NORTHERN VALLEY
SCHOOLS CONSORTIUM

CURRICULUM OBJECTIVES: GRADE FOUR 2024-25

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

LEAD~CREATE~MODEL~SUSTAIN
NVCC
A CULTURE OF LEARNING

NORTHERN VALLEY SCHOOLS CONSORTIUM ADMINISTRATORS

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TABLE OF CONTENTS

LANGUAGE ARTS

Compare and Contrast Reading

- Readers can compare and contrast different points of view.
- Readers can compare and contrast multiple accounts of the same event.
- Readers can compare and contrast similar themes.

Informational Reading and Writing

- Readers research in a content area and take notes to learn more about the subject matter.
- Readers write and talk about their reading to grow new ideas about the subject matter.
- Readers use their research notes to share their new knowledge.
- Readers describe the impact of people and events.
- Writers come up with and narrow down topics.
- Writers use a variety of informational details.
- Writers organize their writing using text features.
- Writers revise and edit for flow and accuracy.

Narrative and Opinion Writing

- Writers come up with and narrow down topics.
- Writers will use characters, setting, and plot to create writing.
- Writers use dialogue to enhance writing.
- Writers organize their writing.
- Writers revise and edit for flow and accuracy.
- Writers will use a comma before a coordinating compound conjunction.
- Writers will use quotation marks for dialogue.
- Writers will use apostrophes for possession.
- Writers will make strong opinion statements.
- Writers will use research to support or enhance an argument.
- Writers will use their experiences or the experiences of others to enhance their writing.
- Writers will organize their writing.
- Writers revise and edit for flow and accuracy.
- Writers will place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
- Writers will use independent clauses and coordinating conjunctions.

Poetry

- Readers can understand the structural elements of poems.
- Poets can use words and imagery to create vivid, mental pictures.
- Poets can use reader feedback to make their writing more powerful.
- Poets will form irregular verbs and form and use progressive tenses.

Reading and Writing Foundations

- Readers choose books that interest them.
- Readers read with a purpose.
- Readers use strategies to construct meaning from what they read.
- Readers create goals to grow as readers.
- Writers write in an organized way.
- Writers use the writing process to improve their work.
- Writers use different styles for different audiences.
- Writers use feedback to make their writing more powerful.
- Writers choose punctuation for effect.

Reading Literature

- Readers determine the impact of individuals and events throughout the text.
- Readers determine the theme of a text.
- Readers make connections to a text.
- Readers draw inferences from a text.
- Readers build ideas about text through reading with partners and groups.

Spelling/Morphology/Vocabulary

- Determine the meaning of unknown words using a variety of strategies.
- Use Greek and Latin affixes and roots for meaning and spelling.
- Identify antonyms and synonyms.
- Write words that contain a sound or spelling change.

LIBRARY/MEDIA

Library Usage

- Access and navigate the library OPAC to locate books on the shelves.
- Differentiate between genres and select according to interest.

Digital Citizenship

- Adhere to Acceptable Use Policy.
- Use digital tools to showcase new learning.
- Identify and practice online and offline behavior that is safe, legal and ethical.
- Create a list of positive online traits and negative online traits.
- Connect online traits, both negative and positive, to online activity and the benefits or consequences of these behaviors.

Research

- Formulate questions about a curricular topic or personal interest.
- Access and navigate online resources.
- Differentiate among resources and evaluate information.
- Record information and avoid plagiarism.
- Obey copyright rules.
- Start to reflect on the research process for strengths and weaknesses and modify accordingly.

MATHEMATICS

Place Value and Number Operations: Addition and Subtraction

- Read and write numbers up to one million using the base-ten number system.
- Compare and order numbers up to one million using place value and the >, <, = symbols.
- Round whole numbers expressed through millions using methods of estimations.
- Solve addition and subtraction equations with regrouping using place value.
- Solve addition and subtraction multi-step word problems involving multi-digit numbers through millions with labels.

Number Operations: Multiplication and Division

- **One-digit by multi-digit multiplication**
  - Use multiplication to compare two numbers.
  - Use patterns to solve for the product of multiples of 10, 100, and 1000.
  - Solve one-digit by multi-digit number multiplication equations using various methods.

- **Two-digit by two-digit multiplication**
  - Solve two-digit by multi-digit number multiplication equations using various methods.

- **Factors and Multiples**
  - Determine the possibility of multiple factor pairs for each composite number (factor rainbows).
  - Understand and relate that the products of a number are multiples and can be listed as such.
  - Determine the least common multiple and greatest common factor of given numbers.
  - Classify numbers as prime or composite.

Division

- Solve division problems with remainders using various methods (modeling, Distributive Property, repeated subtraction, partial quotients, regrouping).
- Interpret the meaning of a remainder in a word problem (Add It, Drop It, Use It, Share It).
- Solve multiplication and division multi-step word problems involving multi-digit numbers through millions with labels.

Application of Multiplication and Division

- Area/Perimeter
  - Find the area of rectangles and squares using models and formulas (simple, irregular, and unknown measures).
  - Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.

- Measurement
  - Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit (3 feet = ____ inches).
  - Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit.
  - Solve multi-step word problems involving elapsed time.
  - Represent measurement quantities using diagrams, such as number line diagrams, that feature a measurement scale.

- Patterns
  - Generate, analyze, and identify number patterns given a number rule.
  - Generate, analyze, and identify geometric patterns given a number rule.

- Data
  - Represent and interpret data (tables, charts, bar graphs, pictographs).

Understanding Fractions

- Identify the parts of a fraction (numerator, denominator, fraction bar).
- Write a fraction as a sum of unit fractions (¾ = ¼ + ¼ + ¼).
- Compose and decompose fractions in more than one way. (¾ = ¼ + ¼ + ¼ or ¾ = 2/4 + ¼).
- Generate equivalent fractions using models, number lines, multiplication, and division.
- Compare and order fractions with like and unlike denominators using different strategies (benchmarks ½ and 1, common denominator, models, cross multiplication).

Fraction Operations and Mixed Numbers

- Add and subtract fractions with like denominators using fraction notation, models, and number lines.
- Multiply fractions with like denominators using fraction notation, models, and number lines.
- Rename mixed numbers improper fractions.
- Multiply mixed numbers and whole numbers.
- Solve multi-step problems with whole numbers and fractions.
- Represent and interpret data through the use of line plots using digital and non-digital tools (e.g. Google Sheets).
- Make a line plot to display a data set of measurements in fractions of a unit (i.e., 1/2, 1/4, 1/8).
- Use information in line plots to solve addition and subtraction problems with fractions.

Decimal Concepts

- Identify and name a decimal number.
- Convert fractions to decimals and decimals to fractions.
- Use decimal notation for fractions with denominators 10 and 100.
- Add and subtract decimals to the hundredths place.
- Add and subtract decimal numbers involving money.
- Compare two decimals to hundredths by reasoning about their size.

Identify and Classify Shapes

- Draw, identify, and name points, lines, line segments, rays, and perpendicular and parallel lines.
- Recognize and draw obtuse, acute, and right angles.
- Identify points, lines, line segments, rays, angles, and perpendicular and parallel lines in two-dimensional figures.
- Sort shapes based on their attributes (lines, number of sides, and types of angles).
- Understand that shapes can have a line(s) of symmetry.
- Identify lines of symmetry within a shape.
- Recognize geometric shapes in our everyday lives.

Measure and Draw Angles

- Recognize that a circle is always 360 degrees and can be presented in units of degree or fractional parts.
- Convert fractional parts of a circle to degrees.
- Use a protractor to measure and draw different types of angles (manipulative and digital).
- Recognize that when angles are joined in non overlapping parts the total measure is the sum of the parts (supplementary and complementary angles).
- Solve real word problems using addition and/or subtraction to find degree units and fractional parts.

MUSIC

CREATING

- Generate and create musical ideas within related tonalities and meters.
- Use standard and/or iconic notation and/or recording technology to document personal rhythmic, melodic, and simple harmonic musical ideas.

PERFORMING

- Demonstrate understanding of the structure and the elements of music in music selected for performance.
- When analyzing selected music, read and perform using iconic and/or standard notation.
- Demonstrate and explain how intent is conveyed through interpretive decisions and expressive qualities.
- Apply teacher-provided and collaboratively developed criteria and feedback to evaluate the accuracy and expressiveness of ensemble and personal performances.
- Rehearse to refine technical accuracy and expressive qualities, and address performance challenges.
- Perform music, alone or with others, with expression and technical accuracy, and appropriate interpretation.
- Demonstrate performance decorum and audience etiquette appropriate for the context, venue, and genre.
- Sing independently and in groups in one or more parts with the use of harmony.
- Improvise short melodic phrases.
- Read formal notation in treble and bass clef including all subdivisions until 4 sixteenth notes.
- Conduct musical selections in 2 and 4.
- Demonstrate knowledge of basic concepts of music.
- Note Duration and Rests - Subdivisions until Dotted Quarter and 8th note triplets.

RESPONDING

- Demonstrate and explain how selected music connects to and is influenced by specific interests, experiences, purposes, or contexts.
- Employ basic, discipline-specific arts terminology to categorize works of dance, music, according to established classifications (i.e., tempo, structure, dynamics).
- Demonstrate how art communicates ideas about personal and social values.
- Use evaluative tools for self-assessment and assessment of peers.
- Consider the context and intended audience of the creation of a musical piece.
- Use appropriate music terminology to identify facts regarding a work of music.
- Make informed aesthetic responses to artworks based on the structural arrangement and personal, cultural, and historical points of view.

CONNECTING

- Create rhythmic, melodic, and harmonic ideas, and explain the connection to specific purpose and context.
- Demonstrate performance decorum and audience etiquette appropriate for the context, venue, and genre.
- Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.
- Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, context, and technical skill.

PHYSICAL EDUCATION

PERSONAL QUALITIES

Reflection

- Listen and respond to the ideas, thoughts, and feelings of others. Respond appropriately, (i.e., nodding or agreeing).
- Demonstrate positive choices and awareness of self.
- Discuss learning and identify individual strengths and next steps for growth and development.

Empathy

- Display inclusion of others.
- Engage positively with others and use equipment safely.
- Respond to self and peer assessments with respect.

Adaptability

- Adapt to certain roles so as to lead to successful outcomes.
- Recognizes a variety of emotions.
- Developing an ability to know when to listen and when to talk when interacting with others.

Responsibility

- Compare and contrast verbal and nonverbal communication skills and the role they play in individual, partner, and group activities.
- Begin classifying and demonstrating the ability to play different roles as individuals and as part of a group/team.

Mindset

- Define and apply understanding of what it looks like to be a good winner and how to cope appropriately with losing.
- Develop strategies to face challenges and work to achieve a successful outcome.
- Recognize achievements as being a key component to improve performance.

Self-Direction

- Show enthusiasm to participate and understand the benefits of challenging oneself to learn new skills and concepts.
- Identify and describe reasons why people participate in physical activity.
- Distinguish the difference between internal and external motivation to participate in physical activity and learning.

PHYSICAL COMPETENCIES

Kinesthetic Awareness

- Perform movements at various levels throughout the gym in personal and general space.
- Change direction during chasing and fleeing games at different speeds.
- Look to move bodies into spaces away from pressure during team games.

Balance and Control

- Maintain balance while performing basic sports skills i.e., kicking, throwing, catching.
- Hold front and side planks for a period of time.
- Complete more advanced obstacle courses with time constraints as an individual and as part of a team.

Coordination and Fluency

- Link and order more moderate sport skill operations, for example, a forearm pass in volleyball.
- Move with purpose demonstrating balance, control, and rhythm in team activities.
- Demonstrate knowledge and understanding of what a quality movement looks like, and feels like.

Rhythm and Timing

- Demonstrate proficiency in following teacher-led patterns of movement to create moderate sequences.
- Flow from different movements at different levels in reaction to external stimulus i.e., musical cues or teacher cues.

Gross and Fine Motor Skills

- Show fundamental concepts of hand/eye and foot/eye coordination to execute skills using modified equipment.
- Perform movements in moderate activities.

PHYSICAL FITNESS

- Stamina (Cardiovascular/Muscular Endurance)
- Know the difference between aspects of fitness.
- Recognize the various fitness testing components used in gym class and the purpose of testing for goal setting and measurement.
- Set targets for sustaining moderate to vigorous physical activity.

Speed

- Demonstrate understanding of speed in simple terms and how it affects ability to perform.
- Move at different speeds, with or without an implement, and maintain balance whilst changing direction.
- Get into good body positions for running at top speed in straight lines.

Core Stability and Strength

- Show postural control when starting, stopping, and changing direction.
- Describe where the core is and demonstrate how it supports the body.
- Hold body weight in a variety of positions.
- Complete knee-down push-ups and begin to work towards full push-ups.

Flexibility

- Identify flexibility training programs and have knowledge of flexibility tests.
- Set goals for improving one's flexibility at various joints in the body.
- Describe the importance of flexibility in sports.

HEALTH

Healthy Relationships

- Identify characteristics of healthy versus unhealthy relationships among friends and with family.
- Give examples of inappropriate behaviors that are harmful to others.
- Identify what actions and statements constitute bullying and harassment.
- Explain the effects of stereotypes.
- Create methods for an inclusive environment.

Personal Health

- Identify personal health strategies to reduce illness.
- Discuss the importance of getting adequate sleep.
- Identify how balanced nutrition can help overall health.
- Discuss how physical activity can improve physical and mental health.
- Discuss conditions that may keep the human body from working properly and the ways in which the body responds.
- Identify available school resources.
- Recall what medical professionals are needed to assist in emergencies.
- Explain when to reach out for assistance.

SCIENCE

Unit 1: Weathering and Erosion

In this unit of study, students develop understandings of the effects of weathering and the rate of erosion by water, ice, wind, or vegetation. The crosscutting concepts of patterns and cause and effect are called out as organizing concepts. Students demonstrate grade-appropriate proficiency in planning and carrying out investigations and constructing explanations. Students are also expected to use these practices to demonstrate an understanding of the core ideas.

Unit 2: Earth Processes

In this unit of study, students apply their knowledge of natural Earth processes to generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. In order to describe patterns of Earth's features, students analyze and interpret data from maps. The crosscutting concepts of patterns, cause and effect, and the influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in planning and carrying out investigations, analyzing and interpreting data, and constructing explanations and designing solutions. Students are also expected to use these practices to demonstrate an understanding of the core ideas.

Unit 3: Structure and Function

In this unit of study, students develop an understanding that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. The crosscutting concepts of systems and system models are called out as organizing concepts for this disciplinary core idea. Students are expected to demonstrate grade-appropriate proficiency in engaging in argument from evidence. Students are also expected to use this practice to demonstrate an understanding of the core idea.

Unit 4: Transfer of Energy

In this unit of study, fourth-grade students develop an understanding that energy can be transferred from place to place by sound, light, heat, and electrical currents. Students also obtain and combine information to describe that energy and fuels are derived from natural resources and that their uses affect the environment. The crosscutting concepts of cause and effect, energy and matter, the interdependence of science, engineering, and technology, and influence of science, engineering, and technology on society and the natural world are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in planning and carrying out investigations and obtaining, evaluating, and communicating information. Students are also expected to use these practices to demonstrate an understanding of the core ideas.

Unit 5: Force and Motion

In this unit of study, students are able to use evidence to construct an explanation of the relationship between the speed of an object and the energy of that object, and are expected to develop an understanding that energy can be transferred from object to object through collisions. The crosscutting concept of energy and matter is called out as an organizing concept. Students are expected to demonstrate grade-appropriate proficiency in asking questions, defining problems, and constructing explanations, and designing solutions. Students are also expected to use these practices to demonstrate an understanding of the core ideas.

Unit 6: Using Engineering Design with Force and Motion Systems

In this unit of study, students use evidence to construct an explanation of the relationship between the speed of an object and the energy of that object. Students develop an understanding that energy can be transferred from place to place by sound, light, heat, and electrical currents or from objects through collisions. They apply their understanding of energy to design, test, and refine a device that converts energy from one form to another. The crosscutting concepts of energy and matter and the influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in asking questions and defining problems, planning and carrying out investigations, constructing explanations, and designing solutions. Students are also expected to use these practices to demonstrate their understanding of the core ideas.

Unit 7: Waves and Information

In this unit of study, students use a model of waves to describe patterns of waves in terms of amplitude and wavelength and to show that waves can cause objects to move. The crosscutting concepts of patterns; interdependence of science, engineering, and technology; and influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in developing and using models, planning and carrying out investigations, and constructing explanations, and designing solutions. Students are also expected to use these practices to demonstrate their understanding of the core ideas.

SOCIAL STUDIES

Civics and Social Change

- Use multiple sources to explain why it is important for citizens to act without prejudice and bias towards other individuals.
- Identify and explain actions that are unfair or discriminatory and how people from diverse cultures can initiate change and policies.
- Compare and contrast responses of individuals and groups, past and present, to violations of fundamental rights and how these actions initiated policy change (i.e., Martin Luther King, Jr., Ruby Bridges, Rosa Parks, Helen Keller, Mother Theresa, Susan B. Anthony, Nelson Mandela, etc.).
- Describe how national and international leaders, businesses, and global organizations promote human rights and aid individuals and nations in need.
- Investigate the lives of New Jersey individuals with diverse experiences who have contributed to the improvement of society.

Democracy and Our Government

- Explain how the United States functions as a representative democracy and describe the roles of elected representatives and how they interact with citizens at the national level.
- Explain how national and state governments share power in the federal system of government.
- Analyze and explain how fundamental rights are guaranteed by the U.S. Constitution and the Bill of Rights and how they contribute to the formation and improvement of American democracy.
- Explain how the U.S. Government is organized into three branches and how the Constitution defines and limits the power of the government.
- Describe the process by which immigrants can become United States citizens.
- Describe how George Washington, Thomas Jefferson, Benjamin Franklin, and Governor William Livingston have impacted state and national governments over time.

Economics in Our World

- Describe the role and relationship among households, businesses, laborers, and governments within the economic system.
- Explain how trade functions and the role of trade in our society.
- Explain why individuals and businesses specialize in trade.
- Understand that opportunity and scarcity are factors in determining costs and in making decisions.
- Compare and contrast how the availability of resources affects people across the world differently.
- Explain how the development of communication and transportation systems has led to increased collaboration in global trade.
- Analyze the role of the government in regulating the production of goods and services.
- Illustrate how markets and events affect production, distribution, and consumption of goods and services. (i.e., impact weather has on produce prices).
- Use data to make economic decisions based on the availability of resources and describe their impacts.
- Describe the qualities of entrepreneurs in a capitalistic society. (i.e., Bill Gates, Oprah Winfrey, Thomas Edison, Elon Musk, Jeff Bezos, Mark Zuckerberg).

US Geography and Culture

- Compare and contrast characteristics of regions in the U.S. (i.e., Northeast, Southeast, Midwest, Southwest, West).
- Understand how landforms, products and resources, culture, climate, and landmarks influence culture.
- Explain how geographic conditions and the availability of natural resources can help us to understand cultural differences.
- Use a variety of maps (i.e., physical, topographical, political, etc.) to identify locations of natural resources and human movement.
- Understand that people with different experiences and perspectives impact the culture of a region.

VISUAL ARTS

CREATING

Color and Value

- Create shades and tints in color and grayscale.

Line and Texture

- Experiment with line techniques that produce high contrast.
- Continue actual and implied texture in works of art.

Shape, Form and Space

- Experience the process of creating the illusion of 3D forms on a 2D plane.
- Explore form to create 3D work.

Generating and Conceptualizing Ideas

- Brainstorm multiple approaches to a creative art or design problem.
- Collaboratively set goals and create artwork that is meaningful and has purpose to the makers.

Organizing and Developing Ideas

- Explore and invent art-making techniques and approaches.
- When making works of art, utilize and care for materials, tools, and equipment in a manner that prevents danger to oneself and others.
- Document, describe, and represent regional constructed environments.

Refining and Completing Projects

- Revise artwork in progress on the basis of insights gained through peer discussion.

PRESENTING

- Analyze how past, present, and emerging technologies have impacted the preservation and presentation of artwork.
- Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats.
- Compare and contrast purposes of art museums, art galleries, and other venues, as well as the types of personal experiences they provide.

RESPONDING

- Compare responses to a work of art before and after working in similar media
- Analyze components in visual imagery that convey messages.
- Interpret art by referring to contextual information and analyzing relevant subject matter, characteristics of form, and use of media.
- Apply one set of criteria to evaluate more than one work of art.

CONNECTING

- Create works of art that reflect community cultural traditions.
- Through observation, infer information about time, place, and culture in which a work of art was created.

WORLD LANGUAGES

Spanish-Speaking Countries and Geography

- Locate and name Spanish-speaking countries in South America.

- Ask and respond to the questions: Where are you from?/ De donde eres tu?/ Where do you live? Donde vives?
- Name common cultural sites in various Spanish-speaking countries.
- Identify Spanish-speaking countries by their flags.

Physical Health/Body Parts

- Correlate body parts to the face, body, or physical attributes.
- Write sentences about what body parts one "has" (tiene).
- Read and perform a bodily skit made by the teacher.
- State personal expressions for what one feels like doing.
- Use verbs correctly.

Calendar/Cultural Celebrations

- Say the date in Spanish.
- Distinguish the weather in different seasons.
- Articulate the dates of when holidays occur.
- Build and create student-made maracas for Cinco de Mayo.
- Create papel picado and other crafts for El Día de los Muertos.
- Compare and contrast how holidays are celebrated in Latin American countries versus in America.
- Discuss what foods are eaten on holidays.

School

- Identify school subjects.
- Relate school materials to certain subjects.
- Utilize classroom expressions to communicate within the classroom.
- Articulate classroom commands and when they are used in the setting.
- Utilize first-person tener to describe classes a student has on their school schedule.

Clothing

- Categorize clothing by season.
- Illustrate clothing based on simple written sentences.
- Use 1st and 3rd person expressions related to clothing.
- Articulate 1st person singular.
- Compare and contrast the clothing of different Spanish-speaking countries.

House and Home

- Identify names of furniture in addition to more rooms, hallways, and outside of the house.
- Articulate several appliances in each room.
- Illustrate a home with at least 7 rooms, stairs, multiple floors, and at least 5 furniture pieces.
- Use "Hay" to describe a house and what is in the house.
- Compare and contrast Latin American homes and American.

Telling Time

- Recognize the question- ¿Qué hora es?/Answer with the hour.
- Articulate time by the half-hour.
- Construct sentences describing where one goes and what one does during the morning, afternoon, and night.
- Identify cultural differences in schedules/activities in America vs Spanish-speaking countries.

Food

- Identify foods using learned vocabulary.
- Make a list of foods/ingredients you will need to make a meal.
- Create a supermarket list.
- Classify foods by meals.