

CBS Curriculum Alignment

Grade 6

Class Summary

Grade 6 represents an exciting transition from elementary to middle school learning. Students engage in more sophisticated academic work that requires increased independence, organizational skills, and critical thinking. The curriculum emphasizes deeper analysis in literature, mastery of complex mathematical concepts, and scientific inquiry across Earth science, life science, and physical science domains.

Core Objectives

- Analyze multiple literary genres including short stories, poetry, memoirs, myths, folktales, drama, and novels with attention to literary elements and author's craft
- Master operations with multi-digit numbers, decimals, fractions, ratios, percents, integers, and basic algebraic expressions while developing geometric and statistical reasoning
- Investigate Earth's position in the solar system, ecosystem relationships, properties and changes in matter, and energy and motion through scientific modeling and experimentation
- Explore geographic tools, ancient civilizations, and the relationship between humans and their environment through historical and cultural lenses
- Develop digital literacy through integrated technology projects and artificial intelligence exploration

Standards Alignment

Language Arts: Aligned to CCSS RL.6.1-10, RI.6.1-10, W.6.1-10, SL.6.1-6, and L.6.1-6. Students compare and contrast genres, analyze figurative language and author's craft, cite textual evidence, write across multiple genres (narratives, poems, newscasts, character sketches), and present work through performance and discussion.

Mathematics: Aligned to CCSS 6.NS (Number System), 6.RP (Ratios and Proportional Relationships), 6.EE (Expressions and Equations), 6.G (Geometry), and 6.SP (Statistics and Probability). Students fluently compute with multi-digit decimals, understand ratio concepts and unit rates, apply properties of operations, solve real-world geometry problems involving area and volume, and summarize data distributions.

Science: Aligned to NGSS MS-ESS (Earth and Space Science), MS-LS (Life Science), and MS-PS (Physical Science) standards. Students develop models of the solar system and Earth-Sun-Moon system, analyze ecosystem interactions and competition patterns, explain properties and conservation of matter, and investigate kinetic/potential energy and forces.

Social Studies: Aligned to C3 Framework and geography standards. Students interpret different types of maps, analyze how geography affects culture and settlement, explore ancient civilizations in Mesopotamia, and understand relationships between humans and their environment.

Technology: Aligned to ISTE Standards emphasizing Creative Communicator, Knowledge Constructor, and Innovative Designer. Students complete integrated projects using Microsoft Office suite (Techno Wonderland) and explore foundational concepts of artificial intelligence including machine learning, facial recognition, and image classification (Techno AI).

Grade 7

Class Summary

Grade 7 builds upon Grade 6 foundations with increased academic rigor and complexity. Students develop sophisticated analytical skills across all disciplines, with particular emphasis on literary analysis of extended texts, algebraic thinking, Earth and life sciences, and understanding human migration and cultural expansion. This year strengthens independent learning skills essential for high school preparation.

Core Objectives

- Analyze complex narratives, historical fiction, memoirs, novels, poetry, and speeches with attention to theme, character development, and author's purpose
- Master operations with rational and irrational numbers, work with exponents and scientific notation, solve multi-step equations and inequalities, and explore geometric transformations
- Investigate patterns in celestial motion, Earth's atmosphere and weather systems, rock formation, cell structure and function, photosynthesis, energy flow in ecosystems, and matter at the atomic level
- Examine types of settlements, human migration patterns, cultural expansion in the Islamic world, and the impact of trade routes on cultural and political change

- Develop multimedia production skills including digital advertising, video editing, and programming with Scratch to explore physics concepts

Standards Alignment

Language Arts: Aligned to CCSS RL.7.1-10, RI.7.1-10, W.7.1-10, SL.7.1-6, and L.7.1-6. Students analyze story elements, determine themes, compare points of view, evaluate arguments, interpret figurative language and dialect, write narratives and literary analyses, conduct debates, and present work expressively.

Mathematics: Aligned to CCSS 7.NS (Number System), 7.RP (Ratios and Proportional Relationships), 7.EE (Expressions and Equations), 7.G (Geometry), and 7.SP (Statistics and Probability). Students add/subtract/multiply/divide rational numbers, apply proportional reasoning, solve multi-step equations and inequalities, work with angles and geometric constructions, perform transformations, and calculate probability.

Science: Aligned to NGSS MS-ESS (Earth and Space Science), MS-LS (Life Science), and MS-PS (Physical Science) performance expectations. Students explain gravitational effects on celestial bodies, predict weather patterns, identify mineral properties and rock types, describe cell structure and organelle function, trace energy through food webs, and compare digital and analog signals.

Social Studies: Aligned to C3 Framework inquiry standards and geography/history domains. Students explain how land features affect settlement patterns, analyze push and pull factors in migration, describe how political changes impact culture and technology, and evaluate how trade routes brought about cultural change.

Technology: Aligned to ISTE Standards for Creative Communicator and Computational Thinker. Students analyze advertising techniques, apply camera and video production skills, script and edit commercials using digital tools (Techno Ad), and develop programming skills with Scratch 3.0 while exploring physics concepts like reflection, collision, and momentum (Techno 3C).

Grade 8

Class Summary

Grade 8 represents a crucial preparatory year before high school. Students engage with increasingly sophisticated texts, abstract mathematical concepts, and complex scientific phenomena. The curriculum emphasizes analytical thinking, evidence-based argumentation, and the ability to synthesize information across multiple sources and disciplines, building the academic maturity needed for success in high school.

Core Objectives

- Analyze complex literary works including short stories, poetry, argumentative essays, illustrated memoirs, science articles, drama, and novels with focus on theme, character, plot, and author's choices
- Master algebraic thinking including solving systems of equations, working with exponential and quadratic functions, understanding rational and irrational numbers, and applying statistical reasoning
- Investigate Earth's geological history through rock layers and fossils, evidence of evolution, genetic inheritance, adaptations, plant and animal reproduction strategies, and principles of structural engineering
- Explore climate action, independence movements in Latin America, principles of the U.S. Constitution, and economic systems and their impact on social groups
- Develop advanced programming skills using Python and sophisticated data analysis capabilities through spreadsheet management

Standards Alignment

Language Arts: Aligned to CCSS RL.8.1-10, RI.8.1-10, W.8.1-10, SL.8.1-6, and L.8.1-6. Students analyze story elements and conflicting information, determine themes, evaluate arguments and different mediums, interpret figurative language and tone, write dialogues, poems, diary entries, editorials, arguments, and literary analyses, and present work through performance and multimedia.

Mathematics: Aligned to CCSS 8.NS (Number System), 8.EE (Expressions and Equations), 8.F (Functions), 8.G (Geometry), and 8.SP (Statistics and Probability). Students work with integer exponents and scientific notation, understand and graph proportional relationships, solve linear equations and systems, understand functions, work with the Pythagorean theorem, and interpret bivariate data.

Science: Aligned to NGSS MS-ESS (Earth and Space Science), MS-LS (Life Science), and MS-PS (Physical Science) standards. Students analyze geological time through rock layers and fossils, compare evidence of evolution across organisms, explain genetic inheritance through mitosis and meiosis, describe how adaptations support survival, and apply principles of structural engineering including simple and complex machines.

Social Studies: Aligned to C3 Framework with focus on geography, history, civics, and economics. Students describe human impacts on climate, analyze historical events from

1800-1950, evaluate constitutional principles, and explain how economic events affect social groups.

Technology: Aligned to ISTE Standards emphasizing Computational Thinker, Knowledge Constructor, and Innovative Designer. Students manage investment portfolios using Excel with formulas and data analysis (Techno Investor) and learn Python programming fundamentals including syntax, loops, variables, turtle graphics, and game design (Techno Turtle).