

Gwinnett's curriculum for grades K–12 is called the Academic Knowledge and Skills (AKS) and is aligned to the state-adopted Georgia Standards of Excellence (GSE) in Language Arts, Mathematics, Science, and Social Studies for middle school students. Gwinnett's AKS is a rigorous curriculum that prepares students for college and 21st century careers in a globally competitive future.

The AKS for each grade level spells out the essential concepts students are expected to know and skills they should acquire in that grade or subject. The AKS offers a solid base on which teachers build rich learning experiences. Teachers use curriculum guides, technology, and instructional resources to teach the AKS and to make sure every student is learning to his or her potential.

The Academic Knowledge and Skills curriculum was developed by our teachers, with input from our parents and community, in response to Gwinnett County Public Schools' mission statement:

*The mission of Gwinnett County Public Schools is to pursue excellence in academic knowledge, skills, and behavior for each student resulting in measured improvement against local, national, and world-class standards.*

Read on to find out more about what your child will learn during 8th grade and how you can support your child's learning at home. We encourage you to talk to your child about what he or she is learning.

**WELCOME TO 8TH GRADE!**



## **8TH GRADE**

**2018–19 PARENT AKS BROCHURE**



ACADEMIC KNOWLEDGE AND SKILLS  
GWINNETT COUNTY PUBLIC SCHOOLS

# Language Arts



Learning to read and write is the basis for all learning. In 8th grade, students work on reading and writing skills that will support them in learning all subjects. Specifically, students focus on reading with sufficient accuracy, rate, and expression to support comprehension of literary (fiction) and informational (non-fiction) texts. 8th graders use reading and writing skills throughout the school day as part of activities in all classrooms. The AKS emphasizes literacy skills across content areas, including technical subjects.

*Learn more about the Language Arts AKS online.*

By the end of 8th grade, all students are expected to:

- Use words, patterns in words, and word meanings to read fluently and comprehend effectively in all texts and activities;
- Apply grade-appropriate language skills in writing;
- Self-monitor to correct errors when reading and writing, and talk with and listen to peers about one's reading and writing to become lifelong readers and writers; and
- Use reading and writing to communicate through listening, speaking, and viewing.

## Balanced Literacy

Teachers follow these principles to determine the best teaching methods, strategies, and materials to meet the needs of our students:

- Learning to read and write is a complex process with many facets.
- Reading and writing are integrated into all subjects— Language Arts, Mathematics, Science, Social Studies, and Connections classes.
- Reading and writing are about experiencing language in all aspects of learning and real-world experiences, not merely practicing isolated skills.
- Reading and writing are interconnected forms of communication that emerge from listening and speaking.
- There is no “one way” to teach reading or writing. Teachers will incorporate a wide variety of teaching strategies to teach every student.
- Learning to read and write occurs along a developmental progression of stages.
- All students can learn to read and write along this developmental progression with guided instruction.
- Knowing where each student is developmentally enables teachers to plan, teach, and evaluate appropriately.

- Students should be immersed in a literacy-rich environment in every subject area.
- Reading and writing to, with, and by students should occur daily, regardless of their ages or grade levels.
- Each day, students should have opportunities to read and write in a variety of genres.

## Speaking and Listening

8th graders read and write to communicate through a variety of forms, including interactions with peers and adults. They work to become critical readers and viewers of media resources. Students have a variety of learning experiences, including group work, presentations, and multimedia viewing, in order to prepare them as competent communicators.

## Reading

8th graders read and analyze a variety of both literary and informational texts. These include drama, poetry, and non-fiction texts. Students relate themes in what they read to personal experience. They make well-developed connections and analyze authors' use of various elements of writing for effect and purpose. 8th graders are expected to read grade-level texts with accuracy and fluency in order to effectively comprehend what they read.

## Language (Grammar, Spelling, and Vocabulary)

By the end of the year, students should demonstrate a command of Standard English in reading, writing, speaking, and listening. Students should be able to determine the meanings of words based on the context provided. Students should understand and be able to apply grade-appropriate, academic vocabulary.

## Writing

At this grade level, students write narrative, informational, and argumentative pieces with well-defined ideas and organizational structures. 8th graders use the elements of writing style— audience awareness, voice, and rich, descriptive language— to make their writing interesting and informative. They use grade-appropriate grammar, spelling, capitalization, and punctuation in their writing. Students revise and edit their own work.



### Literacy Tips for Parents

- Encourage your student to use her persuasive letter-writing skills to share a suggestion or voice a concern with public officials.
- Help your student boost his information recall by “thinking along” with the text. Check comprehension by asking him to summarize main ideas from the section read. Sticky notes are a great tool for your student to flag key information or a passage that is interesting, surprising, or prompted questions.

## MYeCLASS Student Portal Information

Gwinnett County Public Schools' Student Portal is MYeCLASS. The Student Portal is an online environment that gives students access to their online course pages; a selection of digital textbooks that correspond to the individual student's class schedule; additional resources, such as the Student/Parent Handbook and the high school Choice Book; links to websites that support what students are learning; the online research library; a media catalog; databases of general reference materials; eBooks; and the student's grades.

Students log into MYeCLASS using their GCPS student number and the password they create at the beginning of the school year.

MYeCLASS is available around the clock, from any device with an Internet connection. Find a link from the GCPS home page at [www.gwinnett.k12.ga.us](http://www.gwinnett.k12.ga.us).

## Mathematics



In the Mathematics classroom, students grow into confident, competent problem-solvers. They develop their understanding and use of numbers as they explore how mathematics connects to the real world. As they apply their learning in context, students develop their ability to think critically, reason mathematically, and communicate effectively.

*Learn more about the Math AKS online.*

Learning in 8th grade focuses on developing an understanding of the number system, functions, geometry, statistics and probability, and expressions and equations. By the end of 8th grade, students should be able to do the following:

- Understand the connections between proportional relationships, lines, and linear equations;
- Work with radicals and integer exponents;
- Define, evaluate, and compare functions;
- Use functions to model relationships between quantities;
- Investigate patterns in data;
- Understand congruence and similarity using physical models and software;
- Understand and apply the Pythagorean Theorem; and
- Solve real-world and mathematical problems involving the volume of cylinders, cones, and spheres.

8th grade students use a number of strategies and tools as they learn math. They use a variety of representations to demonstrate their knowledge, such as verbal/written, numeric/data-based, graphical, and symbolic. Students use technology, data, and problem-solving strategies.



### Math Tips for Parents

- With your student, find congruent (same shape and size) shapes in architecture and print materials. Ask your student to explain the type of congruence (sides, angles, or a combination).
- Ask your student to predict the probability of an independent event (rain) compared to a compound event (rain and tornado).



## Social Studies

GCPS' Social Studies program prepares students to participate as constructive citizens in a democratic society. Students understand their role and responsibility as citizens. They discover America's heritage and its role and responsibility in the world. Students relate the past to the present. They learn the similarities and differences between nations, cultures, and peoples of the world. Students interpret maps and globes, process information, and solve problems. Themes of study include: Beliefs and ideas influence decisions and laws, and beliefs determine decision-makers; conflict causes change; culture is the product of society; actions affect society; and the movement of ideas and people affects everyone.



### Civics Tips for Parents

- Explore Georgia together. Check out historic sites and attend festivals that celebrate the regions of the state.
- Encourage your student to follow events under the Gold Dome when the General Assembly is in session. Talk about how laws and legislation affect your family.

## Science



Exploration in physical science is nurtured through a hands-on approach in 8th grade. Students explore concepts in both chemistry and physics. They develop knowledge using the scientific method and engineering process. Students further refine their scientific skills so they can obtain, evaluate, and communicate information.

### Science and Engineering Practices

8th graders use science and engineering practices to conduct investigations and design solutions. They ask questions, develop models, and construct explanations. They formulate arguments and revise investigations based on their findings. The lab experience in 8th grade emphasizes safe practice.

### Types of Physical Science

#### Matter and Energy

Students in 8th grade investigate the nature of matter and the distinction between types of matter. They use the Periodic Table to gather information about elements. Students examine the forms and transformations of energy. They apply the law of conservation of energy as it is transformed from one type of energy to another.

*Learn more about the Science AKS online.*

#### Force, Motion, and Gravity

8th graders explore the relationship between force, mass, and the motion of objects. They demonstrate the effect of balanced and unbalanced forces on an object's ability to move. They examine factors that determine gravity and the effect gravity has on all objects in the universe.

#### Waves, Electricity, and Magnetism

Students explore the nature and behavior of light and sound waves. They investigate how the human eye sees objects and distinguishes color. Students examine how the human ear detects and interprets sounds heard. They investigate the interactions of electricity and magnetism, and the role of circuits in transporting electricity.



### Science Tips for Parents

- With your student, read the labels on food in your pantry. Ask your student to identify substances that include an element from the Periodic Table. Talk about kitchen chemistry.
- At the amusement park, discuss the potential and kinetic energy of rides. Where is the greatest amount of potential energy on that loopity-loop rollercoaster?

### Interpretive Skills/Where We Live/Personal Finance

8th grade students draw conclusions and make generalizations in comparing information on maps. They review information critically, checking for consistency and relevancy. Students evaluate how the state's economy influences growth and development. They discuss the impact of economic decisions on Georgia families.

*Learn more about the Social Studies AKS online.*

#### Our State

8th grade students take a year-long focus on Georgia Studies. They explore their state through both historical and modern perspectives. 8th graders examine significant social, economic, and political developments in Georgia, relative to national and international issues. They study the state's geography and how it affects the economy. Students evaluate cultural developments and the impact of events in Georgia from early settlements to modern times. They explore civic roles in the state.

## Health and Physical Education Connections



Each year, middle school students are encouraged to take one semester of Health and one semester of Physical Education as Connections classes.

*Learn more about the Health and PE AKS online.*

### Health

In Health classes, students learn how to live a healthy lifestyle and reduce the risks linked with illness and injury. They learn the consequences of unhealthy behaviors. At a grade-appropriate level, students explore these issues— relationships with others, drug use and misuse, personal and community safety, Internet safety, nutrition, disease prevention, family interactions, the influence of peer groups, anatomy, and physiology. Students develop tools needed to make healthy choices when facing the difficult decisions of a maturing adolescent.

8th graders learn first aid for bleeding, burns, fainting, and muscle and bone injuries. Students examine consequences of tattoos, body piercing, and the use of communication devices. 8th graders analyze causes, signs, symptoms, and treatments for communicable and noncommunicable diseases and sexually transmitted diseases (STDs). They discuss the use and abuse of prescription drugs. Students assess consequences of alcohol use on relationships and on a developing fetus. 8th graders develop skills for resisting peer pressure and propose alternatives to alcohol use. They analyze conflict with peers and strategies to counter conflict. Students assess their diets, using dietary guidelines. They identify social, emotional, intellectual, and economic aspects of dating. Students discuss issues and consequences related to teen sex.

### Physical Education (PE)

Physical Education emphasizes lifetime fitness, physical activity, and skill development. Through carefully planned classes, students learn the importance of physical activity— for their health and for their success in school. The curriculum promotes fitness as students acquire skills and develop physically. They understand physical and anatomical changes during the formative years.

In PE, 8th grade students learn fitness concepts and participate in fitness assessments. Each student's fitness assessment report will be distributed to his or her parents during the school year, depending on the student's schedule. They learn how physical activities enhance their health. Students develop movement and motor skills, such as throwing, catching, kicking, and hitting a variety of objects. They practice conditioning principles to enhance performance. Students learn offensive and defensive strategies and cooperation through a variety of activities.

**NOTE:** *Students may earn a Carnegie Unit for high school credit at the end of 8th grade for selected courses in the subject areas of Mathematics, Science, Foreign Language, and Career and Technical Education. Ask your teacher or principal for details about available options at your student's school.*

## Fine Arts, Academic, and Career and Technical Connections



Through the Connections Program, middle school students explore areas of study outside the core academic areas. Each quarter, students take two Connections classes. Options vary from school to school, but generally fall into three areas— fine arts, academic, and career/technical. Schools also may offer enrichment classes that extend learning in a core area, such as Language Arts or Mathematics, or classes that enhance study skills. Following are general descriptions of some Connections classes. Talk to your child's school to learn more about available programs.

*Learn more about the AKS for Connections online.*

### Music

Students have many and varied opportunities to experience Music at the middle school level. They may choose to participate in Band, Chorus, General Music, Guitar, Piano, Music Technology, or Orchestra. Music instruction builds on prior knowledge and skills from previous grade levels. Content, instruction, student performance, and evaluation methods become increasingly sophisticated at each grade or skill level. Students learn through performing. Middle school musicians learn to respond to and critique music. They understand music in relation to history and culture. Students demonstrate expressive and technical skills in vocal or instrumental performance. They improvise, compose, and arrange music. The middle school Music program prepares students for Music studies in high school.

### Visual Arts

The middle school Visual Arts program addresses the diverse abilities, experiences, and exposure that students bring to the classroom. The program offers experiences in the arts that promote creativity as well as problem-solving and critical-thinking skills. In class, students create artwork in various media with numerous techniques. They use the elements and principles of art in their work. Students have opportunities to exhibit their work. Research shows that experience in the Visual Arts improves Math achievement, analytical reasoning, and other learning skills.

### Theatre Arts

Theatre Arts students explore acting and improvisation. They learn the basic techniques of acting and character and voice development as well as presentation skills and scriptwriting. Older students learn beginning technical theatre skills, such as lighting and staging. Students may choose to perform in local school productions and participate in clubs and workshops.

### Dance

Dance is offered at some Gwinnett middle schools and encourages students to study movement, physical fitness, and health through the Fine Arts. Opportunities to perform are provided regularly for students in these programs. Students can study at beginning and advanced levels. They also are encouraged to explore these skills through programs in our community.

*(continued)*

## Connections *(continued)*



### Foreign Language

This introductory class focuses on language, customs, cultures, and geography for the areas where the language is spoken. Students learn practical vocabulary through a variety of written and oral activities. While language offerings vary, schools may choose to offer Spanish, French, German, and/or Latin at one or more grade levels, usually as an 18-week class. Some schools offer a year-long class (7th and/or 8th grades) that allows students to begin high school language study at a more advanced level.

### Journalism

This writing-centered course exposes students to a variety of media formats. Students learn the skills to communicate clearly and concisely. The curriculum draws heavily on 8th grade Language Arts skills. The class covers standards for publication, knowledge of ethics in journalism, and career opportunities.

Learn more about the AKS for Connections online.

### Family and Consumer Science

This course introduces students to career pathways in the areas of nutrition and food science, culinary arts, consumer services, interior and fashion design, early childhood education, and teaching as a profession. Exposure to career possibilities prepares students to consider further study in high school and beyond.

### Engineering and Technology

Engineering/Technology students learn about career pathways in the areas of electronics, energy systems, engineering, engineering graphics and design, and manufacturing. Students apply mathematics and science skills in this class. They enhance problem-solving skills and learn about computer-aided drafting and robotics.

### Business and Computer Science

In Business and Computer Science, students learn fundamental skills and knowledge to support business-related fields. Through a range of activities, students learn about career pathways in the areas of finance, legal operations of business, digital design, and basic programming. Project-based learning enhances keyboarding skills that are used across the curriculum.

### Other Connections Opportunities

Connections offerings vary from school to school. These and other classes may be available at your student's middle school:

- Audio-Video Technology and Film
- Healthcare Science
- Marketing
- Peer Leadership
- Academic Support and Enrichment in core subjects
- Career Connections
- Research
- Study Skills

### Specialized Programs and Services

The school system provides a variety of specialized programs and services, including Title I, English to Speakers of Other Languages (ESOL), Special Education, Gifted Education, and alternative education programs. Guidance, social work, and psychological services provide for students' emotional and physical needs, along with limited clinic services for all students and specialized nursing support for medically fragile children. The School Nutrition Program operates cafeterias in every GCPS school. Some programs and services have eligibility requirements and require testing for admission. On these two pages, learn more about some of these programs and services.

### Special Education and Psychological Services



GCPS' Department of Special Education and Psychological Services focuses on meeting the educational needs of students with disabilities, beginning at age 3. They must meet the eligibility requirements set by the Georgia Department of Education. GCPS provides comprehensive special education programs and services, including assessment and interventions.

### Gifted Education



The GCPS Gifted Education program, called PROBE at the middle school level, provides academic challenges for students who are intellectually advanced. The program offers valuable learning opportunities that are advanced in content. Gifted education classes offer experiences that extend GCPS' AKS curriculum, and develop students' thinking strategies and processes. Classes are taught by teachers with gifted certification. Students served through the Gifted Education program meet eligibility requirements set by the state. Both student performance and results on national assessments are used to determine a child's participation in the program.

### English to Speakers of Other Languages



Students whose primary or home language is other than English and who are not yet proficient in English are provided with support services through the English to Speakers of Other Languages (ESOL) program until they attain proficiency. ESOL instruction develops skills in listening, speaking, reading, and writing in social and instructional language as well as in the academic language of language arts, mathematics, science, and social studies. Students learning English are taught by highly qualified teachers who are fully certified experts in their field.



Tips for Parents on 10 Things You Can Do to "Be There" for Your Student

#### BE...

- **An Involved Parent...** *Be attentive, aware, together*
- **A Role Model...** *Be caring, engaged, influential*
- **A Cheerleader...** *Be supportive, positive, fun*
- **A Partner...** *Be encouraging, working together*
- **Their Favorite Teacher...** *Be there for teachable moments*
- **A Friendly Critic...** *Be patient, accepting, flexible*
- **An Advisor...** *Be ready to help, share your experiences*
- **A Good Communicator...** *Be a talker, a listener, stay connected*
- **A Lifelong Learner...** *Be inquisitive, share, read together*
- **An Advocate...** *For your student, school, community, public education*

## Character Education



The school system supports a mandate from the Georgia General Assembly requiring all schools to teach character education. Society and culture are tied together through common threads that guide the way we live, work, and learn. These common beliefs are taught at home and reinforced by the community, schools, religious institutions, and youth service groups. These basic tenets guide the way Gwinnett County teachers teach and the way the school system conducts the business of teaching and learning. Character education is thoroughly embedded in the AKS curriculum.

## Counseling and Advisement



School counselors support students in their overall academic success. Counselors build strong relationships with their students by delivering comprehensive, data-driven programming through classroom core lessons, small-group counseling, and individual counseling sessions. In addition, counseling programs focus on students' postsecondary planning and career readiness. They help students explore and plan for high school and career options, develop life skills, and have a successful school experience. Gwinnett middle school students participate in an advisement program. This program builds meaningful connections between adults and students that result in improved academic achievement. Grade-level programs address areas of concern relevant to students at each stage in their development designed around three R's: Relationships, Respect, and Resiliency.

## Technology/Information & Media Literacy



The school media program contributes to your student's academic achievement and prepares him or her to live and work in our information-rich society. Available resources include books and magazines for pleasure reading and research, an online catalog for locating materials, and computers that provide access to online instructional resources that are age-appropriate. In a GCPS media center, your student will find a state certified, full-time media specialist who supports teaching and learning and encourages lifelong reading. The media specialist collaborates with teachers to help your student learn to locate, analyze, evaluate, interpret, and communicate information and ideas.



### Gwinnett County Public Schools

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## About Testing

Gwinnett County Public Schools measures student achievement in a number of ways to ensure students are learning the AKS curriculum. Students participate in classroom, district, and state assessments. Our assessment program helps teachers monitor students' academic progress. Assessment data and information pinpoints students' strengths and weaknesses. This focus allows teachers to plan targeted instruction that promotes each student's success.

### Testing in 8th Grade

All 8th grade students participate in the Cognitive Abilities Test (CogAT) assessment in the fall.

**CogAT** provides information related to skills that are important for learning and problem-solving, both in and out of school. This test gives teachers details on how students learn so that teachers can develop appropriate learning objectives for each child.

Administered to all students in grade 8, the **PSAT 8/9** establishes a baseline measurement of college and career readiness as students enter high school. It also gives students a chance to preview the PSAT and the SAT.

The Georgia Department of Education has implemented the **Georgia Milestones Assessment System** (Georgia Milestones) which is a comprehensive assessment program. Students in grade 8 take an end-of-grade assessment in Language Arts, Mathematics, Science, and Social Studies. Learn more about testing on the GCPS website, or talk to your student's teacher.

Students in grade 8 who are enrolled in a high school course with an associated end-of-course assessment, as designated by the State Board of Education, must take the Georgia Milestones end-of-course measure. In accordance with State Board Rule, Georgia Milestones end-of-course measures serve as the final exam for these specified high school courses.

For more information about the AKS, please visit [www.gwinnett.k12.ga.us](http://www.gwinnett.k12.ga.us) and click on "The AKS" in the "I want to... Get a copy of..." pull-down menu.

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