Science (Continued)
• Identify positive and negative effects of microorganisms
• Investigate the movement of heat by conduction, convection, and radiation
• Describe how light can be produced, reflected, refracted, and separated
• Describe the production of sound in terms of vibrations of objects that create vibrations in other materials

Social Studies
• Explain how ancient civilizations developed and how they contributed to the current state of the world
• Describe the impact of geography, religion, government, and technologies on ancient civilizations and how they affect us today
• Explain the transformation of cultures during the Middle Ages and the Renaissance and how they impacted modern times
• Explain the impact revolutions have had on the modern world
• Identify and describe major world events of the 20th century
• Explain and discuss current global issues and identify and suggest possible solutions
• Discuss and describe human rights and responsibilities in the 21st century

Fine Arts
• Analyze and reflect on significant works of art and explore a variety of art materials, techniques, and processes
• Identify, demonstrate, and create the movement elements in dance
• Examine, demonstrate, and create simple rhythmic and melodic patterns, tempos, dynamics, and pitches in music
• Develop and incorporate expressive use of the voice, emotional recall, body awareness, and spatial perception in performances

Library Media
• Understand the relationship between call numbers and shelf location
• Locate shelved materials independently

Health Education
• Understand ways to have a healthy self through nutrition and fitness

Physical Education
• Demonstrate knowledge of skills needed to perform P.E. activities.

Technology
• Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology
• Use appropriate digital tools and critical thinking to plan and conduct research, manage projects, solve problems, and make informed decisions
• Understand human, cultural, and societal issues related to technology
• Advocate and practice legal, ethical, and responsible use of technology
• Demonstrate understanding of technology concepts, systems, and operations

For more information about the Utah Core Standards, please visit:
www.uen.org/core
**Language Arts**

**Speaking and Listening**
- Be prepared, contribute, pose and respond to questions
- Interpret information from different formats, delineate speakers’ arguments, claims, reasons, and evidence
- Probe and reflect on multiple perspectives and paraphrase
- Present claims and findings logically
- Use eye contact, adequate volume, clear pronunciation, and formal English
- Include multimedia components

**Word Study – Vocabulary/Spelling**
- Interpret figurative language, word relationships, multiple meaning words, base and root words, and Greek and Latin prefixes and suffixes to clarify meaning

**Fluency with Expression**
- Read accurately with purpose, at appropriate rate, using expression

**Comprehension**
- Cite textual evidence and draw inferences
- Explain central idea, how plots unfold, and how characters respond to change
- Analyze impact of figurative, connotative, and technical meanings of words/phrases on meaning and tone
- Compare/contrast stories, dramas, and poems and how sentences, paragraphs, chapters, scenes, and stanzas fit into ideas, themes, settings, and plots
- Determine an author’s point of view/purpose and explain how the author develops the narrator’s point of view
- Compare and contrast different authors’ presentations of similar events
- Trace and evaluate arguments and claims with supporting reasons and evidence

**Informative/Explanatory Writing**
- Examine/develop topics using relevant facts, definitions, concrete details, and quotations, use text structures and features, transitions and domain-specific vocabulary, and provide a conclusion

**Argument Writing**
- State claim(s), provide clear reasons and relevant evidence from credible sources, use a formal style, include a simple bibliography, and provide a conclusion

**Narrative Writing**
- Develop real or imagined experiences using effective techniques, descriptions, sensory details, clear event sequences that unfold naturally, dialogue, pacing, descriptions, transition words/phrases/clauses, introduce narrator and characters, and provide a conclusion

**Handwriting**
- Write all letters in cursive, holding pencil correctly, using correct strokes, with general neatness

**Language Components**
- Recognize vague or unclear pronouns, and use subjective, objective, possessive, and intensive pronouns correctly
- Use commas and parentheses to set off non-restrictive and parenthetical elements
- Maintain consistency in style/tone
- Use common Greek or Latin affixes and bases/roots
- Consult reference materials

**Mathematics**

**Ratios and Proportional Relationships**
- Understand ratio concepts and use ratio reasoning to solve problems

**The Number System**
- Apply and extend previous understandings of multiplication and division to divide fractions by fractions
- Compute fluently with multi-digit numbers and find common factors and multiples
- Apply and extend previous understandings of numbers to the system of rational numbers

**Expressions and Equations**
- Apply and extend previous understandings of arithmetic to algebraic expressions
- Reason about and solve one-variable equations and inequalities
- Represent and analyze quantitative relationships between dependent and independent variables

**Geometry**
- Solve real-world and mathematical problems involving area, surface area, and volume

**Statistics and Probability**
- Develop understanding of statistical variability
- Summarize and describe distributions

**Standards for Mathematical Practice**
1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

**Science**
- Explain patterns of change in the appearance of the moon as it orbits Earth
- Demonstrate how the relative positions of Earth, the moon and the sun create the appearance of the moon’s phases
- Describe the relationship between the tilt of Earth’s axis and its yearly orbit around the sun and how that produces seasons
- Describe and compare the components of the solar system
- Describe the use of technology to observe objects in the night sky
- Describe forces that keep objects in orbit in the solar system
- Compare the size and distance of objects within systems in the universe
- Describe the appearance and apparent motion of groups of stars relative to Earth and how cultures have understood them
- Observe and summarize information about microorganisms
- Demonstrate how to plan and conduct an experiment to determine a microorganism’s needs in a specific environment