



Diagnostic Guide

Grade 3

What this document covers

Section 1 Diagnostic Assessment Interface.

Section 2 Guide to Diagnostic Skill Entry Points (Tables 1–3).

Overview and Purpose

The Beginning-of-Year (BOY) Screener is a targeted diagnostic assessment consisting of 20 questions designed to evaluate student mastery of prerequisite standards from the prior grade level. For Grade 3, the screener specifically assesses Grade 2 TEKS to determine each student's readiness for on-grade-level instruction.

This diagnostic tool serves three primary functions:

1. **Snapshot of Readiness:** Measures student mastery of the previous grade's standards to establish a baseline for instruction.
2. **Actionable Insights:** Highlights specific strengths and areas of growth for both whole-class planning and individual student intervention.
3. **Automated Recommendations:** Assessment data automatically generates initial Practice Mode recommendations, assigning the specific skill entry points and interventions detailed in this guide.

How to Use This Guide

Based on the actionable insights generated by the screener, educators should use the following tables to identify and assign the appropriate skill entry points and interventions:

- **For Targeted Practice (Table 1):** Assign these Practice Cards for students who need a focused refresher on specific discrete skills (e.g., below 70% proficiency on individual questions). These can be used for independent work, station activities, or homework.
- **For Comprehensive Reteaching (Table 2):** Use these Grade 2 instructional chapters and sections for students demonstrating significant gaps across an entire domain (e.g., below 50% proficiency). These resources provide the conceptual foundation and guided instruction necessary to rebuild understanding before attempting Grade 3 content.
- **For Vertical Alignment (Table 3):** Refer to this matrix to see how each prerequisite skill connects to upcoming Grade 3 TEKS and chapters. Use this to prioritize interventions that are most critical for the specific Grade 3 content currently being taught.

Section 1: Diagnostic Assessment Interface

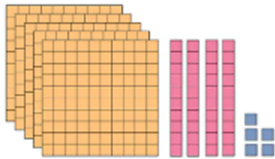
The figure below demonstrates the teacher's view of the Grade 3 BOY Screener. This digital interface captures the student response data necessary to generate the recommended skill entry points and interventions detailed in Tables 1, 2, and 3.

Figure 1. Grade 3 Beginning-of-Year Diagnostic Screener — Teacher View

Texas Screeners > Grade 3 > ☐ Grade 3 - BOY - TX

☐ Mild

1. What number is represented in the image shown?



2. Select the expanded form of 1,107.

☐ A. $100 + 10 + 7$
☐ B. $1,000 + 10 + 7$
☐ C. $1,000 + 100 + 70$
☐ D. $1,000 + 100 + 7$

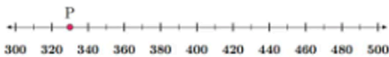
☐ A ☐ B
☐ C ☒ D

3. Compare using $>$, $<$, or $=$.

451 541

☐ $>$ ☐ $<$
☐ $=$

4. What number lies at point P?



8. During a road trip, a family drives 329 miles on the first day and 214 miles on the second day. What is the total distance they traveled over the two days?

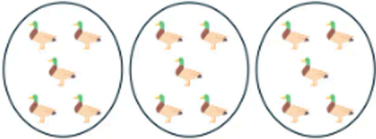


9. A movie theater has 732 seats. During an evening show, 489 seats were occupied. How many seats were empty during the show?

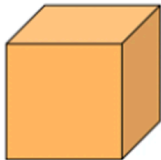


10. 3 quarters, 1 dime, and 4 pennies are worth c.

11. How many ducks are in the picture?



15. Select the two correct names for the figure.



☒ A. Cube
☐ B. Sphere
☐ C. Square
☐ D. Rectangular prism
☐ E. Cone

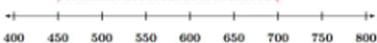
☒ A ☐ B
☐ C ☒ D
☐ E

16. Select the correct name of the polygon.



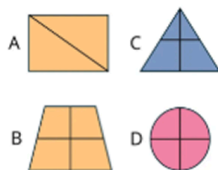
☐ Pentagon ☐ Hexagon
☐ Heptagon ☒ Octagon

17. What is the length of the dashed line?



18. Find the area of the rectangle. Each square has a side length of 1 unit.

5. Select the shape that is divided into equal quarters.



A

B

C

D

6. Add.

$$46 + 26 =$$

72

7. Subtract.

$$81 - 47 =$$

34

12. In a grocery store, 36 milk bottles are put in rows of 9.

How many rows of 9 are made?



4

13. Is the number even or odd?

32

Even

Odd

14. What number is 100 less than 1,043?

943

18. Find the area of the rectangle. Each square has a side length of 1 unit.



24

19. 3rd graders were surveyed about their favorite fruit. The teacher collected the results shown.

How many more students have apples as their favorite fruit than bananas?

Fruit	Number of Votes
Apples	4
Bananas	2
Oranges	3
Pears	5

2

20. A toy store tracked how many robots it sold each day for a week in a bar graph.

Which day did they sell the fewest number of robots?



Day 1

Day 3

Day 4

Day 7

Section 2: Guide to Diagnostic Skill Entry Points

Table 1: Diagnostic Intervention Guide — Recommended Practice Cards

This table maps each diagnostic question to targeted Practice Cards within the curriculum. These resources are designed for immediate, focused intervention—allowing students to practice the specific discrete skills identified as gaps (e.g., below 70% proficiency) without pausing the entire class for a full reteach. Teachers can assign these cards as independent work, station activities, or homework to efficiently close skill gaps.

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 2)	Recommended Practice Cards
Number System and Place Value	Q1	2.2.A	• Represent 3-digit numbers using place value
	Q2	2.2.B	• Determine place value in numbers up to 99,999
	Q3	2.2.D	• Compare three-digit numbers
	Q4	2.2.F	• Plot whole numbers up to 20 on number line
	Q10	2.5.A	• US currency with mixed denominations
Fractions and Rational Numbers	Q5	2.3.D	• Partition shapes into halves
Operations	Q6, Q7	2.4.B	• Add up to four 2-digit numbers • Subtract 2-digit numbers with regrouping
Algebraic Reasoning	Q8, Q9	2.4.C	• Add 3-digit numbers (up to 1000) • Subtract 3-digit numbers (up to 1000)
	Q11	2.6.A	• Interpret multiplication as repeated addition within 100
	Q12	2.6.B	• Interpret division as group size or number of groups
	Q13	2.7.A	• Determine odd or even within 20
	Q14	2.7.B	• Represent 3-digit numbers using place value
Geometry and Measurement	Q15	2.8.B	• Identify and describe 3-D shape attributes
	Q16	2.8.C	• Identify and describe 2-D shape attributes
	Q17	2.9.C	• Plot whole numbers up to 20 on number line
	Q18	2.9.F	• Find rectangle area using unit squares
Data Analysis	Q19	2.10.C	• Draw and interpret picture graphs
	Q20	2.10.D	• Draw and interpret scaled bar graphs

Table 2: Prerequisite Reteach Guide — Grade 2 Instructional Alignment

For students demonstrating significant gaps (e.g., below 50% proficiency) across an entire domain, targeted practice alone may not be sufficient. This table directs educators to the full Grade 2 instructional chapters and sections required for deep reteaching. These resources provide the conceptual foundation and guided instruction necessary to rebuild prerequisite understanding before students attempt Grade 3 content.

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 2)	Recommended Chapter	Recommended Sections
Number System and Place Value	Q1	2.2.A	Representing and Comparing Whole Numbers	- Reading and writing numbers within 1,200 - Understanding hundreds
	Q2	2.2.B	Representing and Comparing Whole Numbers	Reading and writing numbers within 1,200
	Q3	2.2.D	Representing and Comparing Whole Numbers	Compare numbers within 1,200
	Q4	2.2.F	Representing and Comparing Whole Numbers	Numbers within 1,200 on the number line
	Q10	2.5.A	Money	Values of groups of coins to \$1
Fractions and Rational Numbers	Q5	2.3.D	Recognize Fractional Units	- Identify halves in shapes - Identify quarters in shapes
Operations	Q6, Q7	2.4.B	Adding and Subtracting Two-Digit Numbers	- Adding 2-digit numbers - Adding tens - Adding two- and single-digit numbers - Adding up to four 2-digit numbers - Subtracting 2-digit numbers - Subtracting single digits from 2-digit numbers - Subtracting tens from two-digit numbers
Algebraic Reasoning	Q8, Q9	2.4.C	Adding and Subtracting Two-Digit Numbers	- Add and subtract within 1000 - Adding 10 and 100 - Adding 2-digit to 3-digit numbers - Adding 3-digit numbers within 1000 - Subtracting 10 and 100 - Subtracting 2-digit from 3-digit numbers - Subtracting 3-digit numbers
	Q11	2.6.A	Multiplication and Division	- Count groups of objects - Multiplication as groups of objects
	Q12	2.6.B	Multiplication and Division	Division as separation

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 2)	Recommended Chapter	Recommended Sections
	Q13	2.7.A	Number Patterns	• Even and odd
	Q14	2.7.B	Number Patterns	• Find 10 and 100 more or less than a number within 1,200
Geometry and Measurement	Q15	2.8.B	2- and 3-Dimensional Figures	• Identify 3D figures — sphere, pyramid, cube, rectangular prism, cylinder
	Q16	2.8.C	2- and 3-Dimensional Figures	• Counting sides and vertices • Polygons
	Q17	2.9.C	Representing and Comparing Whole Numbers	• Numbers within 1,200 on the number line
	Q18	2.9.F	Length and Area	• Area using unit squares
Data Analysis	Q19	2.10.C	Representing and Interpreting Data	• Bar graphs with single-unit scale • Pictographs with single-unit scale
	Q20	2.10.D	Representing and Interpreting Data	• Bar graphs with multi-unit scale • Bar graphs with single-unit scale • Pictographs with multi-unit scale • Pictographs with single-unit scale

Table 3: Vertical Alignment Matrix — Connecting Prerequisites to Grade 3 Content

This matrix illustrates the instructional bridge between the Grade 2 prerequisite skills assessed in the diagnostic and the upcoming Grade 3 Target TEKS. It provides the rationale for intervention by showing exactly which Grade 3 chapters and units rely on these prerequisites. Educators should use this table to prioritize interventions that are most critical for the specific Grade 3 content currently being taught.

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 2)	Aligned Target TEKS (Grade 3)	Chapters Addressed
Number System and Place Value	Q1	2.2.A	3.2	• Understanding Whole Numbers and Place Value
	Q2	2.2.B	3.2	• Understanding Whole Numbers and Place Value
	Q3	2.2.D	3.2	• Understanding Whole Numbers and Place Value
	Q4	2.2.F	3.2	• Understanding Whole Numbers and Place Value
	Q10	2.5.A	3.4	• Addition and Subtraction of Whole Numbers • Understanding Whole Numbers and Place Value
Fractions and Rational Numbers	Q5	2.3.D	3.3	• Representing and Explaining Fractional Units
Operations	Q6, Q7	2.4.B	3.4	• Addition and Subtraction of Whole Numbers • Solving Problems Involving Whole Numbers • Multiplication • Understanding Whole Numbers and Place Value
Algebraic Reasoning	Q8, Q9	2.4.C	3.5	• Solving Problems Involving Whole Numbers
	Q11	2.6.A	3.4	• Multiplication
	Q12	2.6.B	3.4	• Division
	Q13	2.7.A	3.4	• Multiplication • Understanding Whole Numbers and Place Value • Division
	Q14	2.7.B	3.2	• Understanding Whole Numbers and Place Value
Geometry and Measurement	Q15	2.8.B	3.6	• Addition and Subtraction of Whole Numbers • Solving Problems Involving Whole Numbers • Multiplication

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 2)	Aligned Target TEKS (Grade 3)	Chapters Addressed
				• Division
	Q16	2.8.C	3.6	• Addition and Subtraction of Whole Numbers • Solving Problems Involving Whole Numbers • Multiplication • Division
	Q17	2.9.C	3.7	• Area and Perimeter • Representing and Explaining Fractional Units • Time, Weight, and Volume
	Q18	2.9.F	3.6	• Addition and Subtraction of Whole Numbers • Solving Problems Involving Whole Numbers • Multiplication • Division
Data Analysis	Q19	2.10.C	3.8	• Displaying and Interpreting Data
	Q20	2.10.D	3.8	• Displaying and Interpreting Data