

## LESSON 2.1

# American Studies

### CCSS ELA Standards

- » RH.6-8.2
- » RH.6-8.6
- » RI.7.7
- » RI.7.8

### Activities

- recall or locate } » Create a set of questions and answers from the current unit of study for the class to use in its next academic bowl game or other quiz game (DOK 1).
- short summaries → » Illustrate and describe several articles of clothing that would have been worn by five characters in a novel about this time period (DOK 1).
- » Create a newsletter that contains stories and features articles about actual events written in ways authentic to the period of time you are studying (DOK 2).
- » Compare and contrast how schools were run during this time period with how they are run today (DOK 2).
- » Study *The Timetables of History* by Bernard Grun (2005). Design a way to make your classmates aware of what was occurring in the rest of the world during a significant period of American history (DOK 3).
- » Evaluate the historical accuracy of a novel read. Compare evidence in the text to historical facts from the same place and time period to support your conclusions (DOK 3).
- » Investigate and report on ways in which the expansion of multiculturalism in America has impacted our politics and literature (DOK 4). *Multiple sources implied*
- » Write a historically based short story from the time period you are studying. Accurately portray the characters, location, setting, theme, conflict, dialogue, point of view, etc., within the time period in which it is set. Emphasize and include in your text discussion an area or topic of interest you have related to this time period. Include the critical elements contained in short stories in your work (DOK 4).

## LESSON 3.19

# Discovery and Colonization

### NCSS Standards

- » III. People, Places, & Environments: h
- » V. Individuals, Groups, & Institutions: b

### CCSS ELA Standards

- » RH.6-8.1
- » RH.6-8.7
- » WHST.6-8.9

### Activities

- » Create a series of diary entries of a famous explorer. Include observations, daily life events, dangers, and surprises. Cite references (DOK 1).
- » Design a mural depicting several aspects of life in a specific colony. Reference the assertions you depict in your illustration (DOK 2).
- » Research the debate in the United States over celebrating Columbus Day. Record your findings. Include your opinion on the matter (DOK 2).
- » Create a newspaper from a time in history when colonization was taking place. Include features on topics such as food, entertainment, political debates, education, medical issues, dangers, etc. (DOK 3).
- » Some people fear there is nothing left for humans to “explore.” Create a list of places still in need of exploration. Order them in the order of importance. Provide an explanation for your rankings (DOK 3).
- » There are positive and negative aspects of exploration and colonization. Investigate these conflicting aspects and describe examples of both. Support your reasoning by citing respected references (DOK 3).
- » Examine the history of space exploration. Make a case regarding its economic feasibility and rationalize your position. In your discussion, include political, legal, ethical, and/or other considerations involved in continuing to develop or as reasons to discontinue space programs (DOK 4).
- » Discovery often seems to imply a sense of ownership. Identify and discuss issues related to the discovery of a region and the impact on current inhabitants. Do we “own” what we discover? Provide examples from both past and current instances in your presentation (DOK 4).

Entries are likely to be short and not connected thematically

## LESSON 4.12

# Geometric Thinking in Sports

### CCSS-M Standard

- » 6.G.A

### CCSS ELA Standards

- » RST.6-8.1
- » RST.6-8.3
- » RST.6-8.7

### Activities

- » Find examples of geometric shapes that exist in sports. Locate examples of these shapes and identify them based on their angles (DOK 1).
- » Research a sports-related career that uses geometry. Include where you can receive an education that might lead to this profession (DOK 1).
- » Create a how-to book for finding missing angle measures that is sports-themed. Share with a student who is struggling in this area and ask for a critique of your work (DOK 2).
- » Pick a favorite beverage or food item served at a sporting event and design a new container for it. You must include the specific dimensions of the container and make sure that it holds just as much in volume as the original. Describe why your new container is better than the previous model (DOK 3).
- » Research three different Major League Baseball stadiums. Compare and contrast their outfield dimensions. Take into consideration the back wall height and determine which stadium you believe would be the easiest in which to hit a home run. Gather home run statistics for each field to support or refute your choice (DOK 3).
- » Aluminum baseball bats are not allowed in Major League Baseball, however, they are used in college baseball. Research the average trajectory of pitches hit using both types of bats. Which is easier to hit a home run with? Hypothesize why this could be the case (DOK 3).
- » Using <http://www.surflines.com> and the swell ruler, measure how long it takes a storm's swells to reach San Diego beaches if the storm originates in the Antarctic. Identify factors impacting the height of the swells. At what angle

will the swells arrive at the San Diego beaches? Contrast and compare this to the swells' arrival in Hawaii (DOK 4).

- » Design a new hole for a local golf course. Research the dimensions of the current hole using Google Earth and propose a new more challenging hole. Be sure to include all of the new dimensions for the new hole. Provide a rationale for changing to your more challenging format (DOK 4).

## LESSON 5.9

# Heat

### NGSS Standards

- » MS-PS3-3

### CCSS ELA Standards

- » RST.6-8.1
- » RST.6-8.4
- » RST.6-8.9
- » WHST.6-8.2

### Activities

- define* [
- » Describe the process involved in heating a home (DOK 1).
  - » Create a vocabulary web model demonstrating your understanding of the scientific concept of heat (DOK 1).
  - » Make a concept map showing how heat affects matter during a change of state and during a chemical change (DOK 2).
  - » Use the concept of specific heat capacity to explain why coastal cities have milder temperatures year-round than inland cities. Create a concept map or graphic organizer to demonstrate your understanding (DOK 2).
  - » Research the life of two of the following: Anders Celsius, Daniel Gabriel Fahrenheit, William Rankine, and William Thomson (Lord Kelvin). Create a project in which you describe the relationship between their work and assess the significance of their combined efforts (DOK 3). *could be DOK 4*
  - » Study the controversy regarding Freon's effect on the environment. Research the alternatives to Freon. Compare and contrast it to other alternatives. Present your findings (DOK 3).
  - » Learn how insulating materials are rated. What are the R-values based on and what R-values are recommended for your area? Create a demonstration to teach the general public about this topic (DOK 3).
  - » Research and discuss what occurs when energy has been transferred by heat. Create an experiment that demonstrates this principle. Explain your findings in a science log that includes primary source information (DOK 4).

**LESSON 5.3****Cells****NGSS Standards**

- » MS-LS1-1
- » MS-LS1-2
- » MS-LS1-3

**CCSS ELA Standards**

- » RST.6-8.3
- » RST.6-8.7
- » WHST.6-8.1
- » WHST.6-8.4

**Activities**

- » Choose an organ of the human body and describe how it functions at the cellular, tissue, organ, and organ system level in humans (DOK 1).
- » Investigate other things, besides plant, animal, or human cells, that use the word “cell” to describe them. Collect and display illustrations representing how this word applies in different categories (DOK 1).
- » Research and report on the life and work of a scientist who has worked in an area of cell research (DOK 2).
- » Research why cells are referred to as the “building blocks of life.” Describe how they function in multicellular organisms. Construct a framework to explain your findings (DOK 2).
- » Go online or use an electronic microscope to examine at least three types of plant cells. Take digital pictures and label their parts. In your presentation, compare and contrast the cells you study (DOK 2).
- » Investigate careers that are connected in some way to the study of cells. Select and examine one that interests you. Create a job application form and/or interview questions that you believe would help interviewers find the right person for the job (DOK 3).
- » Design a model city based on the functionality of cell organelles. Create a blueprint of the city. Identify each component and its connection to the function of the organelle within the cell structure (DOK 3).
- » Design a lab experience that creates a learning experience for students to observe the differences between plant and animal cells (DOK 4).

## LESSON 6.1

# Instructional Music

### NCCAS Standards for Music

- » Anchor Standards 1-4

### CCSS ELA Standards

- » CCRA.R.7
- » CCRA.W.1
- » CCRA.W.6

### Activities

- » Create a chart highlighting the styles and works of composers for the instrument you are learning to play. Choose composers from several different time periods for your study.
- » Investigate the life and work of a composer whose music appeals to you, and compare and contrast it to the work of a composer from the same time period whose music you do not enjoy (DOK 2).
- » Research the life of a successful professional musician you admire. Develop a list of interview questions that would help you understand him as a musician and a person. If possible, find a way to contact and interview that person (DOK 2).
- » Study the life of a composer you admire greatly. Draw conclusions as to how the events of his or her life are reflected in the music this person composed (DOK 3).
- » Investigate the lives and works of famous musical prodigies. Describe the events and circumstances that influenced their development and success as composers or performers. Identify the elements that most likely led to their success (DOK 3).
- » Research the styles several conductors use for different types of instrumental groups. Consider the types of challenges these conductors might experience in their work and how the different type of instrumental groups may influence those challenges (DOK 3).
- » Create and defend a theory of how to become a successful professional musician. Draw upon societal, economic, and/or political factors (DOK 4).
- » Compose a piece of music and perform it in an ensemble (DOK 4).

Look up and list →

draw conclusions ←

**LESSON 6.2****Music Styles****NCCAS Standards for Music**

- » Anchor Standards 1-4
- » Anchor Standards 6-9
- » Anchor Standard 11

**CCSS ELA Standards**

- » CCRA.R.8
- » CCRA.W.2
- » CCRA.W.6

**Activities**

- » Study the life story of a musical artist you admire. Through research, identify how experiences impacted the person's music (DOK 1).
- » Listen to examples of music by a composer/songwriter we have studied. Identify the elements this person's works have in common. Describe the differences as well (DOK 2).
- » Artistic works evolve over time. Select an artist you admire and study how his or her work changed over time. Present possible influences that account for the change (DOK 2).
- » Compose a short a piece of music and play it on both a traditional and non-traditional instrument (DOK 3).
- » Research how music styles have changed over the decades within a given time period. Examine how society has influenced these changes (DOK 3)
- » Create a song or piece using elements from a style of music we are studying (DOK 3).
- » Rewrite a piece of music from the past so it would appeal to several types of contemporary groups. Provide a rationale for the elements changed or modified (DOK 4).
- » Investigate the connections between clothing styles and kinds of music being played and sung during an era of time. Draw a conclusion on the effects of one element on the other (DOK 4).



## LESSON 6.14

# Theatre Arts: Technical Theatre

### NCCAS Standards for Theatre

- » Anchor Standards 1–3, 5, 9, 11

### CSS ELA Standards

- » CCRA.R.7
- » CCRA.R.8
- » CCRA.W.6
- » CCRA.W.8

### Activities

- » Research and explain how the design elements work together in a theatre production. Provide examples of this collaboration (DOK 1).
- » Watch a play rehearsal to see what props are needed for a production. Write a props list and draw a sample props table for the play (DOK 2).
- » Analyze a play and create a makeup design with a face chart (DOK 2).
- » Analyze the play script for technical requirements such as set, lighting, sound. Mark the script and provide notes for recommendation (DOK 3).
- » Analyze a play and create a sound design complete with digital music (DOK 3).
- » Analyze a play and create a costume design with sketches and fabric swatches (DOK 3).
- » Design and create a technical theatre plan that includes: sound board, light board, patch panel, and fly system. Then provide a demonstration to the theatre technical hands and director of the play (DOK 4).
- » Create a set design with a ground plan, sketches, and a digital 3D model. Then develop a plan that includes a cost analysis of materials to build the set. Justify both the plans and the cost (DOK 4).

## LESSON 6.16

# Fitness

### SHAPE America National Standards

- » 1–3, 5

### CCSS ELA Standards

- » CCRA.R.7
- » CCRA.R.8
- » CCRA.W.1
- » CCRA.W.2

### Activities

- » Record personal data for push-ups, sit-ups, and miles run to monitor your fitness over a period of 1–2 weeks. Be sure the goals you set to improve do not create strain or pain (DOK 1).
- » Locate major muscles that are associated with stretching and warm-ups. Construct a method to impress upon your peers the importance of warm-ups and cool-downs as a regular part of their own exercise program (DOK 2).
- » Boredom is the most consistent enemy of fitness plans. Display methods to reduce or eliminate boredom while working out (DOK 2).
- » With a partner or small group, design an aerobic routine that lasts 3–4 minutes. Describe which muscles are used for each exercise and the benefits derived from the routine (DOK 3).
- » Formulate a game using specific equipment that allows students to compete without compromising their safety (DOK 3).
- » Evaluate your personal fitness level based on norms for your age. Design a program that will improve your level over time. Identify possible challenges that will be faced in reaching your goals and develop ways to overcome these challenges (DOK 3).
- » Design a workout plan that improves the components of muscular endurance, muscular strength, cardiovascular endurance, body composition, nutrition, and flexibility. Provide a statement justifying your choices (DOK 4).
- » Evaluate the effects of aging on fitness and investigate current programs that attend to both factors. Design a better program that addresses these factors (DOK 4).