical alignment guide to cross-reference upcoming units in Geometry with the corresponding Bridge lessons that target prerequisite concepts. For example, a teacher preparing to launch a unit on slope and linear equations might review the vertical alignment guide to identify lessons on unit rates, ratios, and fraction operations—skills that underpin conceptual understanding of rate of change.

To support intentional, just-in-time instruction and address learning gaps efficiently, this vertical alignment guide is tailored for the supplemental implementation model. This guide is designed to align Bridge lessons to the progression of concepts found in a traditional geometry curriculum. It serves as a strategic tool for teachers to identify which foundational Bridge lesson(s) vertically support the core content they are preparing to teach.

On the following pages, **Bridge lessons are inserted directly into the pacing guide of P2C Math, Geometry.** These Bridge lessons are visually distinguished— using color coding and listed as Illustration Type. The lessons are positioned before the corresponding core lessons they support. For instance, before a geometry lesson on points, lines and planes, the guide may suggest using the Bridge lesson "Geometric Names and Drawings." This placement indicates that the foundational is a prerequisite skill that underpins students' ability to engage with the grade-level task of understanding points, lines and planes. Teachers can use this guidance proactively as a pre-teaching tool or responsively as a re-teaching strategy when formative assessments indicate gaps in readiness.

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	Title	Type	Career(s)	Number of Days
1. Geometry Fundamentals				**10-15**
B-11.2	Geometric Names and Drawings	Illustration	Agricultural Sciences Professors	1-2
G-1.1	Points, Lines, and Planes	Exploration	Multiple	1
B-11.5	Geometric Figures	Illustration	Fine Artists	1-2
G-1.2	Measure and Construct Segments	Exploration	Multiple	1
B-11.6	Measuring Angles	Illustration	Entertainment and Recreation Supervisors	0.5-1
G-1.3	Measure and Construct Angles	Exploration	Multiple	1
B-11.9	Angle Relationships	Illustration	Farm Labor Contractors	1
B-11.10	Properties of Angles	Illustration	Floor Layers	1
G-1.4	Describe Pairs of Angles	Exploration	Multiple	1
G-1.5	Solve Problems Using Pairs of Angles	Application	Occupational Therapists	1-2
G-1.6	Classify Polygons	Exploration	Multiple	1
G-1.7	Solve Design Problems Using Areas of Figures	Application	Meeting, Convention, and Event Planners	1-2
G-1.8	Midpoint and Distance in the Coordinate Plane	Application	Emergency Medical Technicians & Paramedics	1-2
B-13.7	Perimeter of Geometric Figures	Illustration	Tax Appraisers	1
B-13.8	Using Perimeter of Polygons	Illustration	Fishing and Hunting Workers	1
G-1.9	Perimeter in the Coordinate Plane	Application	Fence Erectors	1-2
B-13.10	Area of Geometric Figures	Illustration	Mechanical Door Repairers	1-2
G-1.10	Area in the Coordinate Plane	Application	Computer Specialists	1-2
2. Geometric Reasoning				**9-12**
B-12.1	Logical Claims	Illustration	Vision Rehabilitaion Therapists (VRT)	0.5-1
B-12.2	Supporting Claims	Illustration	Lawyers	0.5-1
G-2.1	Use Inductive Reasoning	Exploration	Multiple	1
G-2.2	Write Conditional Statements	Exploration	Multiple	1
G-2.3	Use Deductive Reasoning	Exploration	Multiple	1
G-2.4	Apply Deductive Reasoning	Application	Child, Family, and School Social Workers	1-2
G-2.5	Biconditional Statements and Definitions	Exploration	Multiple	1-2
G-2.6	Write Algebraic Proofs	Exploration	Multiple	1
G-2.7	Write Proofs about Segments	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
G-2.8	Write Proofs about Angles	Exploration	Multiple	1
G-2.9	Use Theorems about Angles	Application	Carpenters	1-2
3. Parallel and Perpendicular Lines				**10-15**
B-11.8	Lines and Angles	Illustration	Ophthalmic Medical Technicians	1
G-3.1	Pairs of Lines and Angles	Exploration	Multiple	1
G-3.2	Parallel Lines and Transversals	Exploration	Multiple	1
G-3.3	Use Properties of Parallel Lines	Application	Tree Trimmers and Pruners	1-2
G-3.4	Prove Lines are Parallel	Exploration	Multiple	1
G-3.5	Show Lines are Parallel	Application	Rail-Track Equipment Operators	1-2
G-3.6	Prove Theorems about Perpendicular Lines	Exploration	Multiple	1
G-3.7	Use Properties of Perpendicular Lines	Application	Brickmasons and Blockmasons	1-2
B-12.3	Unit Rates and Proportional Relationships	Illustration	Development Managers	1
B-12.4	Slope	Illustration	Medical Assistants	1
B-12.6	Using and Interpreting Slope	Illustration	Office Clerks	1
G-3.8	Find and Use Slopes of Lines	Exploration	Multiple	1
G-3.9	Use the Slope Criteria for Parallel and Perpendicular Lines	Application	Civil Engineers	1-2
G-3.10	Lines in the Coordinate Plane	Exploration	Multiple	1-2
G-3-P	Expressing Geometric Properties with Equations	Project (Information Technology)	Health Informatics Specialists	3-6
4. Transformations				**12-20**
B-12.7	Rigid Transformations	Illustration	Machine Feeders	1
B-12.8	Using Rigid Transformations	Illustration	Dancers	1
G-4.1	Translations	Exploration	Multiple	1-2
G-4.2	Apply Translations	Application	Biological Technicians	1-2
G-4.3	Reflections	Exploration	Multiple	1
G-4.4	Apply Reflections	Application	Marine Engineers and Naval Architects	1-2
G-4.5	Rotations	Exploration	Multiple	1
G-4.6	Apply Rotations	Application	Air Traffic Controllers	1-2
G-4.7	Investigate Symmetry	Application	Architecture Professors	1-2
G-4.8	Compositions of Transformations	Application	Computer Numerically Controlled Machine Tool Programmers	1-2

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	Title	Type	Career(s)	Number of Days
G-4.9	Transformations and Congruence	Exploration	Multiple	1
B-12.9	Dilated Figures	Illustration	Archivists	1
B-12.10	Scale Drawings	Illustration	Security Managers	1
G-4.10	Dilations	Exploration	Multiple	1
G-4.11	Apply Dilations	Application	Advertising and Promotions Managers	1-2
G-4.12	Transformations and Similarity	Exploration	Multiple	1-2
5. Congruent Triangles				**11-16**
B-11.11	Types of Triangles	Illustration	Fashion Designers	0.5-1
G-5.1	Classifying Triangles	Exploration	Multiple	1
G-5.2	Angles in Triangles	Exploration	Multiple	1
G-5.3	Apply Angle Relationships in Triangles	Application	Physical Therapists	1-2
G-5.4	Triangle Congruence	Application	Graphic Designers	1-2
B-11.14	Side-Angle-Side and Side-Side-Side Triangles	Illustration	Computer Hardware Engineers	1
G-5.5	Prove Triangle Congruence by SAS and SSS	Exploration	Multiple	1
G-5.6	Apply SSS and SAS Triangle Congruence	Application	Glaziers	1-2
B-11.15	Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg Triangles	Illustration	Occupational Therapy Aides	1
G-5.7	Prove Triangle Congruence by ASA and AAS	Exploration	Multiple	1
G-5.8	Prove Triangle Congruence by HL	Exploration	Multiple	1
G-5.9	Apply ASA and AAS Triangle Congruence	Application	Millwrights	1-2
G-5.10	Use Congruent Triangles	Application	Photogrammetrists	1-2
G-5.11	Equilateral and Isosceles Triangles	Exploration	Multiple	1
6. Relationships Within Triangles				**8-12**
B-11.12	Interior and Exterior Angles of Triangles	Illustration	Machinery Maintenance Workers	1
G-6.1	Perpendicular and Angle Bisectors	Exploration	Multiple	1-2
G-6.2	Bisectors of Triangles	Exploration	Multiple	1
G-6.3	Medians and Altitudes of Triangles	Exploration	Multiple	1
G-6.4	Apply Special Segments in Triangles	Application	Postsecondary Art, Drama, and Music Teachers	1-2
G-6.5	The Triangle Midsegment Theorem	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
B-11.13	Triangle Side Lengths	Illustration	Aerospace Engineers	1
G-6.6	Inequalities in One Triangle	Exploration	Multiple	1
G-6.7	Inequalities in Two Triangles	Exploration	Multiple	1-2
G-6.8	Apply Inequalities in One Triangle and Two Triangles	Application	Commercial Pilots	1-2
7. Polygons and Other Quadrilaterals				**8-11**
B-13.1	Quadrilaterals	Illustration	Occupational Therapy Assistants	0.5-1
B-13.2	Using Quadrilaterals	Illustration	Clinical Neuropsychologists	0.5-1
B-13.3	Drawing Polygons	Illustration	Mechanical Drafters	0.5-1
B-13.4	Lines of Symmetry	Illustration	Makeup Artists	0.5-1
G-7.1	Angles of Polygons	Exploration	Multiple	1
G-7.2	Properties of Parallelograms	Exploration	Multiple	1
G-7.3	Conditions for Parallelograms	Exploration	Multiple	1
G-7.4	Apply Properties of and Conditions for Parallelograms	Application	Mechanical Drafters	1-2
G-7.5	Properties of Special Parallelograms	Exploration	Multiple	1
G-7.6	Properties of Trapezoids and Kites	Exploration	Multiple	1
G-7.7	Identify Special Quadrilaterals	Application	Motorcycle Mechanics	1-2
G-7.8	Identify Special Quadrilaterals in the Coordinate Plane	Application	Fashion Designers	1-2
G-7-P	Congruence	Project (Information Technology)	Computer Network Architects	3-6
8. Similarity				**6-9**
B-12.11	Understanding Similar Figures Using Ratios	Illustration	Motorboat Mechanics	1
B-12.12	Drawing Similar Figures	Illustration	Telecommunications Equipment Installers and Repairers	1
G-8.1	Similar Polygons	Application	Set and Exhibit Designers	1-2
G-8.2	Prove Triangles Similar by AA	Exploration	Multiple	1
G-8.3	Prove Triangles Similar by SSS and SAS	Exploration	Multiple	1
G-8.4	Use Similar Triangles	Application	Foresters	1-2
G-8.5	Use Proportionality Theorems	Exploration	Multiple	1
G-8.6	Apply Proportionality Theorems	Application	Urban and Regional Planners	1-2

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	Title	Type	Career(s)	Number of Days
9. Right Triangles and Trigonometry				**10-17**
B-5.2	Using Exponents	Illustration	Hearing Aid Specialists	1
B-5.9	Introduction to Square Roots	Illustration	Freight Forwarders	1
B-11.16	Introduction to the Pythagorean Theorem	Illustration	Independent Repair Workers	1-2
G-9.1	The Pythagorean Theorem	Exploration	Multiple	1
G-9.2	Apply the Pythagorean Theorem	Application	Construction and Building Inspectors	1-2
G-9.3	Special Right Triangles	Exploration	Multiple	1-2
G-9.4	Similar Right Triangles	Exploration	Multiple	1
G-9.5	Use Similar Right Triangles	Application	Photographers	1-2
G-9.6	The Tangent Ratio	Exploration	Multiple	1
G-9.7	The Sine and Cosine Ratios	Exploration	Multiple	1-2
G-9.8	Apply Trigonometric Ratios in Right Triangles	Application	Solar Photovoltaic Installers	1-2
G-9.9	Law of Sines and Law of Cosines	Exploration	Multiple	1-2
G-9.10	Apply the Law of Sines and the Law of Cosines	Application	Sound Engineering Technicians	1-2
10. Circles				**12-16**
B-13.11	Circumference	Illustration	Paramedics	1
B-13.12	Area of Circles	Illustration	Physical Therapist Assistants	1
G-10.1	Lines and Segments that Intersect Circles	Exploration	Multiple	1
G-10.2	Finding Arc Measures	Exploration	Multiple	1
G-10.3	Using Chords	Exploration	Multiple	1
G-10.4	Inscribed Angles	Exploration	Multiple	1
G-10.5	Inscribed Polygons	Exploration	Multiple	1
G-10.6	Apply Central Angles and Inscribed Angles	Application	Security and Fire Alarm Systems Installers	1-2
G-10.7	Angle Relationships in Circles	Exploration	Multiple	1
G-10.8	Segment Relationships in Circles	Exploration	Multiple	1
G-10.9	Apply Segment Relationships in Circles	Application	Life, Physical and Social Science Technicians	1-2
G-10.10	Circles in the Coordinate Plane	Exploration	Multiple	1
G-10.11	Apply Circles in the Coordinate Plane	Application	Geoscientists	1-2
B-8.11	Graphs of Quadratics	Illustration	Management Analysts	1-2
G-10.12	Equation of a Parabola	Exploration	Multiple	1-2
G-10-P	Circles	Project (Information Technology)	Telecommunications Engineering Specialists	3-6

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	Title	Type	Career(s)	Number of Days
11. Circumference and Area				**7-12**
G-11.1	Find Areas of Triangles using Trigonometry	Application	Surveyors	1-2
G-11.2	Areas of Parallelograms, Trapezoids, and Regular Polygons	Application	Fish and Game Wardens	1-2
B-13.15	Composite Figures in the Coordinate Plane	Illustration	Security Guards	1-2
G-11.3	Areas of Composite Figures	Application	Appraisers and Assessors of Real Estate	1-2
B-13.14	Circles and Sectors in the Coordinate Plane	Illustration	Agricultural Engineers	1-2
G-11.4	Circumference and Arc Length	Exploration	Multiple	1
G-11.5	Apply Circumference and Arc Length	Application	Mechanical Engineering Technicians	1-2
G-11.6	Areas of Circles and Sectors	Exploration	Multiple	1
G-11.7	Apply Areas of Circles and Sectors	Application	Cardiovascular Technologists and Technicians	1-2
12. Surface Area and Volume				**13-20**
B-14.1	Three-Dimensional Figures	Illustration	Farm Equipment Mechanics	0.5-1
B-14.2	Faces of Prisms and Pyramids	Illustration	Industrial Designers	1
G-12.1	Cross Sections of Solids	Exploration	Multiple	1
G-12.2	Visualizing Solids	Application	Architectural and Civil Drafters	1-2
B-14.3	Surface Area	Illustration	Recreational Vehicle Service Technicians	1
B-14.4	Surface Area from Nets	Illustration	Residential Advisors	1
B-14.5	Surface Area of Prisms and Cylinders	Illustration	Midwives	1-2
G-12.3	Surface Areas of Prisms and Pyramids	Exploration	Multiple	1
G-12.4	Apply Surface Areas of Prisms and Pyramids	Application	Anthropologists and Archeologists	1-2
G-12.5	Surface Areas of Cylinders and Cones	Exploration	Multiple	1-2
G-12.6	Surface Areas of Spheres	Exploration	Multiple	1
G-12.7	Apply Surface Areas of Cylinders, Cones, and Spheres	Application	Industrial Production Managers	1-2
B-14.8	Using Volume of Prisms and Cylinders	Illustration	Phlebotomists	1-2
G-12.8	Volumes of Prisms and Pyramids	Exploration	Multiple	1
G-12.9	Apply Volumes of Prisms and Pyramids	Application	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1-2
G-12.10	Volumes of Cylinders and Cones	Exploration	Multiple	1
G-12.11	Volumes of Spheres	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
G-12.12	Apply Volumes of Cylinders, Cones, and Spheres	Application	Agricultural Engineers	1-2
G-12.13	Solids of Revolution	Exploration	Multiple	1-2
13. Probability and Decision Making				**10-15**
B-10.3	Empirical Probabilities	Illustration	Endoscopy Technicians	1
B-10.4	Probability Models and Simulations	Illustration	Health Services Managers	1
B-10.5	Theoretical Probability	Illustration	Mental Health Counselors	1
G-13.1	Probability and Set Theory	Exploration	Multiple	1-2
G-13.2	Find Probabilities Using Permutations and Combinations	Exploration	Multiple	1
G-13.3	Disjoint and Overlapping Events	Exploration	Multiple	1
G-13.4	Apply Probabilities of Disjoint and Overlapping Events	Application	Health Educators	1-2
B-10.10	Probabilities with Conditions	Illustration	Veterinary Assistants	1
G-13.5	Conditional Probability	Exploration	Multiple	1
G-13.6	Apply Conditional Probabilities	Application	Personal Financial Advisors	1-2
B-10.6	Independent and Dependent Events	Illustration	Private Detectives	1
B-10.8	Probabilities with Replacement	Illustration	Administrative Supervisors	1
B-10.9	Probabilities without Replacement	Illustration	Mental Health Social Workers	1
G-13.7	Independent Events	Exploration	Multiple	1
G-13.8	Apply Probabilities of Independent Events	Application	Information Security Analysts	1-2
G-13.9	Dependent Events	Exploration	Multiple	1
G-13.10	Apply Probabilities of Dependent Events	Application	Gaming Managers	1-2
G-13-P	Using Probability to Make Decisions	Project (Information Technology)	Computer Programmers	3-6

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PATHWAY 2 CAREERS

P2C Math: Bridge & Algebra I

Vertical Alignment & Pacing Guide

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Pacing Guidance

P2C Math, Bridge offers teachers who are actively teaching a core 8th grade or high school math course—such as pre-algebra, algebra 1, geometry, or algebra 2 a robust supplemental resource to reteach or pre-teach concepts when students show a lack of readiness for grade-level standards. For those with access to Bridge, teachers might pull in a Bridge lesson or segment to review operations with rational numbers before introducing linear equations, or to reinforce proportions before tackling slope. This model is most used with pull-out groups, small-group reteach, after-school tutoring, or an intervention blocks, but can also be applied in whole-group instruction when a gap is shared by many students. Flexibility and responsiveness are key features of this model.

The Supplemental Model is designed to be flexibly implemented alongside a school's existing curriculum and pacing guides. This model empowers teachers to select lessons or lesson components "à la carte," based on the specific learning goals of the moment. This responsive approach allows for maximum integration with grade-level instruction while minimizing disruptions to the core instructional flow.

Each Bridge lesson is vertically aligned to show how foundational 4th–7th grade skills build toward readiness for higher-level topics. Teachers with access to Bridge can use the vertical alignment guide to cross-reference upcoming units in Algebra I with the corresponding Bridge lessons that target prerequisite concepts. For example, a teacher preparing to launch a unit on slope and linear equations might review the vertical alignment guide to identify lessons on unit rates, ratios, and fraction operations—skills that underpin conceptual understanding of rate of change.

To support intentional, just-in-time instruction and address learning gaps efficiently, this vertical alignment guide is tailored for the supplemental implementation model. This guide is designed to align Bridge lessons to the progression of concepts found in a traditional algebra curriculum. It serves as a strategic tool for teachers to identify which foundational Bridge lesson(s) vertically support the core content they are preparing to teach.

On the following pages, **Bridge lessons are inserted directly into the pacing guide of P2C Math, Algebra.** These Bridge lessons are visually distinguished— using color coding and listed as Illustration Type. The lessons are positioned before the corresponding core lessons they support. For instance, before a algebra lesson on real numbers, the guide may suggest using the Bridge lesson "Closure of Rational Numbers." This placement indicates that the foundational concept is a prerequisite skill that underpins students' ability to engage with the grade-level task of exploring rational numbers. Teachers can use this guidance proactively as a pre-teaching tool or responsively as a re-teaching strategy when formative assessments indicate gaps in readiness.

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	Title	Type	Career(s)	Number of Days
1. Algebra Foundations				**8-12**
B-3.1	Closure of Rational Numbers	Illustration	Media Programming Directors	1
A-1.1	Real Numbers	Exploration	Multiple	1
B-7.3	Measurement Units	Illustration	Highway Maintenance Workers	1-2
B-7.4	Conversion Ratios	Illustration	Architects	1
A-1.2	Quantities and Measurement	Exploration	Multiple	1
A-1.3	Applying Dimensional Analysis	Application	Dental Laboratory Technicians	1-2
A-1.4	Modeling with Quantities	Application	Terrazzo Workers and Finishers	1-2
A-1.5	Precision and Accuracy	Application	Environmental Science and Protection Technicians	1-2
B-6.1	Parts of Expressions	Illustration	Community Health Workers	1
A-1.6	Algebraic Expressions	Exploration	Multiple	1
A-1.7	Writing and Simplifying Algebraic Expressions	Exploration	Multiple	1
A-1.8	Structure of Expressions	Application	Economics Teachers, Postsecondary	1-2
A-1-P	Seeing Structure in Expressions	Project (Information Technology)	Database Architects	3-6
2. Solving Equations				**7-11**
B-6.4	Solving One-Step Equations with Addition or Subtraction	Illustration	Acupuncturists	1
B-6.5	Solving One-Step Equations with Multiplication or Division	Illustration	Orthotists and Prosthetists	1
B-6.6	Solutions to Two-Step Equations	Illustration	Technical Writers	1-2
A-2.1	Solving One- and Two-Step Equations	Exploration	Multiple	1
A-2.2	Writing Linear Equations	Application	Credit Counselors	1-2
B-6.7	Solutions to Multi-Step Equations	Illustration	Computer Science Professors	1
A-2.3	Solving Multi-Step Equations	Exploration	Multiple	1
A-2.4	Solving Linear Equations with a Variable on One Side	Application	Veterinarians	1-2
A-2.5	Solving Linear Equations with a Variable on Both Sides	Application	Bookkeeping, Accounting, and Auditing Clerks	1-2
A-2.6	Introduction to Literal Equations and Formulas	Exploration	Multiple	1
A-2.7	Solving Literal Equations and Formulas	Application	Electricians	1-2

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	Title	Type	Career(s)	Number of Days
3. Solving Inequalities				**9-13**
B-6.9	Graphing Inequalities in One Variable	Illustration	Surgical Assistants	1
A-3.1	Inequalities in One Variable	Exploration	Multiple	1
A-3.2	Writing Linear Inequalities in One Variable	Exploration	Multiple	1
B-6.11	One-Step Inequalities with Addition and Subtraction	Illustration	Curators	1
B-6.12	One-Step Inequalities with Multiplication and Division	Illustration	Organizational Psychologists	1
A-3.3	Solving Linear Inequalities in One Variable	Application	Property, Real Estate, and Community Association Managers	1-2
B-6.13	Multi-Step Inequalities	Illustration	Healthcare Social Workers	1-2
A-3.4	Solving and Graphing Compound Inequalities-And	Exploration	Multiple	1
A-3.5	Solving and Graphing Compound Inequalities-Or	Exploration	Multiple	1
A-3.6	Using Compound Inequalities	Application	Billing and Posting Clerks	1-2
A-3.7	Absolute Value Equations and Inequalities	Exploration	Multiple	1
A-3.8	Writing and Solving Absolute Value Inequalities	Application	Exercise Physiologists	1-2
A-3.9	Solving Inequalities Graphically	Application	Business Operations Specialists, All Other	1-2
4. Functions and Linear Functions				**17-24**
B-4.7	Finding Patterns in Ordered Pairs	Illustration	Coaches	0.5-1
A-4.1	Relations and Functions	Exploration	Multiple	1
A-4.2	Features of Functions	Exploration	Multiple	1
A-4.3	Identifying Linear Functions	Exploration	Multiple	1
B-7.5	Ratios and Rates	Illustration	Medical Records Specialists	1
B-7.7	Using Unit Rates	Illustration	Light Truck Drivers	1
A-4.4	Rate of Change	Exploration	Multiple	1
B-7.12	Using Slope	Illustration	Physician Assistants	1
A-4.5	Standard Form and Slope-Intercept Form	Exploration	Multiple	1
A-4.6	Using the Point-Slope Form of a Line	Application	Social and Community Service Managers	1-2
A-4.7	Equations of Parallel and Perpendicular Lines	Exploration	Multiple	1-2

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	Title	Type	Career(s)	Number of Days
A-4.8	Graphs of Linear Functions	Exploration	Multiple	1
B-7.11	Proportions and Slope	Illustration	Semiconductor Processing Technicians	1
A-4.9	Rate of Change of Linear Functions	Application	Fitness Trainers and Aerobics Instructors	1-2
B-7.13	Direct Variation	Illustration	Conveyer Operators	1
B-7.14	Indirect Variation	Illustration	Food Science Technicians	1
A-4.10	Representations of Linear Functions	Application	Geological and Petroleum Technicians	1-2
A-4.11	Using Graphs of Linear Functions	Application	Hydrologists	1-2
B-9.10	Bivariate Graphs	Illustration	Logistics Analysts	1
B-9.11	Drawing Trend Lines	Illustration	Training Specialists	1
B-9.12	Using Trend Lines	Illustration	Speech-Language Pathologists	1-2
A-4.12	Scatter Plots and Lines of Fit	Exploration	Multiple	1
A-4.13	Applying Scatter Plots and Lines of Fit	Application	Cost Estimators	1-2
A-4.14	Analyzing Lines of Fit	Application	Financial Managers	1-2
A-4-P	Creating Equations	Project (Information Technology)	Software Developers	3-6
5. Systems of Equations and Inequalities				**11-16**
B-8.2	Evaluating Functions	Illustration	Magnetic Resonance Imaging Technologists	1
B-8.6	Sets of Functions	Illustration	Sales Engineers	1
A-5.1	Solving Systems of Linear Equations by Graphing	Exploration	Multiple	1
A-5.2	Applying Systems of Linear Equations	Application	Chefs and Head Cooks	1-2
A-5.3	Solving Linear Equations in One Variable by Graphing	Exploration	Multiple	1
A-5.4	Solving Systems of Linear Equations by Substitution	Exploration	Multiple	1
A-5.5	Solving Systems of Linear Equations by Elimination	Exploration	Multiple	1
A-5.6	Writing and Solving Systems of Linear Equations	Application	Software Developers, Applications	1-2
A-5.7	Special Systems of Linear Equations	Exploration	Multiple	1
B-8.9	Sets of Inequalities	Illustration	Concierges	1
A-5.8	Graphing Linear Inequalities in Two Variables	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
A-5.9	Writing and Using Linear Inequalities in Two Variables	Application	Soil and Plant Scientists	1-2
A-5.10	Graphing Systems of Linear Inequalities	Exploration	Multiple	1-2
A-5.11	Applying Systems of Linear Inequalities	Application	Industrial Engineers	1-2
A-5-P	Reasoning with Equations and Inequalities	Project (Information Technology)	Geographic Information Systems Technologists and Technicians	3-6
6. Exponents and Exponential Functions				**10-17**
B-5.4	Translating Exponents	Illustration	Materials Scientists	0.5-1
B-5.8	Introduction to Exponential Expressions	Illustration	Precision Agriculture Technicians	1
B-5.6	Operations with Powers of 10	Illustration	Cytotechnologists	0.5-1
A-6.1	Properties of Exponents	Exploration	Multiple	1
A-6.2	Understanding Radicals and Rational Exponents	Exploration	Multiple	1-2
B-8.10	Introduction to Exponential Functions	Illustration	Genetic Counselors	1-2
A-6.3	Exponential Functions	Exploration	Multiple	1
A-6.4	Graphing Exponential Functions	Application	Accountants and Auditors	1-2
A-6.5	Exponential Growth and Exponential Decay Functions	Exploration	Multiple	1-2
A-6.6	Applying Exponential Growth	Application	Animal Scientists	1-2
A-6.7	Applying Exponential Decay	Application	Forensic Science Technicians	1-2
A-6.8	Solving Exponential Equations	Exploration	Multiple	1
A-6.9	Applying Exponential Equations	Application	Epidemiologists	1-2
A-6.10	Comparing Exponential Functions	Application	Insurance Sales Agents	1-2
7. Sequences				**8-12**
B-4.9	Comparing Patterns	Illustration	Environmental Economists	1
A-7.1	Understanding Sequences	Application	Biological Science Teachers, Postsecondary	1-2
A-7.2	Explicitly-Defined Arithmetic Sequences	Exploration	Multiple	1
A-7.3	Recursively-Defined Arithmetic Sequences	Exploration	Multiple	1
A-7.4	Applying Arithmetic Sequences	Application	General and Operations Managers	1-2
A-7.5	Explicitly-Defined Geometric Sequences	Exploration	Multiple	1
A-7.6	Recursively-Defined Geometric Sequences	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
A-7.7	Applying Geometric Sequences	Application	Actuaries	1-2
A-7.8	Applying Recursively-Defined Sequences	Application	Sociologists	1-2
8. Polynomials and Factoring				**12-16**
B-4.2	Using Factors	Illustration	Arbitrators	1
A-8.1	Modeling with Polynomials	Application	Astronomers	1-2
A-8.2	Adding and Subtracting Polynomials	Exploration	Multiple	1
B-4.3	Multiples	Illustration	Personal Service Supervisors	0.5-1
B-4.4	The Least Common Multiple	Illustration	Project Management Specialists	0.5-1
A-8.3	Multiplying Monomials and Binomials	Exploration	Multiple	1
A-8.4	Multiplying Polynomials	Exploration	Multiple	1
A-8.5	Special Products of Polynomials	Exploration	Multiple	1
A-8.6	Operations with Polynomials	Application	Operations Research Analysts	1-2
B-4.5	The Greatest Common Factor	Illustration	Web Developers	0.5
B-4.6	Applying the Greatest Common Factor in Factoring Expressions	Illustration	Financial Quantitative Analysts	1
A-8.7	Factoring Using the Greatest Common Factor	Exploration	Multiple	1
A-8.8	Factoring the Difference of Squares	Exploration	Multiple	1
A-8.9	Factoring Using Grouping	Exploration	Multiple	1
A-8.10	Factoring Quadratic Expressions in the Form $x^2 + bx + c$	Exploration	Multiple	1
A-8.11	Factoring Quadratic Expressions in the Form $ax^2 + bx + c$	Exploration	Multiple	1-2
A-8.12	Solving Polynomial Equations	Exploration	Multiple	1-2
A-8-P	Arithmetic with Polynomials and Rational Expressions	Project (Information Technology)	Video Game Designers	3-6
9. Quadratic Functions and Equations				**13-19**
B-5.1	Squaring a Number	Illustration	Administrative Assistants	1
B-5.10	Square Roots	Illustration	Electronics Assemblers	1
B-8.12	Introduction to Quadratic Functions	Illustration	Health Specialties Professors	1-2
A-9.1	Graphing Quadratic Functions in Standard Form	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
A-9.2	Graphing Quadratic Functions in Vertex Form and Intercept Form	Exploration	Multiple	1
A-9.3	Applying the Vertex Form of Quadratic Functions	Application	Atmospheric and Space Scientists	1-2
A-9.4	Applying Graphs of Quadratic Functions	Application	Aerospace Engineers	1-2
A-9.5	Solving Quadratic Equations by Graphing and Taking the Square Root	Exploration	Multiple	1
A-9.6	Solving Quadratic Equations by Factoring	Exploration	Multiple	1
A-9.7	Solving Quadratic Equations by Completing the Square	Exploration	Multiple	1
A-9.8	Solving Quadratic Equations by Quadratic Formula	Exploration	Multiple	1
A-9.9	Using Quadratic Equations to Solve Problems	Application	Physicists	1-2
A-9.10	Comparing Quadratic Functions	Application	Industrial Production Managers	1-2
A-9.11	Solving Linear-Quadratic Systems Graphically	Exploration	Multiple	1
A-9.12	Solving Linear-Quadratic Systems Algebraically	Exploration	Multiple	1-2
A-9.13	Applying Linear-Quadratic Systems	Application	Economists	1-2
10. Graphing and Modeling with Functions				**11-15**
B-3.8	Distance On the Number Line	Illustration	Choreographers	1
B-3.9	Introduction to Absolute Value	Illustration	Refrigeration Operators	1
B-8.13	Absolute Value Functions	Illustration	Data Scientists	1-2
A-10.1	Graphing Absolute Value Functions	Exploration	Multiple	1
B-4.12	Inclusive and Exclusive Sets	Illustration	Nursing Assistants	1
B-4.13	Domain and Range	Illustration	Chiropractors	1
B-4.14	Interval Notation	Illustration	Software Quality Assurance Analysts (SQA Analysts)	1
A-10.2	Graphing Step Functions	Exploration	Multiple	1
A-10.3	Applying Step Functions	Application	Cargo and Freight Agents	1-2
A-10.4	Graphing Piecewise-Defined Functions	Exploration	Multiple	1
A-10.5	Applying Piecewise-Defined Functions	Application	Tax Preparers	1-2
A-10.6	Translations of Graphs of Functions	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
A-10.7	Stretches and Shrinks of Graphs of Functions	Exploration	Multiple	1
A-10.8	Reflections of Graphs of Functions	Exploration	Multiple	1
A-10.9	Operations on Functions	Application	Film and Video Editors	1-2
A-10.10	Comparing Linear, Exponential, and Quadratic Models	Exploration	Multiple	1
A-10.11	Applying Comparisons of Linear, Exponential, and Quadratic Models	Application	Appraisers and Assessors of Real Estate	1-2
A-10-P	Linear, Quadratic, and Exponential Models	Project (Information Technology)	Business Intelligence Analysts	3-6
11. Radical Expressions and Inverse Functions				**12-17**
B-5.12	Types of Roots	Illustration	Biomedical Engineers	1-2
A-11.1	Radical Expressions	Exploration	Multiple	1
A-11.2	Describing and Graphing Square Root Functions	Exploration	Multiple	1
A-11.3	Writing Square Root Functions	Application	Radiologic Technologists	1-2
A-11.4	Applying Square Root Functions	Application	Registered Nurses	1-2
A-11.5	Applying Graphs of Square Root Functions	Application	Mechanical Engineers	1-2
A-11.6	Describing and Graphing Cube Root Functions	Exploration	Multiple	1
A-11.7	Solving Radical Equations	Exploration	Multiple	1
B-8.3	Solving for an Input	Illustration	Food Production Supervisors	1
A-11.8	Inverses of Functions	Exploration	Multiple	1
A-11.9	Inverses of Linear Functions	Exploration	Multiple	1
A-11.10	Inverses of Radical Functions	Exploration	Multiple	1
A-11.11	Inverses of Quadratic Functions	Exploration	Multiple	1-2
A-11.12	Applying Inverse Functions	Application	Wind Turbine Service Technicians	1-2
A-11-P	Interpreting Functions	Project (Information Technology)	Health Informatics Specialists	3-6
12. Statistics				**11-16**
B-9.2	Statistical Questions	Illustration	Public Relations Managers	1
A-12.1	Measures of Center	Exploration	Multiple	1

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	Title	Type	Career(s)	Number of Days
A-12.2	Measures of Spread	Exploration	Multiple	1
B-9.3	Describing Data	Illustration	Clinical Psychologists	1
A-12.3	Applying Measures of Center and Spread	Application	Statisticians	1-2
B-9.6	Graphs of Data	Illustration	Surgical Technologists	1
A-12.4	Representing Data with Box Plots	Exploration	Multiple	1
A-12.5	Distributions of Data	Exploration	Multiple	1
A-12.6	Applying Box Plots	Application	Computer and Information Systems Managers	1-2
A-12.7	Representing Data with Histograms	Exploration	Multiple	1
A-12.8	Applying Histograms	Application	Financial Examiners	1-2
A-12.9	Analyzing Data	Application	Market Research Analysts and Marketing Specialists	1-2
B-9.13	Two-Way Tables	Illustration	Medical Registrars	1-2
A-12.10	Two-Way Frequency Tables	Exploration	Multiple	1
A-12.11	Applying Two-Way Frequency Tables	Application	Social Science Research Assistants	1-2
A-12-P	Interpreting Categorical and Quantitative Data	Project (Information Technology)	Search Marketing Analysts	3-6

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