

# Mesquite ISD Curriculum Sequence

## Eighth Grade - 4th Six Weeks

### English Language Arts/Reading

Students read a self-selected work  
 --respond to short answer  
 Vocabulary development: Latin bases: *ced, ceed, cess, volv, volu, volut, cap, capt, cept, ceive*  
 Universal Screener MOY  
 Writing Workshop: Research  
 --formulate research ideas/plan: develop a research proposal (major research question, subsidiary research questions, primary & secondary sources)  
 --gather information: use comprehension skills to locate information & systematically take notes (relevant print & online sources)  
 --draft:  
 --working outline—generate a meaningful organization of support for central ideas  
 --synthesize, organize, and present ideas and information  
 --writing an introduction and thesis (incorporates a range of perspectives)  
 --development of ideas and supporting text evidence (embed quotes)  
     --avoiding plagiarism  
     --focus and coherence (shape composition)  
 --write a conclusion  
 --revise/edit  
     --content, organization, conventions  
         --thesis statement  
         --peer feedback  
         --teacher conferencing  
         --self-evaluation (rubric)  
         --MLA format

Checkpoint

Six Weeks Test

### Math

Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship. (8.4B)  
 Use data from a table or graph to determine the rate of change or slope and y-intercept in problems. (8.4C)  
 Represent linear proportional situations with tables, graphs, and equations in the form of  $y = kx$ . (8.5B) Represent linear non-proportional situations with tables, graphs, and equations in the form of  $y = mx + b$ , where  $b$  does not equal 0. (8.5A)  
 Represent linear non-proportional situations with tables, graphs, and equations in the form of  $y = mx + b$ , where  $b \neq 0$ . (8.5B)  
 Solve problems involving direct variation. (8.5E)  
 Distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form  $y = kx$  or  $y = mx + b$ , where  $b \neq 0$ . (8.5F)  
 Write an equation in the form  $y = mx + b$  to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations. (8.5I)  
 Identify and verify the values of  $x$  and  $y$  that simultaneously satisfy two linear equations in the form  $y = mx + b$  from the intersections of the graphed equations. (8.9A)  
 Calculate and compare simple interest and compound interest earnings. (8.12D)

### Science

#### Matter & Energy

*Atomic Structure/ Periodic Table of Elements (8.5A, 8.5B, 8.5C)*: Students will describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud. Students will identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity. Students will interpret the arrangement of the Periodic Table, including groups and periods, to explain how properties are used to classify elements.

*Chemical Formulas/ Reactions/ Law of Conservation of Mass (8.5D, 8.5E)*: Students will recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts. Students will investigate how evidence of chemical reactions indicate that new substances with different properties are formed and how that relates to the law of conservation of mass.

### Social Studies

Identify and evaluate the impact of the industrial revolution and national growth on the United States.

Analyze the ways Andrew Jackson's presidency was different from previous presidencies and identify selected important events of his terms in office.

Understand westward expansion and its political, economic, and social effects on the development of the nation by analyzing visuals, and creating graphic organizers and maps.

Understand westward expansion and its political, economic, and social effects on the development of the nation by analyzing visuals, and creating graphic organizers and maps.

Identify groups of immigrants who settled in the United States, describe developments in American literature and art, and evaluate the impact of reform movements by creating graphic organizers and posters.

# Mesquite ISD Curriculum Sequence

## Eighth Grade - 5th Six Weeks

English Language Arts/Reading	Math	Science	Social Studies
<p>Vocabulary development: Latin bases: <i>fer</i>, <i>lat</i>, words from animal roots, and content area words</p> <p>STAAR</p> <p>--literary text- variety</p> <p>--expository text - variety</p> <p>STAAR Assessment</p> <p>Literary Text: <i>The Adventures of Tom Sawyer</i></p> <p>--Pre Read</p> <p>--close read/analyze/respond: "<i>Bad Little Boy</i>"</p> <p>--Read:</p> <p>--close read/analyze/ respond: chapters 1 - 5</p> <p>Six Weeks Test</p>	<p>Identify functions using sets of ordered pairs, tables, mappings, and graphs. (8.5G)</p> <p>Identify examples of proportional and non-proportional functions that arise from mathematical and real-world problems. (8.5H)</p> <p>Solve real-world problems comparing how interest rate and loan length affect the cost of credit. (8.12A)</p> <p>Calculate the total cost of repaying a loan, including credit cards and easy access loans, under various rates of interest and over different periods using an online calculator. (8.12B)</p> <p>Explain how small amounts of money invested regularly, including money saved for college and retirement, grow over time. (8.12C)</p> <p>Calculate and compare simple interest and compound interest earnings. (8.12D)</p> <p>Identify and explain the advantages and disadvantages of different payment methods. (8.12E)</p> <p>Analyze situations to determine if they represent financially responsible decisions and identify the benefits of financial responsibility and the costs of financial irresponsibility. (8.12F)</p> <p>Estimate the cost of a two-year and four-year college education, including family contribution, and devise a periodic savings plan for accumulating the money needed to contribute to the total cost of attendance for at least the first year of college. (8.12G)</p>	<p><b><u>Organisms &amp; Environments</u></b></p> <p><i>Competition in Ecosystems (8.11A)</i>: Students will investigate how organisms and populations in an ecosystem depend on and may compete for biotic factors such as food and abiotic factors such as quantity of light, water, range of temperatures, or soil composition</p> <p><i>Environmental Change/ Human Activity (8.11B, 8.11C)</i>: Students will explore how short- and long-term environmental changes affect organisms and traits in subsequent populations. Students will recognize human dependence on ocean systems and explain how human activities such as runoff, artificial reefs, or use of resources have modified these systems.</p> <p><b><u>15 Days to STAAR</u></b></p> <p>15 Days to STAAR is a comprehensive review of all 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> Grade Science Supporting and Readiness Standards.</p>	<p>Analyze how economic differences such as tariffs and industry versus agriculture lead to regional division.</p> <p>Debate the issues surrounding slavery such as the abolition movement and the spread of slavery into the territories.</p> <p>Debate the effect of states' rights on the division of the union.</p> <p>Investigate Abraham Lincoln's role in the South's decision to secede.</p> <p>Examine how the Civil War began, its progress during the early years, and its impact on Union and Confederate soldiers.</p> <p>Analyze the Civil War from 1863 to 1865 leading to Union victory and the effect of this conflict on the country.</p> <p>Assess the political conflict over how to rebuild the South after the Civil War and</p> <p>Evaluate the impact of Reconstruction on African Americans and other Southerners.</p>

# Mesquite ISD Curriculum Sequence

## Eighth Grade - 6th Six Weeks

### English Language Arts/Reading

Students read a self-selected work  
Vocabulary development: content area words  
Literary Text: *The Adventures of Tom Sawyer*

--Read:

--close read/analyze/ respond:

chapters 6 - 7

--close read/ analyze/ respond: "*That*

*Girl*" Soto

--close read/ analyze /respond:

chapters 8 – 35

--close read/ analyze/ respond:

conclusion

--Post: link to U.S. history

Reflection: Characters in works read this year

Writing Workshop: Personal Narrative

Extension

--generate ideas/plan

--gather information

--draft

--develop body paragraphs

--develop introduction/conclusion

--development of ideas

-- revise

--content, organization, convention

--sentence structure

--edit

--peer feedback

--teacher conferencing

Six Weeks Test

### Math

Generalize that the ratio of corresponding sides of similar shapes are proportional, including a shape and its dilation.(8.3A)

Compare and contrast the attributes of a shape and its dilation(s) on a coordinate plane. (8.3B)

Use data from a table or graph to determine the rate of change or slope and y-intercept in mathematical and real-world problems. (8.4C)

Represent linear proportional situations with tables, graphs, and equations in the form of  $y = kx$ . (8.5A)

Represent linear non-proportional situations with tables, graphs, and equations in the form of  $y = mx + b$ , where  $b$  does not equal 0. (8.5B)

Contrast bivariate sets of data that suggest a linear relationship with bivariate sets of data that do not suggest a linear relationship from a graphical representation. (8.5C)

Use a trend line that approximates the linear relationship between bivariate sets of data to make predictions. (8.5D)

Distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form  $y = kx$  or  $y = mx + b$ , where  $b \neq 0$ . (8.5F)

Write an equation in the form  $y = mx + b$  to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations. (8.5I)

Use models and diagrams to explain the Pythagorean Theorem. (8.6C)

Use the Pythagorean Theorem and its converse to solve problems. (8.7C)

Determine the distance between two points on a coordinate plane using the Pythagorean Theorem. (8.7D)

Generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane. (8.10A)

Differentiate between transformations that preserve congruence and those that do not. (8.10B)

Explain the effect of translations, reflections over the  $x$ - or  $y$ -axis, and rotations limited to  $90^\circ$ ,  $180^\circ$ ,  $270^\circ$ , and  $360^\circ$  as applied to two-dimensional shapes on a coordinate plane using an algebraic representation. (8.10C)

Construct a scatterplot and describe the observed data to address questions of association such as linear, non-linear, and no association between bivariate data. (8.11A)

Step Up to Algebra: Multi-step Equations

### Science

#### Choosing the Best

Choosing the Best is an evidence-based, abstinence-centered sex education curriculum.

#### Biology Preview

Preview lessons are designed to give students exposure to 9th grade Biology content while providing an opportunity to expand scientific literacy.

### Social Studies

Study the world by looking at location, place, region, movement, and human-environment interaction.

Analyze geographic features of the Earth.

Discuss how physical and human factors influence migration patterns

Understand how physical and human factors shape the distribution of cultural groups.

