This guide provides an overview of what your child will learn by the end of 7th grade as directed by the Iowa Core, our statewide academic standards. The guide focuses on key concepts and skills in mathematics, literacy, science, social studies and 21st Century skills. In addition, the Iowa Core builds a strong foundation for success in other subjects he or she studies throughout the school year. If your child meets the expectations outlined in the Iowa Core, he or she will be well prepared for 8th grade.

Why are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live or what school they attend, are prepared for success in college and the workforce. They help set clear and consistent expectations for what students should know and be able to do from kindergarten through 12th grade. Standards are a set of goals, not a curriculum, so decisions about teaching remain with local schools.

High standards help teachers and parents work together to ensure students succeed. They guide parents and teachers to know when students need extra assistance or when they need more of a challenge in the classroom. They also help your child develop critical-thinking skills that will prepare him or her for college and career.

How are the standards organized?

Some of the Iowa Core standards are arranged grade by-grade, while others are grouped into a span of grade levels such as 9th-12th grade. In all cases, the standards set appropriate expectations for what students need to learn, but not how to teach.

Read the complete standards at:  
www.iowacore.gov

Some content adapted from the National PTA’s Parent’s Guide to Student Success.
### Mathematics

Your child will continue work in proportional relationships, equations, and positive and negative numbers. These topics will remain a major emphasis throughout the middle school years and into high school. A good command of rates and proportional relationships, including percentages, is an important life skill. Your child will begin to understand how a random sample can be used to make inferences about a population.

**Examples of Your Child’s Work at School:**

- Analyze proportional relationships (graphing in the coordinate plane), and distinguish proportional relationships from other kinds of mathematical relationships.
- Solve percent problems (e.g., tax, tips, and markups and markdowns).
- Add, subtract, multiply and divide positive and negative numbers, and solve related word problems.
- Solve word problems that have a combination of whole numbers, fractions and decimals.
- Solve equations such as $\frac{1}{2} (x - 3) = \frac{3}{4}$ efficiently, and write equations of this kind to solve word problems (e.g., “I knocked over a carton of milk, and 3 cups were spilled before I set the carton upright again. When I poured out the remaining milk equally into two measuring cups, there was $\frac{3}{4}$ of a cup of milk in each one. How much milk was originally in the carton?”).
- Use statistics to draw inferences and make comparisons (e.g., decide which candidate is likely to win an election based on a survey).

**How to Help Your Child at Home:**

Look for “word problems” in real life. Some 7th grade examples might include:

- Figure the amount of a 15% tip or determine what percentage of weekly income goes to pay taxes.
- Use a scale diagram in a manual or a newspaper article to determine lengths, areas, distances, or other measures.
- For a long-term project, help your child choose a stock and follow its value on the stock market by using the newspaper or the Internet. Have your child calculate the stock’s percent increase or decrease each month.

### English Language Arts & Literacy

Your child will analyze, define, compare and evaluate ideas when reading, writing, speaking and listening. He or she will continue to analyze how themes in fiction and nonfiction develop over the course of a book or article. Readings will include classic and contemporary pieces with diverse perspectives. Your student’s ability to cite specific evidence when interpreting a text matures. Students will use relevant evidence to support their own points in writing and speaking, make their reasoning clear to readers or listeners, and constructively evaluate others’ use of evidence.

**Examples of Your Child’s Work at School:**

- Cite several sources of specific evidence from a piece when offering an oral or written analysis of a book, essay, article or play.
- Determine an author’s point of view or purpose in a nonfiction work and analyze how the author takes a position different from other authors.
- Organize and focus writing with supporting statements and conclusions based on evidence, and show that the evidence is accurate and reliable.
- Avoid plagiarism and follow a standard format for citations (e.g., footnotes, bibliography).
- Evaluate a speaker’s key points and reasoning, ask questions, and state his or her own well-supported ideas in discussions.
- Use common, grade-appropriate Greek or Latin affixes and roots as clues to define the meaning of a word (e.g., semi-, semi-annual, semicircle).

**How to Help Your Child at Home:**

- Visit a local art museum together. Take time to closely observe the details of the paintings or other art objects and talk about what you see there.
- Let your child help plan a family outing by using the Internet or library to research a place he or she is interested in.
- Ask your child who his or her favorite authors are. Why does your child like their books? What ideas do the authors write about? Who are your child’s favorite characters? Why?
### Science

In 7th grade students’ engage in Science and Engineering Practices and apply Crosscutting Concepts to deepen their understanding of science. Core ideas included in 7th grade are Motion and Stability: Forces and Interactions, Energy, Earth’s Place in the Universe, Organisms and Heredity, Ecosystems, and Engineering Design. Your child will have multiple opportunities to demonstrate science learning. Including, but not limited to, using models, providing evidence to support arguments, obtaining and analyzing data about relationships and interactions among observable components of different systems.

#### Examples of Your Child’s Work at School:

- Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.
- Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
- Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
- Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.
- Plan an investigation to determine the relationships among energy transfer, type of matter, mass, and change in the energy of the particles as measured by the temperature.

#### How to Help Your Child at Home:

- Encourage observations of the sun, moon, and stars at home.
- Encourage finding answers to questions through research and experimentation.
- Help your child plant a garden or grow plants in a pot.
- Encourage the playing of “maker” games and apps such as Minecraft that develop engineering and collaboration skills.
- Help your child to collect data and monitor use of energy and water at home.
- Utilize programs offered by your area nature center or recreation area.
- Join a club or group that offers activities such as robotics and computer programming.

### Social Studies

In seventh grade, students will learn various perspectives on contemporary global issues. As a global and interconnected world, students need to be well-educated about worldwide issues to cultivate democracy, effective citizenship, and global competitiveness. These topics could include issues such as world hunger, population, poverty, conflict, human rights, global trade, etc.

#### Examples of Your Child’s Work at School:

- Communicate research conclusions to an audience using appropriate and effective modes of communication and technology.
- Take informed action based on research.
- Discuss and identify the responsibilities of global citizens.
- Explain how economic decisions impact individuals, businesses, and society.
- Discuss how financial goals and achievement after high school are related.
- Identify social, political, and economic factors that can influence thoughts and behavior.
- Analyze the role Iowa plays in contemporary global issues.

#### How to Help Your Child at Home:

- Encourage your child to read every day and to especially seek out rich nonfiction materials related to social studies. Use the National Council for the Social Studies Notable Trade Book List at http://www.socialstudies.org/notable as a resource to help your child select reading materials.
- Visit local museums and cultural institutions and discuss how local, state, or national issues play a role in the global world.
- Work with your child to do authentic research in the field of social studies. Work to ensure resources are credible and students are able to formulate an argument based off evidence from research.
- Use a variety of news sources, both print and digital, to discuss current global issues with your child. Discuss how these global issues might have an impact at the state and local level.
- Encourage your child to participate in social studies programs such as National History Day, mock trial, We the People, etc.
- Discuss the importance of thinking about post-secondary plans now and how financial goals are connected to these plans.
21st Century Skills (6-8)

Your child will apply literacy and critical-thinking skills to interpret and understand health, financial and technology concepts. Students will practice career-readiness skills necessary for success in every job; refine their written/oral communication skills; and choose from a variety of exploratory courses to broaden their life skill experiences. They will have opportunities to volunteer within their schools and in the community.

Examples of Your Child’s Work at School:

• Use technology (monitors) to record heart rate during different types of exercise and analyze the results.
• Understand how volunteerism contributes to the good of society.
• Demonstrate legal and ethical use of technology and copyrighted material, and an understanding of how disregard for this responsibility affects others.
• Explore employability skills by creating a list based on current research from websites and/or interviews, and write and publish an article about the findings.
• Explain the difference between saving and investing money.

How to Help Your Child at Home:

• Visit www.stopbullying.gov.
• Encourage your child to read and discuss books with 21st Century skills content: What Color Is Your Parachute for Teens: Discovering Yourself and Defining Your Future by Carol Christen, The 7 Habits of Highly Effective Teens by Sean Covey, and The Voluntweens: A Guide by Stephanie Moncilovich.
• Help your child develop a personal spending plan for money he or she receives through gifts, allowance or work.
• Include your child in lifelong activities you enjoy, such as golf, handball, running, or tennis.

Read the complete standards at: www.iowacore.gov