

GEMS American Academy Qatar

A Parent's Guide to Grade 4

GEMS prides itself on offering an outstanding educational program where highly effective classroom teachers use an engaging and challenging curriculum to help students meet or exceed grade-level standards. Academic progress is measured in two ways: by monitoring student learning to provide for ongoing dialog (formative assessment) and by evaluating student progress against standards and benchmarks using tests, assignments, and projects (summative assessment). The GAAQ report card is designed to show how well a student is doing in relation to grade-level standards, and also illustrates that by the completion of the academic year, the student will be equipped with the knowledge and skills to succeed at the next grade level.

This guide will help parents understand the concepts and skills that are the focus of instruction in the Grade 4 classroom, as well as the broader academic and thinking skills that will lead to college readiness and beyond. And because parental involvement is a key factor in a student's academic success, this guide also offers suggestions about how parents can support their child's learning at home. A concise overview cannot fully represent the comprehensive curriculum and all units of study in Grade 4, so parents are encouraged to contact the school if they have questions.

Language Arts

Reading – Writing – Speaking – Listening - Language
<p>What your child will learn: Students in Grade 4 read a wide range of literature in different genres reflecting different cultures and times. They study in greater depth the structural elements of poems, prose, and dramas than in previous years, and learn to summarize text in a concise manner. As they analyze informational text, students consider its overall structure and organization, the differences between first- and second-hand accounts, and how the author uses evidence to support points in the text. There is more focus on academic language and domain-specific vocabulary, which supports reading and listening comprehension, writing, and speaking. Students learn and practice a range of strategies for acquiring vocabulary independently. In their writing, students learn to create organizational structures that support their purpose; write longer, detailed informational/explanatory texts with headings, illustrations, definitions, and quotations; and write narratives that orient the reader to the situation and unfold in a natural sequence of events. They learn to use technology to find information, interact and collaborate with others, and produce and publish writing. Students participate in collaborative discussions on fourth-grade topics and texts, paraphrase information presented in diverse media and formats, and deliver formal narrative presentations. They learn the conventions of standard English grammar and usage, capitalization, punctuation, and spelling to support their writing and speaking. These conventions include the use of prepositional phrases and progressive verb tenses, recognition and correction of fragments and run-ons, and appropriate use of commas and quotation marks to indicate direct speech.</p>

What you can do at home:

Reading with your child at home continues to be an integral strategy to support literacy skills. As your child enters and progresses through the intermediate grades, it is important for you to share your interest in reading, and it is equally important for them to observe you reading. Provide the time and space in your home for your child to read by limiting distractions. Help your child find books, magazines, and other materials that are of interest to them to encourage reading, and engage them in high-quality literature. The use of meaningful technology can also support literacy skills. Talk to your child’s teacher about ways to incorporate classroom units of study into reading at home. Libraries and book clubs can also be great ways to encourage children to read.

Mathematics

Overview	
Students in Grade 4 perform multi-digit arithmetic. They use large whole numbers to fluently add and subtract and develop fluency with multiplication and division (including quotients with remainders). They develop an understanding of fraction equivalents, addition and subtraction of fractions (with like denominators), and multiplication of fractions by whole numbers. Students classify geometric shapes based on properties (i.e., parallel or perpendicular sides, angle measurements, and symmetry).	
Operations and Algebraic Thinking	Number and Operations in Base Ten, Fractions
<p>What your child will learn: Students use four operations (addition, subtraction, multiplication, and division) with whole numbers to solve problems. Students solve multistep word problems, including problems in which remainders must be interpreted and for which a rounded solution is appropriate. Students solve problems that mix the four arithmetic operations, they use the convention of order of operations to solve problems (first multiply and divide from left to right, and then add and subtract from left to right). In fourth grade, students find all factor pairs for whole numbers in the range 1–100. They determine whether a given whole number is a multiple of a one-digit number or is a prime number.</p>	<p>What your child will learn: Students read, write, and compare numbers based on the meaning of the digits in each place (a digit in one place represents 10 times what it represents in the place to its right). Students also use understanding of place value to round multi-digit whole numbers. In fourth grade, students perform multi-digit arithmetic with whole numbers. They fluently add and subtract multi-digit numbers. They multiply (multi-digit numbers by two-digit numbers) and divide (four-digit numbers by a one-digit number), including quotients with remainders. They can explain their understanding of multiplication and division calculations by using equations, rectangular arrays, area models, or all three. Students explain different interpretations of fractions (including equivalent fractions) and write a fraction represented by a drawing. Fourth grade students use their understanding of equivalent fractions to order and compare decimals. They use the decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100), and compare two decimals to hundredths using a</p>

	number line or another visual model to justify conclusions. Students also add two fractions with denominators 10 and 100 (e.g., $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$).
Measurement and Data	Geometry
<p>What your child will learn: Students understand relative sizes of measurement units within one system of units (such as liter and milliliter, hour, minute, and second) and express measurements in a larger unit in terms of a smaller unit (for example, 1 meter is 100 centimeters). Students solve word problems involving measurement, and they apply the area and perimeter formulas for rectangles in real-world and mathematical problems. In fourth grade, students recognize angles as geometric shapes. They measure angles and solve addition and subtraction problems to find unknown angles on a diagram.</p>	<p>What your child will learn: Students classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines and angles and identify special triangles (e.g., right, equilateral, isosceles, scalene) and special quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid). Students also recognize a line of symmetry for a two-dimensional figure, identify line-symmetric figures, and draw lines of symmetry.</p>

Use of Calculators

The use of calculators plays a special role in mathematics teaching and learning. Initially, it is important that students in the early grades develop a facility with basic arithmetic skills without reliance on calculators. In later grades, when students are ready to use them to their advantage, calculators can be a useful tool not only for solving problems in various contexts, but also for broadening students' mathematical horizons.

What you can do at home:

Make math fun and meaningful for your child by looking for real world math problems in your daily life. Emphasize problems that include multiplication, division, and measurement. Use everyday objects for reinforcing the concept of fractions—greater/less than/equal to—and creating story problems. Ask questions that require mathematical thinking (e.g., estimation, greater/less than, word problems). Encourage your child to keep trying even when a problem may be challenging, talk to them about how they find an answer to a problem, and praise them for effort, resiliency, and perseverance even if they aren't getting the "right" answer.

Integrated Content

Science	Social Studies
<p>What your child will learn: GAAQ uses the FOSS or Full Option Science System. The program design is based on learning progressions that provide students with opportunities to investigate core ideas in science in increasingly complex ways over time. The target goals are to help students know and use scientific explanations of the natural world and the development of scientific knowledge and technological capabilities, and to participate productively in scientific and engineering practices.</p> <p>There are three FOSS units of study Grade 4: Physical Science – Connections between Magnetism and Electricity Earth Science – Properties of Water Life Science – Structures of Microscopic Organisms</p>	<p>What your child will learn: Students use their understanding of social studies concepts and skills to explore Qatar and the United States in the past and present. Students learn about each country's unique geography and key eras in early history. They use this historical perspective to help them make sense of the geography, economy, and government in Qatar and the U.S. today. Students are asked to look at issues and events from multiple perspectives.</p>

<p>What you can do at home: Foster your child's interest in science by encouraging them to wonder, observe, ask questions, hypothesize, and experiment. Encourage problem solving with everyday tasks (e.g., cooking and gardening). Visit parks, science museums, and zoos. Use technology as a resource to enhance the understanding of scientific concepts.</p>	<p>What you can do at home: Take opportunities to talk about civics, civil rights, and civic responsibilities. Read the local newspaper, watch the local news together, or find articles of interest to discuss. Family excursions to local governmental and historical sites can also be fun ways to support social studies curriculum.</p>
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Art

<p>What your child will learn: Elementary art education encompasses several key components and students observe and comprehend various types of art. In art classes, students invent, create, and critique works of art, and they relate, connect, and transfer the skills that they learn into other content areas. Grade 4, students learn about the intent and purpose of various works of art. They identify characteristics and expressive features in works of art and design to determine artistic intent. They use precise art vocabulary to respond to their own art and the art of others, and they make connections among the characteristics, expressive features, and purposes of art and design. Students begin to understand some of the historical and cultural ideas that are evident in works of art. They utilize basic media and studio skills in the art-making process.</p>
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What you can do at home:

Art activities are important for fine motor development. Encourage drawing and ask questions about your child's artwork. Pay attention and support your child's artistic interests. Design a space for creativity and encourage art activities and imaginative play. Visit local art museums and galleries during family outings.

Music**What your child will learn:**

The elementary school general music curriculum is built on 12 themes. Each curriculum theme is tailored to match the cognitive development of the students in each of the grade levels. Each lesson addresses specific goals outlined in national standards. The thematic threads in elementary music include:

- Singing/Movement
- Playing Instruments
- Composing/Improvising
- Listening/Analyzing/Describing
- Evaluating Music
- Theory/Notation
- Instrument/Ensembles
- Musical Styles
- Music History/Famous Composers
- World Music/Cultures
- Cross Curriculum Connections
- Life Connections

What you can do at home:

Expand and support the musical experiences and background knowledge of your child by exposing them to a wide variety of musical genres. Attend the opera, symphony, or other musical events. Listen to a variety of types of music in your home or car. Urge your child to explain and discuss what they like and dislike about various types of music. Encourage and foster your child's interest in both vocal and instrumental music.

Health and Physical Education (P.E.)**What your child will learn:**

While P.E. includes movement patterns, motor skills, and physical activities, both disciplines teach safe physical, emotional, and social behaviors, and emphasize prevention and risk management for students, both within and outside of the school community.

Grade 4 students continue to learn how daily activities and healthy behaviors promote overall personal health and safety. They demonstrate a variety of motor patterns in simple combinations while participating in activities, games, and sports, and they perform movements that engage the brain to facilitate learning. They identify the benefits of sustained physical activity that causes increased heart rate and heavier breathing, and they learn about the human body and its composition. Students also work to demonstrate positive social behaviors.

What can you do at home:

Strong and healthy children become strong and healthy learners. Many studies have shown a compelling correlation between physical activity and student achievement. At home, provide opportunities for physical activities (e.g., after-school sports and classes). Expose your child to a wide variety of physical activities, and keep in mind that this may also include limiting television and/or computer screen time. Plan and offer healthy snacks and meals. Be a role model for your child and engage in healthy activities together. Whether you are preparing nutritious meals or enjoying a walk together, make an effort to integrate wellness into your family's daily practices.

Talking to your child's teacher:

Parental involvement in a child's education is crucial, so it's important to build a healthy, collaborative relationship between home and school by establishing good communication with your child's teacher. We encourage you to reach out to the teacher early in the year. Learn about the academic standards your child will be aiming for and discover ways you can support them in their studies. The first step in being able to follow the academic road map is to begin with a solid understanding of what your child will be expected to know by the end of the school year and keep the goal in sight.

Teachers monitor and evaluate student academic progress and achievement on an ongoing basis in many different ways, so parents are encouraged to stay in regular contact with their child's teacher beyond parent-teacher conferences. As the school year progresses, ask to see samples of your child's work to determine, in concert with the teacher, your child's advancement toward grade-level standards. Discuss areas of strength your child exhibits in the classroom as well as areas that may be targeted for growth. Inquire about how you can best help your child at home, and ask the teacher for recommendations and resources. Find out details about specific classroom activities and discuss ways that you may be able to volunteer your time and talents to support classroom activities or units of study.

Growth and learning during the school year doesn't end in the classroom—parents and teachers must work together all year long for the success of each student. We ask that you partner with us in creating an optimal learning experience for your child.