# **Theme: Revolutions**

Our Guiding Questions for the Year: What is a revolution? What causes a revolution? Are revolutions good? Bad? What are the effects, both short-term and long-term, of a revolution?

# Unit 1: Exploration and Sea Travel as Technological Revolution

#### Literature

The True Confessions of Charlotte Doyle by Avi

#### Poem

"A Sailor's Song" by Paul Laurence Dunbar

# <u>History</u>

- Navigation: tools and technological advancements
- Changes in shipbuilding and travel
- Explorers of note
- Search for the Northwest Passage
- China and the Spice Trade
- America: discovering a new land
- Consequences for Native Americans

## Science

- Galileo and Observational Astronomy
- Tides
- Phases of the Moon
- Stars and the Milky Way

#### Math

- Navigating numbers, measurements, and conversions
- Distance and depth

#### **Enrichment Activities**

Parts of a ship

- Nautical knots
- Songs of the Sea
- Tea-stained letters
- Food on board: sailor's duff
- Moon observations

# Field Trip

Essex Shipbuilding Museum

#### **Unit 2: The American Revolution**

## <u>Literature</u>

Chains by Laurie Halse Anderson

## <u>Poem</u>

"Paul Revere's Ride" by Henry Wadsworth Longfellow

# <u>History</u>

- French and Indian War
- Causes of the Revolution
- Major battles of the Revolution
- Outcome and consequences of the Revolution
- The Declaration of Independence and the formation of a nation
- U.S. Government then and now

#### Science

- Electricity
  - o Benjamin Franklin, Alessandro Volta, Nikola Tesla, Michael Faraday
- Conductors and Resistors
- Batteries
- Simple circuits

# <u>Math</u>

Basic formulas for electrical circuits

#### **Enrichment Activities**

- Revolution timeline
- Cooking like Colonial Americans: hardtack
- Colonial American games and pastimes
- Making Flags: Betsy Ross and Flags of the Revolution
- Using voltmeters to test conductivity and resistance

# Field Trips

- Freedom Trail and Paul Revere's House
- Minute Man National Park

#### **Unit 3: The Industrial Revolution**

## **Literature**

Lyddie by Katherine Paterson

#### Poem

"The Tables Turned" by William Wordsworth

## <u>History</u>

- Early factory systems
- Great Britain and the Spinning Jenny
- The rise of the middle class
- The Industrial Revolution in America
- Iron and Steel Mills
- The Textile Industry

# Transportation and Technological Revolution

- Steamboats and Railroads
- Labor Unions and Workers' Wages

#### Science

- Nonrenewable Energy and Resources
- Coal, Oil, Natural Gas
- Pollution and Industry
- Fossil Fuels

#### Math

Economy of Scale: multiplication and division

#### **Enrichment Activities**

- Learn to weave
- "Invention Convention"
- Oil drilling activity

## Field Trip

Lowell National Park

## **Unit 4: Social Revolutions**

#### Literature

- Susan B. Anthony Champion of Women's Rights by Helen Albee Monsell
- Through My Eyes by Ruby Bridges

## <u>Poem</u>

"The Suffragettes" by Charlotte Perkins Gilman

## <u>History</u>

- Feminist Movement
  - Women's suffrage and political equality
  - Seneca Falls Convention
  - The 19th Amendment

#### **African American Civil Rights Movement**

- Civil Resistance and Civil Disobedience
- Brown V. Board of Education
- Rosa Parks and the Montgomery Buss Boycott
- Martin Luther King Jr.
- Civil Rights Act of 1964

## Science

- Conservation Movement
- Rachel Carson and the fight against DDT
- Pesticides and Herbicides
- Changes in commercial farming
- The EPA

## Math

Orders of Magnitude: fractions, decimals, and biomagnification

## **Enrichment Activities**

- Suffragette oral report
- Peaceful protesting activity
- Rachel Carson documentary
- Food web and biomagnification activity

## Field Trip

- Anthony Homestead, Adams, MA
- The Food Project

#### **Unit 5: The French Revolution**

#### Literature

In The Reign of Terror: The Adventures of a Westminster Boy by G. A. Henry

Poem: "The French Revolution" by William Blake

## **History**

- Causes of the French Revolution
- The French Estate system
- March to Versailles
- The Fall of the Bastille
- The Jacobins and the Reign of Terror
- La Guillotine
- The French Revolution and American Influence
- Effects of the Revolution and the rise of Nationalism

#### Science

- Antoine Lavoisier and the Chemical Revolution
- Properties of matter
- Conservation of mass

## Math

Antoine Lavoisier: Measurements and the Metric System

## **Enrichment Activities**

- Estate activity
- French Revolution comic book
- Sugar water: solids, liquids, and solutions

## Field Trip

Abbot Hall

**Unit 6: Artistic Revolution: Impressionism** 

## **Literature**:

Baudelaire, Mallarme, and other Impressionist poets of the time

## Poem

"The Ruined Garden" by Charles Baudelaire

## **History**

- Inspiration and influence
- Painting and Technique
- Impressionism in America
- Literary response

### Science

- Properties of Light and the Impressionist Movement
- The Light Spectrum
- Reflection and Refraction

#### Math

The artist's perspective: shapes, lines, and angles

## **Enrichment Activities**

- Learn to paint like the Impressionists
- Debussy and Baudelaire poetry and musical composition exercise
- Playing with prisms

# Field Trip

MFA

Unit 7: Musical Revolution: Mozart and the Classics

## Literature

Bach, Beethoven, and the Boys by David W. Barbers

## Poem

"The Master of Music" by Henry Van Dyke

## <u>History</u>

- Inspiration Beethoven—the world's first celebrity
- Major 18th Century Composers and their individual revolutionary influence
- Popular Response
- Connection between Music and Literature
- Revolutionary Musicians of Today

### <u>Science</u>

- Properties of Sound
- Frequency and amplitude
- Ear structure: How Do We Hear Sounds?

#### Math

Graphing: Representing the art and science of sound

## **Enrichment Activities**

- Composition activity
- Music theory
- Testing frequency with musical instruments

# Field Trip

Boston Symphony Orchestra

# **Theme: Traditions**

Our guiding questions: What is a tradition? How does something become a tradition? How do traditions change (or remain the same) over time?

## **Unit 1: Ancient Traditions**

## Literature

Panchatantra (Ancient Indian Fables)

## Poem

Excerpts from "Flower Song" (Ancient Mayan Poem)

# **History**

- Harappa and the Ancient Indus Civilization
- Ancient Civilizations of South America
- Ancient Religious Traditions
- Creation Myths
- Oral Traditions
- Sanskrit and ancient storytelling

## Science

- Early Calendars: time and record keeping
- Tracking lunar and solar patterns
- Constellations and their myths

## Math

Abacus: numbers and place values

## **Enrichment Activities**

- Write your own creation myth
- Sanskrit activity
- Ancient sundials

## Field Trips

"Art of the Ancient World" Boston Museum of Fine Arts

## **Unit 2: Classical Traditions**

#### Literature

Tales from the Odyssey Parts 1&2 by Mary Pope Osborne

## <u>Poem</u>

"One Girl" by Sappho

## <u>History</u>

- Classical Art
- Classical Architecture
- Classical Mythology
- Religious Traditions of the Classical Era

## Science

- Socrates and scientific thought
- Aristotle and early classification

## Math

Pythagoras and the Pythagorean Theorem

## **Enrichment Activities**

- Re-create a model of traditional classical architecture
- Nuts and bolts classification activity

# Field Trips

Greek revival architecture in Boston: Quincy Market

#### **Unit 3: Western Folk Traditions**

## **Literature**

- The Original Folk and Fairy Tales of the Brothers Grim
- The Complete Fairy Tales of Hans Christian Anderson
- The Complete Fairy Tales of Charles Perrault

## Poem

"Fairy-tale Logic" by A. E. Stallings

## <u>History</u>

- Fables, Folk Tales, Fairy Tales, and Legends
- Musical Traditions: Folksongs and Anthems
- Cultural Traditions

#### Science

- Science in Wonderland
- Using the Scientific Method to prove or disprove the reality of fairy tales

## Math

Fairy Tale Math: estimations and measurements

## **Enrichment Activities**

Write your own fable, folk tale, fairy tale, or legend

## Field Trip

French Cultural Center in Boston

## **Unit 4: Native American Traditions**

## Literature

In the Footsteps of Crazy Horse by Joseph M. Marshall III

#### Poem

"Navajo Night Chant"

# **History**

- Native American Geography and Tribes
- Native American Culture
- Tribal Relations
- Oral Traditions
- Religious Beliefs
- Music of the People
- Native American Art
- Native Americans Today

## Science

- Sustainable farming/living
- Organic farming
- Composting
- Buying local

## Math

Geometry and the natural world

## **Enrichment Activities**

- Telling stories with totem poles
- Native planting
- Composting
- Tracking Food: where does our food come from?

## Field Trips

Plymouth Tour

# Unit 5: Changing Tradition: Civil War

#### Literature

The People Could Fly: American Black Folk Tales by Virginia Hamilton

#### Poem

"Oh Captain! My Captain!" By Walt Whitman

# <u>History</u>

- The Origins of Slavery
- Triangular Trade
- Southern Traditions and Northern Traditions
- African American Traditions and Culture
- Influential People
- Major Battles
- Women and the War: Clara Barton and the Red Cross
- Changing the Constitution
- Reconstructing a Nation

#### Science

- Infections and Diseases
- Louis Pasteur and Robert Koch
- Germ Theory and Civil War medicine

## Math

Soldier Risk and Survival: Ratios, Rates and Proportions

## **Enrichment Activities**

- Songs of the Civil War
- Underground Railroad Simulation
- Agar plate and germ activity

## Field Trips

- Commonwealth Museum
- Boston's Black Heritage Trail

## **Unit 6: Modern Traditions**

## **Literature**

How My Family Lives in America by Susan Kuklin

#### Poem

"One Today" by Richard Blanco

# **History**:

- Globalization
- Multiculturalism
- "Modern Families"

#### Science:

- Going Green: Reduce, Reuse, Recycle
- Renewable Energy: Wind and Solar
- Climate Change and the Greenhouse Effect

#### Math:

• The Power of One and the Power of Many: multiply, divide, and conquer

## **Enrichment Activities**:

- Sharing Familial Traditions with the Class
- Traditions at Devereux and Waring Schools
- Starting new traditions
- Cooking with solar power: Dutch Ovens
- Talk with Waring's Environmental Club

## Field Trips:

- Devereux School Campus
- Waring School Campus
- Solar Plant