Academic Growth Charts Fourth 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/

Fourth Grade Overview

* **Your 4th grader is reading more challenging types of writing and is being asked to discuss and analyze information in ways that foster his/her critical thinking skills.**
* **His/Her math repertoire is expanding quickly, as he/she adds more complicated types of problems, including introductory geometry, to the addition, subtraction, multiplication, and division skills he/she learned in earlier grades.**

English/Language Arts

* In 4th grade, children apply their skills to read and understand challenging fiction and non-fiction text.
* Fourth-graders read, discuss, and write about, complicated stories, rich poems, plays, informational books, and articles.
* In 4th grade, your child will show an understanding of literature and topics being studied in science and social studies by writing summaries, essays, and research papers.
* Students will learn to orally report on a topic, tell a story, or recount an experience clearly, and experiment with adding audio and visual elements to a presentation to help express ideas.

Reading

* Increase Vocabulary
  * Increase vocabulary by building an understanding of relationships between words.
* Understanding New Words & Phrases
  * Use strategies (like context cues and knowledge of prefixes/suffixes and root words) to understand new words and phrases.
* Determining the Main Idea
  * Determine the main idea and key details of both literary and informational text; summarize a text.

Reading

* Explaining Supporting Points
  * Explain how an author uses evidence and reasons to support particular points in a text.
* Comparing Similar Themes & Topics
  * Compare how similar themes and topics are expressed in stories, myths and folktales from different cultures.
* Engage With a Variety of Texts
  * Read and actively engage with a variety of rich and challenging texts to build a foundation of knowledge in literature, science, social studies and other subjects.

Writing

* Conventions & Usage
  * Use basic rules of English grammar, capitalization, punctuation, and spelling when writing.
* Naturally Unfolding Stories
  * Write a story with an event sequence that unfolds naturally, use dialogue, description and sensory details, provide a satisfying conclusion.
* Informational Pieces
  * Write an informational piece that introduces a topic, groups related information in paragraphs and sections, develops the topic with facts and details and provides a logical conclusion.

Writing

* Opinion Pieces
  * Write an opinion piece that introduces a topic or text, states an opinion, is clearly organized, and supports the opinion with reasons, facts and details.
* Supporting Research With Evidence
  * Include evidence from text to support thinking and research.
* Using Technology
  * Produce and share writing using technology with guidance and support from adults.
  * Type at least one page of writing in a single sitting.

Listening & Speaking

* Giving Oral Reports
  * Report orally on a topic to show understanding, using well chosen and well organized facts and details.
* Participating in Conversations
  * Participate in conversations about topics and texts being studied, listening carefully to the ideas of others and asking and answering questions in order to gather more information or deepen understanding of the topic.
* Paraphrasing Information
  * Paraphrase information from media presentations or books read aloud.

Research & Inquiry

* Short Research Projects
  * Independently conduct short research projects to investigate and become knowledgeable about a topic.
* Taking Notes & Sorting Information
  * Take notes, sort information into categories, and provide a list of sources.

Tips & Advice

* ***Encourage Reading***
  * Find ways to encourage your child to read independently. Make sure that he/she has the time and space to devote to reading and that he/she has plenty of material to read for fun. Take him/her to the library regularly.
* ***Use Technology to Encourage Reading***
  * Learn how to use technology to help develop your 4th grader's growing interest in reading. There is a large selection of online books for children, many with interactive features such as animations or voice recording. You can also encourage his/her interest in reading by helping him/her find online sites about topics that interest him/her.
* ***Discuss What Your Child is Reading***
  * Ask your child about the books he/she is reading, both in school and for fun. Try to ask probing questions that go beyond having him/her just relate the action in a book. Ask about the themes of what he/she is reading and encourage him/her to summarize what he/she is reading and discuss it with you.

Tips & Advice

* ***Set an Example for Good Reading Behavior***
  * Continue to model good reading behavior by discussing what you are reading. If you've just read an interesting magazine article, tell your child what you learned from it.
* ***Foster Effective Arguing***
  * Encourage your child to learn to make a good argument. If he/she wants the privilege to do something that he/she has not previously been allowed to do, have him/her present an argument for doing so. Make sure he/she can back up the claims he/she is making. If he/she says that all his/her friends are allowed to do something, ask him/her to substantiate that claim.
* ***Discuss the News***
  * Engage your child in a discussion about the news stories you see on television or hear on the radio while you're in the car. He/she should be developing the skills that will make him/her an informed and discerning consumer of information. By discussing what is happening in the world, you can explain why certain issues are important and share your values with your child.

Tips & Advice

* ***Find Reasons to Write***
  * Real writing can happen all the time, both inside and outside school. Help your child find useful reasons to write outside school: A letter of complaint about a broken videogame, an invitation to a get-together, or a request for information about a sporting event. Make writing connected to real life and not just an exercise.
* ***Use a Favorite Story***
  * Most children have a favorite story that they ask their parents to tell them over and over again, maybe about the day they were born or the time a special event took place. Encourage your child to write this story down and to make a book about it. It could be illustrated with photos and could become a lasting family keepsake.

Tips & Advice

* ***Play Vocabulary Games***
  * Make a game out of broadening your child's vocabulary. Choose five unfamiliar new words for him/her to learn each week and see how often everyone in the family can use those words in everyday conversation. This will help improve your 4th grader's vocabulary, reading comprehension, and speaking skills.
* ***Play Storytelling Games***
  * A fun game to play in the car or home that can involve the whole family is "what happens next." Everyone should name a different object and then one person begins telling a story using all of these words. The next person must continue the story, picking up from where the last person stopped, while using at least one of the named objects, and having the story make sense as it continues. The silliness of where the storyline goes, combined with the use of the imagination, is a fun way to practice important listening and thinking skills.

Mathematics

* In 4th grade, students focus most on using all four operations, addition, subtraction, multiplication, and division, to solve multi-step word problems involving multi-digit numbers.
* They extend their understanding of fractions, including equal (equivalent) fractions and ordering fractions.
* They add and subtract fractions with the same denominator (bottom number), multiply fractions by whole numbers, and understand relationships between fractions and decimals.

Operations

* Multi-Digit Whole Numbers
  * Quickly and accurately, add and subtract multi-digit whole numbers up to 1 million (1,000,000).
* Factors
  * Understand factors – whole numbers (numbers without fractions) that can be multiplied together to get another number.
  * Understand that one number can have several factor pairs – for example, 3 and 4 are factors of 12 (3 x 4 = 12), and so are 2 and 6 (2 x 6 = 12), and 1 and 12 (1 x 12 = 12).
  * Understand a prime number as having only one factor pair: 1 and itself.

Operations

* Relationship to Place Value
  * Read, write, and compare multi-digit whole numbers, understanding that the value of a digit is ten times what it would be in the place to its right – for example, 7 is ten times greater than 0.7.
  * Use understanding of place value to round multi-digit whole numbers to any place.
* Remainders
  * Multiply a number of up to four digits by any one-digit number and multiply two two-digit numbers.
  * Divide a number of up to four digits by any one-digit number, including problems with remainders.
  * Explain and illustrate using equations and visual rectangular models.

Operations

* Word Problems
  * Solve multistep word problems with whole numbers, using addition, subtraction, multiplication, and division problems with remainders.
  * Use mental math and estimation strategies (such as rounding) to check how reasonable an answer is.
  * Write equations for these problems with a letter standing for the unknown quantity.

Fractions

* Breaking Down Fractions
  * Break fractions down into smaller fractions that have the same denominator (bottom number) in various ways.
* Adding & Subtracting
  * Add and subtract fractions with the same denominator (bottom number).
* Working With Mixed Numbers
  * Add and subtract mixed numbers with the same denominators.

Fractions

* Equivalent Fractions
  * Using visual fraction models – number lines, fraction bars (see example below), understand how fractions can be equal (equivalent) even when the number and size of the parts (the numerators and denominators) are different.
  * Recognize and create equal (equivalent) fractions – for example: $\frac{2}{4} = \frac{1}{2}$ (or $\frac{2}{4} = \frac{1}{4} + \frac{1}{4}$).
* Numerators & Denominators
  * Compare two fractions with different numerators (top numbers) and different denominators (bottom numbers) by changing one or both fractions so that they both have the same denominator. For example, in comparing $\frac{3}{8}$ and $\frac{4}{16}$, use visual fraction models to understand that $\frac{4}{16}$ is the same as $\frac{2}{8}$.

Fractions

* Comparing Numerators
  * Understand that in comparing two fractions with the same denominator, the larger fraction is the one with the larger numerator.
* Multiply Fraction by Whole Number
  * Solve word problems involving multiplication of fractions by a whole number.
* Fractions & Decimals
  * Write fractions with denominators of 10 or 100 as decimals.
  * Compare numbers written as fractions and numbers written as decimals, using the symbols > (greater than), = (equal to), and < (less than).
  * Use visual models such as fraction bars or number lines to explain and justify the answer.

Measurement & Data

* Word Problems
  * Solve word problems involving addition, subtraction, multiplication, and division of:
    * units or intervals of time (seconds, minutes, hours)
    * units of money (using decimal notation – for example: .25, .05, $2.35)
    * units of mass (grams, kilograms)
    * units of weight (ounces, pound)
    * units of volume (milliliters, liters)
    * units of distance/length (inches, feet, yards, miles, centimeters, meters, kilometers)

Geometry

* Perimeter
  * Understand perimeter as the measurement around something, and area as the measurement of the flat surface inside the perimeter of something.
  * Find perimeter and area to solve real-world cost problems.
* Lines & Angles
  * Draw and identify different types of lines and angles, including line segments, rays, parallel lines, perpendicular lines, and right angles.
  * Use the presence or absence of these lines or angles to categorize or group (classify) two-dimensional shapes or figures such as rectangles, parallelograms, trapezoids, and triangles.

Geometry

* Lines of Symmetry
  * Understand line of symmetry: a line across a two-dimensional figure such that the figure can be folded along the line into identical matching parts.
  * Identify the most common symmetrical shapes: circles, squares, rectangles, ovals, equilateral triangles (three equal sides), isosceles triangles (two equal sides), hexagons, and octagons.

Tips & Advice

* ***Encourage a Positive Attitude Toward Math***
  * It's around this age that many youngsters become discouraged by math and begin to think of it as a subject they're just not good at. Be aware of this and try to prevent your child from developing a defeatist attitude toward math. Encourage him/her to stick with it when a problem appears difficult and to approach it in different ways.
* ***Read Math Problems Out Loud***
  * If your child is struggling with math problems, have him/her read each problem out loud slowly and carefully, so he/she can hear the problem and think about what is being asked. This helps him/her break down the problem and come up with problem-solving strategies.

Tips & Advice

* ***Integrate Math into Everyday Activities***
  * Continue to find ways to integrate discussion of math concepts such as "times as much" into your everyday activities. Compare the weights of your child and his/her siblings, or the family pet. Figure out how many times your cat's weight your child weighs, and how many times your child's weight his/her father weighs.
* ***Keep an Eye Out for Math Concepts***
  * Encourage your child to spot examples of some of the math concepts he/she is learning about. See how many right angles or right triangles he/she can spot. Or have him/her look for parallel lines, such as train tracks or pillars in a building.
* ***Highlight How Math is Used in Cooking***
  * Baking and cooking are among the best ways to familiarize your child with how fractions work. Having him/her help out in the kitchen also reinforces valuable sequencing skills and time management concepts.

Tips & Advice

* ***Practice Math in the Car***
  * When you have a long trip to take in the car and your child asks how long until you get there, have him/her answer the question him/herself by using math. Tell him/her how fast you're traveling and how far away you are, and see if he/she can estimate how long it will take you to arrive.
* ***Use Math in House Projects***
  * Encourage your child to use his/her math skills for projects around the house. If you're wallpapering or carpeting, for example, have him/her calculate wall or floor areas and figure out the total cost of various materials.

Tips & Advice

* ***Encourage Math Appreciation Through Sports***
  * Sports provide a fun and engaging way of exploring a host of mathematical concepts, starting with basic addition. The halves of a soccer game or the quarters of a football game offer an illustration of how fractions work in the real world. If your child enjoys a sport, encourage him/her to explore it through math.
* ***Encourage Music Appreciation***
  * Music is a great way for your child to engage with concepts related to math. Practicing an instrument means learning about tempo, measure, and meter—all of which involve math.
* ***Play Family Games***
  * Plenty of family games incorporate math. Tic Tac Toe, Connect Four, many card games, and dominoes are just some of the games that help build strategic thinking and math skills.