

# Welcome to 7th GRADE!

The Commonwealth of Massachusetts sets expectations, or standards, for what every student will know and be able to do in school. This guide is designed to help you understand those standards and partner with teachers to support your child's learning during seventh grade. If you have questions about this information or your child needs extra help, please talk to your child's teacher.

## To talk to your child about school, you can ask:

- ▶ Can you tell me about something you **read** today?
- ▶ How could you use the **math** you learned today?
- ▶ What **scientific ideas** did you talk about today?
- ▶ What did you learn about your **role in society** today?
- ▶ How did someone help you learn today?

## If your child is also learning English, you can ask:

- ▶ How does your teacher help you understand and participate in class?
- ▶ How do you work on your English while you learn academic material?



### TO LEARN ENGLISH LANGUAGE ARTS AND LITERACY at every grade, your child will:

- ▶ Read various texts, like books, poems, letters, news articles, and Internet pages.
- ▶ Speak and listen in formal and informal ways, like presentations and conversations.
- ▶ Communicate opinions, information, and experiences in writing for various readers.
- ▶ Use knowledge of English grammar and vocabulary in both speech and writing.



### TO LEARN MATHEMATICS at every grade, your child will:

- ▶ Use math to represent and solve real-world problems.
- ▶ Use math to make arguments about why something is true or false.
- ▶ Use tools, like rulers and calculators, to show mathematical relationships.
- ▶ Use patterns and the structures of numbers to think about math.



### TO LEARN SCIENCE AND TECHNOLOGY/ENGINEERING at every grade, your child will:

- ▶ Ask scientific questions about the natural world and things humans design.
- ▶ Learn through various experiences, like observations and experiments.
- ▶ Solve problems using the skills and tools of engineers and scientists.
- ▶ Share solutions and communicate explanations of how the world works.

### TO LEARN HISTORY AND SOCIAL SCIENCE at every grade, your child will:

- ▶ Learn about their local community and about the state, country, and world.
- ▶ Discover how people and events from the past relate to the present.
- ▶ Work to understand how different people see the world differently.
- ▶ Use various sources of information in research, discussion, and inquiry.



## NEW EXPECTATIONS FOR SEVENTH GRADE:

- ▶ Compare different points of view in a text: for example, when two characters take turns telling a story or when an author argues against other people's opinions.
- ▶ Understand how a text's structure affects its meaning. For example, explain why an author might have repeated certain words or put a flashback in the middle of a story.
- ▶ Notice when someone's argument is not logical. Decide whether the evidence they cite really supports their claim.
- ▶ When making an argument, acknowledge different perspectives: for example, why some people might disagree with the argument.



## BY THE END OF SEVENTH GRADE, STUDENTS CAN:



- ▶ Compare how a work of fiction (like a novel) and a nonfiction text (like a news article) describe the same time period, event, or person.
- ▶ Cite several pieces of evidence (like quotations from a text) to support a claim when making an argument.
- ▶ Cite sources in a standard format (like MLA or APA style) when doing research.
- ▶ Keep track of progress toward goals and upcoming deadlines when working in a group.
- ▶ Bring group discussions back on topic if they start to go off-track.
- ▶ Use sensory language (like descriptions of sounds and smells) to create a mood (overall feeling) when writing a story or poem.
- ▶ Use commas correctly when describing things like a *long, difficult homework assignment* or a *bright, sunny day*.

## QUESTIONS YOU CAN ASK YOUR CHILD:

- ▶ What do you think about \_\_\_\_\_? Why might someone disagree with you? What would you say to them?
- ▶ How do you know whether to believe what someone says? What kinds of evidence do you use to decide?



## TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- ▶ What topics your child is curious about and what types of things they read at home
- ▶ Ways to practice critical reading and viewing in everyday life, like with advertisements



## FOCUS AREAS FOR SEVENTH GRADE:

- ▶ Solve real-world problems using ratios, rates, and proportions. For example, find how much tax will be charged on a new phone.
- ▶ Understand and use rational numbers (positive and negative fractions). For example, track the depth, in miles, of a submarine over time.
- ▶ Solve problems involving a circle's area, radius (distance from center to edge), and circumference (distance around the edge).
- ▶ Compare two sets of data. For example, compare the heights of players on two basketball teams.



## BY THE END OF SEVENTH GRADE, STUDENTS CAN:



- ▶ Explain the concepts of unit rate and proportion.
- ▶ Add, subtract, multiply, and divide positive and negative fractions.
- ▶ Explain connections between addition, subtraction, and negative numbers.
- ▶ Rearrange math sentences (equations) using variables: for example, change  $4x + 2 = 10$  to  $2(2x + 1) = 10$ .
- ▶ Write equations and inequalities to solve real-life problems: for example, write  $20h = 500$  to find how many hours someone needs to work at \$20 an hour to get \$500.
- ▶ Make scale drawings of geometric figures, changing their size without changing their shape.
- ▶ Use knowledge of special types of angles (like supplementary, vertical, and adjacent angles) to find the size of an unknown angle.
- ▶ Explain how and why to use a sample population in research.
- ▶ Compare the probabilities of two events using a scale from 0 (definitely not going to happen) to 1 (definitely going to happen).
- ▶ Find the probabilities of events that depend on one another to happen (are compound).

## QUESTIONS YOU CAN ASK YOUR CHILD:

- ▶ How far can we drive with half a tank of gas?
- ▶ How can we hang the clock in the center of this wall?
- ▶ What's the probability of picking a 9 from a deck of cards?

## TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- ▶ Ways to practice using proportions at home
- ▶ How your child is preparing for algebra



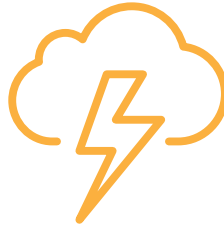


## FOCUS AREAS FOR SEVENTH GRADE:

- ▶ Understand the roles of energy and gravity in the water cycle.
- ▶ Understand relationships between living things (organisms) and their environments (ecosystems).
- ▶ Explain how we know that electrical, magnetic, and gravitational fields exist.
- ▶ Use models to explain how heat transfers from hotter objects to colder objects.
- ▶ Explore how transportation systems (like subways), communication systems (like TV), and structural systems (like buildings) work.



## BY THE END OF SEVENTH GRADE, STUDENTS CAN:



- ▶ Explain how human activities and technologies can have positive and negative impacts on natural resources.
- ▶ Analyze patterns of events in the past, like earthquakes and volcanic eruptions. Use those patterns to predict future events.
- ▶ Explain how animal behaviors and plant structures make future generations (successful reproduction) more likely.
- ▶ Show how matter and energy move between living and nonliving things without any matter or energy being created or destroyed.
- ▶ Use data and graphs to show how an object's energy, speed, and mass are related. Explore the relationship between kinetic and potential energy.
- ▶ Design, make, and test a device to maximize or minimize heat transfer, like a solar cooker or insulated cup.

## QUESTIONS YOU CAN ASK YOUR CHILD:

- ▶ What happens to a population in an ecosystem when there are big changes (disruptions)?
- ▶ How does a solar cooker work?

## TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- ▶ Places in the community (museums, universities, businesses) where your child can learn science by working or volunteering
- ▶ Your child's readiness for advanced classes like biology, environmental science, physics, or chemistry

## FOCUS AREAS FOR SEVENTH GRADE:

- ▶ Study places and peoples from the perspectives of different social scientists (like geographers and economists).
- ▶ Explore the peoples and physical environments (geographies) of ancient societies in Europe, Central and South Asia, East Asia, and Southeast Asia and Oceania.
- ▶ Understand the beginnings of democratic government in ancient Greece and Rome.
- ▶ Understand how ancient Greek culture, art, and philosophy still affect the world today.



## BY THE END OF SEVENTH GRADE, STUDENTS CAN:



- ▶ Explain how historians use art and architecture to learn how different genders (like men and women) and economic classes (like rich and poor people) lived in ancient societies.
- ▶ Find important physical features (like rivers) and political features (like cities) on maps of Central and South Asia, East Asia, Southeast Asia and Oceania, and Europe.
- ▶ Explain what math, science, art, and technology early societies in India and Central Asia gave the world.
- ▶ Describe the economic, political, and religious systems of ancient China, Japan, and Korea.
- ▶ Describe the societies of Native Peoples in Australia and New Zealand (Aborigines and Maoris).
- ▶ Describe the rise and fall of ancient Rome and its architecture, engineering, and technology.
- ▶ Explain how Ancient Greece, Classical Greece, and the Roman Republic influenced governments and literature today.
- ▶ Figure out an author's point of view by paying attention to the words and information in their text.

## QUESTIONS YOU CAN ASK YOUR CHILD:

- ▶ What have you learned about democracy and how it developed?
- ▶ Can you tell me about an ancient society you learned about recently?

## TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- ▶ Books and films about ancient societies like Greece and Rome
- ▶ Nearby museums with ancient artifacts from around the world

