

***Yeshiva Day School Las Vegas***

***General Studies School Curriculum Guide***

***2020-2021 Scope and Sequence***

***Curriculum Objective:***

*The General Studies curriculum beginning in Kindergarten through Grade 4\* will reflect the Common Core standards as they apply to the Core Subjects (ELA, Math, Science, and Social Studies). At every grade level, the curriculum will provide educational foundations for fostering critical thinking skills. In coordination with the school's two Early Childhood Centers, YDLV's Lower School Curriculum places emphasis on the teaching of solid, meaningful, integrated transitional skills at mastery level by the end of each year.*

***Integrated Approach***

*The objective of the curriculum is to inspire interest in new areas and develop skills and understanding in the four core areas, Humanities; Mathematics; Science; Social Sciences. Additionally, in line with the school's Mission Statement, curricular objectives support the development of skills and understanding in the arts, physical education, and world cultures. In Lower School, this effort is accomplished through an integrated approach using small learning groups while Middle School instruction is supported by a combination of socratic, deductive, and inquiry based methods, particular to the content of each class.*

## **Literacy Program: WONDERS**

*The school's Literacy Program comprises three essential areas: reading; writing; language-including communication skills. In particular, nurturing a love of learning and developing strong critical and creative thinkers and communicators who are independent readers, skillful writers, clear speakers, active listeners, and discriminating viewers. The integrated approach to Literacy Instruction is supported by the innovative curricular provisions of Wonders published by McGraw Hill.*

### **Reading:**

*The Reading Program has been designed to inspire a love of learning, develop critical and creative thinking skills, and guide students to build the essential skills they need to flourish as independent readers.*

### **Writing:**

*The Writing Program, integrated into the school's Reading Program, inspires a love for writing that promotes lifelong learning. Small learning group instruction allows for teachers to assess writing skills in order to develop students' ability to communicate with different audiences and for a variety of purposes. Instruction supports students' understanding of the essential stages of the writing process, including developing, drafting, editing, and revising.*

### **Language:**

*Through additional integrated instruction, teachers create language-rich environments in General Studies, in order to help children spell accurately, understand and apply grammar and punctuation conventions, build word consciousness, and learn and improve vocabulary. The Language component of the Literacy Program will also provide for students to develop communication skills necessary to articulate thoughts and ideas clearly in a variety of forms and contexts, develop public speaking skills, use technology to enhance oral presentations, and engage in collaborative discussions, activities, and projects,*

*learning how to actively listen to others, ask questions, contribute meaningfully, and interact with different points of views.*

### **Math Program: ENGAGE New York.**

*The Math Program supports three National Council of Teaching Mathematics (NCTM) process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's Report Adding it Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations, procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with the belief in diligence and one's own efficacy. At every level, the Math Program is grounded in problem solving tasks. Teachers provide relevant tasks that develop students' thinking, develop inquiry, make connections, and transfer learning to real life situations. Grades K-8 are supported by Engage New York, a research-based program that focuses conceptual learning as well as learning mastery of concepts.*

*The use of Engage New York as the primary curricular resource will help to ensure the learning, acquisition, and mastery of the fundamental skills identified for each subsequent grade level*

### ***Math Standards:***

*The Math Program's Standards are comprised of the following: Counting and Cardinality; Operations in Algebraic Thinking; Numbers and Operations in Base 10; Numbers and Operations in Fractions; Measurements and Data; Geometry; Ratios and Proportional Relationships; the Number System; Expressions and Equations; Functions; Statistics and Probability.*

### ***Contextual Understanding and Procedural Fluency:***

*Mathematically proficient students begin by explaining to themselves the meaning of problems so as to identify possible solutions. They make conjectures about the form and meaning of the solutions and plan a solution pathway rather than simply jumping into a solution attempt. In attempting to identify a solution, students learn procedural fluency or the mathematical process of problem sol*

### ***Conceptual Understanding***

*Through the curriculum, students learn the automaticity of facts, computation, and procedures. Mathematical understanding also however demands more than applying rote skills and adhering to process. The curriculum supports the instruction of students to understand the reasons behind the content so they can apply mathematics in critical thinking situations and circumstances. The primary purpose of the Math Program is to communicate reasoning, solve problems in multiple ways, discern efficiency in strategies, and inquire about connections that can be made between learnings.*

### ***Mathematical Modeling:***

*Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace in line with the school's Mission Statement. In Lower School, this includes a task as simple as writing a math addition equation to describe a situation. In Middle School, students will critically apply proportional reasoning to plan school events or to analyze an issue in the community.*

### ***Patterns and Structure:***

*The Math Program will focus on developing student skills supporting the identification of patterns or structures. In Lower School, students may identify different patterns and collections of shapes according to the number of sides the shapes maintain; in Middle School, students will apply a similar understanding to recognize the significance of an existing line in a geometric figure and then use this auxiliary line for solving problems.*

***Grade Level Mastery:***

*Teachers' efforts in each grade level will focus on learning new mathematical concepts according to grade level standards while importantly, ensuring the mastery of appropriate grade level skills.*

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## **LOWER SCHOOL, GRADES K-4**

### ***YDLV's Instructional Approaches to Learning:***

*Instruction throughout the Lower School will consistently include a focus on vocabulary development through the delivery of Daily Oral Language exercises; mastery of Math facts through the delivery of Daily Oral Math exercises; Mapping Skills referencing community, national, and international boundaries; writing throughout the curriculum to also ensure Science Literacy and Computer Literacy. The inclusion of daily Math lessons is integral to imparting the necessary foundational skills for greater conceptual.*

### ***Supporting Curricular Materials:***

***English Language Arts/Literacy: Wonders, McGraw-Hill.***

*In support of grade-level standards and the integrated effort, the school will utilize the Wonders Literacy Program that provides for the provision of strong literacy foundations through both print and digital resources.*

***Math: MathEase/Engage New York***

*In coordination with MathEase, individualized instruction in Mathematics through **Engage New York** will serve to provide necessary foundational skills. The program includes a Supplemental Interactive Component and with support from MathEase, will allow for instruction of advanced Math skills through in-class or remote efforts.*

***Science: Next Generation Science Standards (Interactive)***

*School-wide Science instruction will be supported by the **Next Generation Science Standards (NGSS)**. In supporting efforts to integrate and enhance skills in digital literacy, NGSS will also include an interactive learning component so as to*

*provide instruction that provides for student engagement and the integration of curricular objectives.*

***Social Studies: Social Studies, Houghton Mifflin Harcourt***

*Instruction in Social Studies will be supported by Houghton Mifflin Harcourt's **Social Studies** standard based curriculum. Social Studies will allow students to become informed citizens through reading, writing, and participating in class activities. Students will also develop digital literacy skills through an online learning center where students can acquire deeper connections with subjects and content areas. The Program is also supported by additional digital components including Google Expeditions which allows students to immerse themselves in virtual/real-world global expeditions focused upon imparting 21st Century skills, requisites for global citizens.*

***Scope and Sequence: Draft (Description of grade-level expectations to be added for each respective grade).***

**GRADE: Kindergarten**

**MATH**

- *Numbers of the day;*
- *Ten Frames;*
- *Numeral place values;*
- *Math Literacy through vocabulary development;*
- *Numbers to 100-Count by 2's, 5's, 10's*
- *Comparing sets: greater v fewer; combining two sets of numbers, find the total;*
- *Ordinal numbers-sequence events, order of preferences;*
- *Identify, apply, and create patterns;*
- *Investigate addition and subtraction;*
- *Recognize and read number words, 0-10; 11-20;*
- *Explore height and length of objects using non-standard units;*
- *Classify and sort objects by attributes;*
- *Solve addition and subtraction stories within 10; word problems and role play;*
- *Explore measurement by comparing weights, using different tools to measure (ruler, tape, measure feet, clips, etc.);*
- *Add and subtract fact families; add money: understanding and identify coins, add and subtract coins; currency.*
- *Recognize, read, and write numbers 0-20*
- *Count to 100 by ones and tens not always starting at zero*
- *Count to answer "how many" questions about 20 objects*
- *Operations and Algebraic Thinking*
- *Add and subtract within 5; number and operations in base ten*
- *Understand numbers from 11 to 19 composed of ten ones and more ones; measurement and data.*
- *Introduction to Geometric shapes*

## ***ENGLISH LANGUAGE ARTS***

The following ELA skills will be emphasized in Kindergarten:

- *Individualized leveled reading will be emphasized in Kindergarten*
- *Reading comprehension, vocabulary*
- *Writing and spelling*
- *Integrate phonetic word families with leveled reading*
- *Short vowels with blends, digraphs, consonant clusters, contractions, compound words.*

### ***Reading***

*Foundations, Literature, and Informational Text • Recognize and name all upper and lowercase letters of the alphabet and their matching sounds.*

- *Recognize and say rhyming words and syllables.*
- *Recognize and say sounds at the beginning, middle, and end of words.*
- *Identify characters, settings, and major events in a story.*
- *Read common high-frequency words by sight (e.g., the, or, to, you, she, my, is, are, do).*

### ***Writing***

- *Print all upper and lowercase letters.*
- *Write and/or draw pictures about a specific topic and provide details about the topic.*
- *Spell simple words using knowledge of sound-letter relationships.*

### ***Language***

- *Ask and answer questions by speaking in complete sentences.*
- *Use words and phrases learned through conversations and reading activities.*

## ***SCIENCE***

### ***Earth Science***

- *Modeling relationship between plants and animals and habitats*
- *Collection of information regarding weather forecasting and weather*

### ***Physical Science***

- *Observations to determine effect of sunlight upon Earth's surface*

### ***Life Science***

- *Observations of animal survival*

### ***Science skill foundations:***

- *Inquiry learning; developing models;*
- *planning investigations;*
- *analyzing and interpreting data;*
- *mathematical and computational thinking;*
- *scientific explanations; designing solutions;*
- *arguments from evidence;*
- *obtaining, evaluation, and communicating information.*

## ***SOCIAL STUDIES***

### ***Social Studies: Our World Now and Long Ago***

- *Understand the importance of working together to complete tasks*
- *Recall stories of people and families around the world*
- *Identify problems that occur when people live and work together*

### ***Geography***

- *Recognize maps or globes as representations of places*
- *Identify areas that have different purposes in the home*

- *Recall phone numbers from memory*

### ***Economics***

- *Identify jobs in the community*
- *Identify US Currency (penny, nickel, dime, quarter, and dollar)*
- *Make decisions involving classroom resources*

### ***Civics***

- *Identify an individual's rights within the classroom*
- *Name a traditional US Patriotic activity, holiday, or symbol*
- *Name and identification of the students' school and place within the community*

## ***PHYSICAL EDUCATION***

- *Motor skills*
- *Movement patterns and safety through loco-motor and non-loco motor movements, body control and manipulative skills*
- *Movement concepts by identifying pathways, shapes, levels, force, and direction*
- *Participating in moderate to vigorous physical activity by practicing life-long health promoting physical activity patterns*
- *Health enhancing physical fitness by identifying health-related fitness components while participating in physical activity*

## **GRADE ONE**

### ***MATH***

- *Represent and solve addition and subtraction problems up to 20 by using objects, drawings, and equations*
- *Understand that subtraction problems can be solved by using addition*
- *Number and operations in base 10;*
- *Count to 120;*
- *Understand place values of two-digit numbers (tens and ones);*
- *Use place value understanding to add and subtract;*
- *Measurement: order objects by length and express the length of an object in whole number length units of another object;*
- *Tell and write time analog and digital clocks;*
- *Organize and represent data up to three categories;*
- *Geometry: reason with shapes based on attributes;*
- *Partition circles and rectangles*

### ***ENGLISH LANGUAGE ARTS***

#### ***Reading Skills:***

- *Read one-syllable words*
- *Decode basic two-syllable words*
- *Retell stories with details and demonstrate comprehension of main message*
- *Read silently and orally with accuracy and fluency.*

#### ***Writing Skills:***

- *Use words such as “first”, “next,” or “then” to signal order of events*
- *Spell words using knowledge of spelling patterns “ee” vowel combination*
- *Write informative/explanatory texts identifying topics with conclusion/summary.*

## ***Language***

- *Use newly learned words through reading, being read to, and responding to text in speaking and writing*
- *Identify real-life connections between words and their use*

## ***SCIENCE***

### ***Earth Science***

- *Observe the sun, moon, and stars to describe patterns*
- *Observe different amounts of sunlight*

### ***Physical Science***

- *Understand the relationship between sounds and vibrations*

### ***Life Science***

- *Understanding that young plants and animals are like*

## ***SOCIAL STUDIES***

### ***Social Studies: A Child's View***

#### ***History:***

- *Recall stories reflecting customs and traditions of varied cultures*
- *Identify landmarks around the world*
- *Resolve problems by sharing in class*

#### ***Geography***

- *Recognize the shape of North America on a world map*
- *Use single maps to illustrate and understand direction*
- *Identify similarities and differences between people in the community*

## ***Economics***

- *Identify a consumer and a producer*
- *Give examples of ways people earn money*

## ***Civics***

- *Identify and individual's rights within the classroom*
- *Participation in decision-making; individual responsibilities*
- *Name of school in the community.*

## ***PHYSICAL EDUCATION***

- *Motor skills, movement patterns and safety by demonstrating basic locomotor and non-locomotor movements, body control, and manipulative skills*
- *Movement concepts and strategies by practicing shapes, levels, force, speed, and direction while stationary or traveling*
- *Participating in moderate to vigorous physical activity by practicing life-long, health promoting physical activity patterns*

## **GRADE: TWO**

### **MATH**

- *Numbers to 1000-place value, addition, and subtraction facts, word problems;*
- *Addition and subtraction-skill mastery or repeated addition to find total number of objects in rows and columns to set the foundation for later work with multiplication;*
- *Understand place value to the 100's (three digit numbers)*
- *Use place value understanding and properties of operations including commutative property to add and subtract within 100*
- *Measurement and Data: Estimate and measure length in standard units including inches, feet, centimeters, using rulers, yardsticks, and meter sticks*
- *Tell and write time to the nearest 5 minutes using analog and digital clocks*
- *Represent and interpret measurement data using bar graphs, picture graphs, and line plots*
- *Recognize and draw shapes based on a given number of angles and faces*
- *Partition rectangles into rows and columns*
- *Using bar modeling;*
- *Mastering 10 frames;*
- *Using metric and conventional measurements to explore length;*
- *0,1,2,3,4 Multiplication tables*
- *Math Vocabulary and Math Literacy*
- *Identifying geometric shapes and understanding their applications;*
- *Continuation of money-related concepts;*
- *Introduction to fractions;*
- *Time-analog clock and elapsed time;*
- *Introduction to graphing: pictographs and graphing plots.*

## **ENGLISH LANGUAGE ARTS**

### **Reading:**

- *Foundations, literature, and informational text*
- *Identify main topic and purpose of text*
- *Use text features including glossaries*
- *Decode words using long and short vowels, and vowel teams and prefixes*

### **Writing:**

- *Write opinion pieces that introduce topics or books, state opinions, supply reasons that support the opinion and provide closing statements*
- *Write narratives retelling events including important details*
- *Recall and gather information from sources*
- *Book reports reflecting various genres*

### **Language:**

- *Produce, expand, and rearrange complete simple and compound sentences*
- *Distinguish meaning among verbs and adjectives*
- *Use root words as clues to identifying meanings of additional (same root) words*

## **SCIENCE**

### **Earth Science**

- *Provide evidence that Earth events occur quickly and slowly*
- *Compare solutions to slow or prevent wind or water from changing the land*
- *Make a model to show the kinds of land and bodies of water in the area*

### **Physical Science**

- *Describe and classify matter according to its observable properties*
- *Investigate different properties for different purposes*
- *Sort materials of observable characteristics.*

## ***Life Science***

- *Understand what plants need to grow and how animals assist in seed dispersal and pollination*
- *Investigate and compare the diversity of life in different habitats*
- *Investigate the need for sunlight and water for plant growth*

## ***SOCIAL STUDIES***

### ***Social Studies: People We Know***

#### ***History***

- *Describe why important events and customs are marked by holidays*
- *Examine artifacts from around the world for important clues as to how people lived their lives*
- *Identify ways in which people cooperate to achieve common goals*

#### ***Geography***

- *Examples of individual liberties*
- *Purpose of employment*
- *Description of neighborhoods and communities as places where people live, work, and live*
- *Mapping a community*

#### ***Economics***

- *Examples of opportunity costs*
- *Sharing of classroom resources*

#### ***Civics***

- *Individual liberties and rights within the classroom and in school*
- *Participation in class decision-making*
- *Individual responsibilities at school and in the classroom*

- *Recite and recognize the Pledge of Allegiance*

### ***PHYSICAL EDUCATION***

- *Motor Skills, movement patterns, and safety by applying loco-motor and non-loco motor movements, body control, and manipulative skills within physical activity*
- *Movement concepts and strategies by demonstrating pathways, shapes, levels, force, speed, and direction in simple sequences*
- *Participation in vigorous physical activity by practicing life-long, health-promoting physical activity patterns*

### ***Criterion Referenced Testing, Grades 3-5***

## **GRADE: THREE**

### **MATH**

- *Understand properties of multiplication*
- *Fluently multiply and divide within 100 using the relationship between multiplication and division*
- *Number and operations in base 10*
- *Add and subtract within 1000 using strategies based on place value and/or the relationship between addition and subtraction*
- *Compare fractions with the same numerator or the same denominator*
- *Measurement and Data: Solve problems involving measurement and estimation of time in minutes, liquid in volumes, and masses of objects using grams (g), kilograms (kg), and liters (l).*
- *Measure areas by counting unit squares (square cm, square m, square ft) and relate area to multiplication and addition*
- *Draw scaled pictures and bar graphs and solve greater and fewer problems using information represented in graphs*
- *Solve problems involving perimeter, including finding the perimeter given the side lengths, finding an unknown side length, and determining rectangles with the same perimeter and different area or the same area and different perimeter.*

### **ENGLISH LANGUAGE ARTS**

#### **Reading:**

- *Describe the traits, motivations, or feelings of characters in a story*
- *Use text features and information gained from illustrations to understand and locate information*
- *Determine the meaning of multi-syllable words using prefixes and suffixes*

### ***Writing:***

- *Write informative texts to examine a topic and present ideas and information clearly*
- *Write opinion pieces on topics and texts*
- *Support a point of view and include reasons or information for that point of view*
- *Write pieces that include introduction, reasons for an opinion, and closing statements*

### ***Language:***

- *Use nouns, pronouns, verbs, adjectives, and adverbs correctly when writing and speaking*
- *Spell high frequency words correctly*
- *Spell words correctly by adding suffixes*
- *Use root words as clues to meanings of unknown words with same root*

## ***SCIENCE***

### ***Earth Science***

- *Collect data in support of weather conditions during specific seasons*
- *Obtain information to describe climates of different global regions*
- *Design solutions that reduce the impact of weather*

### ***Physical Science***

- *Provide evidence of the effects balanced and unbalanced forces have on the motion of an object*
- *Predict future motions of objects based on patterns*
- *Determine cause and effect relationships of electric or magnetic interactions*
- *Solve simple design problems using the scientific method*
- *Use evidence to support the variety of habitats*

- *Investigate and describe similarities and differences of organisms' life cycles*
- *Understand inheritance of traits and how environments influence organisms*

### ***Life Science***

- *Construct arguments for the sake of survival*
- *Variations as a product of natural selection?*

## ***SOCIAL STUDIES***

### ***Theme: Our Communities***

#### ***History***

- *Examine primary and secondary sources*
- *Investigate how individuals and families contribute to the development of local communities*
- *Understand how conflicts can be resolved through compromise*

#### ***Geography***

- *Use directions on a Compass Rose to locate places on a map*
- *Understand how to use maps and globes*
- *Identify ways people express culture*

#### ***Economics***

- *Identify needs as high priority demand, goods, and services*
- *Demonstrate understanding of income*

#### ***Civics***

- *Examples of rules, laws, and authorities that keep people safe and property secure*
- *Recognize individual responsibilities in the classroom and the school*
- *Name current officials in the country and state*

- *Nevada politics*

### ***PHYSICAL EDUCATION***

- *Motor skills, movement patterns, and safety by combining loco-motor and non-loco motor movements, body control, and manipulative skills*
- *Movement concepts and strategies by applying pathways, shapes, levels, force, speed, and direction during physical activity*
- *Participating in moderate to vigorous physical activity by practicing life-long, health promoting physical activity patterns*

## **GRADE: FOUR**

### **MATH**

- *Use four's operations to solve problems (addition, subtraction, multiplication, and division)*
- *Gain familiarity with factors and multiples*
- *Number and operations in base 10: generalize place value to its right*
- *Solve division problems using strategies based on place value, properties of operation, and the relationship between multiplication and division*
- *Multiply a whole number of up to four digits by a one-digit whole number, and multiply two, two-digit numbers based on place value and properties of operations*
- *Use visual models to explain why two fractions are equivalent*
- *Compare two fractions by comparing a benchmark fraction such as  $\frac{1}{2}$*
- *Use and understand decimal notation for fractions and compare decimal fractions*
- *Add and subtract mixed numbers with like denominators*
- *Solve problems involving measurement and conversion of measurement from a larger unit to a smaller unit*
- *Recognize angles as geometric shapes formed when two rays share a common endpoint*
- *Measure angles in whole-number degrees using a protractor*
- *Represent and interpret data including numbers in a line plot*

## **ENGLISH LANGUAGE ARTS**

### **Reading**

- *Use details and examples in text when explaining meaning of text*
- *Determine main idea of a text with supporting details*
- *Identify meaning of unfamiliar words using letter-sound relationships, knowledge of syllables, and Greek/Latin root words*

### **Writing**

- *Write informative texts to examine topics and present ideas and information clearly*
- *Write opinion pieces on topics and texts*
- *Support points of view*
- *Use resources to build knowledge and investigate different aspects of topics for research projects*

### **Language**

- *Use correct capitalization, punctuation, and spelling in writing*
- *Choose words and phrases to communicate precise meaning*
- *Recognize and explain the meaning of simple similes and metaphors for comparison purposes*
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## **SCIENCE**

### **Earth Science**

- *Identify patterns in rocks and fossils to explain changes in landscape.*
- *Provide evidence of effects of weathering and erosion by wind, ice, water, and plants.*

- *Analyze data from maps to describe patterns of Earth's features.*
- *Compare solutions to reduce the impact of Earth's processes on humans.*

### ***Physical Science***

- *Construct an explanation between speed of objects and energy of objects*
- *Recognize how energy is transferred through sound, light, heat, and electric currents*
- *Design and refine devices that convert energy*
- *Describe how energy and fuels are derived from natural resources*
- *Develop models to show how waves can cause objects to move*

### ***Life Science***

- *Construct arguments supporting how plants and animals have structures that function to support survival and growth*
- *Describe how animals use their senses to receive and process information in different ways*

## ***SOCIAL STUDIES***

### ***Theme: States and Regions including Nevada History***

#### ***History***

- *Identify the lifestyle and contributions of Nevada's Native Americans, pioneers, and immigrants*
- *Describe the settlement of Nevada, including compromises and conflicts over life, society, and water*
- *Explain how Nevada became a state*

#### ***Geography***

- *Identify technology, customs, and traditions in Nevada*
- *Discuss the geographic regions and conditions of Nevada*

- *Explain the rural and urban settlement patterns of Nevada*

### ***Economics***

- *Describe the natural resources found in Nevada*
- *Recognize the role consumers play in economics*
- *Compare rural, suburban, and urban areas of Nevada*

### ***Civics***

- *Describe how local governments are created*
- *Define the three branches of state government and the role each branch plays in state government*
- *Explain the significance of Nevada Day*

## ***PHYSICAL EDUCATION***

- *Motor skills, movement patterns, and safety by applying loco motor and non-loco motor movements, body control, and manipulative skills with mature patterns within physical activity.*
- *Movement concepts by applying strategies within pathways, shapes, levels, force, speed, and direction during physical activity.*
- *Participating in moderate to vigorous physical activity by practicing life-long, health-promoting physical activity patterns.*

## **GRADE: FIVE**

### ***MATH***

- *Write, interpret, and evaluate numerical expressions using parentheses, brackets, or braces*
- *Generate two numerical patterns using two given rules*
- *Identify relationships between corresponding terms*
- *Number and operations in base 10*
- *Understand the place value system*
- *Add, subtract, multiply, and divide decimals to hundredths using concrete models and strategies based on place value*
- *Add and subtract fractions with unlike denominators using models, drawings, numbers, and equivalent fractions*
- *Solve word problems involving addition, subtraction, and multiplication of fractions*
- *Divide unit fractions by whole numbers and whole numbers by unit fractions*
- *Multiply fractions by whole numbers or by fractions*
- *Convert like measurement units within given measurement system*
- *Represent and interpret data in line plots*
- *Understand concepts of volume and relate volume to multiplication and to addition, and solve problems involving volume*

### ***ENGLISH LANGUAGE ARTS***

#### ***Reading***

- *Quote accurately from a text when explaining information and inferences from text*
- *Determine two or more main ideas and supporting details*

- *Identify meaning of unfamiliar words using letter-sound relationships, knowledge of syllables, and Greek and Latin root words, prefixes, and suffixes*

### ***Writing***

- *Write opinion pieces on topics or texts*
- *Support point of view and include reasons or information for point of view*
- *Write informative texts to examine topics, present ideas and information clearly*
- *Use several resources to build knowledge and investigate topics for research projects*

### ***Language***

- *Use different verb tenses*
- *Expand and combine sentences for meaning, interest, and style*
- *Use relationships between particular words to better understand meanings of words*

## ***SCIENCE***

### ***Earth Science***

- *Develop a model to describe the interaction between geosphere, hydrosphere, and atmosphere*
- *Describe and graph water distribution on Earth*
- *Argue the brightness of the sun is due to its distance from the Earth*
- *Use data to show patterns in shadows, day and night, and stars at night*

### ***Physical Science***

- *Investigate and describe that the total mass of a material remains constant regardless of its current state*

- *Use observations and measurements to identify materials based on their properties*
- *Determine that the mixing of two or more substances results in a new substance*

### ***Life Science***

- *Explain how the sun is the primary source of energy for most animals*
- *Support an argument that plants receive air and water for plant life*
- *Develop models to show the movement of matter among plants, animals, decomposers, and the environment*

## ***SOCIAL STUDIES***

### ***Theme: The U.S. and Creating a New Nation***

#### ***History***

- *Identify the contributions of Native American nations in North America*
- *Describe the social, political, and religious lives of people in New England, middle, and southern colonies*
- *Explain the causes and key events of the American Revolution*

#### ***Geography***

- *Construct maps, graphs, and charts, to display information about human and physical features in the United States-exploration and the establishment of colonies*
- *Derive geographic information from photographs, maps, graphs, books, and technological resources*
- *Label maps of the United States with state capitals*

#### ***Economics***

- *Limited supply of goods impacts demand*
- *Resources needed in households and schools*

- *Demonstrate understanding of global supply and demand*

### **Civics**

- *Identify criteria for US Citizenship*
- *Explain the symbolic importance of 4<sup>th</sup> of July and Pledge of Allegiance*
- *Provide examples of national, state, and local laws*
- *Identify the 3 branches of government and describe their basic powers*

## **PHYSICAL EDUCATION**

- *Motor skills, movement patterns, and safety by applying locomotor and nonlocomotor movements, body control, and manipulative skills with mature patterns within a variety of small-sided practice tasks/game environments.*
- *Movement concepts by applying strategies within pathways, shapes, levels, force, speed, and direction during a variety of small-sided practice tasks/game environments.*
- *• Participating in moderate to vigorous physical activity by practicing life-long, health-promoting physical activity patterns.*

### ***Elective Courses:***

### **ART/ELECTIVES**

#### ***Students learn about:***

- *Criticism by describing, analyzing, and judging the characteristics of the elements of art and principles of design and supporting their judgments with observation, analysis, historical/cultural context, and/or personal response.*
- *Aesthetics by debating and defending their own artistic choices and others on a variety of aesthetic issues.*
- *History by engaging in artistic research, to analyze and justify the impact of materials, processes, purposes, and functions of artworks in their cultural/historical context.*

- *Production by using a variety of lines, shapes, colors, textures, forms, and space to create pattern, balance, value, movement, and contrast through drawing, painting, clay, printmaking, 2-D and 3-D, weaving, and digital and mixed media*

## ***MIDDLE SCHOOL, GRADES SIX thru EIGHT:***

### **GRADE SIX**

- *Expressions and Equations: Apply procedures learned in arithmetic to expressions with variables (e.g.,  $2 \times 3 = 6$ . So, when  $2x = 6$ , then  $x = 3$ ).*
- *The Number System: Apply and extend understandings of multiplication and division to dividing fractions by fractions.*
- *Compute fluently with multi-digit numbers.*
- *Apply and extend number understanding to include the rational number system (positive numbers, negative numbers, decimals, and fractions).*
- *Statistics and Probability*
- *Collect and interpret data (e.g., making graphs and finding averages).*
- *Summarize and describe distributions based on a variety of attributes such as measures of center (median and mean) and measures of variability (interquartile range and mean absolute deviation).*
- *Ratios and Proportional Relationships: Understand ratio concepts and use ratio reasoning to solve problems (e.g., Unit rates involving such topics as pricing and speed).*
- *Geometry: Construct angles, triangles, and circles based upon given measurements using a variety of methods and tools.*

## **ENGLISH LANGUAGE ARTS**

### **Reading**

- *Literature and Informational Text*
- *Read to determine an author's point-of-view or purpose in a nonfiction work; analyze how the author takes a position different from other authors.*
- *Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.*

### **Writing**

- *Organize and focus writing, including supporting statements and conclusions with evidence, and show that the evidence is accurate and reliable.*
- *Write narratives that use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.*
- *Conduct short research projects to answer a question by using multiple sources and generating additional related questions for further investigation.*
- *Develop arguments with clear reasons and relevant evidence.*

### **Language**

- *Figure out the meaning of unknown and multiple-meaning words and phrases based on seventh grade reading and content by choosing from a*

*range of strategies such as using context clues, applying Greek or Latin affixes (e.g., replace, replaceable, irreplaceable).*

## **SCIENCE**

### **NATURE OF SCIENCE:**

- *Identify and critically evaluate information in data, tables, and graphs.*
- *Design and conduct a controlled experiment.*
- *Use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data.*

### **LIFE SCIENCE:**

- *Know heredity is the passage of genetic instructions from one generation to the next generation.*
- *Identify some characteristics of an organism that are the result of a combination of interaction with the environment and genetic information. • Understand that cells grow, divide, and take in nutrients which they use to provide energy for cell functions.*
- *Know cells combine to form tissues that combine to form organs and organ systems that are specialized to perform life functions.*
- *Describe how matter and energy are transferred through food webs in an ecosystem. • Understand that disease can result from defects in body systems or from damage caused by infection.*
- *Describe how species can be identified and classified based on their characteristics.*

## **SOCIAL STUDIES**

***Theme:Early World Civilizations up through 1500***

- *Compare the rise and fall of kingdoms and empires across the ancient world with attention to governmental systems and political developments.*
- *Examine instances of conflict, oppression, human rights violations, and genocide across the ancient world as well as responses to these violations.*
- *Describe the factors that shape identity - including institutions, religion, language, social class, geography, culture, and society in ancient civilizations.*
- *Interpret events from a variety of historical and cultural perspectives, including but not limited to: Romans vs. “barbarians,” conquerors vs. conquered, Mongols vs. Ming Chinese.*
- *People and ideas Investigate cultural developments within and across human societies with attention to belief systems, philosophies, ideologies, and the arts.*
- *Analyze the impact of technological developments on events, peoples, and cultures in the ancient world. Origins of international relations.*
- *Analyze the use of conflict and/or diplomacy within the ancient world. Social justice, consciousness, and action;*
- *Analyze the ways in which dominant cultures oppressed conquered peoples or minority groups within early civilizations as well as the responses of those groups to the oppression.*

## **GRADE SEVEN**

### ***MATH***

- *Expressions and Equations: Use properties of operations to generate equivalent expressions (e.g., Using the following,  $3 \times 21 = 60 + 3$  we can write:  $3(2x + 1) = 6x + 3$ ).*
- *The Number System: Apply and extend operations with fractions to add, subtract, multiply, and divide rational numbers (fractions, decimals, and positive and negative whole numbers).*
- *Statistics and Probability*
- *Compute the theoretical probability of chance events and compare this with experimental results.*
- *Ratios and Proportional Relationships: Solve real-world problems using fractions, decimals, percents, and rates.*
- *Geometry: Draw, construct, and describe geometric figures (angles, triangles, prisms, pyramids, etc.) and describe the relationships between them; solve real-life and mathematical problems involving angle measure, area, surface area, and volume.*

## ***ENGLISH LANGUAGE ARTS***

### ***Reading:***

- *Literature and Informational Text*
- *Cite evidence from text that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play.*

- *Analyze how differences in the points-of-view of characters and the audience or reader create such effects as suspense or irony.*

### ***Writing:***

- *Plan and conduct research projects that include several steps and use many credible and documented print and/or digital sources through multiple drafts of a written report or multi-media presentation.*
- *Write narratives that engage the reader by establishing a clear point-of view, introducing a narrator and characters, and organizing a sequence of events that unfolds logically and naturally.*
- *Write arguments using formal style to support claims with clear reasons and relevant evidence.*
- *Draw evidence from literary or informational texts to support analysis and research.*

### ***Language:***

- *Form and use verbs in the active and passive voice by selecting verbs that best fit the purpose and mood of sentences that make up a written composition-active voice.*

## ***SCIENCE***

### ***Nature of Science:***

- *Design and conduct a controlled experiment.*
- *Understand how different explanations can be given for the same evidence.*

- *Understand that scientific inquiry includes evaluating results of scientific investigations, experiments, observations, theoretical and mathematical models, and explanations proposed by other scientists.*

### ***Earth Science:***

- *Understand that seasons are caused by variations in the amounts of the Sun's energy reaching Earth's surface due to the planet's axial tilt.*
- *Understand the processes involved in the water cycle and how they affect climate patterns.*
- *Describe the properties of water that make water an essential component of the Earth system.*
- *Identify topography and patterns of global and local atmospheric movement influencing local weather.*
- *Describe characteristics of the planets in our solar system.*
- *Describe regular and predictable motions of Earth around the Sun and the Moon around the Earth explaining such phenomena as the day, the year, phases of the Moon, and eclipses.*
- *Describe how the very slow movement of large crustal plates results in geological events.*
- *Differentiate between rocks and minerals.*
- *Know the characteristics, abundances, and location of renewable and nonrenewable resources found in Nevada.*

## ***SOCIAL STUDIES***

### ***Theme: Contemporary Issues; United States and Nevada History***

- *Analyze primary and secondary source documents, such as the Declaration of Independence or a newspaper article.*
- *Use argumentation and narrative writing to examine history.*
- *Discuss contemporary issues that may require public solutions.*
- *Understand the impact of interest groups, public opinion, the media, and political parties on the political process.*

- *Describe the motivation for European explorations and colonization in the Americas and the impact this had on the Native Americans.*
- *Determine the causes and effects of the French and Indian War and the American Revolution by studying the Intolerable Acts, the Continental Congress, and other key events from 1763-1783.*
- *Describe the interactions among pioneers and Native American groups in the West as the country began to expand.*
- *Analyze the long-term consequences of the Civil War on America.*
- *Describe how the populist and progressive movements rose in American history, and explain how they reflected social change.*
- *Identify how American expansion impacted American influence.*
- *Examine how the United States was involved in World War I and the long-term consequences of post-war America.*

## **GRADE EIGHT**

### **MATH**

- *Expressions and Equations: Compute with square roots (e.g.,  $\sqrt{36} = 6$  and  $\sqrt{20} = 2\sqrt{5}$ ) and compute powers of numbers (e.g.,  $4^3 = 64$ ).*
- *Solve equations and graph lines.*
- *Functions: Define, evaluate, and compare functions. Functions are simply the pairing of each number in a given set with exactly one number in another set. Use functions to model relationships between quantities.*
- *The Number System: Know that there are numbers that cannot be written as fractions. These numbers are called irrational numbers (e.g.,  $\pi$  and  $\sqrt{2}$ ).*
- *Statistics and Probability: Find patterns between two characteristics of a set of objects (e.g., car weight and miles per gallon).*
- *Geometry: Use the Pythagorean Theorem to compute lengths of sides of right triangles. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.*

### **ENGLISH LANGUAGE ARTS**

#### ***Reading:***

- *Literature and Informational Text*
- *Cite evidence from text that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play.*
- *Analyze how differences in the points-of-view of characters and the audience or reader create such effects as suspense or irony.*

**Writing:**

- *Plan and conduct research projects that include several steps and use many credible and documented print and/or digital sources through multiple drafts of a written report or multi-media presentation.*
- *Write narratives that engage the reader by establishing a clear point-of view, introducing a narrator and characters, and organizing a sequence of events that unfolds logically and naturally.*
- *Write arguments using formal style to support claims with clear reasons and relevant evidence.*
- *Draw evidence from literary or informational texts to support analysis and research.*

**Language:**

- *Form and use verbs in the active and passive voice by selecting verbs that best fit the purpose and mood of sentences that make up a written composition-active voice.*

**SCIENCE****Nature of Science:**

- *Design and conduct a controlled experiment.*
- *Use appropriate technology and laboratory procedures safely for observing, measuring, recording, and analyzing data.*
- *Employ multiple methods for organizing data and information.*

**Physical Science:**

- *Understand how particles are arranged differently in solids, liquids, and gases.*
- *Describe how elements are arranged in the periodic table.*
- *Describe how mass is conserved in physical and chemical changes.*

- *Describe the effects of balanced and unbalanced forces on an object's motion.*
- *Describe how electric currents can produce magnetic forces and that magnets can cause electric currents.*
- *Explain that every object exerts a gravitational force on every other object in relationship to magnitude and distance.*
- *Describe the electromagnetic spectrum.*
- *Describe energy transfer in physical, chemical, and nuclear changes.*
- *Explain that energy cannot be created or destroyed, in a chemical or physical reaction, but only changed from one form to another.*
- *Explain how electrical circuits provide a means of transferring electrical energy to produce light, heat, sound, and chemical changes*

## **SOCIAL STUDIES**

### ***Theme: World Geography***

#### ***Essential Geography Skills:***

- *Analyze primary and secondary source documents, such as world maps or newspaper articles.*
- *Use argumentation and narrative writing to examine geography.*
- *Identify the five themes of geography.*
- *Describe the elements of culture.*

#### ***World Geography:***

- *Describe and compare the physical and human features of the world.*
- *Identify cultural characteristics around the world.*
- *Study the foreign policy of the United States to understand their diplomatic interactions with other countries.*
- *Analyze the role ancient civilizations played in the development of modern civilizations.*
- *Explain the impact of major world events up to the Middle Ages.*

- *Analyze political movements throughout history.*
- *Describe the multiple economic systems used in the world.*
- *Identify migration patterns throughout history*

### ***MIDDLE SCHOOL PHYSICAL EDUCATION***

*In Middle School, students will focus on their physical, mental, social, and emotional development through cooperative and competitive settings. The Physical Education Program will be supplemented with a competitive after-school extra-curricular program.*

*They will participate in team, individual, and dual sports; dance/rhythms; fitness; and lifetime recreational activities.*

*Health- and skill-related fitness concepts will be explored through personal goal setting and self-evaluation.*

*Students will be moderately to vigorously physically active for fifty percent of the instructional time*