

## How to Interpret Standardized Test Scores

***Chico Christian School administers the Standard Achievement Test (SAT 10 version) to all our 3<sup>rd</sup>-8<sup>th</sup> grade students. Additionally, our 5<sup>th</sup> graders are administered the Otis Lennon test, which is used by Chico Unified School district in combination with the SAT 10 scores, to identify students who qualify for the gifted and talented program (GATE).***

***The information listed below will assist parents in interpreting the scores your child/student receives each year. These test results are mailed home with their final report card.***

### **Understanding the terms used:**

**Norms:** Norm-referenced tests compare an individual child's performance to that of his or her classmates or some other, larger group. Such a test will tell you how your child compares to similar children on a given set of skills and knowledge, but it does not provide information about what the child does and does not know. Scores on norm-referenced tests indicate the student's ranking relative to that group. Standardized tests are called standardized because they measure performance against a normed group. The scores will have different meanings depending on what norm your child's results are ranked against. If you are in an academically strong school district, for example, your child's scores against national norms may be quite high. Our test scores are ranked against other Christian Schools on a national level which is typically a more academically rigorous group.

**Grade level equivalents:** If your third-grader scored a grade equivalent of 5.2 in reading, this does not mean he or she should be in the fifth grade. Remember, the tests measure performance against the normed group for the same test, so a grade equivalent of 5.2 indicates that your child scored the same as a fifth-grade second-month student who took the third-grade-level test.

**Percentiles:** Percentiles are probably the most commonly used test score in education. A percentile is a score that indicates the rank of the student compared to others (same age or same grade), using a hypothetical group of 100 students. A percentile of 25, for example, indicates that the student's test performance equals or exceeds 25 out of 100 students on the same measure; a percentile of 87 indicates that the student equals or surpasses 87 out of 100 (or 87% of) students. Note that this is not the same as a "percent"-a percentile of 87 does not mean that the student answered 87% of the questions correctly! Percentiles are derived from raw scores using the norms obtained from testing a large population when the test was first developed. On a norm referenced test, 50% means that your child is performing at grade level, and is right where educators would expect them to be.

**Stanines:** Stanines are essentially groups of percentile ranks, with the entire group of scores divided into 9 parts, with the largest number of individuals falling in the middle stanines (3-7), and fewer

students falling at the extremes. Few tests in common usage today use stanines, although these scores can be useful in understanding the relative range of a student's performance.

**Standard scores:** A standard score is also derived from raw scores using the norming information gathered when the test was developed. Instead of reflecting a student's rank compared to others, standard scores indicate how far above or below the average (the "mean") an individual score falls, using a common scale, such as one with an "average" of 100. Standard scores also take "variance" into account, or the degree to which scores typically will deviate from the average score. Standard scores can be used to compare individuals from different grades or age groups because all scores are converted to the same numerical scale. Most intelligence tests and many achievement tests use some type of standard scores. For example, a standard score of 110 on a test with a mean of 100 indicates above average performance compared to the population of students for whom the test was developed and normed.

Standard scores, percentile ranks, and stanines can be compared using the "normal" or bell-shaped curve. Most tests used in education are developed in order to yield a standard curve of scores, where the majority of all students would fall within a small range (or one "standard deviation") of the mean or average score, and where 50% of all students would fall above and 50% would fall below the average score. Some tests, however, do not have such "normal" distributions of scores, and these different types of scores may not be comparable.

Standardized test scores measure academic performance, not potential. In other words, they may tell you what your child knows today, but they say nothing about what he or she can learn tomorrow.

#### **Tips for Parents:**

- Use data about your child's standardized test scores, along with his or her grades and overall academic performance, to identify areas in which additional help might be needed.
- Keep these test scores in perspective. They serve as a snapshot of your child's ability on a given day, in the areas of math and language arts. It is not the most effective measure of reasoning skills, or other higher level cognitive abilities.
- As parents, you need to know that these tests demonstrate how much your child knows as compared to other children their age, but that it is not a measure of intelligence or even potential or ability.
- The best thing you can do for your child is to ensure they have a good night sleep, a high protein, and low sugar breakfast, hydrate by drinking plenty of water, and encourage them to do their personal best!

