

# EIGHTH GRADE



Utah State  
Board of  
Education

Teaching  
and  
Learning

## Family Guide to Student Success

Families are important partners in achieving the Utah State Board of Education's vision that "each student is prepared to succeed and lead by having knowledge and skills to learn, engage civically, and lead meaningful lives." The purpose of this document is to help families better understand what their children should learn, when a child may need more help or when a child would benefit from extra challenges. By using these resources, you may find more ways to advance your child's learning at home while encouraging growth in their communication, critical thinking and problem solving skills.

### ENGLISH LANGUAGE ARTS

#### Essential Learning: ENGLISH LANGUAGE ARTS

Eighth grade students can:

- Analyze grade-level literature and informational texts by citing and inferring from textual evidence.
- Determine the theme or main idea of grade-level text.
- Provide an objective summary of grade-level text.
- Determine the meaning of unknown words and phrases in text.
- Analyze the structure of a text and how it contributes to textual meaning.
- Evaluate whether the arguments, claims, and evidence in a text are valid and relevant.
- Use the writing process to compose well-organized argumentative, informative, and narrative pieces using precise word choice and appropriate grammar and conventions.

## (Continued from Essential Learning: ENGLISH LANGUAGE ARTS)

- Conduct short research projects to answer a question.
- Participate in conversations and collaborations with peers about a variety of topics using grade-level appropriate text and vocabulary.

Link to the English Language Arts Core Standards:

[Link to the new ELA Standards coming soon!](#)

## Home-to-School Connections: ENGLISH LANGUAGE ARTS

- Ensure your child has access to many different kinds of reading material at home. Read some of the same articles or books together and discuss what you read.
- Encourage your child to write for practical and useful purposes like helping create a grocery shopping list for the week or writing a get-well-soon card to a friend.
- Visit a local museum together. Take time to closely observe the details of the exhibits and displayed objects and talk about what you see there.

## FINE ARTS

### Essential Learning: DANCE

#### DANCE, LEVELS 1, 2, 3

- **Create:** Improvise. Apply choreographic devices and dance structures to compose original dances with artistic intent. Revise choreography based on self-reflection and feedback.
- **Perform:** Perform the elements of dance (awareness of space, shapes, locomotor and non-locomotor movement, energy qualities and degrees, body parts, time). Evaluate personal healthful practices in dance including nutrition and injury prevention.
- **Respond:** Identify movements when watching and doing. Use basic dance terminology to describe movement. Describe movement from a culture or genre. Describe why a dance is artistic.
- **Connect:** Identify emotions when watching a dance and connect it to personal life and personal views. Demonstrate movement of a specific topic. Find relationship between dance and culture, historical period, society or community.

### Essential Learning: MEDIA ARTS

- **Create:** Conceptualize, generate, develop, and organize ideas and work. Complete and refine media art works.
- **Present:** Analyze, interpret and select artistic work for performance. Develop techniques and concepts to refine artistic work. Express meaning through presentation of media works.

## (Continued from Essential Learning: FINE ARTS)

- **Respond:** Perceive and analyze artistic work and process. Interpret intent and meaning. Apply criteria to evaluate artistic work and process.
- **Connect:** Synthesize and relate knowledge from personal and collaborative experience to make and receive art. Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

### LEVELS 1, 2, 3:

- **Create:** Conceptualize, generate, develop and organize ideas and work. Complete and refine media art works.
- **Present:** Analyze, interpret, refine and select artistic work for presentation. Convey meaning in the way the art is presented.
- **Respond:** Understand, evaluate and articulate how works of art convey meaning for the observer and the creator.
- **Connect:** Relate artistic skills, ideas, and work with personal meaning and external context.

## Essential Learning: MUSIC

### GENERAL

- **Create:** Generate simple rhythmic and melodic ideas and phrases.
- **Perform:** Demonstrate an understanding of music elements through observation of a live or recorded performance.
- **Respond:** Identify and discuss how musical elements work to express meaning.
- **Connect:** Experience how music connects us to history, culture, heritage, community and to other academic subjects.

### INSTRUMENTAL: LEVELS 1, 2, 3

- **Create:** Improvise/generate and respond to simple melodic ideas and phrases.
- **Perform:** Develop fluency in technical performance skills.
- **Respond:** Consider how the use of music elements helps predict the composer's intent.
- **Connect:** Examine how music relates to personal development and enjoyment of life.

### CHOIR: LEVELS 1, 2, 3

- **Create:** Sing a consequent phrase for a given antecedent phrase.
- **Perform:** Demonstrate technical performance skills by singing correct pitches and rhythms with appropriate tone.
- **Respond:** Consider how the use of music elements helps predict the composer's intent.
- **Connect:** Examine how music relates to personal development and enjoyment of life.

### THEORY/COMPOSITION

- **Create:** Generate rhythmic, melodic and harmonic phrases.

## (Continued from Essential Learning: FINE ARTS)

- **Perform:** Identify and implement strategies for improving the technical accuracy and expressive aspects of works.
- **Respond:** Consider how the use of music elements helps predict the composer's intent.
- **Connect:** Examine how music relates to personal development and enjoyment of life.

## Essential Learning: THEATRE

### THEATRE, LEVELS 1, 2, 3

- **Create:** Use correct form and structure to create a scene or play with a beginning, middle and end that includes full character development, believable dialogue and logical plot outcomes.
- **Perform:** Interpret the character, setting and essential events in a story or script that make up the dramatic structure in a drama/theatre work. Use body and voice to communicate meaning.
- **Respond:** Formulate understanding and appreciation of a drama/theatre work by considering its specific and intended purpose.
- **Connect:** Examine historical and contemporary social, cultural or global issues through different forms of drama/theatre work.

## Essential Learning: VISUAL ARTS

### LEVELS 1, 2 AND 3:

- **Create:** Generate artistic work with personal meaning by conceptualizing, organizing and completing artistic ideas. Refine original work through persistence, reflection and evaluation. Write an artist statement.
- **Present:** Develop skills and concepts to refine artistic work for presentation by analyzing and evaluating methods for preparing and presenting art.
- **Respond:** Evaluate and articulate how works of art convey meaning for the observer as well as the creator.
- **Connect:** Relate artistic skills, ideas, and work with personal meaning and external context.

Link to the Utah **Fine Arts** Core Standards:

<https://www.schools.utah.gov/file/d1fde2c5-7463-4892-9d23-8584924537a7>

Utah Arts and Museums Parent Community Handbook:

[https://artsandmuseums.utah.gov/wp-content/uploads/2019/04/parent-community-handbook-insides\\_2PRESS.pdf](https://artsandmuseums.utah.gov/wp-content/uploads/2019/04/parent-community-handbook-insides_2PRESS.pdf)

## Home-to-School Connections: FINE ARTS

- **Provide materials to create:**
  - Old clothes and hats for costumes.

### (Continued from Home-to-School Connections: FINE ARTS)

- Space for creating dance, theatre and visual art.
  - Stage areas.
  - Props, musical instruments, puppets, art supplies, filming equipment, etc.
- **Use arts for parties and celebrations:**
- Go to a live arts performance.
  - Use a handheld video camera and create art.
  - Go to museums.
  - Gather art supplies and make a mural.
- **Consider a variety of arts activities:**
- Organize performances and arts activities.
  - Support individual arts development.
  - Encourage individual practice.
  - Create homemade valentines, Christmas cards, etc.
  - Use a smartphone to make a short video.
  - Create a film piece from a storybook.
  - Take children to see a variety of films and movies.
  - Organize neighborhood field trips.

## HEALTH EDUCATION

### Essential Learning: HEALTH EDUCATION

- **Health Foundations and Protective Factors of Healthy Self:** Create a health-related SMART goal, apply effective decision-making strategies, practice resiliency skills, demonstrate assertiveness to communicate personal boundaries and show respect for the boundaries of others.
- **Mental and Emotional Health:** Explore a variety of stress management techniques, identify the risk factors for development of mental health disorders, explain the importance of early intervention and treatment, and explore relevant facts about self-harming behaviors and suicide.
- **Safety and Disease Prevention:** Demonstrate proficiency in basic first aid and CPR, identify safe online behaviors, compare and contrast the signs, symptoms, prevention methods, and risk factors of infectious, acute and chronic diseases.
- **Substance Abuse Prevention:** Practice methods to resist peer pressure, examine the safe use and misuse of prescription medications and over-the-counter medications, investigate consequences of substance use, explain how addiction is a disease, and the need for professional intervention.
- **Nutrition:** Describe the function of the six basic nutrients, explain how nutrition and fitness contribute to health, explore advertising claims of supplements, fad diets, and weight-loss products, and describe the signs, symptoms, and consequences of eating disorders and disordered eating.
- **Human Development:**
- Note:** Parental consent is required prior to sex education instruction.

## (Continued from Essential Learning: HEALTH EDUCATION)

Describe the changes of adolescence and recognize the individual differences in growth and development. Describe the anatomy and physiology of the reproductive system. Describe the benefits of practicing sexual abstinence. Understand the process of pregnancy, practices for a healthy pregnancy, pregnancy prevention and Utah's Newborn Safe Haven Law. Identify common reproductive conditions and diseases including cancers, STIs, and STI prevention and treatment options. Identify accurate and credible sources of information about sexual health. Recognize characteristics of healthy and unhealthy relationships. Recognize harassment, abuse, discrimination, and relationship violence prevention and reporting strategies.

Link to the full Utah **Health Education** Core Standards:

<https://schools.utah.gov/file/ed906f78-eaf5-44fa-892f-984e28c4c2a7>

## Home-to-School Connections: HEALTH EDUCATION

- Discuss the importance of setting and accepting others' personal boundaries. Discuss factors that contribute to one's personal boundaries such as family values and religion.
- Discuss together the importance of seeking help for mental health concerns and when it is necessary seek help for others who having mental health issues, including suicide.
- Discuss your family values and expectations around substance use and consequences of decisions.
- Talk with your child about the importance of abstaining from sexual activity and how to report harassment or sexual assault.

## MATHEMATICS EDUCATION

### Essential Learning: MATHEMATICS

- **STANDARDS FOR MATHEMATICAL PRACTICE** describe the mathematical habits of mind that teachers should seek to develop in their students. Students become mathematically proficient in engaging with mathematical content and concepts as they learn, experience, and apply these skills and attitudes.

Students will:

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.

## (Continued from Essential Learning: MATHEMATICS)

### ■ EIGHTH GRADE STANDARDS FOR MATHEMATICS

The Utah Core Standards for Mathematics describe the significant areas of learning and should be developed in tandem with the Standards for Mathematical Practice. These are the critical skills students will be learning in eighth grade to build their mathematical understanding.

Students will:

- Apply and use operations with rational numbers.
- Understand ratio concepts and apply proportional reasoning.
- Simplify expressions and solve equations.
- Represent and analyze relationships.

Link to the full Utah Core Standards for Mathematics

<https://www.schools.utah.gov/curr/mathematics/core?mid=4514&tid=1>

Major work of grade 8 Mathematics

<https://www.schools.utah.gov/curr/mathematics/core?mid=4514&tid=3>

## ■ Home-to-School Connections: MATHEMATICS

Families of Utah secondary mathematics student(s) are in a unique position to show the value and importance of deep mathematical thinking:

- Encourage your student to play mathematical puzzles and games.
- Encourage your student to take mathematical risks and find value in the learning process by honoring the logic in student(s) thinking even when the answer is incorrect.
- Encourage mathematical success through developing flexibility with numbers (for example: number talks, asking in the moment mental mathematical questions—how much would this 20% discount be?).
- Allow your student to build his/her/their own mathematical identity by remaining neutral when mathematical topics come up in conversation.
- Encourage and model number sense and flexibility through everyday mathematical reasoning—use mental mathematics to figure out: the money you will save on a sale at a store, how long you can drive on a tank of gas during a road trip, how to efficiently double a recipe's ingredients, talk about the mathematical representation of a thrown or kicked ball's trajectory, etc.
- Encourage a growth mindset by understanding that all students have unlimited mathematical potential and that mathematical achievement involves working hard and taking risks.
- Understand that mathematical proficiency is more than fact fluency and recall, it includes five interwoven components: adaptive reasoning, strategic competence, conceptual understanding, productive disposition, and procedural fluency. (Kilpatrick, et. al, 2001)

## (Continued from MATHEMATICS)

Adapted from Advice for Parents

<https://www.youcubed.org/wp-content/uploads/2017/03/Parent-Night-Handout-vF-1-2.pdf>

### References

Kilpatrick, J., Swafford, J., Findell, B., & National Research Council (U.S.). (2001). *Adding it up: Helping children learn mathematics*. Washington, DC: National Academy Press.

## PHYSICAL EDUCATION

### BEGINNING TEAM SPORTS

#### Essential Learning: PHYSICAL EDUCATION

- **Motor Skills and Movement Patterns:** Use correct technique in a variety of games, sports and dances. Create and perform a variety of activities that combine traveling, rolling, balancing and weight transfer.
- **Attain Efficient Movement and Performance:** Identify and demonstrate similarities and differences between a variety of movement skills such as badminton, volleyball, soccer, football, baseball and basketball.
- **Components to Maintain Health and Fitness:** Assess personal level of fitness and maintain a basic exercise plan, including all components of health related fitness (for example, assessment of strength, muscular endurance, cardiovascular endurance, flexibility). Describe the relationship between physical activity and nutrition.
- **Develop Cooperative Skills:** Demonstrate the ability to work and support others with both teammates and opponents. Seek out, participate with, and show respect for persons of like and different abilities, skills and cultures.
- **Personal Value of Physical Activity:** Celebrate the successes and achievements of self and others. Participate in activities that provide enjoyable social interactions.

Link to the full Utah **Physical Education** Core Standards

<https://www.schools.utah.gov/file/6192280d-2ab2-4ff1-b5dd-a9c2f95c1b11>

#### Home-to-School Connections: PHYSICAL EDUCATION

- Practice and play a variety of sports or physical activities, including team sports, together.
- Assess and discuss personal fitness levels. Maintain an exercise and nutrition plan at home that encourages a healthy and active lifestyle.
- Encourage activities that include people from other backgrounds and cultures such as city recreation activities.
- Model behaviors that celebrate the success of others.



## Essential Learning: SCIENCE

### ■ MATTER AND ENERGY INTERACT IN THE PHYSICAL WORLD:

- **Develop a model** to describe the scale and proportion of atoms and molecules.
- **Obtain information** about various properties of matter, evaluate how different materials' properties allow them to be used for particular functions in society and **communicate** your findings.
- **Plan and conduct an investigation** and then **analyze and interpret data** to identify patterns in changes in a substance's properties to determine whether a chemical reaction has occurred.
- **Obtain and evaluate information** to describe how synthetic materials come from natural resources, what their functions are, and how society uses these new materials.
- **Develop a model** that uses **computational thinking** to illustrate cause and effect relationships in particle motion, temperature, density, and state of a pure substance when heat energy is added or removed.
- **Develop a model** to describe how the total number of atoms does not change in a chemical reaction, indicating that matter is conserved.
- **Design**, construct and test a device that can affect the rate of a phase change.

### ■ ENERGY IS STORED AND TRANSFERRED IN PHYSICAL SYSTEMS:

- **Use computational thinking** to **analyze data** about the relationship between the mass and speed of objects and the relative amount of kinetic energy of the objects.
- **Ask questions** about how the amount of potential energy varies as distance within the system changes. **Plan and conduct an investigation** to answer a question about potential energy.
- **Engage in argument** to identify the strongest evidence that supports the claim that the kinetic energy of an object changes as energy is transferred to or from the object.
- **Use computational thinking** to describe a simple model for waves that shows the pattern of wave amplitude being related to wave energy.
- **Develop and use a model** to describe the structure of waves and how they are reflected, absorbed or transmitted through various materials.
- **Obtain and evaluate information** to communicate the claim that the structure of digital signals are a more reliable way to store or transmit information than analog signals.

### ■ LIFE SYSTEMS STORE AND TRANSFER MATTER AND ENERGY:

- **Plan and conduct an investigation** and use the evidence to **construct an explanation** of how photosynthetic organisms use energy to transform matter.

### (Continued from Essential Learning: SCIENCE)

- **Develop a model** to describe how food is changed through chemical reactions to form new molecules that support growth and/or release energy as matter cycles through an organism.
  - **Ask questions to obtain, evaluate and communicate information** about how changes to an ecosystem affect the stability of cycling matter and the flow of energy among living and nonliving parts of an ecosystem.
- **INTERACTIONS WITH NATURAL SYSTEMS AND RESOURCES:**
- **Construct a scientific explanation** based on evidence that shows that the uneven distribution of Earth’s mineral, energy and groundwater resources is caused by geological processes.
  - **Engage in argument supported by evidence** about the effect of per-capita consumption of natural resources on Earth’s systems.
  - **Design a solution** to monitor or mitigate the potential effects of the use of natural resources. **Evaluate** competing design solutions using a systematic process to determine how well each solution meets the criteria and constraints of the problem.
  - **Analyze and interpret data** on the factors that change global temperatures and their effects on regional climates.
  - **Analyze and interpret patterns** of the occurrence of natural hazards to forecast future catastrophic events, and investigate how data are used to develop technologies to mitigate their effects

Link to the full **Utah Science with Engineering Education (SEEd)** Core Standards  
<https://www.schools.utah.gov/file/f4cb6568-bb85-4908-a1f6-45feb98b9ebc>

### Home-to-School Connections: SCIENCE

- Investigate how hard water buildup (white substance on showers, sinks and faucets) are affected by soaking them in vinegar. Obtain, evaluate and communicate information about what causes hard water to build up, what hard water buildup is made of, and what vinegar contains that affects it.
- Have a cannonball splash competition and look for patterns to see what affects the size of the splash the most OR test what aspects of rocks falling into water cause the biggest splash.
- After a snow storm watch for patterns to see what areas melt the fastest and investigate why those areas melt snow at a faster rate.
- Choose different types of activities and do that activity for a five-minute period and compare your resting heart rate before and after the activity. Explain what is causing the change in heart rate?
- Do a water use analysis to estimate the amount of water used on a weekly basis (cooking, cleaning and for watering yards). Identify ways that you or your family can conserve water.

# SOCIAL STUDIES

## U.S. HISTORY I

### Essential Learning: SOCIAL STUDIES

Students will:

- Analyze evidence, including artifacts and other primary sources to make evidence-based inferences about life among several American Indian nations prior to European exploration of the Americas.
- Explain historic and modern regional differences that had their origins in the colonial period, such as the institution of slavery; patterns of life in urban and rural areas; differences between the French continental interior, Spanish southwest, and English northeast; and the location of manufacturing centers.
- Explain how the ideas and events of the American Revolution continue to shape American identity.
- Use evidence to explain how the Constitution is a transformative document that contributed to American exceptionalism.
- Use case studies to document the expansion of democratic principles and rights over time.
- Use primary sources representing multiple perspectives to interpret conflicts that arose during American expansion, especially as American Indians were forced from their traditional lands and as tensions grew over free and slave holding territory.
- Use current events to evaluate the implications of the Civil War and Reconstruction for contemporary American life.

Utah Core Standards for **Social Studies** Grades 7 through 12

<https://www.schools.utah.gov/file/4a897eb8-f6c6-4025-8b7e-6666f10a8dec>

### Home-to-School Connections:

- United States History I includes events and issues in United States history from the Age of Exploration through Reconstruction, emphasizing the 18th and 19th centuries. Students will be expected to make connections between historically significant events and current issues, helping to deepen their understanding of the context and complexity of civic life and preparing them for civic engagement.

Civic engagement is one of the fundamental purposes of education; and U.S. history classrooms are the ideal locations to foster civic virtue, consider current issues, learn how to act civilly toward others, and build a civic identity and an awareness of global issues.

- Your student should have ample opportunities to engage in deliberative, collaborative, and civil dialogue regarding historical and current issues and share these experiences with you.
- Of particular importance in a United States history course is developing the reading, thinking and writing skills of historians. These skills include the ability to think

**(Continued from Home-to-School Connections: SOCIAL STUDIES)**

critically about evidence, use diverse forms of evidence to construct interpretations, and defend these interpretations through argumentative historical writing. Students will corroborate their sources of evidence and place their interpretations within historical contexts.

- Students should also have opportunities to develop and demonstrate values that sustain America’s democratic republic, such as open-mindedness, engagement, honesty, problem-solving, responsibility, diligence, resilience, empathy, self-control and cooperation, many referenced in the Portrait of a Graduate at <https://schools.utah.gov/file/bccb96eb-e6a6-47cf-9745-cf311675ad8b>.

## **PARTNER WITH YOUR CHILD’S TEACHER(S)**

Productive relationships between families and teachers are essential to learning. You can facilitate development of a respectful relationship with your child’s teacher(s) by:

- Introducing yourself.
- Asking about the best means to communicate effectively regarding your child’s learning (for example: email, notes, phone calls).
- Sharing anything that would be important to consider when planning for your child’s learning experiences (for example: strengths, areas for growth, goals and/or any other special considerations).
- Attending parent teacher conferences and identifying ways you can support your child’s development, growth and learning.
- Asking your child about what they are learning and reinforcing their learning at home by maintaining focus on the learning process rather than outcomes and celebrating both successes and failures.
- Acknowledging the positive contributions of educators on your child’s development, growth and learning.

## **5Es FOR FAMILIES**

To support your child in developing the characteristics found in [Utah’s Portrait of a Graduate](#), you will find [Utah’s 5Es for Families](#) to be another helpful resource. By using the 5Es for Families, your home environment can support and enrich your child’s learning.