bhanzu Learning Center

Level 3B

Grade 7

1 Hour 45 Min Classes | Once A Week



Level 3B at Bhanzu bridges middle school and high school math by deepening algebra, geometry, and function-based thinking.

Students learn to tackle systems of equations using multiple methods. They explore functions and dive into geometric reasoning with theorems and proofs. This level builds strong problem-solving and prepares students for high school math with confidence.

Algebra I Foundations

- Polynomial Factorization
- Squares, Square Roots, and Cubes
- Equations and Inequalities
- Solving Linear Equations in 2 Variables I
- Solving Linear Equations in 2 Variables II
- Framing & Graphing Linear Inequalities
- Linear Programming
- Scenario Based Questions

Advanced Geometry

- Parts Of A Circle
- Perimeter & Area Of A Circle
- Volume & Surface Area
- Scaling Geometric Figures
- Constructions
- Congruency
- Triangle Constructions & Proofs
- Scenario Based Questions

Statistics & Functions

- Introduction To Functions
- Graphing Of Functions
- Measures Of Central Tendency
- Measures Of Dispersion
- Simple Probability & Listing Events
- Probability Of Compound Events
- Conditional Probability
- Scenario Based Questions

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

Mastering Rational Numbers and Proof

- Rational & Irrational Numbers
- Speed Math On Rational Numbers
- Coordinate Geometry & Distance Formula
- Pythagoras Theorem & Converse
- Rationalization & Operations On Irrationals
- Laws Of Exponents & Simplifications
- Properties Of Operations
- Scenario Based Questions

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.

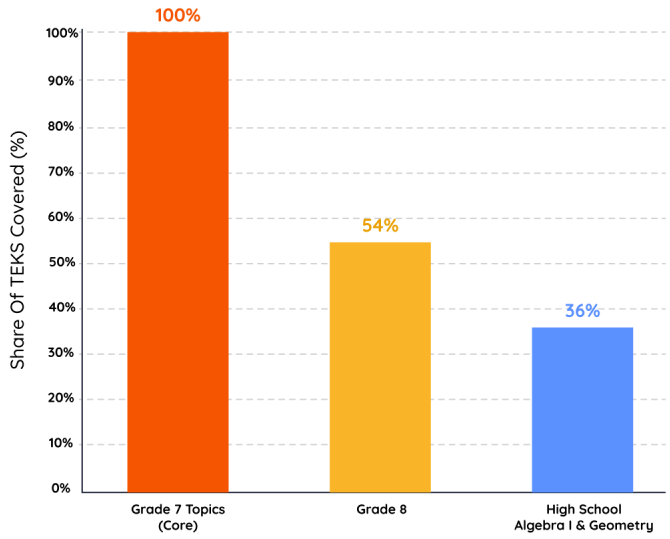
Parent Teacher Meet (PTM)

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

TEKS & CCSS Curriculum Coverage

Aligned with Grade 7 TEKS and CCSS, this course helps students master Grade 7 reading, writing, and language conventions while getting a head start on Grade 8.

Grade-level spread of TEKS coverage



Domain-by-domain TEKS coverage

TEKS Domain (Grade 7)	Coverage	Notes
Number & Operations	Full	Rational & irrational numbers, arithmetic/geometric progressions, properties & operations
Proportionality	Full	Percent, proportion, and probability applications covered; consumer-math items (sales tax, commission, tip) referenced across modules
Expressions, Equations & Relationships	Full	Polynomial factorization, 2-variable linear equations & inequalities, linear programming, 2D/3D geometric relationships
Measurement	Full	Polygons, Quadrilaterals, Area and Perimeter, Volume, Scaling
Data and Personal Financial Literacy	Full	Data representations, central tendency & dispersion feeding into functions. Financial literacy: referenced across modules

Exam Band — Where This Curriculum Shows Up

Grade 7 TEKS and CCSS alignment ensures students build the key skills measured in Grade 7 assessments in Texas and other CCSS-aligned states.

STAAR Grade 7 Mathematics Texas state assessment · annual grade-level test

How Bhanzu helps: Modules percentages/proportions and equations & inequalities target STAAR's two heaviest Grade 7 categories directly. Scenario-based questions in every module build the multi-step reasoning STAAR rewards.

Texas Credit by Exam (CBE): Algebra I / Geometry Grade/course acceleration

How Bhanzu helps: Modules circles, surface area, congruency, and triangle proofs pre-build the Geometry CBE's construction & proof items. Module 2's linear equations and inequalities give Algebra I CBE candidates the fluency panels look for.

MATHCOUNTS Enrichment & competition math (Grades 6–8)

How Bhanzu helps: Modules probability, compound events, and conditional probability lessons mirror MATHCOUNTS' Counting & Probability category. Modules constructions and proofs build the geometric reasoning MATHCOUNTS' Sprint and Target rounds reward.

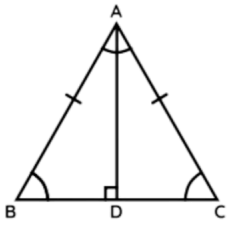
Sample Problems

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

Q1. A hiker starts at -250 feet. He climbs up $120\frac{1}{2}$ feet, then descends 30 feet. What is his final elevation?

Q2. A rectangular section of stadium seating is arranged so that the number of rows equals the number of seats in each row. If the section seats 225 people in total, how many rows does it have?

Q3. In triangle ABC, D lies on BC such that AD is the angle bisector of ∠BAC. Given that AB = AC, prove that △ABD ≅ △ACD and that AD is also the perpendicular bisector of BC.



Q4. A group of 12 students were surveyed to find out how many hours they studied for their math test last week. The results (in hours) are:

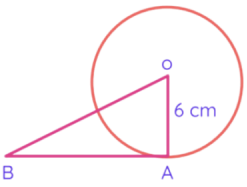
8.5, 6, 7.5, 9, 10.5, 6.5, 7, 8, 5, 9.5, x, 68.5

The mean study time was 7.5 hours.
Find the value of x.

Q5. Is the set of fractions closed under multiplication? Explain why or why not.

Q6. The sum of two numbers is 25. Three times the first number minus the second is 15. Find both numbers.

Q7. A tangent (AB) is drawn from a point outside a circle. If the radius of the circle is 6 cm and the length of the tangent AB is 8 cm, find the distance between the center of the circle and the point outside the circle.



Q8. Let the function f(x) be defined as:

$$f(x) = \begin{cases} 2x^2 - 3x + 1, & \text{if } x < 0 \\ x^2 + 2x - 5, & \text{if } x \leq 0 \end{cases}$$

Evaluate:

$$f(-3),\ f(0),\ f(2)$$