Kentucky Department of
EDUCATION

KY Standards

Your home for Kentucky Academic Standards.

WELCOME TO GRADE 6!

A Family's Guide to the *Kentucky Academic Standards*

This guide was made to help families understand the *Kentucky Academic Standards* and to show what children will learn by the end of 6th grade. This tool provides information about the key ideas and skills teachers will introduce in mathematics, reading and writing, science and social studies. It includes possible examples of what students will be asked to do in class, how to help your child at home, questions you can ask your 6th-grader and questions families can ask their child's teacher.

This guide also was designed to help parents understand how they can work with teachers to support the learning of their 6th-grader. When teachers and families work together to help students master *Kentucky's Academic Standards*, students can succeed by developing the skills they will need for life after graduation.

If you have questions about this information or if your child needs extra help, please contact your child's teacher.

Why are the *Kentucky Academic Standards* important?

Kentucky Academic Standards are important because they help make sure that all students, no matter where they live or what school they attend, have the skills they need to go after a successful future. Standards represent a goal or outcome of a subject area (such as mathematics, reading and writing, science and social studies). They help set clear and consistent expectations for what students should know and be able to do from kindergarten through high school. The standards are not a curriculum and do not determine the design of a lesson plan or how units should be organized. Decisions on how best to help students meet the goals in the standards are left to local school districts and teachers.

How are the standards organized?

The *Kentucky Academic Standards* are organized differently based on the content area. Some of the *Kentucky Academic Standards* are arranged grade-by-grade, while others are grouped into several grade levels, such as "high school" for grades 9-12. In all subjects, the standards show what students should learn and be able to do, but not how those learning experiences are to be designed or what resources should be used. For more information on the *Kentucky Academic Standards*, visit https://kystandards.org/ to read the complete standards and find standards-related resources.

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GRADE 6 MATHEMATICS

OVERVIEW:

During 6th grade, students will develop the ability to divide numbers greater than nine, perform all four operations (addition, subtraction, multiplication and division) with multi-digit decimals, and write, read and evaluate expressions in which letters stand for numbers. Your child will:

- Use variables to write and solve equations and inequalities that model what is happening in the real world;
- Reason about relationships among geometric figures when solving real-world and mathematical problems; and
- Develop an increased ability to think statistically.

Examples of Your Child's Work at School:

- Solving and explaining problems that involve a fraction divided by a fraction;
- Using a number line to place positive and negative numbers (with whole numbers, fractions and decimals);
- Using rates to find the better buy when shopping and answering questions about speed (for example, miles per hour).
- Noticing when two expressions are equivalent; and
- Formulating statistical questions and gathering data to answer those questions.

How to Help Your Child at Home:

- Talk to your child about realistic situations where negative numbers have meaning, such as negative balances in a checking account or the difference in having a balance on a credit card and a balance in a checking account.
- Talk with your child about finding the "better buy" when you are shopping together.
- Find realistic opportunities that allow your child to find the area, surface area and perimeter of shapes, such as how much carpet to cover a floor, how much paint you need to cover a wall and how much wrapping paper to cover a box.

Questions You Can Ask Your Child:

- Would you rather have a positive balance on a credit card or a checking account? Why?
- Questions that encourage proportional reasoning, such as, "If a box of pencils cost $4, how much does each pencil cost if there are 10 in a box?"

Questions You Can Ask Your Child's Teacher:

- Does my child need to work on any basic skills at home?
- What do you think is giving my child the most trouble? How can I help her or him improve in this area?
- How much time should my child spend on homework each night?
- Should my child use a calculator on homework?
- Are there any tools (resources, websites, etc.) that we can access at home that will help him or her in the classroom?
- What will my child be learning this year? How can I support her or his development in that area?

GRADE 6 READING AND WRITING

OVERVIEW:

During 6th grade, students will read increasingly challenging texts and they will write a variety of products for different purposes and audiences. Your child will:

- Read a variety of texts, including books, stories, poems, articles, editorials, charts and graphs in both print and digital forms;
- Explore topics of interest through research projects and presentations;
- Write to various readers to communicate arguments, information and narratives (both real and imagined) about different topics; and
- Use correct grammar, capitalization and spelling when writing and/or speaking.

Examples of Your Child's Work at School:

- Reading and explaining how a plot progresses and how the characters change from the beginning to the end of a text;
- Understanding and explaining the message given by an author in a text;
- Viewing information in print and non-print forms to boost knowledge of a topic;
- Understanding how the meaning of words and phrases can affect the overall meaning of a text;
- Identifying the evidence an author provides to support your child's claims;
- Using knowledge of language and rules when writing, speaking, reading or listening;
- Comparing/contrasting texts written by different authors concerning similar subjects; and
- Writing argumentative, informational and narrative products clearly and accurately for a variety of purposes.

How to Help Your Child at Home:

- Keep a variety of reading materials available in your home.
- Take your child to the library and encourage checking out books of interest.
- Frequently discuss what your child is reading, writing and creating at school.

Questions You Can Ask Your Child:

- What are you reading in class? What have you learned from the text/about the topic?
- Can you connect personally with what is happening in the text? Why or why not?
- Can you show me a sample of some writing you have done recently? How did you pick a topic and decide what to write? Show me a section of your writing you are proud of/still working on/would like to make better.

Questions You Can Ask Your Child's Teacher:

- What topics are being explored through reading and writing at school?
- How can I encourage reading and writing at home?
- What are some print and digital resources we can use at home to support reading and writing this year?

GRADE 6 SCIENCE

OVERVIEW:

During 6th grade,your child will be an active learner who will be doing science to learn science. They will continue to build on concepts learned in grades K–5 and experience similar science and engineering practices (skills) as those used by professionals in the field such as developing and using models, analyzing and interpreting data, constructing explanations and engaging in arguments from evidence while making connections across the different areas of science to develop a deeper understanding of the science concepts. Your child will:

- Develop an understanding of the role of gravity in space and on Earth.
- Determine how photosynthesis plays a role in the cycling of matter and energy.
- Describe what matter is made of and explain how it changes with temperature changes.
- Explain how resource availability and energy flow influence patterns of organism interactions.
- Apply their understanding of changes in Earth's materials including plate movement, water and air.

Examples of Your Child's Work at School:

- Develop a model of the Earth-sun-moon system to demonstrate the cyclical patterns of lunar phases, eclipses and seasons;
- Construct an explanation of how weathering and erosion, volcanoes, earthquakes and meteor impacts change the land gradually or quickly;
- Use particle models of solids, liquids and gases to describe atomic composition and how the particle motion and state changes based on changes in energy to describe the cycling of water on Earth;
- Analyze and interpret data on the distribution of fossils and rocks, continental shapes and seafloor structures to provide evidence of the past plate motions; and
- Design a solution to a problem involving two colliding objects.

How to Help Your Child at Home:

- Ask your child about what they are learning in science class. Find current events and other texts to encourage discussions about their learning.
- Observe and record what the moon looks like for a month. What patterns are you noticing?
- Watch a weather forecast. How does the meteorologist describe the movement of different air masses? How does this predicted movement affect the forecasted weather?

Questions You Can Ask Your Child:

- How do you think the environment in which we live was formed?
- What are you trying to figure out in science class?
- Why is it cold in the winter and hot in the summer in Kentucky?
- Why does the moon change shape throughout the month?
- What kinds of problems are you solving? How has research helped you develop a solution?

Questions You Can Ask Your Child's Teacher:

- What methods and materials do you use for science instruction?
- What kind of natural phenomena are being explored?
- What local places can we explore to learn more about the science topics taught this year?
- What kinds of scientific research is my student experiencing?
- How do you measure the students' progress in science?

GRADE 6 SOCIAL STUDIES

OVERVIEW:

In 6th grade, students will understand the emergence and development of river valley civilizations (ancient Mesopotamia, ancient Egypt, ancient India and ancient China) and classical empires around the world between 3500 BCE and 600 CE. Your child will:

- Explain the origins, functions and structures of governments;
- Explain how markets exist whenever there is an exchange of goods and services;
- Compare how human and environmental characteristics of a region influenced the movement of people, goods and ideas;
- Compare the origins and development of early world religions; and
- Develop an appreciation for the foundations of the modern world through an understanding of ancient history.

Examples of Your Child's Work at School:

- Identifying credible primary and secondary sources that answer questions in social studies;
- Developing claims and arguments that are based on research and include multiple points of view;
- Analyzing how governments formed and laws were developed and implemented in various civilizations;
- Describing how bartering eventually led to coinage and more complex economies; and
- Explaining how trade between places like Rome, China and Greece led to conflict and cooperation between the classical empires.

How to Help Your Child at Home:

- Encourage your child to ask questions. When your child asks questions, rather than give answers immediately, suggest thinking about where the answer might be found.
- Encourage your child to read nonfiction materials, such as articles and biographies.
- Encourage your child to evaluate news reports of the same event from multiple news outlets.
- Visit local museums and historical societies and seek out information on how any group of people settled where they did.
- Model civic engagement by researching candidates before voting, filling out census documents as a family and participating in local events, among others.

Questions You Can Ask Your Child:

- How does the physical environment of our area influence the economy?
- What are the major ways that people in our community make a living?
- How has our community changed over time?
- What's the history behind current events in other countries?

Questions You Can Ask Your Child's Teacher:

- What current events should my child know more about?
- What online resources or books might support my child's learning?
- Are there places we can visit in our community to learn more about the early settlement of this area?
- What books would support what you are teaching in class?
- What resources are available to support learning about social studies skills?