bhanzu Learning Center

Level 3C

Grade 8

1 Hour 45 Min Classes | Once A Week



Level 3C at Bhanzu prepares students for high school and early college-level math with deeper exploration of algebra, geometry, trigonometry, and data reasoning.

Students strengthen core algebra skills including rational numbers, linear equations, functions, and data reasoning, while extending into geometry, trigonometry, and probability. Each module strengthens logic, fluency, and confidence, ensuring students are ready for advanced math streams.

Inequalities and Angles

- Square & Cube Roots
- Solving Linear Equations in 2 Variables
- Slope of a Line & Slope-Intercept Form
- Framing & Graphing Linear Inequalities
- Linear Programming Problems
- Properties of Polygons
- Congruency & Similarity of Triangles
- Scenario Based Questions

Geometry & Functions

- Translations, Rotations, & Reflections
- Circle & Its Theorems
- Surface Area & Volume
- Set Theory
- Cross Product & Introduction To Functions
- Domain & Range Of A Function
- Linear & Non-Linear Functions
- Scenario Based Questions

Trigonometry, Statistics & Probability

- Injective, Surjective & Bijective Function
- Introduction To Trigonometry
- Trigonometric Ratios As Functions
- Trigonometric Identities
- Data Representation & Measures Of Center
- Two-Way Tables & Associations In Statistics
- Compound Events & Simulations
- Scenario Based Questions

This Module Will Be Conducted Post **Summer Break**

Numbers, Equations & Functions

- Speed Math
- Rational & Irrational Numbers
- Graphing Linear Equations & Inequalities
- Linear Equations: All Three Forms
- System Of Linear Equations
- Systems Of Linear Inequalities
- Functions: Notation, Domain & Range
- Linear Vs. Exponential Functions

TEKS & CCSS ALIGNED

Instant Doubt Solving

24/7 AI-powered support that explains concepts while your child gets stuck.

Structured and Personalised In-Class Practice

Every class pairs instruction with guided practice, so concepts are applied the same day.

Mandatory Worksheets

Practice worksheets for every topic with optional higher-order challenge questions.

Summary Notes

Teacher-curated notes shared after every class, giving parents full visibility into exactly what was taught.

Make-Up Classes

Catch up with dedicated make-up classes whenever you miss a session.

How do we measure progress?

- **Sharpen Up:** In-class practice after every session monitored by teachers
- **Knowledge Checks:** Pre & post knowledge check every 2 months
- **Worksheets:** QR coded worksheets to track every child's progress

BLC Parent App

Stay updated with schedules, feedback and detailed progress reports.

Student Dashboard & Brain Gym

Track worksheet scores, attendance & get unlimited practise.

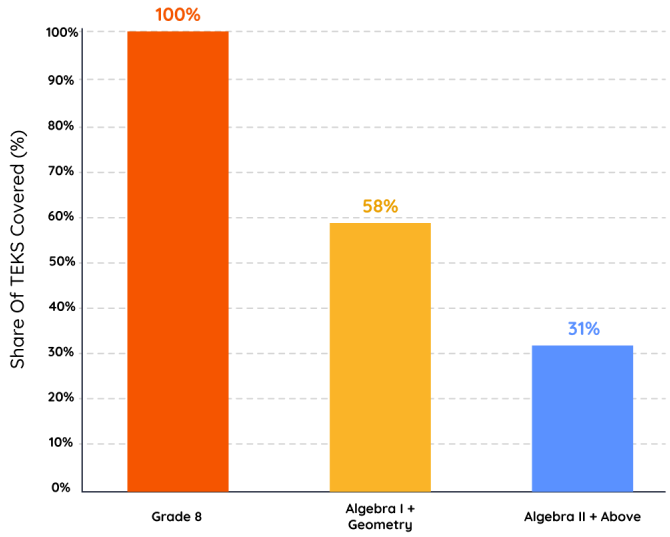
Parent Teacher Meet (PTM)

One-on-one check-ins with your child's trainer to review progress, discuss gaps, and align on next steps.

TEKS & CCSS Curriculum Coverage

Level 3C is anchored in Grade 8 TEKS and CCSS, and is intentionally built to stretch a few grades ahead so that students establish strong foundations & get ahead confidently for high school.

Grade-level spread of TEKS coverage



Domain-by-domain TEKS coverage

TEKS Strand (Grade 8)	Coverage	Notes
Number & Operations	Full	Rational & irrational numbers, scientific notation, exponents, radicals, square & cube roots
Proportionality	Full	Direct & inverse proportion, slope, rate of change, linear relationships
Expressions, Equations & Relationships	Full	Linear equations & inequalities, systems of equations, functions, graphing, equations of lines
Measurement	Full	Pythagorean Theorem, distance formula, congruence, similarity, circles,
Data and Personal Financial Literacy	Full	Statistics, probability, two-way tables, simulations; Financial literacy: referenced across modules

Exam Band — Where This Curriculum Shows Up

Grade 8's TEKS + CCSS alignment, stretched into Algebra I, Algebra II, and Geometry, means the skills students build map directly onto the exams Texas Grade 8 students actually sit for, plus the national competitions their strongest peers take on.

STAAR Grade 8 Mathematics Texas state assessment · annual grade-level test

How Bhanzu helps: Modules of equations, inequalities, and geometry lessons target STAAR's two heaviest-weighted reporting categories directly. Scenario-based questions in every module train the multi-step, real-world reasoning STAAR now emphasizes.

STAAR Algebra I (End-of-Course): Algebra I / Geometry Grade/course acceleration

How Bhanzu helps: Modules of linear equations, inequalities, and slope-intercept lessons build the EOC's core readiness standards years ahead of formal enrollment. High school Algebra I-coded content threaded through all 4 modules gives direct, early exposure to tested skills.

Texas Credit by Exam (CBE) Enrichment & competition math (Grades 6–8)

How Bhanzu helps: Coverage across all Grade 8 TEKS domains leaves no content unaddressed. Functions, transformations, and circle-theorem modules build exactly the Algebra I / Geometry readiness CBE panels look for.

MATHCOUNTS / AMC 8 Enrichment & competition math (Grades 6–8)

How Bhanzu helps: Set theory, functions, and trigonometry modules build the abstract, puzzle-style reasoning these contests reward. Scenario-based questions in every module train novel problem applications.

Sample Problems

Here are a few sample questions that students will be able to solve upon completing each module of Level 3C

Q1. Red bag weighs 34.89 pounds which is 20.2 pounds more than the blue bag's weight. The green bag weighs 34.7 pounds more than the blue bag.

What is the weight of the blue bag?

Q2. Vertices of a triangle are:

- A(0, 0)
- B(3, 0)
- C(0, 4)

Find the lengths of the sides and determine if this is a right triangle.

Q3. Given the points

$$P(-3, 7) \text{ and } Q(5, -1),$$

find the equation of the line passing through these two points in slope-intercept form.

Q4. Prove that triangles ABC and DEF are

congruent, given the following coordinates:

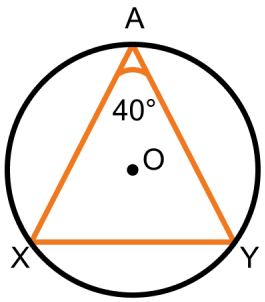
1. A(1, 2), B(5, 6), C(7, 2)
2. D(2, -1), E(6, 3), F(8, -1)

Q5. Given $f(x) = 2x + 3$

find the domain and range,

if $x \in \{1,2,3\}$

Q6. In a circle with center O, a chord XY subtends an angle of 40° at point A on the circle. Find the angle subtended by chord XY at the center O.



Q7. Simplify:

$$\frac{\sin^4 x - \cos^4 x}{\sin^2 x - \cos^2 x}$$

Q8. A bag contains 3 red coins and 2 blue coins. One coin is drawn at random and flipped twice.

Red coins have heads on both sides
Blue coins are normal (one head, one tail)

What is the probability that both flips show heads?