

EdReady. Set. Go!

EdReady is a math and English readiness system that employs a knowledge inventory to personalize a learner's path to subject mastery within the context of a specific educational goal.

STUDENTS can self-assess for college readiness, view study options, and follow a personalized study path to fill gaps in knowledge.

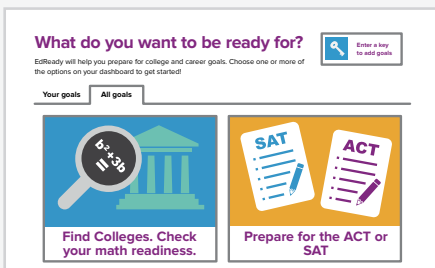
EDUCATORS can see useful data to guide students to success, improve retention, and lay a solid foundation for college completion.

INSTITUTIONS can customize EdReady. Here's how it works...



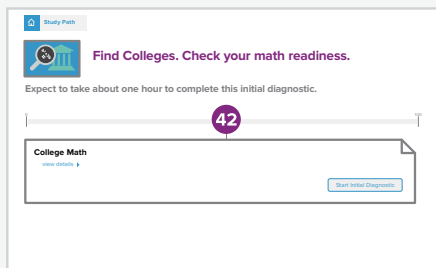
Goals

Each EdReady goal can support a unique, student-focused readiness experience. EdReady can accommodate a variety of goals, depending on your needs.



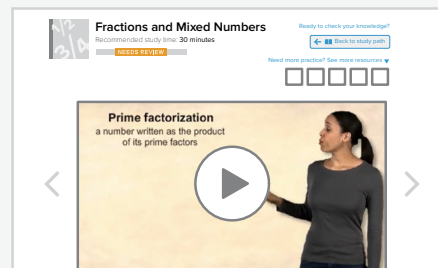
Scope

You can tailor study paths and embedded diagnostics to support programmatic needs within a customized scope of expectations.



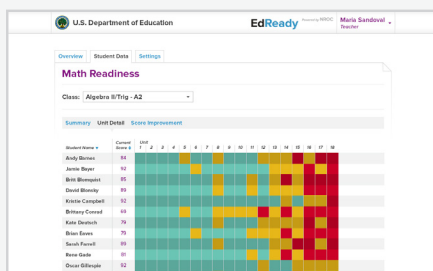
Resources

A personalized study path with topic-specific, media-rich learning resources will guide your students toward their goals. You can choose which curated resources your students will see.



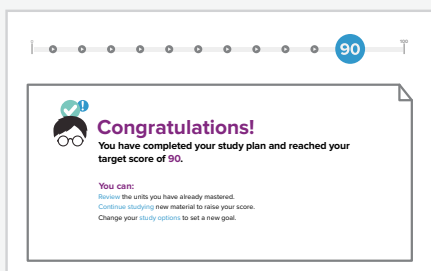
Data Access

You can set permissions for live student data dashboards and downloads for teachers, administrators, and counselors.



Readiness

As students meet or exceed their target scores, you can direct them toward additional steps they may take on their journey to academic and personal success.



EdReady®
Powered by NROC

Watch an animated tour of the student experience at EdReady.org

By joining The NROC Project (NROC), your institution can acquire a customized EdReady site with robust reporting capabilities.

To learn more, contact us at membership@NROC.org.

NROC DEVELOPMENTAL MATH – TABLE OF CONTENTS (PAGE 1 OF 2)

ARITHMETIC MODULES



Unit 1: Whole Numbers

Introduction to Whole Numbers

- ☐ Place Value and Names for Whole Numbers
- ☐ Rounding Whole Numbers
- ☐ Comparing Whole Numbers

Adding and Subtracting Whole Numbers

- ☐ Adding Whole Numbers and Applications
- ☐ Subtracting Whole Numbers and Applications
- ☐ Estimation

Multiplying and Dividing Whole Numbers

- ☐ Multiplying Whole Numbers and Applications
- ☐ Dividing Whole Numbers and Applications

Properties of Whole Numbers

- ☐ Properties and Laws of Whole Numbers
- ☐ The Distributive Property

Exponents, Square Roots, and the Order of Operations

- ☐ Understanding Exponents and Square Roots
- ☐ Order of Operations



Unit 2: Fractions and Mixed Numbers

Introduction to Fractions and Mixed Numbers

- ☐ Introduction to Fractions and Mixed Numbers
- ☐ Proper and Improper Fractions
- ☐ Factors and Primes
- ☐ Simplifying Fractions
- ☐ Comparing Fractions

Multiplying and Dividing Fractions and Mixed Numbers

- ☐ Multiplying Fractions and Mixed Numbers
- ☐ Dividing Fractions and Mixed Numbers

Adding and Subtracting Fractions and Mixed Numbers

- ☐ Adding Fractions and Mixed Numbers
- ☐ Subtracting Fractions and Mixed Numbers



Unit 3: Decimals

Introduction to Decimals

- ☐ Decimals and Fractions
- ☐ Ordering and Rounding Decimals

Decimal Operations

- ☐ Adding and Subtracting Decimals
- ☐ Multiplying and Dividing Decimals
- ☐ Estimation with Decimals



Unit 4: Ratios, Rates, and Proportions

Ratio and Rates

- ☐ Ratio and Rates

Proportions

- ☐ Understanding Proportions



Unit 5: Percents

Introduction to Percents

- ☐ Convert Percents, Decimals, and Fractions

Solving Percent Problems

- ☐ Solve Percent Problems



Unit 6: Measurement

U.S. Customary Units of Measurement

- ☐ Length
- ☐ Weight
- ☐ Capacity

Metric Units of Measurement

- ☐ The Metric System
- ☐ Converting within the Metric System
- ☐ Using Metric Conversions to Solve Problems

Temperature

- ☐ Temperature Scales

BEGINNING ALGEBRA MODULES



Unit 9: Real Numbers

Introduction to Real Numbers

- ☐ Variables and Expressions
- ☐ Integers
- ☐ Rational Real Numbers

Operations with Real Numbers

- ☐ Adding Integers
- ☐ Adding Real Numbers
- ☐ Subtracting Real Numbers
- ☐ Multiplying and Dividing Real Numbers

Properties of Real Numbers

- ☐ Associative, Commutative, and Distributive Properties

Simplifying Expressions

- ☐ Order of Operations



Unit 10: Solving Equations and Inequalities

Solving Equations

- ☐ Solving One-Step Equations Using Properties of Equality
- ☐ Solving Multi-Step Equations
- ☐ Special Cases and Applications
- ☐ Formulas

Solving Inequalities

- ☐ Solving One-Step Inequalities
- ☐ Multi-Step Inequalities

Compound Inequalities and Absolute Value

- ☐ Compound Inequalities
- ☐ Equations and Inequalities and Absolute Value



Unit 11: Exponents and Polynomials

Integer Exponents

- ☐ Exponential Notation
- ☐ Simplify by Using the Product, Quotient, and Power Rules
- ☐ Products and Quotients Raised to Powers
- ☐ Scientific Notation

Polynomials with Single Variables

- ☐ Introduction to Single Variable Polynomials
- ☐ Adding and Subtracting Polynomials
- ☐ Multiplying Polynomials
- ☐ Multiplying Special Cases
- ☐ Dividing by a Monomial
- ☐ Dividing by Binomials and Polynomials

Polynomials with Several Variables

- ☐ Simplifying and Evaluating Polynomials with More than One Term
- ☐ Operations with Polynomials



Unit 12: Factoring

Introduction to Factoring

- ☐ Greatest Common Factor
- ☐ *continued...*

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Factoring Polynomials

- ☐ Factoring Trinomials
- ☐ Factoring: Special Cases
- ☐ Special Cases: Cubes

Solving Quadratic Equations

- ☐ Solve Quadratic Equations by Factoring



Unit 13: Graphing

Graphs and Applications

- ☐ The Coordinate Plane
- ☐ Graphing Linear Equations

Slope and Writing the Equation of a Line

- ☐ Finding the Slope of a Line
- ☐ Writing the Equation of a Line
- ☐ Parallel and Perpendicular Lines
- ☐ Graphing Linear Inequalities



Unit 14: Systems of Equations and Inequalities

Graphing Systems of Equations and Inequalities

- ☐ Graphing Systems of Linear Equations
- ☐ Graphing Systems of Inequalities

Algebraic Methods to Solve Systems of Equations

- ☐ The Substitution Method
- ☐ The Elimination Method

Systems of Equations in Three or More Variables

- ☐ Solving Systems of Three Variables

INTERMEDIATE ALGEBRA MODULES



Unit 15: Rational Expressions

Operations with Rational Expressions

- ☐ Introduction to Rational Expressions
- ☐ Multiplying and Dividing Rational Expressions
- ☐ Adding and Subtracting Rational Expressions
- ☐ Complex Rational Expressions

Rational Equations

- ☐ Solving Rational Equations and Applications

Formulas and Variation

- ☐ Rational Formulas and Variation



Unit 16: Radical Expressions and Quadratic Equations

Introduction to Roots and Rational Exponents:

- ☐ Roots
- ☐ Squares, Cubes, and Beyond
- ☐ Rational Exponents

Operations with Radicals

- ☐ Multiplying and Dividing Radical Expressions
- ☐ Adding and Subtracting Radicals
- ☐ Multiplication of Multiple Term Radicals
- ☐ Rationalizing Denominators

Radical Equations

- ☐ Solving Radical Equations

Complex Numbers

- ☐ Complex Numbers
- ☐ Operations with Complex Numbers

Solving Quadratic Equations

- ☐ Square Roots and Completing the Square
- ☐ The Quadratic Formula



Unit 17: Functions

Introduction to Functions

- ☐ Identifying Functions

Using Functions

- ☐ Evaluating Functions
- ☐ Graphing Types of Functions
- ☐ Finding Domain and Range

Operations with Functions

- ☐ Arithmetic Operations with Functions



Unit 18: Exponential and Logarithmic Functions

Exponential Functions

- ☐ Introduction to Exponential Functions

Logarithmic Functions

- ☐ Introduction to Logarithmic Functions
- ☐ Properties of Logarithmic Functions

Natural Logarithms

- ☐ Introduction to Natural and Common Logarithms

Logarithmic and Exponential Equations

- ☐ Solving Exponential and Logarithmic Equations
- ☐ Mathematical Modeling with Exponential and Logarithmic Functions

GEOMETRY, STATISTICS, & TRIGONOMETRY TOPICS



Unit 7: Geometry

Basic Geometric Concepts and Figures

- ☐ Figures in 1 and 2 Dimensions
- ☐ Properties of Angles
- ☐ Triangles
- ☐ The Pythagorean Theorem

Perimeter, Circumference, and Area

- ☐ Quadrilaterals
- ☐ Perimeter and Area
- ☐ Circles

Volume of Geometric Solids

- ☐ Solids



Unit 8: Concepts in Statistics

Statistical Graphs and Tables

- ☐ Graphing Data
- ☐ Other Types of Graphs

Measures of Center

- ☐ Measures of Center

Graphical Representations

- ☐ Use and Misuse of Graphical Representations

Probability

- ☐ Probability



Unit 19: Trigonometry

Introduction to Trigonometric Functions

- ☐ Identifying the Six Trigonometric Functions
- ☐ Right Triangle Trigonometry
- ☐ Unit Circle Trigonometry

Graphing Trigonometric Functions

- ☐ Degree and Radian Measure
- ☐ Graphing the Sine and Cosine Function
- ☐ Amplitude and Period

NROC ALGEBRA 1 – TABLE OF CONTENTS

SEMESTER 1



Unit 1: Algebra: A New Angle

Lesson 1: Algebra: What's It All About?

- ☐ Algebra—Everyday and Extraordinary
- ☐ Algebra—Why and When
- ☐ Algebra—Approaching Problems



Unit 2: Solve Linear Equations

Lesson 2: Writing and Solving Equations

- ☐ Solving Equations
- ☐ Solving Multi-Step Equations
- ☐ Writing Expressions and Equations
- ☐ Solving for a Specific Variable

Lesson 3: Absolute Value Equations

- ☐ Absolute Value
- ☐ Solving Absolute Value Equations



Unit 3: Functions and Patterns

Lesson 4: Working with Patterns

- ☐ Inductive Patterns
- ☐ Representing Patterns

Lesson 5: Graphing Functions and Relations

- ☐ Representing Functions and Relations
- ☐ Domain and Range
- ☐ Proportional Functions
- ☐ Linear Functions
- ☐ Non-Linear Functions



Unit 4: Analyze and Graph Linear Equations, Functions, and Relations

Lesson 6: Graphing Linear Equations

- ☐ Rate of Change and Slope
- ☐ Intercepts of Linear Equations
- ☐ Graphing Equations in Slope Intercept Form
- ☐ Point Slope Form and Standard Form of Linear Equations

Lesson 7: Parallel and Perpendicular Lines

- ☐ Parallel Lines
- ☐ Perpendicular Lines



Unit 5: Analyze, Solve, and Graph Linear Inequalities

Lesson 8: Writing, Solving, and Graphing Inequalities in One Variable

- ☐ Writing, Solving, and Graphing Inequalities in One Variable
- ☐ Solving and Graphing Absolute Value Inequalities
- ☐ Writing and Using Inequalities

Lesson 9: Solving and Graphing Linear Inequalities in Two Variables

- ☐ Solving and Graphing Linear Inequalities in Two Variables



Unit 6: Systems of Linear Equations and Inequalities

Lesson 10: Solving Systems of Linear Equations

- ☐ Solving Systems by Graphing
- ☐ Solving Systems by Substitution
- ☐ Solving Systems by Elimination

Lesson 11: Applying Systems of Equations

- ☐ Rate Problems
- ☐ Mixture Problems

Lesson 12: Graphing Systems of Inequalities

- ☐ Graphing Systems of Inequalities

SEMESTER 2



Unit 7: Radical Expressions

Lesson 13: Exponents

- ☐ Rules of Exponents
- ☐ Scientific Notation
- ☐ Simplifying Expressions with Exponents

Lesson 14: The Pythagorean Theorem

- ☐ Applications of the Pythagorean Theorem

Lesson 15: Radical Expressions and Equations

- ☐ Simplifying Radical Expressions
- ☐ Solving Radical Equations
- ☐ Applying Radical Equations
- ☐ Fractional Exponents



Unit 8: Polynomials

Lesson 16: Operations on Monomials

- ☐ Multiplying and Dividing Monomials

Lesson 17: Operations on Polynomials

- ☐ Polynomials
- ☐ Adding and Subtracting Polynomials



Unit 9: Factoring

Lesson 18: Factoring Monomials and Polynomials

- ☐ Factoring and the Distributive Property
- ☐ Factoring Trinomials by Grouping 1
- ☐ Factoring Trinomials by Grouping 2

Lesson 19: Factoring Special Products of Polynomials

- ☐ Factoring Special Products
- ☐ Solving Quadratic Equations by Factoring



Unit 10: Quadratic Functions

Lesson 20: Quadratic Functions

- ☐ Graphing Quadratic Functions
- ☐ Solving Quadratic Equations by Completing the Square
- ☐ Solving Quadratic Equations Using the Quadratic Formula

Lesson 21: Applying Quadratic Functions

- ☐ Applications of Quadratic Functions
- ☐ Systems of Non-Linear Equations



Unit 11: Rational Expressions and Equations

Lesson 22: Rational Expressions

- ☐ Simplifying Rational Expressions
- ☐ Multiplying and Dividing Rational Expressions
- ☐ Adding and Subtracting Rational Expressions

Lesson 23: Rational Equations

- ☐ Solving Rational Equations
- ☐ Applying Rational Equations



Unit 12: Extensions and Applications

Lesson 24: Logical Reasoning and Number Sets

- ☐ Number Sets
- ☐ Understanding Logic Statements
- ☐ Inductive Reasoning
- ☐ Deductive Reasoning

Lesson 25: Probability

- ☐ Events and Outcomes (Counting)
- ☐ Permutations and Combinations
- ☐ Probability of Independent Events
- ☐ Probability of Compound Events

Unit 1: Introduction to College Reading and Writing

READING:

- Author, Audience, and Purpose
- Fact and Opinion
- Using Context Clues
- Identifying Word Parts
- Topic Sentences

WRITING

- Topic Sentences
- Revising, Editing, and Proofreading

GRAMMAR

- Subjects and Verbs
- Prepositional Phrases
- End Punctuation

Unit 2: Identifying Main Ideas

READING

- Stated Main Ideas
- Supporting Details
- Using Context Clues
- Identifying Word Parts

WRITING

- Developing a Thesis Statement and Supporting Ideas

GRAMMAR

- Run-on Sentences
- Comma Splices
- Sentence Fragments

Unit 3: Discovering Implied Meaning

READING

- Author's Point of View and Cultural Context
- Implied Main Ideas
- Major and Minor Supporting Details
- Using Context Clues
- Identifying Word Parts

WRITING

- Developing an Implied Thesis Statement and Topic Sentences
- Coherence

GRAMMAR

- Subject-Verb Agreement
- Past, Present, and Future Tense

Unit 4: Interpreting Bias

READING

- Making Inferences and Drawing Conclusions
- Outlining a Reading
- Faulty Parallel Structure
- Using Context Clues
- Identifying Word Parts

WRITING

- Using Transitional Words and Phrases

GRAMMAR

- Commas with Introductory Phrases
- Commas with Transitions
- Adjectives and Adverbs

Unit 5: Analysis through Definition

READING

- Identifying Denotation and Connotation
- Identifying Types of Definitions
- Recognizing Objective and Subjective Language
- Using Context Clues
- Identifying Word Parts

WRITING

- Creating an Effective Introductory Paragraph for an Essay
- Understanding the Four Sentence Types

GRAMMAR

- Comma Use in a Series
- First-, Second-, and Third-Person Pronouns

Unit 6: Learning Across Disciplines

READING

- Understanding Reading and Writing Differences Across Disciplines
- Using Context Clues
- Identifying Word Parts

WRITING

- Developing Support in an Analysis Essay
- Creating an Effective Conclusion for a Multiparagraph Essay

GRAMMAR

- Coordinating and Subordinating Conjunctions
- Commas with Relative Pronouns
- Apostrophes

Unit 7: Exploring Comparative Elements

READING

- Identifying a Comparison Made in a Reading
- Figurative Language
- Using Context Clues
- Identifying Word Parts

WRITING

- Developing a Thesis for a Compare and Contrast Essay
- Developing an Outline for a Compare and Contrast Essay
- Figurative Language

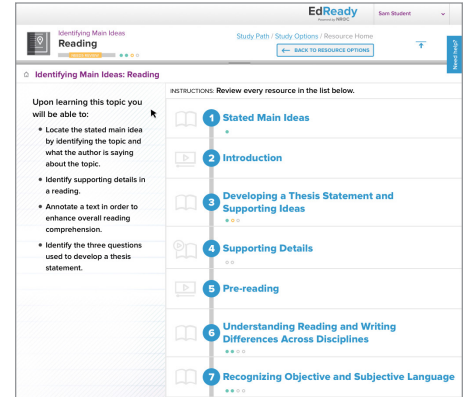
GRAMMAR

- Commonly Confused Words
- Parenthetical Expressions
- Mistakes with Modifiers
- Active and Passive Voice

Unit 8: Informed Opinions through Causal Chains

READING

- Listing Causes and Effects in a Reading
- Logical Fallacies and Causal Relationships
- Using Context Clues
- Identifying Word Parts



Media-rich and diverse exercises help students acquire essential skills.

WRITING

- Responding Effectively to Essay Assignments

GRAMMAR

- Numbers
- Semicolons, Colons, and Commas

Unit 9: Applied Critical Analysis

READING

- Recognizing the Main Idea and Source Bias in a Complex Reading
- Evaluating Credible Sources Used Within a Reading
- Logical Fallacies and Analysis
- Using Context Clues
- Identifying Word Parts

WRITING

- Using Effective Evidentiary Support
- Paraphrasing vs. Direct Quotations
- Blending Source Material into an Essay

GRAMMAR

- Creating Concise Sentences
- MLA Citation Styles

Unit 10: Using Sources in Critical Reading and Writing

READING

- Restating Different Viewpoints
- Using Context Clues
- Identifying Word Parts

WRITING

- Finding and Evaluating Sources
- Evidentiary Support
- Avoiding Plagiarism
- Formatting a College Essay – APA Style

GRAMMAR

- Capitalizing Words and Punctuating Titles
- Quotation Marks
- APA Citation Styles