



Diagnostic Guide

Grade 2

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 18 questions designed to evaluate student mastery of prerequisite standards from the prior grade level. For Grade 2, the screener specifically assesses Grade 1 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 1 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 2 content.
- **For Vertical Alignment (Table 3):** Refer to this matrix to see how each prerequisite skill connects to upcoming Grade 2 TEKS and chapters. Use this to prioritize interventions that are most critical for the specific Grade 2 content currently being taught.

Section 1: Diagnostic Assessment Interface

The figure below demonstrates the teacher's view of the Grade 2 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 2 Beginning-of-Year Diagnostic Screener — Teacher View

Texas Screeners > Grade 2 > ☐ Grade 2 - BOY - TX

☐ Mild

1. What is the expanded form of 112?

☒ $100 + 10 + 2$
☐ $100 + 12 + 2$

☐ $200 + 10 + 1$
☐ $102 + 12$

2. Fill in the blank.
67 is ___ 58

☒

3. How do you make 15?
9 and ___

☒ 6

4. What is the missing number?
 $13 + \underline{\hspace{1cm}} = 18$

☒ 5

5. Add.
 $8 + 7 =$

☒ 15

6. Subtract.
 $11 - 5 =$

☒ 6

7. Three dimes, four nickels, and 3 pennies are worth ___¢ in total.



☒ 53

8. What is the next number?
60, 65, 70, 75, ___

☒ 80

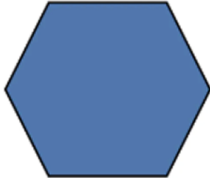
9. True or False?
 $6 = 20 - 16$

☐ True
☒ False

10. Add.
 $6 + 8 + 1 =$

☒ 15

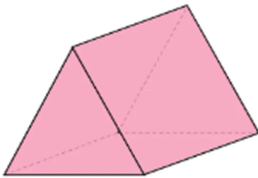
12. What 2D shape is this?



☐ Rectangle
☐ Rhombus

☒ Hexagon
☐ Circle

13. What 3D shape is this?

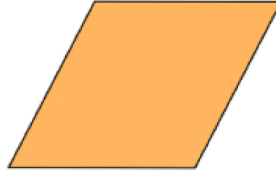


☐ A. Rectangular prism
☐ B. Triangular prism

☐ C. Cone
☐ D. Cylinder

11. Select two defining characteristics of a rhombus.

- A. It is orange
- B. All sides are of equal length
- C. It has four corners
- D. It is upside down



A

☒ B

☒ C

D

14. How long is the toothbrush in inches?



☒ 6 in

15. What time is shown on the clock?



Half past 2

☒ Half past 3

Half past 4

6 o'clock

16. Students voted for their favorite dinosaur.

How many students picked T-Rex or Stegosaurus?

Favorite dinosaur				
T-Rex				
Triceratops				
Stegosaurus				
Brachiosaurus				

☒ 8

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 1)	Recommended Practice Cards
Number System and Place Value	Q1	1.2.C	• Read and write numerals up to 120
	Q2	1.2.G	• Compare two-digit numbers using symbols
	Q7	1.4.C	• US currency with mixed denominations
Operations	Q3, Q4	1.3.B	• Solve addition word problems up to 20 • Find unknown in addition equations up to 20
	Q5, Q6	1.3.D	• Add numbers up to 20 • Subtract numbers up to 20
Algebraic Reasoning	Q8	1.5.B	• Skip count by 5s within 1000
	Q9	1.5.E	• Determine truth value for subtraction equations within 20
	Q10	1.5.G	• Add three 2-digit numbers
Geometry and Measurement	Q11	1.6.B	• Distinguish defining and non-defining shape attributes
	Q12	1.6.D	• Identify and describe 2-D shape attributes
	Q13	1.6.E	• Identify 3-D shapes (cubes, cones, and spheres)
	Q14	1.7.D	• Measure length in meters or centimeters
	Q15, Q16	1.7.E	• Tell time to the nearest half-hour
Data Analysis	Q17, Q18	1.8.C	• Draw and interpret scaled bar graphs • Draw and interpret picture graphs

Table 2: Prerequisite Reteach Guide — Grade 1 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 1 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 2 content.

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 1)	Recommended Chapter	Recommended Sections
Number System and Place Value	Q1	1.2.C	Representing and Comparing Whole Numbers	- Count objects and write numerals up to 50 - Reading and writing 2-digit numbers
	Q2	1.2.G	Representing and Comparing Whole Numbers	Compare 2-digit whole numbers
	Q7	1.4.C	Money	Values of groups of coins to \$1
Operations	Q3, Q4	1.3.B	Adding and Subtracting Whole Numbers	- Make a number - Addition with unknown - Subtraction with unknown
	Q5, Q6	1.3.D	Adding and Subtracting Whole Numbers	- Make a 10 - Adding 10 and single digits - Adding doubles - Addition within 20 - Subtracting 10 from 11–19 - Subtracting within 20
Algebraic Reasoning	Q8	1.5.B	Counting	- Skip count by 2's - Skip count by 5's - Skip count by 10's
	Q9	1.5.E	Counting	Truth values of addition and subtraction equations within 20
	Q10	1.5.G	Counting	- Add three numbers within 20 - Subtract three numbers within 20
Geometry and Measurement	Q11	1.6.B	2-Dimensional Figures	Defining and non-defining attributes
	Q12	1.6.D	2-Dimensional Figures	2D figures — square, rectangle, triangle, circle 2D shapes — rectangles, pentagons, and hexagons
	Q13	1.6.E	3-Dimensional Figures	Identify 3D figures — sphere, pyramid, cube, cuboid, cylinder
	Q14	1.7.D	Length	Measuring cm and inch with a ruler
	Q15, Q16	1.7.E	Time	Tell time to the hour

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 1)	Recommended Chapter	Recommended Sections
				• Tell and write time to the nearest half-hour
Data Analysis	Q17, Q18	1.8.C	Representing and Interpreting Data	• Picture and bar graphs with single-unit scale

Table 3: Vertical Alignment Matrix — Connecting Prerequisites to Grade 2 Content

This matrix illustrates the instructional bridge between the Grade 1 prerequisite skills assessed in the diagnostic and the upcoming Grade 2 Target TEKS. It provides the rationale for intervention by showing exactly which Grade 2 chapters and units rely on these prerequisites. Educators should use this table to prioritize interventions that are most critical for the specific Grade 2 content currently being taught.

Diagnostic Strand	Question(s)	Prerequisite TEKS (Grade 1)	Aligned Target TEKS (Grade 2)	Chapters Addressed
Number System and Place Value	Q1	1.2.C	2.2	• Representing and Comparing Whole Numbers
	Q2	1.2.G	2.2	• Representing and Comparing Whole Numbers
	Q7	1.4.C	2.5	• Money
Operations	Q3, Q4	1.3.B	2.4	• Adding and Subtracting Two-Digit Numbers • Adding and Subtracting Within 1000
	Q5, Q6	1.3.D	2.4	• Adding and Subtracting Two-Digit Numbers
Algebraic Reasoning	Q8	1.5.B	2.6	• Multiplication and Division
	Q9	1.5.E	2.7	• Adding and Subtracting Two-Digit Numbers
	Q10	1.5.G	2.4	• Adding and Subtracting Two-Digit Numbers
Geometry and Measurement	Q11	1.6.B	2.8	• 2- and 3-Dimensional Figures
	Q12	1.6.D	2.8	• 2- and 3-Dimensional Figures
	Q13	1.6.E	2.8	• 2- and 3-Dimensional Figures
	Q14	1.7.D	2.9	• Length and Area
	Q15, Q16	1.7.E	2.9	• Time
Data Analysis	Q17, Q18	1.8.C	2.10	• Representing and Interpreting Data