State of Texas Assessments of Academic Readiness (STAAR®) On-Track Measure Questions and Answers

1. Why did Texas develop and implement the STAAR on-track measure?

Texas Education Code §39.034(d) mandates the development of a measure to determine the necessary annual amount of improvement required for a student to be prepared to perform satisfactorily (at or above the *Meets Grade Level* performance standard) on grade 5, grade 8, and End-of-Course (EOC) assessments. To meet these requirements, the Texas Education Agency (TEA) developed the STAAR on-track measure. In doing so, the goal was to provide additional information about student performance that builds upon the existing STAAR progress measure.

2. Is the STAAR on-track measure used for the accountability rating calculation?

No. The STAAR on-track measure is not included in the accountability rating calculation.

Defining and Interpreting the STAAR On-Track Measure

3. What is the STAAR on-track measure?

The STAAR on-track measure provides information about whether a student is on track to be at or above the *Meets Grade Level* performance standard in a future target year. Whether a student is on track or not is measured by using a student's gain score (the difference between the scale score a student achieved in the previous year and the scale score a student achieved in the current year). Individual students are then categorized as *On Track* or *Not On Track* toward the target year.

4. How is the STAAR on-track measure used?

Scale scores and performance levels convey information about how a student performed in the current year. The STAAR progress measure communicates how much the student has improved from the previous year to the current year. The STAAR on-track measure provides additional information by determining whether the student's current performance level combined with the student's progress from last year to this year has the student on track to reach the *Meets Grade Level* performance standard in the target year. When used together, this information provides a more complete picture of the student's achievement.

For example, a student may have achieved the *Approaches Grade Level* performance standard and have expected growth, but the student may not be *On Track* to the *Meets Grade Level* performance standard in the target year. On its own, the on-track measure won't be sufficient for identification and intervention purposes to prevent students from falling behind in the future.

5. For what performance standard is the STAAR on-track measure calculated?

The STAAR on-track measure is calculated and reported for the *Meets Grade Level* performance standard.

6. For what grades and content areas is the STAAR on-track measure reported?

STAAR on-track measures are available for students with a current year result in one of the following: English and Spanish mathematics in grades 4–8, English RLA in grades 4–8, and Spanish RLA in grade 4. For EOC assessments, the STAAR on-track measure is only available for students currently taking English I.

To calculate the STAAR on-track measure, three assessments covering the same content area must be available (previous year, current year, and target year). For example, an on-track measure can be calculated for grade 8 mathematics (current year assessment), because the previous year assessment was grade 7 mathematics, and the target year assessment will be Algebra I, and all three of these assessments measure mathematics knowledge and skills.

**7. What are the STAAR on-track measure target years?**

The STAAR on-track measure target years are grade 5, grade 8, and STAAR EOC assessments. The following table lists the current year assessment and the corresponding on-track target assessment for which the STAAR on-track measure is calculated.

Mathematics		English RLA		Spanish RLA	
Current Year	On-Track Target	Current Year	On-Track Target	Current Year	On-Track Target
Grade 4	Grade 5	Grade 4	Grade 5	Grade 4	Grade 5
Grade 5	Grade 8	Grade 5	Grade 8		
Grade 6	Grade 8	Grade 6	Grade 8		
Grade 7	Grade 8	Grade 7	Grade 8		
Grade 8	Algebra I	Grade 8	English I		
		English I	English II		

8. How are the On Track and Not On Track classifications determined for vertically scaled tests?

The method for measuring on track takes into account the differences between the performance standards on the vertical scale.

This method assumes that gain scores observed this year will be repeated proportionately to the changes in the *Meets Grade Level* performance standards in future years. The STAAR on-track measure acknowledges that the changes in the standards across the vertical scale are not uniform and adjusts the expected gain accordingly for future years.

Gain Score required to be *On Track* (On-Track Value)
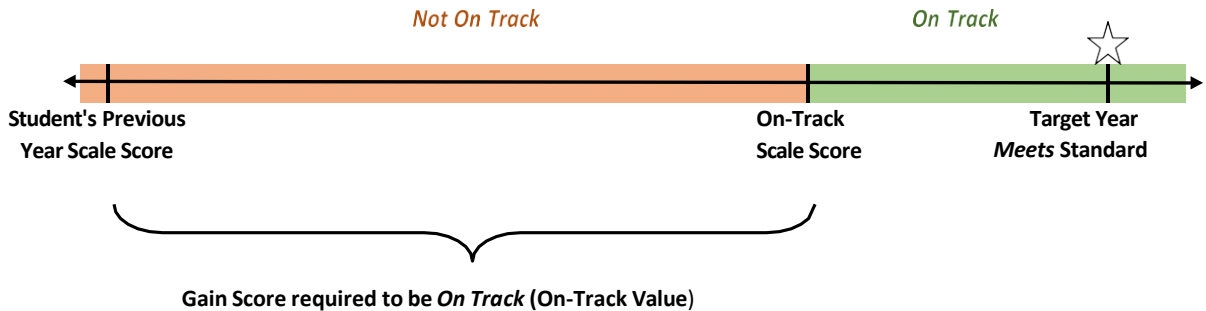
The STAAR on-track classifications are determined by comparing a student's gain score (the difference between the student's current year score and previous year score) to a target gain score, referenced as the On-Track Value. See question 12 for more information about the calculation of the STAAR on-track measure.

9. Are there any exceptions to the On Track and the Not On Track definitions described above?

Yes. There are some places on the STAAR scale, specifically at the extreme high and low ends of the scale, where the application of the *On Track* and *Not On Track* definitions would not be appropriate.
At the extreme ends of the scale, unlike the rest of the scale, answering one more question correctly results in large differences in scale scores. For this reason, several places on the scale have been identified as exceptions to the *On Track* and *Not On Track* definitions

- Students who maintained the *Masters Grade Level* performance from the previous year to the current year will be classified as being *On Track* to the *Meets Grade Level* performance standard in the target year.
- Students who were *Meets Grade Level* in the previous year and are *Meets Grade Level* or *Masters Grade Level* in the current year will be classified as being *On Track* to the *Meets Grade Level* performance standard in the target year.
- Students scoring at or below "chance" in the current year will be classified as being *Not On Track* to the *Meets Grade Level* performance standard in the target year.

Chance represents the score that could be reasonably obtained solely by guessing. For all assessments, chance is defined as one fourth, or 25 percent, of the points possible on dichotomous items.

Applying the STAAR On-Track Measure

10. *Is* On Track *measured for all students in Texas?*

On Track is measured for students who take STAAR and STAAR Alternate 2 assessments. Because of the unique characteristics of STAAR Alternate 2 and the students who take it, a different progress measure is developed specifically for this population. The **STAAR Alternate 2 progress measure** was available on student reports for the first time in spring 2016. The STAAR Alternate 2 on-track measure provides information about whether a student is on track to be at or above the Level II: Satisfactory standard in a future target year and was available to districts starting in spring 2017.

**11. *Why do some students not receive an on-track measure?***

Only students who receive the STAAR progress measure receive the on-track measure. For more information on the STAAR progress measure eligibility criteria, see the **STAAR Progress Measure Questions and Answers** on TEA's website.

12. *How can I calculate my student's STAAR on-track measure?*

In order to calculate a student's on-track measure, the following information is needed:

- Test information from the current year, including
  - STAAR progress measure
  - grade level
  - content area
  - test language (English or Spanish)
  - scale score
  - *Meets Grade Level* performance standard

- Test information from the previous year, including
  - grade level
  - content area
  - test language (English or Spanish)
  - scale score
  - *Meets Grade Level* performance standard

- Test information for the target, including
  - grade level
  - content area
  - test language (English or Spanish)
  - *Meets Grade Level* performance standard

■ Gain score = Current Year Scale Score – Previous Year Scale Score

Gain Score

Previous Year Scale Score
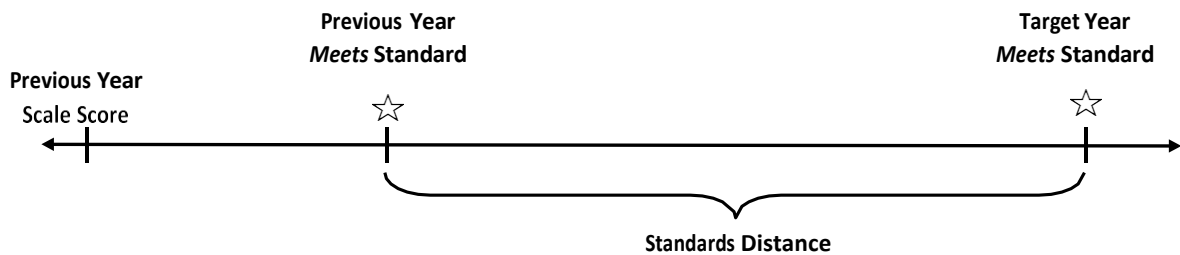
Current Year Scale Score
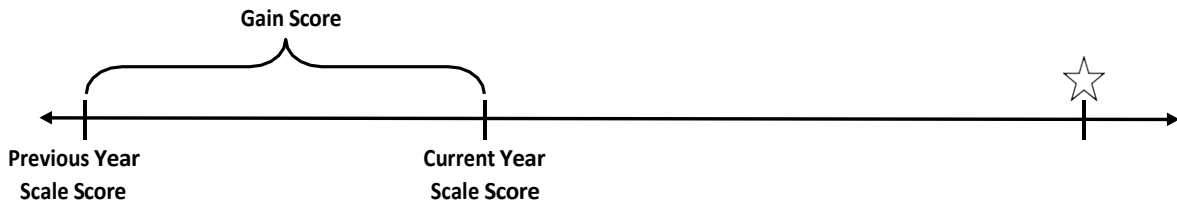
The following five steps are used to calculate on-track measures for the *Meets Grade Level* performance standard for all applicable tests except grade 8 mathematics, grade 8 RLA, and English I (see question 13 on how to calculate on-track measures for tests on a horizontal scale):

1. Calculate the distance in scale score points that the student must progress from the previous year to the target year (Distance = Target Year *Meets* Standard – Previous Year Scale Score).

Target Year
***Meets* Standard**

Previous Year Scale Score
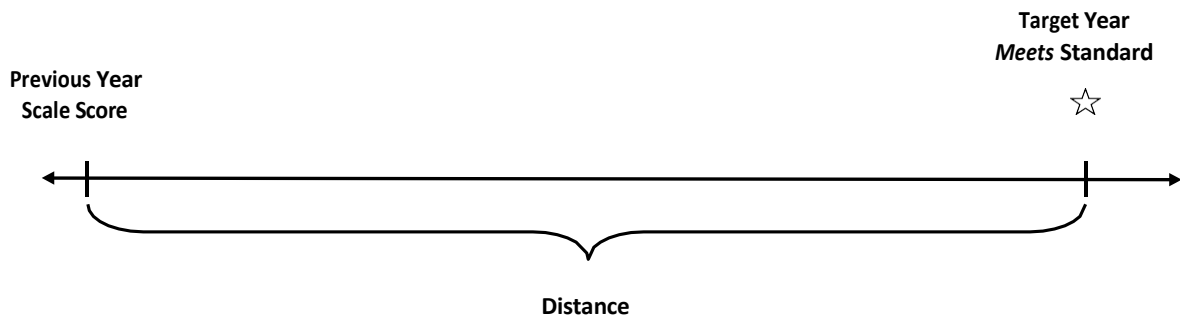
Distance

2. Calculate the distance between the Previous Year *Meets* Standard to the Target Year *Meets* Standard (Standards Distance = Target Year *Meets* Standard – Previous Year *Meets* Standard).

Previous Year
***Meets* Standard**

Target Year
***Meets* Standard**

**Previous Year Scale Score**

Standards Distance

3. Determine the proportion of the change in standards from the previous year to the current year. Proportion = (Current Year *Meets* Standard – Previous Year *Meets* Standard) / Standards Distance.

(Current Year *Meets* - Previous Year *Meets*)/Standards Distance
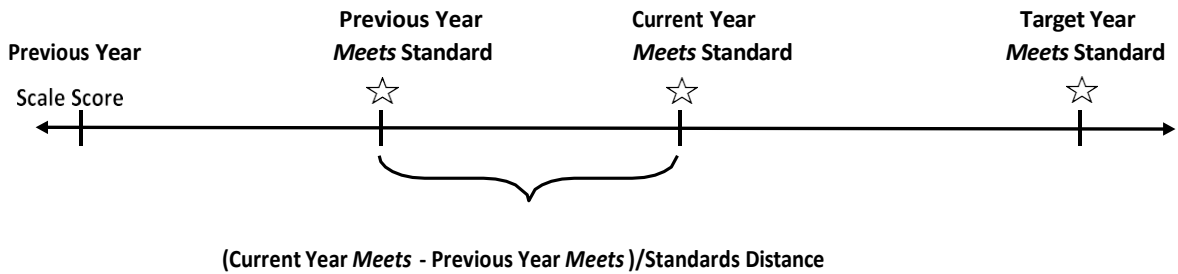
4. Find the amount of gain (On-Track Value) that a student must achieve from the previous year to the current year in order to be *On Track* to the target year (On-Track Value = Proportion x Distance).
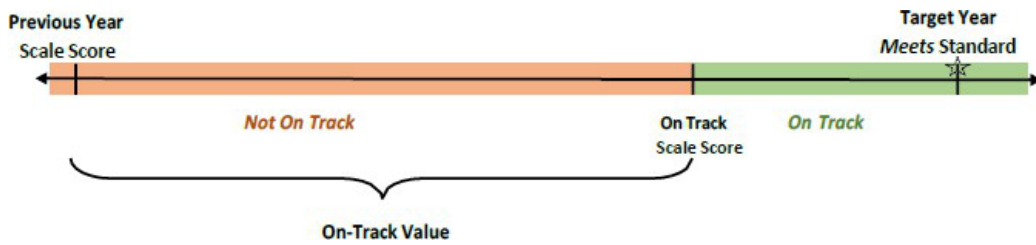

5. Compare the student's gain score to the On-Track Value. If the gain score is greater than or equal to the On-Track Value, then the student is classified as *On Track*. Otherwise, the student is classified as *Not On Track*.
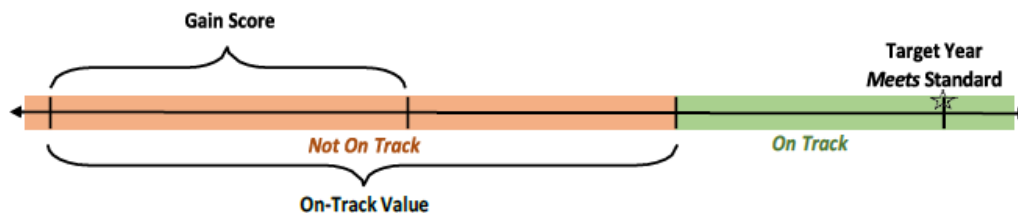
The following example shows in detail how the STAAR on-track measure is calculated for determining whether a grade 4 mathematics student is *On Track* or *Not On Track* to the *Meets* standard of 1634 for grade 5 mathematics. In the example below, the student characteristics are as follows:

	Grade	Scale Score	*Meets* Standard
Previous Year	3	1325	1471
Current Year	4	1492	1557
Target Year	5		1634
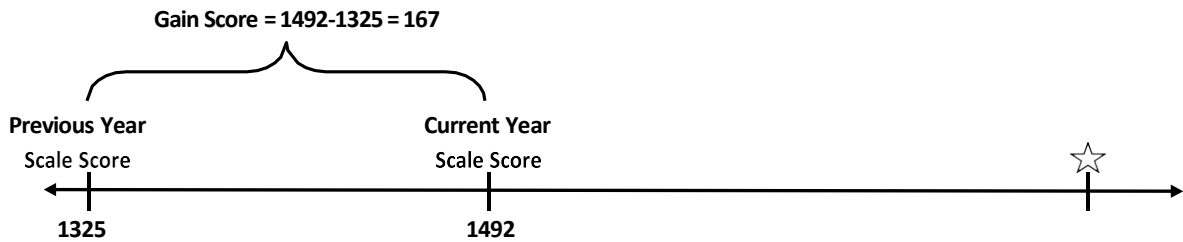
Gain Score = 1492-1325 = 167

**Previous Year** Scale Score

Current Year Scale Score

1325

1492

1) Calculate the distance in scale score points that the student must progress from the previous year to the target year (Distance = Target Year *Meets* Standard – Previous Year Scale Score = 1634 – 1325 = 309).

Previous Year Scale Score

**Target Year** *Meets* Standard

1325
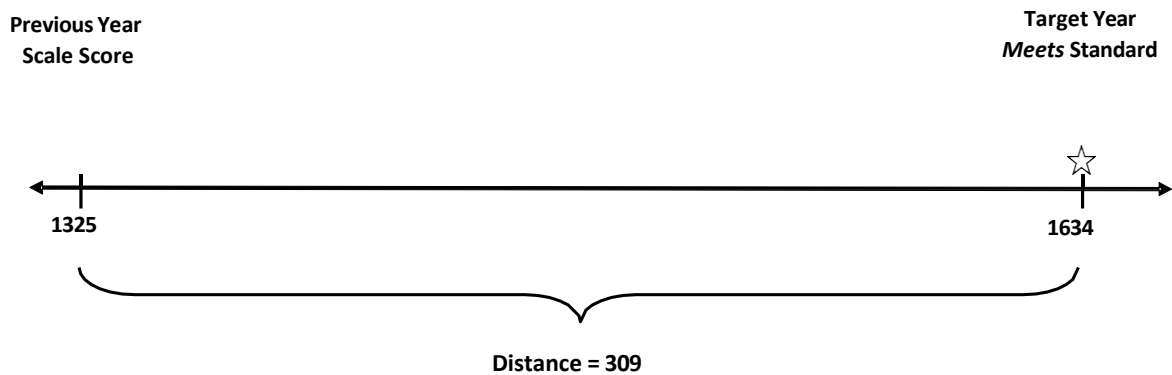
1634

Distance = 309

2) Calculate the distance between the *Meets* standard from the previous year to the target year (Standards Distance = Target Year *Meets* Standard – Previous Year *Meets* Standard = 1634 – 1471 = 163).
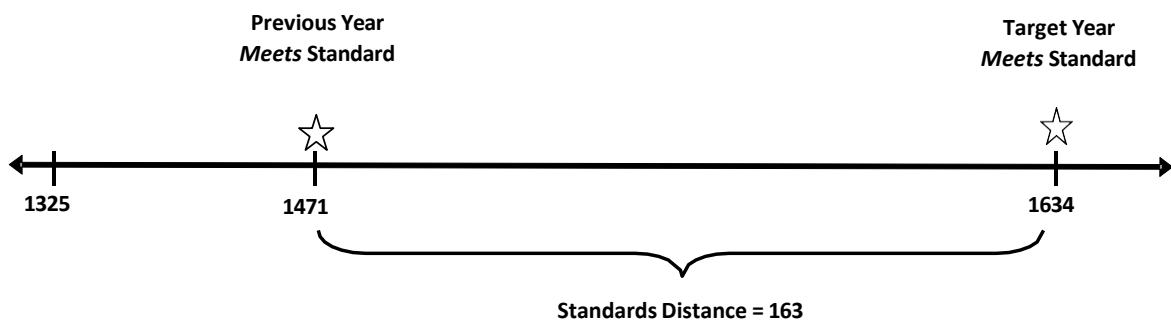
Previous Year *Meets* Standard

Target Year *Meets* Standard

1325

1471

1634

Standards Distance = 163

3) Determine the proportion of the change in standards from the previous year to the current year. (Proportion = (Current Year *Meets* Standard – Previous Year *Meets* Standard) / Standards Distance = (1557– 1471) / 163 = 0.5276).
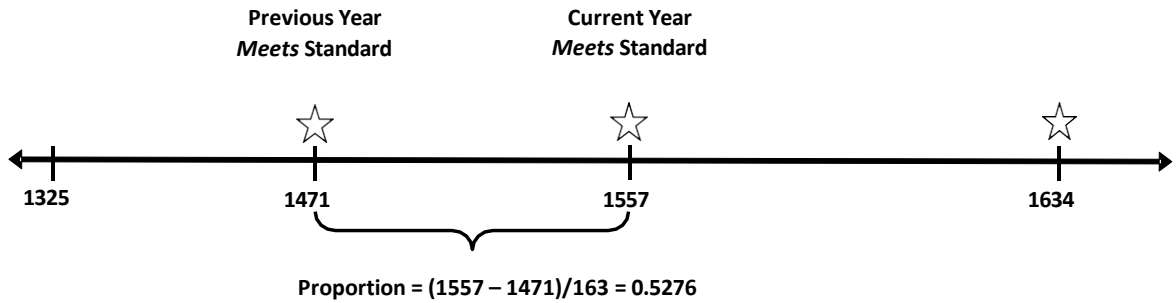
4) Find the amount of gain that a student must achieve from the previous year to the current year in order to be *On Track* to the target year (On-Track Value = Proportion x Distance = 0.5276 x 309 = 163).
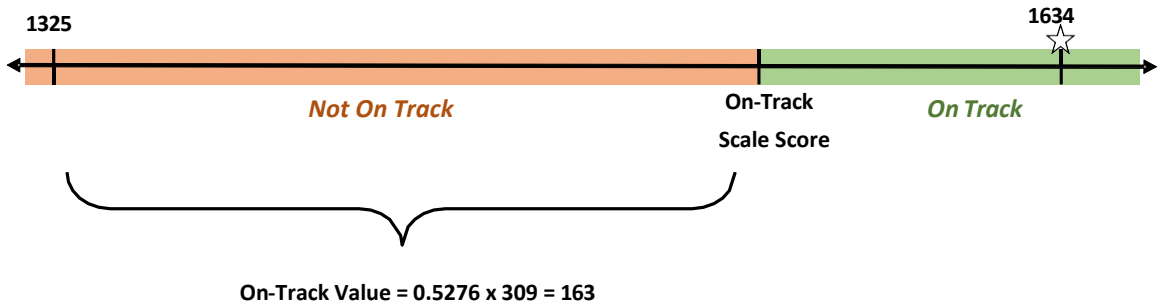
5) Compare the student's gain score to the On-Track Value. Here, the gain score is greater than or equal to the On-Track Value (167 > 163); therefore, the grade 4 mathematics student is *On Track* to the grade 5 *Meets* standard of 1634.
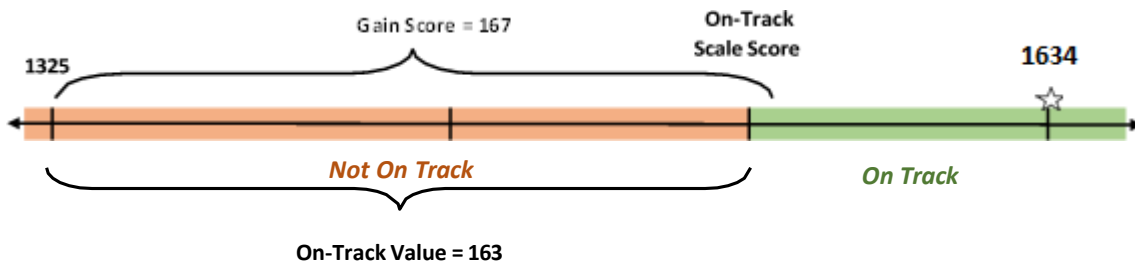
13. How are the On Track and Not On Track classifications determined for grade 8 mathematics, grade 8 RLA, and English I?

When the target grade is an EOC, the STAAR on-track measure is calculated differently than other assessments since the EOC scale varies from the Grade 3-8 scale. Thus, this calculation is used for students taking mathematics grade 8 with a target of Algebra I, students taking RLA grade 8 with a target of English I, and students taking English I with a target of English II. For these students, rather than using the units of the scales, a z-score like approach is used. A z- score converts scores into standard deviation units that can be compared regardless of scale. Their previous and current year scale scores are converted to a z-score like scale. If the current grade z-score is greater or equal than the On-track z-score, then the student is On Track.

The steps below outline the process for grade 8 mathematics and RLA:

1. Calculate z-score for the previous year

$$Previous\ Z = \frac{Scale\ Score\ Previous\ Year - Previous\ Year\ \text{Meets}\ Cut}{150}$$

2. Calculate the on-track z-score

$$On\ track\ Z = \frac{Previous\ Z}{9 - Previous\ Grade}$$

3. Determine the proportion of the change in standards from the previous year to the current year.

$$Current\ Grade\ Z = \frac{Grade\ 8\ Scale\ Score - Grade\ 8\ \text{Meets}\ Cut}{150}$$

The steps below outline the process for English I:

1. Calculate z-score for the previous year.

$$Previous\ Z = \frac{Scale\ Score\ Previous\ Year - Previous\ Year\ \text{Meets}\ Cut}{150}$$

2. Calculate the on-track z-score.

$$On\ track\ Z = \frac{Previous\ Z}{10 - Previous\ Grade}$$

3. Determine the proportion of the change in standards from the previous year to the current year.

$$Current\ Grade\ Z = \frac{English\ I\ Scale\ Score - English\ I\ \text{Meets}\ Cut}{485}$$

For mathematics grade 8, RLA grade 8, and English I, if the current grade z-score is greater than the on-track z-score, then the student is *On Track*.

The following example shows in detail how the STAAR on-track measure is calculated for determining whether a grade 8 mathematics student is *On Track* or *Not On Track* to the *Meets* standard for Algebra I. In the example below, the student characteristics are as follows:

	Grade	Scale Score	*Meets* Standard
Previous Year	7	1790	1793
Current Year	8	1870	1859
Target Year	Algebra I		4000

1. Previous Z = (1790 – 1793) / 150 = -0.02

2. On-track Z = -0.02 / (9-7) = -0.01

3. Current Z = (1870 – 1859) / 150 = 0.07

4. The current grade z-score of 0.07 is greater than the On-track z-score, so the student is *On Track* to the Algebra I *Meets* standard.

The following example shows in detail how the STAAR on-track measure is calculated for determining whether English I student is *On Track* or *Not On Track* to the *Meets* standard for English II. In the example below, the student characteristics are as follows:

	Grade	Scale Score	*Meets* Standard
Previous Year	8	1650	1698
Current Year	English I	3825	4000
Target Year	English II		4000

1. Previous Z = (1650 – 1698) / 150 = -0.32

2. On-track Z = -0.32 / (10-8) = -0.16

3. Current Z = (3825 - 4000) / 485 = -0.36

4. The current grade z-score of -0.36 is less than the On-track z-score, so the student is *Not-on Track* to the English II *Meets* standard.

Reporting the STAAR On-Track Measure

14. *How will the STAAR on-track measure be made available?*

The STAAR on-track measure for the *Meets Grade Level* performance standard will be included in the STAAR student data file.