

# **NORTHERN VALLEY SCHOOLS CONSORTIUM**

Closter, Demarest, Harrington Park,  
Haworth, Northvale, Norwood,  
Old Tappan, and the  
Northern Valley Regional High School District

## **CURRICULUM OBJECTIVES: GRADE FIVE**

**COMPREHENSIVE HEALTH**

**LANGUAGE ARTS**

**MATHEMATICS**

**MUSIC**

**PHYSICAL EDUCATION**

**SCIENCE**

**SOCIAL STUDIES**

**TECHNOLOGY**

**VISUAL ARTS**

**WORLD LANGUAGES**

**2016 - 2017**

**NORTHERN VALLEY SCHOOLS CONSORTIUM  
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# **COMPREHENSIVE HEALTH**

## **WELLNESS**

All students will acquire health promotion concepts. Students will be able to:

- Describe the importance of using hygiene products during adolescence.
- Explain the importance of daily use of personal hygiene and health care products to maintain one's personal health.
- Students will have an understanding of the functioning of the human body as it relates to the endocrine system and the male and female reproductive system.
- Create a healthy meal plan based on information gathered from the comparisons of foods based on nutrient content and value.
- Identify the difference between infectious and non-infectious disease and the effects on the human body.
- Discuss the consequences of injuries and determine possible strategies to avoid accidental injuries.
- Demonstrate basic first aid procedures.
- Students will identify people or resources to report cases of abuse.
- Development of values and positive coping strategies for healthy decision making.

## **INTEGRATED SKILLS**

All students will Develop and use personal and interpersonal skills to support a healthy, active lifestyle.

Students will be able to:

- Demonstrate and evaluate the effective use of communication skills, including refusal, negotiation, and assertiveness.
- Describe and demonstrate the use of refusal skills in various situations.
- Demonstrate effective decision making in health and safety situations.
- Use health data and information to formulate health goals.
- Develop strategies to support the achievement of short and long-term health goals. Predict what happens when alternate goals are developed.
- Use effective decision making while considering conflicting interests.
- Describe actions and situations that show evidence of good character.
- Discuss the characteristics of a role model and how role models influence the personal goals and ethical standards of others.
- Discuss ways to actively include peers with disabilities.
- Evaluate personal and group contributions towards the achievement of a goal or task, analyze a group's ability to improve its performance, and provide appropriate feedback.
- Evaluate service organizations and discuss volunteerism.
- Compare the use of cooperative and competitive strategies to achieve a group goal and recommend strategies to keep a group on target and free from conflict.
- Categorize health and fitness services available in the school and community and demonstrate how to access them.

## **DRUGS AND MEDICINE**

All students will acquire knowledge about alcohol, tobacco, other drugs and medicines and apply these concepts to support a healthy, active lifestyle. Students will be able to:

- Discuss factors to consider when choosing an over-the-counter medicine.
- Describe medicines used to treat common diseases and health conditions.
- Discuss the safe administration and storage of over-the-counter and prescription medicines.
- Identify the classifications of illegal drugs and controlled substances and give examples of each.
- Describe how tobacco use contributes to the incidence of respiratory diseases, cancer, and cardiovascular disease.
- Explain ways to reduce the health impact of tobacco smoke on non-smokers

- Describe how the use and abuse of alcohol impacts behavior and contributes to the incidence of illness and injuries.
- Discuss the short and long-term physical and behavioral effects of inhalant use, including brain, heart, and lung damage and death.
- Define use, misuse and abuse of drugs.
- Identify where individuals and family members can go for help or support with addictions.

### **HUMAN RELATIONSHIPS AND SEXUALITY**

All students will acquire knowledge about physical, social, and emotional aspects of human relationships and sexuality and apply these concepts to support a healthy, active lifestyle. Students will be able to:

- Compare and contrast the current interconnected and cooperative roles of family members.
- Investigate ways that individuals and families enhance and support social and emotional health and meet basic human needs.
- Describe the individual growth patterns of males and females during adolescence.
- Define sexual intercourse and associated risks.
- Discuss the benefits of abstinence.
- Discuss fertilization.
- Describe the signs and symptoms of pregnancy.

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## **LANGUAGE ARTS**

### **Reading Standards for Literature**

#### **Key Ideas and Details**

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

#### **Craft and Structure**

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

#### **Integration of Knowledge and Ideas**

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

#### **Range of Reading and Level of Text Complexity**

10. Read and comprehend complex literary and informational texts independently and proficiently.

## **Reading Standards for Informational Text**

### **Key Ideas and Details**

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

### **Craft and Structure**

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
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### **Range of Reading and Level of Text Complexity**

10. Read and comprehend complex literary and informational texts independently and proficiently.

## **Reading Standards for Foundational Skills**

### **Print Concepts**

#### **Phonics and Word Recognition**

3. Know and apply grade-level phonics and word analysis skills in decoding words.
  - Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

#### **Fluency**

4. Read with sufficient accuracy and fluency to support comprehension.
  - Read on-level text with purpose and understanding.
  - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

## **Writing Standards**

### **Text Types and Purposes**

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

### **Text Types and Purposes**

3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

### **Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

### **Research to Build and Present Knowledge**

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

### **Range of Writing**

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

### **Speaking and Listening Standards**

#### **Comprehension and Collaboration**

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric

#### **Presentation of Knowledge and Ideas**

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

### **Language Standards**

#### **Conventions of Standard English**

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

#### **Knowledge of Language**

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

### **Vocabulary Acquisition and Use**

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression

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## **MATHEMATICS**

### **Operations and Algebraic Thinking**

#### **Write and interpret numerical expressions.**

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

#### **Analyze patterns and relationships.**

3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

### **Number and Operations in Base Ten**

#### **Understand the place value system.**

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and  $\frac{1}{10}$  of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
3. Read, write, and compare decimals to thousandths.
4. Use place value understanding to round decimals to any place.

#### **Perform operations with multi-digit whole numbers and with decimals to hundredths.**

1. Fluently multiply multi-digit whole numbers using the standard algorithm.
2. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
3. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

### **Number and Operations—Fractions**

#### **Use equivalent fractions as a strategy to add and subtract fractions.**

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
3. Interpret a fraction as division of the numerator by the denominator ( $a/b = a \div b$ ). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
5. Interpret multiplication as scaling (resizing), by:
  - a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
  - b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence  $a/b = (n \times a)/(n \times b)$  to the effect of multiplying  $a/b$  by 1.
6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions
  - a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients
  - b. Interpret division of a whole number by a unit fraction, and compute such quotients.
  - c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.

## **Measurement and Data**

### **Convert like measurement units within a given measurement system.**

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

### **Represent and interpret data.**

2. Make a line plot to display a data set of measurements in fractions of a unit ( $1/2$ ,  $1/4$ ,  $1/8$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots.

### **Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.**

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
  - a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.
  - b. A solid figure which can be packed without gaps or overlaps using  $n$  unit cubes is said to have a volume of  $n$  cubic units.
4. Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and improvised units.

5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
  - a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
  - b. Apply the formulas  $V = l \times w \times h$  and  $V = b \times h$  for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.
  - c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

## **Geometry**

### **Graph points on the coordinate plane to solve real-world and mathematical problems.**

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond.
2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

### **Classify two-dimensional figures into categories based on their properties.**

1. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
2. Classify two-dimensional figures in a hierarchy based on properties.

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## **MUSIC**

### **General Music**

#### **Performance**

- a. Perform works of art that have a utilitarian purpose, including improvisation.
- b. Perform works of art that places an emphasis on structural arrangement.
- c. Demonstrate how the elements of music are used to achieve balance in composition.
- d. Demonstrate musical elements in response to aural prompts and printed scores.
- e. Sing independently and in groups in one or more parts.

#### **Reading and Notation**

- a. Read music from progressively complex notation, including mixed meters, compound meters, and the grand staff.
- b. Demonstrate knowledge of basic concepts of music.

#### **Listening and Responding**

- a. Employ basic, discipline-specific arts terminology to categorize works of dance, music, according to established classifications

- b. Make informed aesthetic responses to artworks based on structural arrangement and personal, cultural, and historical points of view
- c. Demonstrate how art communicates ideas about personal and social values and is inspired by an individual's imagination and frame of reference.

### **Critiquing**

- a. Identify criteria for evaluating performances.
- b. Use evaluative tools for self-assessment.
- c. Use appropriate music terminology to express fact and opinion regarding a work of music.
- d. Define technical proficiency and analyze how artists apply the elements.
- e. Performance
- f. Consider the context for the creation and of the work when assessing works of dance, music, theatre and visual art. What is the purpose, who is the intended audience?

### **History and Culture**

- a. Recognize works of dance, music, theatre, and visual arts as a reflection of societal values and beliefs.
- b. Relate common artistic elements that define distinctive genres in music.
- c. Determine the impact of significant contributions of individual artists from diverse cultures throughout history.

### **Connections**

- a. Make connections between music and real life experiences.

## **Instrumental Music**

### **Performance**

- A. Perform works of art that have a utilitarian purpose, including improvisation.
- B. Perform works of art that places an emphasis on structural arrangement.
- C. Demonstrate how the elements of music are used to achieve balance in composition.
- D. Demonstrate musical elements in response to aural prompts and printed scores.

### **Reading and Notation**

- A. Read music from progressively complex notation, including mixed meters, compound meters, and the grand staff.
- B. Demonstrate knowledge of basic concepts of music.

### **Listening and Responding**

- A. Incorporate personal life experience into an aesthetic response about an artwork.
- B. Communicate ideas about the social and personal value of music.

### **Critiquing**

- A. Use appropriate music terminology to express fact and opinion regarding a work of music.
- B. Critique performances based on the elements of music and technical proficiency.
- C. Identify and differentiate among basic formal music structures.
- D. Listen to and analyze recorded lessons, rehearsals, and performances using digital tools, and media-rich resources to enhance musical knowledge.
- E.

## **History and culture**

- A. Recognize chronology that exists in all music and hypothetically, how the arts have impacted world culture.
- B. Compare and contrast the contributions of musical artists from an historical period and evaluate feelings.

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## **PHYSICAL EDUCATION**

### **A. Movement Skills and Concepts**

1. Explain and perform movement skills that combine mechanically correct movement in smooth flowing sequences in isolated settings (i.e., skill practice) and applied settings (i.e., games, sports, dance, and recreational activities).
2. Explain concepts of force and motion and demonstrate control while modifying force, flow, time, space, and relationships in interactive dynamic environments.
3. Create and demonstrate planned movement sequences, individually and with others, based on tempo, beat, rhythm, and music (creative, cultural, social and fitness dance).
4. Use self-evaluation and external feedback to detect and correct errors in one's movement performance.

### **B. Strategy**

1. Work cooperatively and productively in a group to accomplish a set goal.
2. Demonstrate the use of offensive, defensive, and cooperative strategies in individual, dual, and team activities.
3. Compare and contrast strategies used to impact individual and team effectiveness and make modifications for improvement.

### **C. Sportsmanship, Rules, and Safety**

1. Compare the roles and responsibilities of players and observers and recommend strategies to enhance sportsmanship-like behavior.
2. Apply rules and procedures for specific games, sports, and other competitive activities and describe how they enhance participation and safety.
3. Relate the origin and rules associated with certain games, sports, and dances to different cultures.

### **D Fitness and Physical Activity**

1. Analyze the social, emotional, and health benefits of selected physical experiences.
2. Determine to what extent various activities improve skill-related fitness versus health-related fitness.
3. Develop and implement a fitness plan based on the assessment of one's personal fitness level, and monitor health/fitness indicators before, during, and after the program.
4. Predict how factors such as health status, interests, environmental conditions, and available time may impact personal fitness based on age and gender.
5. Relate physical activity, healthy eating, and body composition to personal fitness and health.
6. Explain and apply the training principles of frequency, intensity, time, and type (FITT) to improve personal fitness.

7. Evaluate the short- and long-term effects of anabolic steroids and other performance-enhancing substances on personal health.
8. Engage in moderate to vigorous forms of physical activity that address each component of fitness.

### **Attitudes and Values**

1. Demonstrate positive feelings toward safety in physical education.
2. Demonstrate good sportsmanship.
3. Demonstrate positive attitude and behaviors toward self and others in physical education.
4. Appreciate physical activities for creating an avenue of self-expression.
5. Demonstrate a knowledge of rules, which enhances the success of the activity.
6. Understand the importance of maintaining physical fitness.
7. Appreciate physical activity for promoting mental and physical well-being.

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## **SCIENCE**

### **A. STRUCTURE AND FUNCTION OF CELLS**

1. Identify and describe the function of the following organelles: cell membrane, nucleus, cytoplasm, vacuole, mitochondria, chromosomes, chloroplasts, cell wall.
2. Formulate a strategy to differentiate between a plant and animal cells by identifying key structures of an unlabeled cell (chloroplast, cell wall).

### **B. BODY SYSTEMS**

1. Recognize that many-celled organisms have specialized structures.
2. Describe how the circulatory and respiratory systems work together to help the body take in oxygen and give off carbon dioxide.
3. Explain how the muscular, nervous, and skeletal systems work together to help the body move.
4. Describe how the digestive and excretory system work together to provide nutrients and remove wastes.
5. Examine the roles of the following systems: circulatory, respiratory, digestive, excretory, skeletal, muscular, and nervous.
6. Comprehend the progression from cells/tissues/organs/organ systems.
7. Identify that the systems of the human body are interrelated and regulate the body's internal environment (homeostasis)

### **C. CLASSIFICATION**

1. Recognize that many things can be sorted into groups in a variety of ways using various features to determine which things belong to which group.
2. Understand that classification schemes will vary with purpose.
3. Classify by using properties
4. Identify reasons why scientists investigate living things.
5. Recognize how scientists name living things.
6. Compare and contrast the 6 kingdoms of living things.
7. Scrutinize how scientists determine the current 6 kingdoms.
8. Differentiate between the two main groups of animals.

9. Differentiate between the two main groups of plants.
10. Explain how scientists use genus and species as the scientific names for living things.

#### **D. GROWTH AND HEREDITY**

1. Describe and compare life cycles of human and other organisms.
2. Compare and contrast direct development, incomplete/complete metamorphosis.
3. Identify traits that plants and animals inherit from parents and those that they acquire from the environment.
4. Explain that traits such as eye color in human beings or fruit/flower color in plants are inherited.
5. Understand that reproduction is essential to the continuation of every species.
6. Recognize that variations exist among organisms of the same generation (e.g. siblings) and of different generations (e.g. parent to offspring).

#### **E. INTERACTIONS WITH COMPONENTS OF THE ECOSYSTEM**

1. Identify the significance of the carbon dioxide-oxygen cycle.
2. Identify factors that limit the number and type of organisms in an ecosystem.
3. Identify the roles of producers, consumers and decomposers in an ecosystem.
4. Explain how energy flows in food webs and food chains.
5. Explain the predator-prey relationship.
6. Describe symbiotic relationships in ecosystems.
7. Recognize that plants are producers using energy from light to make food (sugar) from carbon dioxide and water; also used as a source of food (energy) for other organisms.
8. Examine that all animals including humans are consumers that meet their energy needs by eating other organisms or their products.
9. Explain that the number of organisms and populations an ecosystem can support depends on the biotic resources available and on abiotic factors, such as quantities of light and water, range of temperatures and soil composition.
10. Describe how all organisms cause changes in the ecosystem in which they live. If this change reduces another organism's access to resources, that organism may move to another location or die.
11. Examine how personal activities impact the local and global environment.
12. Recognize the changes in environmental conditions and various human forms can affect the survival of individual organism and species, as well as the environment that supports life forms.

#### **F. THE SOLAR SYSTEM**

1. Explain how the motions of the Earth, sun and moon create days, months, and years.
2. Explain how Earth's position relative to the sun produces different amounts of daylight and seasons.
3. Use models to demonstrate an understanding of the scale of the solar system that shows size and distance relationships among sun and planets.
4. Recognize how inertia and gravity interact to create orbits for planets and moons.
5. Identify telescopes, binoculars, satellites, space probes, rockets and shuttles as methods/instruments scientists use to study.
6. Observe and record short term and long term changes in the positions of the constellations in the night sky.
7. Define the sun as the central and most massive body in our solar system, which includes eight planets and their moons, dwarf planets, asteroids and comets.

8. Recognize that light travels in a straight line until it interacts with an object or material. Light can be absorbed, redirected, bounced back or allowed to pass through. The path of reflected or refracted light can be predicted.
9. Identify that visible light from the sun is made up of a mixture of all colors of light. To see an object, light emitted or reflected by that object must enter the eye.

## **G. FORCES**

1. Identify Newton's 3 laws of motion.
  - a. Recognize that an object at rest will remain at rest, and an object moving in a straight line at a steady speed will continue to move in a straight line at a steady speed unless a net (unbalanced) force acts on it.
  - b. Explain that an object's acceleration depends on the size and direction of the force acting on it and on the mass of the object.
  - c. Recognize that for every action, there is an equal and opposite reaction.
2. Differentiate between balanced and unbalanced forces.
3. Use quantitative data to show that when more than one force acts on an object at the same time, the forces can reinforce or cancel each other producing a net (unbalanced) force that will change speed and/or direction of the object.
4. Recognize that friction is a force that acts to slow or stop the motion of objects.
5. Use devices that show electricity producing heat, light, sound, and magnetic effects.
6. Design an electric circuit to show that the flow of current in an electric circuit depends upon the components of the circuit and their arrangement, such as in series or parallel.
7. Conclude that magnetic, electrical, and gravitational forces can act at a distance.
8. Understand that the description of an object's motion from one observer's view may be different from that reported from a different observer's view.
9. Explain that sinking and floating can be predicted using forces that depend on the relative densities of objects and materials.
10. Explain that electricity flowing through an electrical circuit produces magnetic effects in the wires.

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## **SOCIAL STUDIES**

### **INTRODUCTION TO GEOGRAPHY**

#### **Land And People**

##### **Students will be able to:**

- Recognize different types of maps and their uses.
- Name and locate continents, major landforms, bodies of water, resources, and population density.
- Analyze graphics and text that display and describe geographic and cultural information.
- Define and analyze culture to include government, politics, religion, language, economy, arts, and daily living.

#### **Middle East : Arabian Peninsula, Iraq, Iran, Afghanistan, Eastern Mediterranean, Central Asia**

##### **Students will be able to:**

- Identify the location of this area in World Spatial Terms.
- Recognize the locations of important landforms, waterways, countries, and cities.
- Describe the environmental factors that influence people lifestyles. (i.e., rural vs. urban, natural resources, economic indicators)

- List the factors that contribute to or determine demographic changes. (i.e., religion, race, population growth, economic change)
- Compare and contrast geographic regions (within or between countries)

### **African Continent**

#### **Students will be able to:**

- Identify the location of this area in World Spatial Terms.
- Recognize the locations of important landforms, waterways, countries, and cities.
- Describe the environmental factors that influence people lifestyles. (i.e., rural vs. urban, natural resources, economic indicators)
- List the factors that contribute to or determine demographic changes. (i.e., religion, race, population growth, economic change)
- Compare and contrast geographic regions (within or between countries)

### **Asia; India, China, Mongolia, Taiwan, Russia, Pacific World (Australia, NZ, Pac islands) Korea, Japan. Antarctica**

#### **Students will be able to:**

- Identify the location of this area in World Spatial Terms.
- Recognize the locations of important landforms, waterways, countries, and cities.
- Describe the environmental factors that influence people lifestyles. (i.e., rural vs. urban, natural resources, economic indicators)
- List the factors that contribute to or determine demographic changes. (i.e., religion, race, population growth, economic change)
- Compare and contrast geographic regions (within or between countries)

### **Europe**

#### **Students will be able to:**

- Identify the location of this area in World Spatial Terms.
- Recognize the locations of important landforms, waterways, countries, and cities.
- Describe the environmental factors that influence people lifestyles. (i.e., rural vs. urban, natural resources, economic indicators)
- List the factors that contribute to or determine demographic changes. (i.e., religion, race, population growth, economic change)
- Compare and contrast geographic regions (within or between countries)

### **South America**

#### **Students will be able to:**

- Identify the location of this area in World Spatial Terms.
- Recognize the locations of important landforms, waterways, countries, and cities.
- Describe the environmental factors that influence people lifestyles. (i.e., rural vs. urban, natural resources, economic indicators)
- List the factors that contribute to or determine demographic changes. (i.e., religion, race, population growth, economic change)
- Compare and contrast geographic regions (within or between countries)



# **TECHNOLOGY**

## **Grades 5-8 Objectives**

### **I. Technology Operations and Concepts: Word Processing, Keyboarding**

1. Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
2. Plan and create a simple database, define fields, input data, and produce a report using sort and query.
3. Create and present a multimedia presentation that includes graphics.
4. Generate a spreadsheet to calculate, graph, and present information.
5. Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

### **II. Creativity and Innovation**

1. Synthesize and publish information about a local or global issue or event on a collaborative, web-based service (also known as a shared hosted service).

### **III. Communication and Collaboration**

1. Participate in an online learning community with learners from other countries to understand their perspectives on a global problem or issue, and propose possible solutions.

### **IV. Digital Citizenship**

1. Model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics.
2. Summarize the application of fair use and Creative Commons guidelines.
3. Demonstrate how information on a controversial issue may be biased.

### **V. Research and Information Literacy**

1. Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

### **VI. Critical Thinking, Problem Solving, and Decision-Making**

1. Use an electronic authoring tool in collaboration with learners from other countries to evaluate and summarize the perspectives of other cultures about a current event or contemporary figure.

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# **VISUAL ARTS**

## **Objectives for Grades 3, 4, 5**

### **The Creative Process:**

1. Identify elements of art and principles of design that are evident in everyday life.
2. Compare and contrast works of art in various mediums that use the same art elements and principles of design.

## **History of Arts and Culture:**

1. Recognize works of dance, music, theatre, and visual art as a reflection of societal values and beliefs.
2. Relate common artistic elements that define distinctive art genres in dance, music, theatre, and visual art.
3. Determine the impact of significant contributions of individual artists in dance, music, theatre, and visual art from diverse cultures throughout history.

## **Performing:**

1. Work individually and collaboratively to create two- and three-dimensional works of art that make cohesive visual statements and that employ the elements of art and principles of design.
2. Identify common and distinctive characteristics of artworks from diverse cultural and historical eras of visual art using age-appropriate stylistic terminology (e.g., cubist, surreal, optic, impressionistic), and experiment with various compositional approaches influenced by these styles.
3. Identify common and distinctive characteristics of genres of visual artworks (e.g., realism, surrealism, abstract/nonobjective art, conceptual art, and others) using age-appropriate terminology, and experiment with various compositional approaches influenced by these genres.
4. Differentiate drawing, painting, ceramics, sculpture, printmaking, textiles, and computer imaging by the physical properties of the resulting artworks, and experiment with various art media and art mediums to create original works of art.
5. Collaborate in the creation of works of art using multiple art media and art mediums, and present the completed works in exhibition areas inside and outside the classroom.

## **Aesthetic Responses & Critique Methodologies**

### **A. Aesthetic Responses**

- Employ basic, [discipline-specific arts terminology](#) to categorize works of dance, music, theatre, and visual art according to established classifications.
- Make informed aesthetic responses to artworks based on structural arrangement and personal, cultural, and historical points of view.
- Demonstrate how art communicates ideas about personal and social values and is inspired by an individual's imagination and frame of reference (e.g., personal, social, political, historical context).

### **B. Critique Methodologies**

- Assess the application of the elements of art and principles of design in dance, music, theatre, and visual artworks using observable, objective criteria.
- Use evaluative tools, such as rubrics, for self-assessment and to appraise the objectivity of critiques by peers.
- Use discipline-specific arts terminology to evaluate the strengths and weaknesses of works of dance, music, theatre, and visual art.
- Define technical proficiency, using the elements of the arts and principles of design.
- Distinguish ways in which individuals may disagree about the relative merits and effectiveness of artistic choices in the creation and performance of works of dance, music, theatre, and visual art.



## **WORLD LANGUAGES**

### **Personal Expressions/The School**

#### **Students will be able to:**

- Articulate their needs within a classroom environment.
- Formulate simple sentences using adjectives to describe school subjects

### **Geography**

#### **Students will be able to:**

- Review countries and geographical features on a map.
- Identify geographical terminology and vocabulary in target language.
- Compare and contrast cultural elements in Hispanic countries.

### **Professions**

#### **Students will be able to:**

- Use appropriate forms of verb “to be” (ser) to identify professions.
- Apply concepts of adjective agreement.

### **Asking Questions & Present Tense Verbs (AR)**

#### **Students will be able to:**

- Synthesize information on AR verbs in order to create questions and answers as well as conversational sentences in the present tense.