

2020 Colorado Academic Standards

Family and Community Guides



7th Grade

To support families, communities, and teachers in realizing the goals of the Colorado Academic Standards (CAS), this guide provides an overview of the learning expectations for preschool. This guide offers some learning experiences students may engage in at school that may also be supported at home.



The comprehensive health standards in grades six through eight focus on enhancing and strengthening skills in the areas of physical, social, and emotional wellness and using those individual skills in family, school, and community environments. In each grade, the standards ask students to deepen their understanding of ways to set and maintain healthy relationships and continue to investigate healthy eating/living habits, positive communication strategies, effective decision making, and ways to ensure personal and community safety.

Expectations for 7th Grade Students:

- **Physical and Personal Wellness:** Demonstrate the ability to make healthy food choices in a variety of settings and analyze the internal and external factors that influence eating behaviors; develop positive decision-making skills around sexual activity; compare and contrast healthy and unhealthy relationships (family, peer, and dating); define sexually transmitted diseases (STD's), human immunodeficiency virus (HIV), and acquired immunodeficiency deficiency syndrome (AIDS).
- **Social and Emotional Wellness:** Develop self-management and communication skills to appropriately express feelings and to manage stress.
- **Prevention and Risk Management:** Demonstrate safety procedures for a variety of situations; analyze and synthesize the consequences of using/abusing alcohol, tobacco, and other drugs.

Throughout 7th Grade You May Find Students:

- Analyzing factors that influence healthy eating.
- Utilizing effective interpersonal communication skills to express individual needs and boundaries.
- Explaining how sexually transmitted diseases, such as human immunodeficiency virus (HIV), are transmitted and their possible effects on the body.
- Developing and practicing healthy strategies to deal with stress.
- Evaluating internal and external influences (media, social media) on social and emotional health.
- Analyzing appropriate information regarding safety precautions for a variety of emergency situation.
- Describing how personal, family, and cultural beliefs and values can influence healthy decision-making.
- Examining the effects of marijuana, illegal drugs, abuse of prescription drugs, alcohol, and tobacco on an individual's physical, mental and emotional well-being.



The dance standards in the middle school years focus on basic to intermediate level dance knowledge, as well as technique and performance skills in more specialized dance studies. In each grade, students investigate and demonstrate competence and confidence in performing various dance styles and genres, gain an awareness of fitness and the healthy body's potential for movement, refine critical thinking skills such as describing and interpreting, and creatively problem-solve through dance making.

Expectations for 7th Grade Students:

- **Movement, Technique, and Performance (Perform/Present):** Demonstrate correct body posture and alignment while performing fundamental dance skills; establish consistent performance skills and habits.
- **Create, Compose, and Choreograph (Create):** Make intentional movement choices while creating dances; work collaboratively as well as independently.
- **Historical and Cultural Context (Know/Comprehend):** Explore movement inspired by various cultures and eras.
- **Reflect, Connect, and Respond (Critique/Evaluate/Refine):** Analyze and critique a variety of dance works through written, verbal, and technology.

Throughout 7th Grade You May Find Students:

- Performing warm-ups, varied floor exercises, and dance combinations with appropriate posture/alignment while demonstrating artistic expression.
- Creating dances with appropriate choreographic intent using choreographic forms to construct a dance work.
- Reflecting the values of a culture and/or era in a dance work; understanding that dance represents different cultures and societies.
- Formally analyzing/evaluating the creative process of choreographing and performing a dance work.



The drama and theatre arts standards in the middle school years focus on drama knowledge and skills, and theatre elements, to ensure a solid foundation for more specialized theatrical study in later years. In each grade, students investigate and perform various drama techniques and theatrical genres (scripted /improvisational works), examine character and setting scenarios, determine how to develop ideas as a playwright, develop the ability to describe personal preferences for dramatic and theatrical works, and respectfully critique individual/personal as well as peer performances.

Expectations for 7th Grade Students:

- **Create (Create):** Demonstrate a variety of roles, characters and relationships using varied vocal and physical techniques through improvisation and in scripted texts; use intuition, curiosity, and critical inquiry to devise collaborative dramatic works; justify choices on the selection and use of design elements (scenery, lights, costumes, props, sounds, makeup, special effects, media, publicity) to support scripted and unscripted material.
- **Perform (Perform/Present):** Apply vocal and movement skills to communicate a character's motivation to convey dramatic meaning and portray a believable character in an ensemble performance; identify points in a script that require or enhance the addition of a technical element (props, costumes, lighting, sound), and implement what the script requires.
- **Critically Respond (Know/Comprehend and Critique/Evaluate/Refine/Reflect):** Discuss and share reasons for critiquing dramatizations and dramatic performances; research the time period and culture of a play while acknowledging a diversity of views; use theatre terminology when devising, enacting, discussing, debating, or writing about drama.

Throughout 7th Grade You May Find Students:

- Performing in a collaborative rehearsal situation as a productive and responsible member of an acting ensemble; participating as an active member of a design team.
- Contributing to the creation of a scene as a character (voice and movement), director (staging and blocking), or designer (concept and implementation).
- Discussing the influence of contemporary and historical elements in theatrical works; critiquing a drama or theatre performance using proper theatre vocabulary.
- Researching various elements of scripts/plays such as the architecture of the setting/environment for creating sets, type of clothing and voice dialects for characters; finding photos to replicate various props.
- Interpret how the use of personal aesthetics, preferences, and beliefs can be used to discuss drama/theatre work.



The mathematics standards in middle school build on students' understanding of number and quantity. Students apply more formal statistics, probability, and algebra to model phenomena in the world around them. Students gain a deeper understanding of geometry and its application. Students also persevere in solving problems as they use strategies to apply their new tools and techniques.

Expectations for 7th Grade Students:

- **Number and Quantity:** Fluently add, subtract, multiply and divide with both positive and negative numbers, including fractions and decimals; solve problems involving percentages and proportions; explain operations with positive and negative numbers; change fractions to decimals and explain when a fraction will be a decimal that end or repeats; recognize and analyze proportional relationships in tables, graphs, and equations; connect ratios to the concept of slope.
- **Algebra and Functions:** Create equations and inequalities for real-life situations.
- **Data, Statistics, and Probability:** Find the probability of an event and connect probability to sampling; explore the importance of randomness when creating a sample; describe a population based on data from a random sample; compare two different populations using averages and measures of variability.
- **Geometry:** Create drawings to scale; find the measures of angles formed by the intersection of lines; explain how to tell if two triangles are congruent; explore shapes created when slicing a three-dimensional object; calculate the area and circumference of circles.

Throughout 7th Grade You May Find Students:

- Finding the wholesale price of a shirt with a 12% markup.
- Determining a 20% tip for dinner at a restaurant.
- Exploring when a \$20 discount is better than a 20% discount.
- Calculating the temperature after a 7 degree drop from -15 degrees.
- Explaining why negative two multiplied by negative six equals positive twelve.
- Creating scale models of a zoo to connect the concept of scale to proportions.
- Conducting a study to determine if the average height of seventh-grade boys is different from the average height of seventh-grade girls.
- Calculating the probability of getting heads when flipping a coin or getting the sum of seven when tossing number cubes.
- Explaining the meaning of a weather forecast with a 50% chance of rain.
- Describing shapes formed when slicing a variety of fruit.
- Using the unit price of apples to determine the cost of purchasing 4 pounds of apples using either a table or graph.
- Solving a variety of equations and inequalities for "x", such as $-5x + 18 = 43$.



The music standards in the middle school years focus on specialized musical knowledge and skills for participating in musical ensembles or classes that might include but are not limited to band, choir, orchestra, theory, music appreciation, guitar, or piano. In each middle school grade, students perform various music styles and genres (patriotic, blues, classical, country), examine the language of music through identifying and writing simple music notation, consider simple musical composition processes (such as developing a basic melody and creating lyrics or choosing various sound samples using music software programs to assemble various musical phrases), expand their ability to describe personal musical preferences, and strengthen their ability to constructively critique the music of others.

Expectations for 7th Grade Students:

- **Creation of Music (Create):** Explore ways to write music that includes both rhythmic and melodic elements using current technology that may include appropriate accompaniments (ways to play along with soloists or ensembles); demonstrate instrumental or vocal improvisation (ways to modify/create music).
- **Theory of Music (Know/Comprehend):** Apply knowledge about the language of music (music notation) by reading, performing, and describing music appropriate to an instrument or voice part; apply understanding of rhythmic structures (note values), meter (time signature), clef (itches) for their voice or instrument, expressive elements (loud/soft, fast/slow), and chord analysis.
- **Aesthetic Valuation of Music (Critique/Evaluate/Refine):** Apply understanding of musical vocabulary to evaluate musical performances through compare and contrast; describe possible ways to categorize a list of musical selections using appropriate musical vocabulary; articulate types of instruments and performance techniques of a variety of cultural music (guitars-American music, sitars-Indian music); explain reasoning for musical preferences.

Throughout 7th Grade You May Find Students:

- Singing in large choirs or small vocal ensembles within a specific voice type (soprano, alto, tenor/baritone, bass) and/or playing instruments while exploring different musical styles (folk, classical, jazz, rock); following a leader or conductor; reading newly introduced music.
- Writing a short musical phrase combining melodic and rhythmic structures with or without accompaniment using available technology; practicing improvisation using traditional musical structures; creating their own music based on a learned style of music.
- Demonstrating comprehension of the language of music (music notation) by reading, performing, and analyzing musical notation appropriate to their voice or instrument; executing a variety of more complex meters (time signatures), major and minor tonalities, appropriate dynamics (loud/soft), tempo markings (fast/slow), articulations (connected/detached); analyzing and identifying chords (harmonies) found in the music being performed.
- Evaluating musical performances using compare and contrast based on a set of self-developed criteria and music terminology; connecting their own musical preferences to a variety musical genres (rock, country, jazz, folk) based upon particular musical elements within and across cultures; identifying the importance of particular instruments or voice tone to a culture's music.



The physical education standards in the middle school years focus on enhancing health-related and skill-related components of fitness and demonstrating knowledge and applying fitness principles and movement skills and strategies in a variety of physical activities. In each grade, the standards ask students to refine various movement concepts, strategies, and skills, analyze performance and provide feedback to peers, set and assess fitness goals, recognize diversity in skills of others, collaborate with students with varying abilities, and utilize safety procedures during physical activities.

Expectations for 7th Grade Students:

- **Movement Competence and Understanding:** Combine the critical elements of movement and skills concepts; demonstrate beginning offensive and defensive strategies for individual and team physical activities and sports.
- **Physical and Personal Wellness:** Understand and apply principles of physical fitness to create a personal fitness plan and set personal physical fitness goals; demonstrate fitness knowledge and skills that maintain a health-enhancing lifestyle, while actively engaging in the participation of lifetime physical activities.
- **Social and Emotional and Wellness:** Demonstrate inclusiveness in and out of classroom settings.
- **Prevention and Risk Management:** Understand and utilize safe and appropriate warm-up, pacing, and cool-down techniques for injury prevention and safe participation.

Throughout 7th Grade You May Find Students:

- Designing and performing movement sequences that combine traveling, balancing, and weight transfer into smooth, flowing sequences with changes in direction, speed, and flow.
- Diagramming and demonstrating basic offensive and defensive strategies for individual and dual physical activities.
- Identifying elements that comprise an age-appropriate fitness plan, according to an individual's age, level of fitness, and goals.
- Maintaining involvement in physical activity, twice a week, outside physical education class.
- Making suggestions to the instructor on how to modify a game to allow all members with varying skill abilities to participate.
- Explaining that warm-up and cool-down activities prepare the body for physical activity and help to prevent injuries.



The reading, writing, and communicating standards in the middle school grades ask students to be critical readers of complex literary and informational texts. The standards require that students develop the writing skills necessary to convey their experience in the world, to produce thoughtful analyses of academic and real-world topics, and to develop well-reasoned arguments on relevant topics in their lives. The standards foster opportunities for students to work collaboratively with others as they develop the literacy skills to be academically successful and prepared for life after high school.

Expectations for 7th Grade Students:

- **Oral Expression and Listening:** Speak and use multimedia to present claims and findings while emphasizing major points in a focused, clear manner with strong descriptions, facts, details, and examples; analyze a speaker's main ideas and supporting details and explain how the ideas clarify a topic, text, or issue under study; collaborate in discussions, listen actively, and pose questions.
- **Reading for All Purposes:** Read literary, informational, and persuasive texts from a variety of sources and authors; summarize, analyze, and evaluate different themes, characters, key ideas/events, points of view and claims; analyze multimedia adaptations and fictional vs. historical accounts of an event; analyze the impact word choice and text structures have on meaning; cite several pieces of textual evidence in support of all analyses.
- **Writing and Composition:** Use technology to shape, produce, and publish grammatically correct writing that makes an argument or explains the analysis of a topic; craft writing that includes an introduction, logical development, and a concluding statement; write narratives that develop real or imagined experiences through the use of an engaging opening, narrative techniques that capture the action, and a conclusion that effectively ends the piece.
- **Research Inquiry and Design:** Conduct short research projects to answer a question and generate additional focus questions; gather information from several sources; use search terms effectively; assess the credibility of sources; follow a standard format for citation; evaluate the soundness of reasoning and the relevance/sufficiency of evidence.

Throughout 7th Grade You May Find Students:

- Reading works of literature in order to develop an understanding of the techniques authors use to develop characters, reveal conflict, and express universal themes; doing research to understand how the media uses words and images to influence perceptions and shape behavior around themes and ideas; analyzing how information is structured and delivered in various forms and using that understanding of the writer's craft to make informational brochures, write editorials, or produce public service announcement videos.
- Researching and discussing relevant issues, in collaborative groups, in order to write a narrative from the perspective of a child/teenager from another culture; writing personal narratives to convey their own experiences regarding a relevant issue, using imagery and dialogue to develop narrative effects; writing in different genres and using multimedia to share their narratives as an audio or video recording for a class website geared towards raising awareness about relevant teen issues.
- Comparing and contrasting a particular text with a different version of the text (film, television, play); analyzing each medium's portrayal of a subject, explaining the similarities and differences; analyzing and writing an informational essay on the decisions authors and directors make in producing different versions.



The science standards at the middle school build upon the foundation for students to work as scientists by asking testable questions, collecting and analyzing different types of evidence, and by providing rationale for their interpretations through reasoning and/or argumentation. Mastery of these standards will result in students deepening their understanding of science through an application and development of scientific knowledge to the solution of practical problems.

Students will experience all three “strands” of the science standards during their secondary years: physical science, life science, and earth science. The evidence outcomes in middle school blend the core ideas they learn the course with scientific and engineering practices and crosscutting concepts to support students in developing usable knowledge across three science disciplines. Students will address the following over the course of their Middle School science experience:

- **Physical Science:** Grade level expectations in middle school physical science are focused in four areas: (1) Matter and its interactions, (2) Motion and Stability: Forces and Interactions, (3) Energy, (4) Waves and Their Applications in Technologies for Information Transfer.
- **Life Science:** Grade level expectations in middle school life science are focused in four areas: 1) From Molecules to Organisms: Structures and Processes, 2) Ecosystems: Interactions, Energy, and Dynamics, 3) Heredity: Inheritance and Variation of Traits, 4) Biological Evolution: Unity and Diversity.
- **Earth and Space Science:** Grade level expectations in middle school Earth and Space Science are focused in three areas: (1) Earth’s Place in the Universe, (2) Earth’s Systems, (3) Earth and Human Activity.

The Colorado Academic Standards for middle school science are presented as a single 6-8 band of standards, rather than broken down by grade level. This means that your child's school district and teacher are responsible for organizing the middle school science standards into courses that best suit their needs and resources.

[Read the middle school science family guide.](#)



Building on the social studies skills developed in the elementary grades, students in the middle school years begin with a study of people, cultures, and ideas in the Western Hemisphere and move from there to explorations of the Eastern Hemisphere, ending with the early history of the United States. In each grade, students investigate historical events, examine geographic features and resources, consider economic decision-making processes, and understand types of governments and civic responsibility.

Expectations for 7th Grade Students:

- **History:** Locate and evaluate multiple historical sources with different points of view to investigate a historical question and to formulate and defend an argument; examine the historical eras, individuals, groups, ideas and themes in regions of the Eastern Hemisphere and their relationships with one another.
- **Geography:** Use different types of geographic tools such as maps, globes, diagrams, charts, and geographic data and technologies to make inferences and predictions about the differing perspectives and issues within regions in the Eastern Hemisphere.
- **Economics:** Explain how economic systems address the problems of scarcity. **Personal Financial Literacy:** Investigate the role of consumers within the Eastern Hemisphere.
- **Civics:** Analyze the relationships of different nations in the Eastern Hemisphere and their systems of government.

Throughout 7th Grade You May Find Students:

- Gathering and analyzing primary and secondary sources (documents, photos, letters, diaries) from different perspectives to develop and defend an historical thesis about the significant eras and current events in the Eastern Hemisphere; explaining the interconnectedness of the political, cultural, economic and technological development of early civilizations in the Eastern Hemisphere (Ancient Greece, Rome, China, Africa, the Medieval world, and the Crusades); tracing the movement of ideas and people over time.
- Using maps and other geographic tools to explain and predict how the physical environment of a place influences a society's culture, economy, and trade patterns; asking and answering geographic questions related to environmental issues and the spread of cultural influences.
- Identifying the factors in local, national, and global economies that impact scarcity of resources and trade agreements; using economic reasoning to explain how individual choices in purchasing and investing can impact global markets.
- Describing and comparing the opportunities and limitations of civic participation; discussing how various government structures interact.



The visual arts standards in the middle school years build on the general art knowledge and skills developed at the elementary level. In addition, students explore and examine the role of design and technology in making, documenting, and presenting works of art. Students create, discuss, reflect on, and compare works of art—across historical periods and cultures—using materials, processes, tools, and vocabulary in more complex ways. Art careers and art-depicting issues that are important to communities are also examined. At this level, middle school art students extend their artistic vision beyond self and look at their artistic practice as part of a much larger community.

Expectations for 7th Grade Students:

- **Observe and Learn to Comprehend (Know/Comprehend):** Think, respond, and write critically about the meaning of art; describe artistic creation in relationship to culture, purpose, and style.
- **Envision and Critique to Reflect (Critique/Evaluate/Refine):** Use visual evidence and art vocabulary to interpret and explain meaning.
- **Invent and Discover to Create (Create/Present):** Create multiple plans and approaches to develop and create a work of art from a single artistic idea; show evidence of previously learned skills in new artwork.
- **Relate and Connect to Transfer (Connect/Apply/Transfer):** Apply critical thinking skills used in art (interpret, compare and contrast, analyze, generate ideas) to other aspects of life; use art to bring awareness of important issues identified by a community.

Throughout 7th Grade You May Find Students:

- Planning, and then analyzing, their ideas in multiple ways to create works of art and solve design problems.
- Referencing art from many cultures, both historical and contemporary, to inform art making.
- Employing a range of technology to plan and create works of art.
- Documenting the art-making process.
- "Reading" images from multiple sources to determine intent and purpose.
- Creating and interpreting art to explore ideas and issues grounded in other disciplines.
- Identifying how graphic images/works of art can be used as documents to inform viewers about a particular time and culture.
- Using critical thinking skills to study personal works of art, as well as the artwork of others.



The world language standards are organized in language proficiency range levels. Language proficiency refers to the degree of skill with which a person can use a language to understand, speak, read, write, and listen in real-life situations. Colorado's standards provide guidance for the introduction of a new language (novice-low) through the minimum proficiency range deemed postsecondary and workforce ready (advanced-low).

The world languages standards in the middle school years create a roadmap to guide Grade 6-8 students in the process of learning a new language and understanding diverse cultural perspectives, as well as developing insights into their language and culture at the appropriate developmental stage. The standards reflect a performance-based discipline which emphasizes communication skills (interpersonal speaking and writing; interpretive reading, listening, and viewing and presentational speaking and writing) in a new language to navigate real-life situations. Students use the newly acquired language while making connections with other academic disciplines and investigation and interaction of cultural practices and products to better understand multiple perspectives. These standards prepare students to participate more fully in the interconnected global community and the international marketplace.

Why are world language standards organized in language proficiency range levels? Language proficiency refers to the degree of skill with which a person can use a language to understand, speak, read, write, and listen in real-life situations. Colorado's standards provide guidance for the introduction of a new language (novice-low) through the minimum proficiency range deemed postsecondary and workforce ready (advanced-low). Progression through levels of proficiency is influenced by program design such as grade levels, competency-based programs, time for language instruction, and immersion programs. Language programs in many schools districts have multiple entry points. Both the length and the type of program design impact both language acquisition and proficiency level for students.

To view the expectations for middle school students at the various proficiency ranges, go to:
<http://www.cde.state.co.us/standardsandinstruction/2020cas-wl-ms-guides>