TUSCARAWAS VALLEY LOCAL SCHOOLS

A Parent's Guide to Ohio's New Learning Standards

GRADE 8

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Eighth Grade

Dear Parent / Guardian:

This pamphlet has been prepared by the Tuscarawas Valley Local Schools to help you become better acquainted with the new Ohio Learning Standards for Social Studies and Science as well as the newly adopted Common Core standards in English Language Arts and Math. We hope you will review this material to have an understanding of what your child needs to know and be able to do by the time he or she finishes eighth grade.

There is nothing more important to your child's future than making sure he or she gets a quality education. We look forward to working together as partners to achieve this goal and make this a happy and successful year for all students. Please feel free to contact your child's teacher or principal should you have any questions or concerns about the eighth grade curriculum.

Sincerely,

The Staff and Administration of the
Tuscarawas Valley Local Schools

Language Arts

Reading: Literature

Key Ideas and Details

- Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.
- Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.

Craft and Structure

- Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.
- Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.

Integration of Knowledge and Ideas

- Analyze the extent to which a filmed of live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
- Analyze how a modern work of fiction draws on themes, patterns or events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.

Range of Reading and Complexity of Text

- By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently.

Reading: Informational Text

Key Ideas and Details

- Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a central idea of a text and analyze its development over the course of the text, including
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its relationship to supporting ideas; provide an objective summary of the text.
- Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).

Craft and Structure

- Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
- Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.

Integration of Knowledge and Ideas

- Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
- Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
- Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Range of Reading and Level of Text Complexity

- By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6-8 text complexity band independently and proficiently.

Writing

Text Types and Purposes

- Write arguments to support claims with clear reasons and relevant evidence.
    - Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
    - Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
    - Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
    - Establish and maintain a formal style.
    - Provide a concluding statement or section that follows from and supports the argument presented.
- Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
    - Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
    - Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
    - Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
    - Use precise language and domain-specific vocabulary to inform about or explain the topic.
    - Establish and maintain a formal style.
    - Provide a concluding statement or section that follows from and supports the information or explanation presented.
- Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well- structured event sequences.
    - Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
    - Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.
    - Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.
    - Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

- Provide a conclusion that follows from and reflects on the narrated experiences or events.

Production and Distribution of Writing

- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3.)
- With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
- Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

Research to Build and Present Knowledge

- Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
- Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.
  - Apply *grade 8 Reading standards* to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").
  - Apply *grade 8 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").

Range of Writing

- Write routinely over extended time frames (time for research, reflections, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking & Listening

Comprehension and Collaboration

- Engage effectively in a range of collaborative discussions (one-on- one, in groups, and teacher-led) with diverse partners on *grade 8 topics, texts, and issues,* building on other's ideas and expressing their own clearly.
  - Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
  - Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.
  - Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.
  - Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.
- Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
- Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

Presentation of Knowledge and Ideas

- Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
- Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.
- Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Language

Conventions of Standard English

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.
- Form and use verbs in the active and passive voice.
- Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood. Examples of recognition of to correct inappropriate shifts in mood.
- Recognize and correct appropriate shifts in verb voice and mood.

- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
  - Use punctuation (comma, ellipsis, dash) to indicate a pause or break.
  - Use an ellipsis to indicate an omission.
  - Spell correctly.

Knowledge of Language

- Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).

Vocabulary Acquisition and Use

- Determine or clarify the meaning of unknown and multiple- meaning words or phrases based on *grade 8 reading and content,* choosing flexibly from a range of strategies.
  - Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
  - Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *precede, recede, secede*).
  - Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
  - Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary.

- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
  - Interpret figures of speech (e.g., verbal irony, puns) in context.
  - Use the relationship between particular words to better understand each of the words.
  - Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *bullheaded, willful, firm, persistent, resolute*).
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Mathematics

The Number System

Know that there are numbers that are not rational, and approximate them by rational numbers.

- Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
- Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). *For example, by truncating the decimal expansion of* $\sqrt{2}$*, show that* $\sqrt{2}$ *is between 1and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*

Expressions and Equations

Work with radicals and integer exponents.

- Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example*, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.
- Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.

- Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.*
- Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

Understand the connections between proportional relationships, lines, and linear equations.

- Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
- Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.

Analyze and solve linear equations and pairs of simultaneous linear equations.

- Solve linear equations in one variable.
    - Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
    - Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
- Analyze and solve pairs of simultaneous linear equations.
    - Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
    - Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.*
    - Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Functions

Define, evaluate, and compare functions.

- Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
- Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
- Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*

Use functions to model relationships between quantities.

- Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
- Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.

- Verify experimentally the properties of rotations, reflections, and translations:
    - Lines are taken to lines, and line segments to line segments of the same length.
    - Angles are taken to angles of the same measure.
    - Parallel lines are taken to parallel lines.
- Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
- Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
- Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
- Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.*

Understand and apply the Pythagorean Theorem.

- Explain a proof of the Pythagorean Theorem and its converse.
- Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
- Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

- Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve-real world and mathematical problems.

Statistics and Probability

Investigate patterns of association in bivariate data.

- Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
- Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
- Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height*.
- Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

Science

Earth and Space Science (ESS)

Physical Earth

- The composition and properties of Earth's interior are identified by the behavior of seismic waves.
- Earth's crust consists of major and minor tectonic plates that move relative to each other.
- A combination of constructive and destructive geologic processes formed Earth's surface.
- Evidence of the dynamic changes of Earth's surface through time is found in the geologic record.

Physical Science (PS)

Forces and Motion

- Forces between objects act when the objects are in direct contact or when they are not touching.
- Forces have magnitude and direction.
- There are different types of potential energy.

Life Science (LS)

Species and Reproduction

- Diversity of species occurs through gradual processes over many generations. Fossil records provide evidence that changes have occurred in number and types of species.
- Reproduction is necessary for the continuation of every species.
- The characteristics of an organism are a result of inherited traits received from parent(s).

Social Studies

History

- Primary and secondary sources are used to examine events from multiple perspectives and to present and defend a position.

- North America, originally inhabited by American Indians, was explored and colonized by Europeans for economic and religious reasons.
- Competition for control of territory and resources in North America led to conflicts among colonizing powers.
- The practice of race-based slavery led to the forced migration of Africans to the American colonies. Their knowledge and traditions contributed to the development of those colonies and the United States.
- The ideas of the Enlightenment and dissatisfaction with colonial rule led English colonists to write the Declaration of Independence and launch the American Revolution.
- The outcome of the American Revolution was national independence and new political, social and economic relationships for the American people.
- Problems arising under the Articles of Confederation led to debate over the adoption of the U.S. Constitution.
- Actions of early presidential administrations established a strong federal government, provided peaceful transitions of power and repelled a foreign invasion.
- The United States added to its territory through treaties and purchases.
- Westward expansion contributed to economic and industrial development, debates over sectional issues, war with Mexico and the displacement of American Indians.
- Disputes over the nature of federalism, complicated by economic developments in the United States, resulted in sectional issues, including slavery, which led to the American Civil War.
- The Reconstruction period resulted in changes to the U.S. Constitution, an affirmation of federal authority and lingering social and political differences.

Geography

- Modern and historical maps and other geographic tools are used to analyze how historic events are shaped by geography.
- The availability of natural resources contributed to the geographic and economic expansion of the United States, sometimes resulting in unintended environmental consequences.
- The movement of people, products and ideas resulted in new patterns of settlement and land use that influenced the political and economic development of the United States.
- Cultural biases, stereotypes and prejudices had social, political and economic consequences for minority groups and the population as a whole.
- Americans began to develop a common national identity among its diverse regional and cultural populations based on democratic ideals.

Government

- Participation in social and civic groups can lead to the attainment of individual and public goals.
- Informed citizens understand how media and communication technology influence public opinion.
- The U.S. Constitution established a federal system of government, a representative democracy and a framework with separation of powers and checks and balances.
- The U.S. Constitution protects citizens' rights by limiting the powers of government.

Economics

- Choices made by individuals, businesses and governments have both present and future consequences.
- The Industrial Revolution fundamentally changed the means of production as a result of improvements in technology, use of new power resources, the advent of interchangeable parts and the shift from craftwork to factory work.
- Governments can impact markets by means of spending, regulations, taxes and trade barriers.
- The effective management of one's personal finances includes using basic banking services (e.g., savings accounts and checking accounts) and credit.

Mission:

The Tuscarawas Valley Local School District will focus on high achievement for all students by providing a challenging curriculum in a positive learning environment.

Positive, Productive, Proud