

Academic Growth Charts Twelfth Grade

Adult & Child

Therapeutic Foster Care Licensing Program

Academic Benchmarks

- * **States across the country are implementing new standards for student achievement, designed to better prepare young people for careers and college.**
- * **These academic benchmarks are meant to help parents understand the course material for each grade.**
- * **They are based on the standards in most of the country and are intended as a general resource for parents, not as a comprehensive breakdown of the contents of your child's curriculum.**
- * <http://www.parenttoolkit.com/>

Twelfth Grade Overview

- * Your child's final year of high school represents a culmination of years of hard work and study.
- * The reading and writing skills he/she is continuing to develop by reading widely and thinking critically will continue to be important as he/she makes the transition to work or further education.
- * The math curriculum for individual grades will vary from school to school, so please consult the subject-specific math benchmarks.

English/Language Arts

- * In 12th grade, students read and understand increasingly challenging informational texts that build knowledge in history, science, and other subjects.
- * They also read and understand a wide range of literature, such as stories, plays, and poems from across cultures and time periods.
- * Twelfth grade students engage thoughtfully in discussions, appreciating diverse ideas and perspectives while evaluating the strength of reasons and evidence.
- * In their writing, students analyze information from multiple sources, and choose the most relevant evidence to support their ideas.

Reading

- * Rich & Challenging Texts
 - * By the end of 12th grade, read grade level texts closely, proficiently, and independently.
- * Citing Evidence
 - * Cite strong evidence to explain what a literary or informational text clearly says, what it leaves uncertain, and what is implied or suggested.
- * Analyzing Theme Development
 - * Analyze the way an author develops two or more themes or central ideas, noting how the themes or ideas build to produce a complex story or analysis.
 - * Summarize the text.

Reading

- * Evaluating Reasoning
 - * Explain and evaluate the reasoning that supports argument, including arguments made in major American legal and political texts (for example, the way constitutional principles apply to U.S. Supreme Court decisions).
- * Understanding Vocabulary
 - * Read and understand 12th grade vocabulary.
 - * Analyze the way an author's word choices impact the meaning of a text, including words with multiple meanings (*trunk, cell, function*), or language that is particularly engaging, as in the works of Shakespeare.
 - * Follow the meaning of key terms throughout a text (such as *faction* in *Federalist No. 10*).
- * Using New Words & Phrases
 - * Use different strategies for understanding new words and phrases; for example, use context as a clue; use related words as a clue (*conceive, conception, conceivable*); consult a dictionary or thesaurus online or in print.

Writing

- * Supporting Arguments

- * Write arguments to support claims on important topics or texts, using valid reasoning and relevant and sufficient evidence.
- * Develop claims and counterclaims fairly, providing the most relevant evidence for each while also pointing out their strengths and limitations.

- * Informative Papers

- * Write informative or explanatory papers that examine a topic and express ideas by carefully selecting and analyzing information.
- * Develop the topic by presenting the most significant and relevant evidence.

- * Creating Stories

- * Write stories or narratives about real or fictional experiences.
- * Set out a problem, situation, or observation and relate its significance; establish one or more points of view; and develop story elements such as characters, a well-sequenced plot, and descriptive details.

Writing

- * Supporting Evidence
 - * Include evidence from text to support thinking and research.
- * Producing & Publishing
 - * Use technology to produce and publish ideas, to get feedback, and to gain new ideas.
- * Applying Grammar Rules
 - * Use conventional capitalization, punctuation, and spelling, and apply the rules of grammar in written work.
 - * Understand that the rules of usage vary, and resolve issues by consulting a dictionary or other reference work.

Listening & Speaking

- * Class Discussion
 - * Initiate and participate in class discussions about complex 12th grade topics, texts, and issues.
 - * Be prepared to draw on textual evidence or research when expressing ideas, to respond thoughtfully to diverse perspectives, to resolve disagreements when possible, and to recommend additional research that would deepen the investigation.
- * Evaluating Points of View
 - * Listen to and evaluate another speaker's point of view, reasoning, use of evidence, and overall effectiveness in presenting ideas.
- * Giving a Presentation
 - * Give a well-organized presentation that expresses a unique perspective and addresses alternative or opposing points of view, keeping the audience and purpose in mind.

Research & Inquiry

- * Research Projects
 - * Conduct short and long research projects to answer a research question, including a self-created question, or to solve a problem.
 - * Combine information from multiple print and online sources, showing an understanding of the subject.
- * Locating Information
 - * Locate information efficiently; use advanced search methods online.
- * Evaluating Sources
 - * Evaluate the strengths and limitations of each source in addressing the task, purpose and audience.
 - * Use information selectively, and cite sources appropriately to avoid plagiarizing or copying.

Tips & Advice

- * ***Make Time for Reading***

- * As your child's academic and extracurricular schedule becomes busier than it has ever been, it's important to help him/her continue to make time for some basics. Make sure that he/she is staying on top of assigned reading, but also that he/she has enough down time for leisure reading.

- * ***Encourage a Range of Reading***

- * Encourage your child to read a wide range of materials, from novels to biographies to informational texts and scientific material. When possible, try to engage him/her in discussion about the themes and ideas of what he/she is reading. Some of the texts he/she's reading may be of interest to you, and discussing them could offer a valuable starting point for meaningful conversations.

Tips & Advice

- * ***Ask About Reading***

- * One focus of your child's classroom reading is determining what a text is saying explicitly and what it leaves unsaid. You can help prompt him/her to think critically in this way by asking probing questions about what he/she has read and what he/she has learned from it.

- * ***Share Your Struggles***

- * Reading classic literature, such as Shakespeare, can be intimidating. As your child reads books you read when you were his/her age, tell him/her about your struggles and success with the same texts. Just knowing that you also went through a similar experience could provide some needed encouragement for him/her.

Tips & Advice

- * ***Ask Your Child's Opinion***

- * Include your child in conversations about news developments and world events, as well as family matters. Ask for his/her opinion on important topics and listen carefully to his/her responses. Ask him/her to back up his/her opinions and statements with evidence.

- * ***Discuss Career Possibilities***

- * As your child starts to think about future study concentrations and career possibilities, use your discussion of the subjects that interest him/her to steer those conversations. Help him/her start thinking about the expertise that different careers require. What do lawyers need to study? What about doctors or engineers?

Tips & Advice

- * ***Make Time for Family Discussion***

- * Make sure you continue to make time for family conversation and discussion. Sit down to meals together as a family and engage your child in discussion about what is going on in his/her life, both personally and academically.

- * ***Include Writing in Family Traditions***

- * Help your child be a part of your family holiday traditions and include writing at the same time. Have him/her interview elderly family members or friends about their traditions in celebrating the holidays. He/she can then turn the information from these interviews into several kinds of writing, from photos with captions to illustrated stories to poems. These writings could turn into a special and much-valued gift to the family member or friend.

Mathematics: Statistics & Probability

- * For high school students, math skills and understandings are organized not by grade level but by concept.
- * In High School Math: Statistics and Probability, students develop their skills in gathering, summarizing, representing, and interpreting data.
- * High School math students work with categorical and quantitative data, work on making inferences and justifying conclusions, and use probability to solve real-world problems and evaluate the outcomes of decisions.

Quantifiable & Categorical Data

- * Understanding the Difference

- * Understand the difference between quantitative data (data that are measurable or countable with numbers, such as age, length, weight, etc.) and categorical data (data sorted into categories on the basis of qualities not measured by numbers, such as gender, occupation, political affiliation, etc.).

- * Standard Deviation

- * Understand standard deviation as a measure of the variability, or spread of a set of numbers or numerical values.
- * Use mean (average) and standard deviation of a data set to solve problems.

Quantifiable & Categorical Data

- * Randomization
 - * Understand randomization in surveys and research studies: drawing valid conclusions about the whole population by collecting data from a random sample of that population.
- * Understanding Sample Sizes
 - * Understand population proportion, variability, and valid sample size.
 - * Calculate margin of error.
 - * Identify biased samples.
- * Interpreting Linear Models
 - * Represent, summarize and interpret data on two categorical and quantitative variables.
 - * Interpret linear models – the slope (rate of change) and the intercept (constant term).

Making Inferences & Justifying Conclusions

- * Correlation & Causation
 - * Understand the concept of correlation – a close relationship or association between two or more variables.
 - * Understand the concept of causation – changes in one variable directly caused changes in another variable.
- * Critical Review
 - * Critically review sample surveys, experiments, and observational studies, and news media and organizational reports on surveys, experiments and studies, by:
 - * evaluating study design (research question, hypothesis)
 - * evaluating data gathering (sample size, randomization)
 - * reviewing data summaries and margin of error
 - * analyzing inferences and conclusions drawn.

Probability

- * Understanding Probability
 - * Understand probability as the measure of how likely an event is to occur.
 - * Understand conditional probability – the probability of event A, given that event B has already occurred.
 - * Use two-way frequency tables to approximate conditional probability when two events are independent.
- * Independent & Dependent Events
 - * Understand independent and dependent events.
 - * An event is independent if the outcome is not affected by other events.
 - * An event is dependent if the outcome can be affected by previous events.

Probability

- * Simple & Compound Events
 - * Use rules of probability to calculate probabilities of simple events (for example, flipping a coin), and compound events (for example, rolling two dice).
- * Making Decisions
 - * Use probability to make decisions, and evaluate a range of decisions and strategies, in business (release of new products, timing of sales), in sports (pitching rotations in baseball, substitutions in football), in health and medicine (likelihood of cancer, effectiveness of one treatment over another), and everyday life (commuting and traffic routes, getting into college, etc.).
 - * Weigh possible outcomes of a decision by assigning probabilities to payoff values, and finding expected values.

Tips & Advice

- * ***Ask to See Math Homework***

- * You might not be able to help your child with the more difficult elements of his/her math homework, but by asking to see his/her work and offering to help out, you can continue to make sure that he/she is maintaining good study habits and staying on top of his/her assignments. Ask him/her to explain to you what he/she is studying. Verbalizing the concepts he/she is learning will help him/her process and retain the information.

- * ***Encourage Persistence***

- * Encourage your child to persevere when he/she encounters difficulty in math. If he/she is having difficulty solving a problem, encourage him/her to think about it in other ways and to look for patterns among similar problems. It's important that he/she isn't discouraged by math and continues to see it as something that is doable, even if it's getting more difficult.

Tips & Advice

- * ***Use Online Math Resources***

- * For many parents, the biggest challenge they face helping their kids with math in high school is that the material their high schoolers are studying is too difficult for them to be able to easily help out with. Familiarize yourself with the range of online resources, like Khan Academy, IXL, and Hippocampus, that provide your kids with plenty of opportunities to review the concepts they're studying, take tutorials and do practice problems. Even if you can't solve the problems yourself, you can help steer your child toward helpful resources.

- * ***Find a Math Mentor***

- * If your child is struggling with math and doesn't understand what use it could ever be to him/her, it might help for him/her to have a mentor. This could be a friend or family member who uses math in their work, such as an accountant or an engineer or a programmer. Enlist this person to talk to your child to help to demystify math for him/her.

Tips & Advice

- * ***Find a Tutor***

- * If your child is really struggling, it might be necessary to enlist the help of a math tutor. Ask your child's math teacher and guidance counselor for advice. Many schools will suggest that students in higher grades help out as tutors.

- * ***Discuss Math-Related Careers***

- * Encourage your child to explore ways in which math is used in different careers. How do doctors use math? Engineers? Bankers? What is he/she starting to think of as career goals? Help him/her explore, by researching online or talking to other adults, the role of math in the fields he/she is starting to consider.

- * ***Watch Movies That Feature Math***

- * Plan a family movie-watching night around a film that features math, like *A Beautiful Mind*, *Moneyball*, or *The Da Vinci Code*.

Tips & Advice

- * ***Encourage Reading About Famous Scientists and Inventors***
 - * Encourage your child to read biographies of famous inventors, scientists or computer experts, like Steve Jobs or Albert Einstein.
- * ***Highlight Math Through Sports***
 - * Sports provide a great forum for your child to delve into many of the math concepts that he/she is studying, from statistics and probability in baseball to geometry in racquet sports.
- * ***Play Math Games***
 - * Plenty of games can help foster math skills. These include card games, board games, dice, and dominoes.