

Welcome to Curriculum Night



Elizabeth Veneziano

Supervisor of Language Arts

Grades 6 - 12



Michael Figueiredo

Supervisor of Social Studies

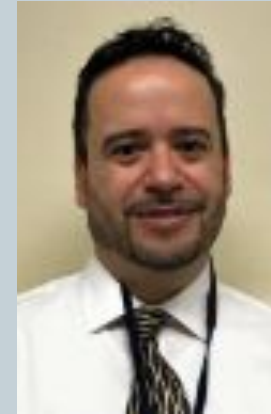
Grades K - 12



Emad AbuHakmeh

Supervisor of Mathematics

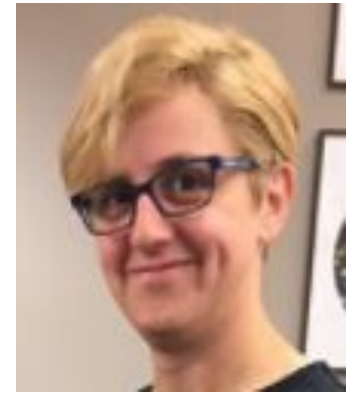
Grades 6 - 12



Felix Plata

Supervisor of World Languages/ESL

Grades K - 12



Stephanie Suriano

Supervisor of Science

Grades K - 12

Social Studies Education



- New Jersey Student Learning Standards
- Through the lenses and tools of history, economics, civics and geography
- Prepare students for College, Career, and Civic Life

Social Studies in West Orange



- Emphasis on deep understanding of concepts
- Authentic learning experiences that will prepare them for the worlds of work, college, and civil life.
- Ensure that the history of ALL Americans is incorporated into daily instruction.

Social Studies in West Orange



- Engage students to develop their abilities to think, reason, conduct research.
- Utilize technology as a tool of engagement for student learning.
- Promote literacy skills through examination of informational text and evidence-based writing.



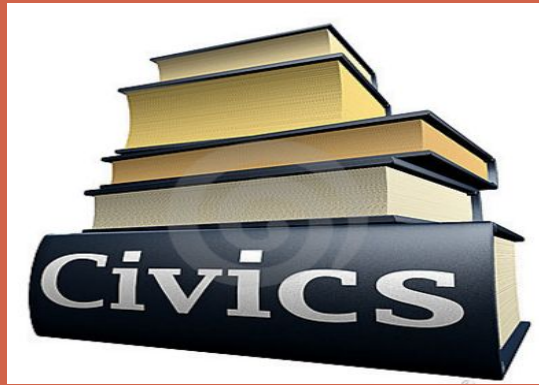
GRADE 6

United States History Through Reconstruction

Overview/Purpose: Grade 6



- Designed for students to explore U.S. History in greater detail than in previous years.
- The course of study is a continuation from grade 5 where students learn about early American history through the American Revolution.
- Students will explore the rich diversity and complexity of the evolution of the American Society prior to the 20th century.



GRADE 7

Civics

Overview/Purpose: Grade 7



- Builds upon the foundational knowledge and skills acquired in the 6th grade.
- Students will now apply what they have learned and understand how they fit into the American Political and Economic System.
- The rights and responsibilities of being an American citizen are spiraled throughout the course.



GRADE 8

Ancient World History to the Renaissance

Overview/Purpose: Grade 8



- Provides students with a comprehensive understanding of the ancient world beginning with the development of early human societies through the Renaissance.
- The contributions of diverse groups of people are examined.
- Builds upon the knowledge and skills acquired in earlier grades with a greater emphasis on reading and writing in preparation for high school.

Scope and Sequence



Grade 5: Pre-Colonial America/Early American History



Grade 6: US History Through Reconstruction

Grade 7: Civics and The American Economy

Grade 8: Ancient Civilizations Through Renaissance



Grade 9: Modern World History

What would I see my child doing during social studies class?



- Investigating content through an essential question or theme that is rigorous, complex, and deep.
 - What are the intended/unintended consequences of territorial expansion? (6)
 - Have women achieved true equality in America? (7)
 - The influence of geography on History? (8)
- Analyzing sources and evidence representing multiple perspectives to develop a complex and comprehensive understanding of the content/question/theme.
- Communicating their findings within the classroom through discussion, debate, writing, and multimedia or in the wide world via technology.

A West Orange Social Studies student will...



- Demonstrate the ability to solve problems, make decisions, and analyze issues from various viewpoints, as well as to read, write, listen, and communicate ideas to others.
- Consider multiple perspectives, value diversity, and promote cultural understanding.
- Develop 21st Century skills which enable them to function as lifelong learners and to examine and evaluate issues of importance to all Americans.
- Recognize the common human qualities that unite people, cultures, societies and economic systems that prevail in other parts of the world, and recognize the political and cultural barriers that impede dialogue.

Social Studies Education

The word cloud features the following words and phrases, with varying sizes and orientations:

- social studies** (largest, central)
- geography** (large, right side)
- history** (large, bottom center)
- economics** (large, top center)
- community** (large, top left)
- citizenship** (large, bottom right)
- civics** (medium, left side)
- research** (medium, left side)
- diverse** (medium, left side)
- skills** (medium, center)
- needed** (medium, right side)
- 21st century** (medium, right side)
- knowledge** (medium, bottom right)
- understanding** (medium, top left)
- world** (medium, top right)
- make** (medium, top center)
- students** (medium, left side)
- community** (medium, top left)
- essential** (small, top right)
- starting** (small, top right)
- provides** (small, top right)
- sustaining** (small, top right)
- provide** (small, top right)
- representatives** (small, top right)
- citizens** (small, top right)
- graduate** (small, top right)
- competitive** (small, top right)
- use** (small, right side)
- democratic** (small, bottom right)
- new** (small, bottom right)
- preparing** (small, bottom right)
- problem solving** (small, bottom right)
- complexity** (small, bottom right)
- framework** (small, bottom right)
- group** (small, bottom right)
- interdependent** (small, bottom right)
- social** (small, bottom right)
- public** (small, bottom right)
- society** (small, bottom right)
- reasoned** (small, bottom right)
- emphasis** (small, bottom right)
- disciplines** (small, center)
- cornerstone** (small, center)
- ways** (small, center)
- connections** (small, center)
- create** (small, center)
- lay** (small, center)
- context** (small, center)
- mind** (small, center)
- opening** (small, center)
- developed** (small, bottom center)
- business** (small, bottom center)
- progress** (small, bottom center)
- systems** (small, bottom center)
- vitality** (small, bottom center)
- studies** (small, bottom center)
- accomplished** (small, center)
- collaboration** (small, center)
- culturally** (small, center)
- environment** (small, center)
- young** (small, center)
- responsible** (small, center)
- decisions** (small, center)
- concepts** (small, center)
- crucial** (small, center)
- reasoning** (small, center)
- critical thinking** (small, center)
- standards** (small, center)
- interact** (small, center)
- able** (small, center)
- important** (small, center)
- humans** (small, center)
- help** (small, center)
- competencies** (small, center)
- members** (small, center)
- set** (small, center)
- investigation** (small, center)
- ability** (small, center)
- prepared** (small, center)
- military** (small, center)
- offers** (small, center)
- innovative** (small, center)
- vision** (small, center)
- develop** (small, center)
- self-assessment** (small, center)
- time** (small, center)
- without** (small, center)
- describe** (small, center)
- workforce** (small, center)
- strong** (small, center)
- education** (small, center)
- know** (small, center)
- informed** (small, center)

Questions?

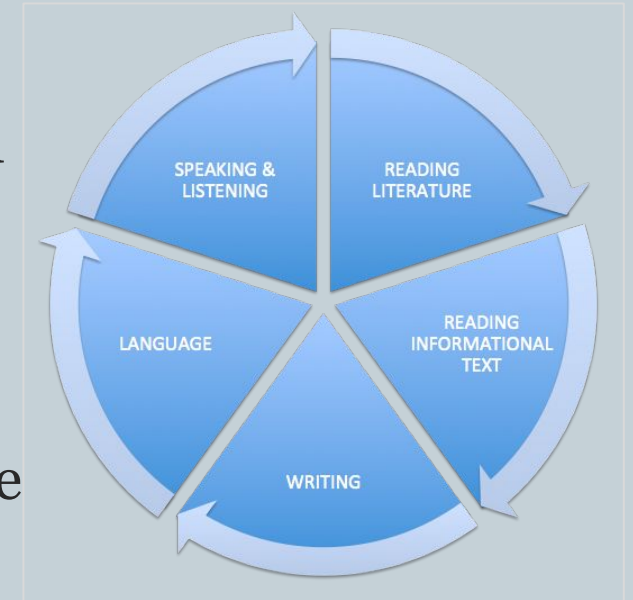


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English Language Arts



- Aligned to New Jersey Student Learning Standards
- Intentional progression of skills, knowledge and complex texts necessary for students to grow as readers and writers
- Immerse learners in the process of reading, writing, speaking, and listening
- Practice essential tools for communication, self-discovery, and to think critically
- Through reading and writing, learners develop an awareness of the human condition, gain empathy, and discover a sense of personal empowerment



READING LITERATURE & INFORMATIONAL TEXT



- Read variety of authentic fiction and nonfiction texts, poetry and drama
- Make connections between reading and writing in all units
- Begin year with whole class novels to build community
- Emphasis on close reading to practice analyze of texts
- Book club selections to provide voice and choice
- Independent reading throughout year

WRITING



- Practice three types of writing- on demand and as process
 - Narrative, Informative/Explanatory, Argumentative
- Conduct short research projects
- Understand plagiarism and how to use direct quotes or other's words to support thesis or claim
- Basic MLA format
- Assess writing using department rubric to ensure consistency for students

LANGUAGE, SPEAKING & LISTENING



- Teaching of language through explicit mini lessons and writing instruction
- Application of targeted language use through student writing
- Speaking and listening honed through class discussion, collaboration, debate, book clubs, Socratic Seminars
- Infusion of technology to communicate, collaborate and critically engage with the content

Common Instructional Approach in the ELA Class



55
Minutes

Explicit teaching of skill/concept: (10-15 minutes)

- Purpose of learning
- Mini- lesson on skill/concept
- Close read of text through specific lens
- Teacher models process and expectations

Students practice skill/concept: (30 minutes)

- Independent reading and writing
- Collaborative groups
- Small group instruction
- Book clubs
- Teacher conferences

**Apply, Analyze,
Evaluate, Synthesize**

Students reflect/Assessment of skill/concept: (5-10 minutes)

- Check for understanding
- Summary of learning

What would I see my child doing in ELA?



- **Examine content and evaluate text through essential question(s) and themes.**
 - How can understanding others' experiences help us to develop an understanding of ourselves?
 - Do events in our lives impact us like events in the story impact a character? Do we see ourselves in the stories we read?
 - How does closely reading a text impact our understanding and connection to literature?
- **Respond to texts in a variety of writing formats for different purposes and audiences.**
- **Communicate thoughts and positions effectively with relevant evidence and research.**

Middle School ELA



- Comprehending Text → Analysis of Text
- Persuasive Writing → Argumentative Writing
- Topic Sentence → Thesis Statement
- Summary → Analysis

Questions?



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Science 6-8



Next Generation Science Standards



- Provide a strong science education that equips students with the ability to think critically, analyze information, and solve complex problems — the skills needed to pursue opportunities within and beyond STEM fields.
- Identify scientific and engineering practices, crosscutting concepts, and core ideas in science that all K-12 students should master in order to prepare for college and 21st-century career readiness.
- From kindergarten to Grade 12, students learn about life science, physical science, and earth and space science using 8 Scientific and Engineering Practices and 7 Crosscutting Concepts.

Disciplinary Core Ideas



- Life Science
- Physical Science
- Earth and Space Science

8 Scientific and Engineering Practices



1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

7 Cross Cutting Concepts



1. Patterns
2. Cause and effect: Mechanism and explanation
3. Scale, proportion, and quantity
4. Systems and system models
5. Energy and matter: Flows, cycles, and conservation
6. Structure and function
7. Stability and change

Shift Necessary to Meet the NGSS

Content	Teachers	Students
<p>Presented three dimensionally with explicit reference to science practices, crosscutting concepts, and disciplinary core ideas</p> <p>Presented through phenomena not narrative theoretical descriptions</p> <p>Includes problem identification and solutions</p> <p>Must reference NGSS</p> <p>Anchored in disciplinary core ideas not isolated facts</p>	<p>Guide and create opportunities for students to uncover scientific concepts</p> <p>Question students' logic and data</p> <p>Present opportunities for investigation with multiple outcomes</p> <p>Demonstrate deep understanding of content</p> <p>Oversee discourse led by students</p>	<p>Ask questions</p> <p>Create Models</p> <p>Identify and design solutions</p> <p>Argue from Evidence</p> <p>Connect phenomena to disciplinary core ideas</p> <p>Communicate scientific information</p> <p>Interpret and analyze data</p>

Spiral Approach



- Students will learn content in life science, physical science, and earth and space science each of their 3 years of middle school.
- Each year builds on the knowledge learned the previous year and is designed to extend and deepen knowledge.
- The research shows that multiple exposures to topics enhance student learning.

6th Grade



Astronomy

Forces and Motion

Types of Interactions

Weather and Climate

Matter and Energy in Organisms

Growth, Development, and Reproduction in Organisms

Interdependent Relationships

7th Grade



Structure and Function

Body Systems

Organization for Matter and Energy Flow in Organisms

Structure and Properties of Matter

Interactions of Matter

Chemical Reactions

Earth's Systems

8th Grade



Stability and Change on Earth

Human Impact

Inheritance and Variation of Traits

Evidence of Common Ancestry

Selection and Adaptation

Relationship Among Forms of Energy

Thermal Energy

Philosophy



The West Orange Middle School Science Program uses an inquiry-based approach to foster curiosity and creativity. Our goal is to prepare students to succeed in a global information economy fueled by advances and innovation in science, engineering, and technology.

<http://www.state.nj.us/education/modelcurriculum/sci/>

<http://www.nextgenscience.org/parents>

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STEM Program Grades 6-8



	Content	Performance Based Projects
6th Grade: Discovering STEM	<ul style="list-style-type: none">● STEM and its impact on technology, design, and society● Structures● Forces and Simple Machines● Energy	<ul style="list-style-type: none">● Past, Present and Future Innovations● Tower Challenge● Playground Equipment Design Challenge● LED Circuit Construction
7th Grade: Investigating with STEM	<ul style="list-style-type: none">● Design and Measurement● Product Development● Principles of Flight● Roller Coaster Physics● Simple Machines: Levers	<ul style="list-style-type: none">● Whirligig Challenge● Water Powered Rocket Challenge● Catapult Challenge● Roller Coaster Challenge
8th Grade: Designing with STEM (writing in process)	<ul style="list-style-type: none">● Physics and Engineering● DECIDER Design Process● Computer Aided Design - CAD● Programming and Robotics	<ul style="list-style-type: none">● Mousetrap Car Design Challenge● Lego Mindstorms EV3 Challenges● Using Onshape Computer Aided Design Program

Mathematics 6-8



6-8 Math Course Offering Sequence



Grade 6

Grade 7

Grade 8

Pre-Algebra

Algebra-I

Algebra-II

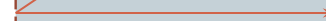
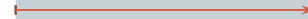
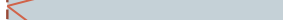
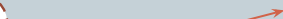
Math 6

Pre-Algebra

Algebra-I

Math 7

Math 8



Math-6 Units of Study



Math 6

Area and Surface Area

Ratios and Proportional Reasoning

Dividing Fractions and Volume

Decimal Operations

Expressions and Equations

Rational Numbers

Data Sets and Distributions

Math-7 and Pre-Algebra Units of Study



Math-7

Rational Number Operation
Equations, Expressions, and
Inequalities
Proportional Relationships
Geometry
Statistics and Probability

Pre-Algebra 6 & 7

Rational Number Operation
Equations, Expressions and
Inequalities
Proportional Relationships
Geometry
Statistics and Probability
Linear Relationships and
Functions

Mathematics-8 Units of Study



Math-8

Expressions and Equations

Functions, Linear Relations, and Bivariate Data

Exponents

Systems of Linear Equations

The Number System and Pythagorean Theorem

Geometry Transformations and Angle Relationships

Inequalities

Algebra-I & Algebra-II Units of Study

Algebra-I

Exploring Expressions and Functions

Using Multiple Representation to Solve Linear Functions

Exploration of Linear Functions and Systems

Exploration of Inequalities

Descriptive Statistics

Exploration of Operations with Variables

Exploration of Quadratic Functions

Algebra-II

Linear and Quadratic Functions

Polynomial Functions

Inverse Functions

Sequences and Series

Exponential and Logarithmic Functions

Trigonometric Functions

Probability and Statistics

Math-6 Sample Question

A car magazine is writing a story about four cars. For each car, they will report the number of miles driven for different amounts of gas.

The magazine received gas mileage information for cars from several companies.



Miles driven		360	480	
Gallons of gas	10	15		24



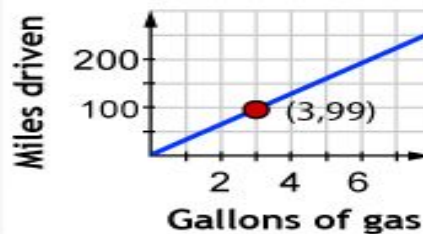
$D = 18g$ where D represents the distance traveled in miles, and g represents gallons of gas consumed.



Car C can travel 324 miles on a 12-gallon tank.



Car D Gas Mileage

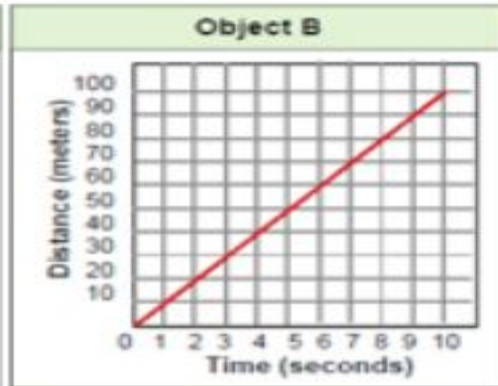
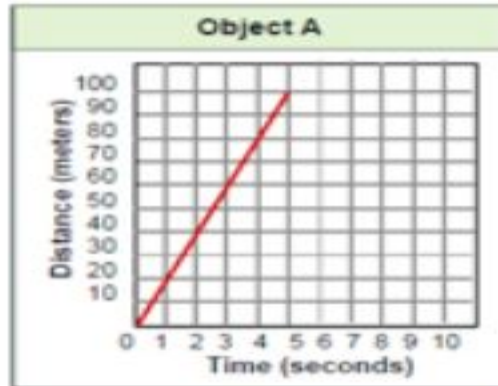


The magazine will list the cars in order. Drag the tiles to show the order of the four cars from **greatest** number of miles per gallon to **least** number of miles per gallon.



1st place	2nd place	3rd place	4th place

Math-7 Sample Question



Object C

Time (seconds)	Distance (meters)
0	0
3	10
6	20
9	30

Object C moves at constant speed.

Object D

Time (seconds)	Distance (meters)
0	0
1.5	10
3	20
4.5	30

Object D moves at constant speed.

The speed of an object is defined as the change in distance divided by the change in time.

Information about objects A, B, C and D are shown. Objects C and D both have constant speed.

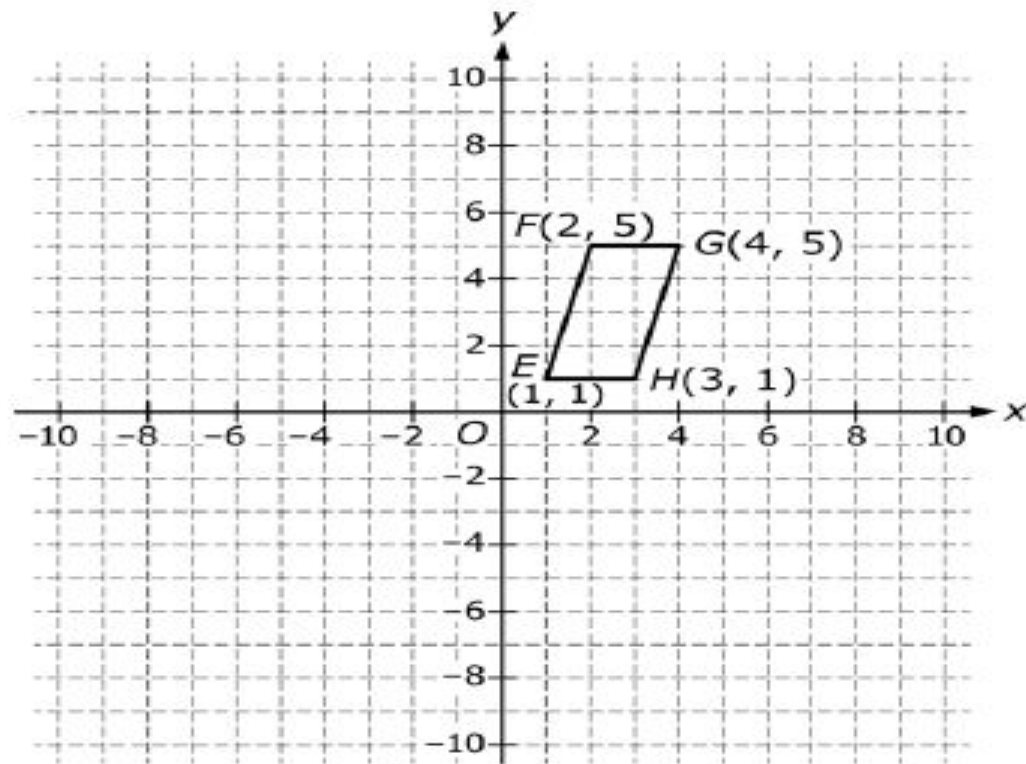
Based on the information given, drag and drop the object names in order from greatest speed to least speed in the table provided.

Object A	Greatest Speed ↓ Least Speed	
Object B		
Object C		
Object D		

Math-8 Sample Question



Parallelogram $EFGH$ is shown in the coordinate plane below. Rotate $EFGH$ 90 degrees clockwise about the origin and then translate it 3 units down. Label the resultant image $PQRS$.



Algebra Sample Question



Assume that as the experiment continues, the number of cells at the end of each week continues to be double the number of cells at the end of the previous week. Let w_n represent the number of cells in the growth medium in week n . Drag the tiles to write a recursive definition for the sequence that represents the number of cells in the growth medium at the end of each week.

Week	Number of cells in medium
1	15
2	30
3	60
4	120
5	240
6	480

an integer	a real number	2	15	30
+	-	•	÷	w_{n-1}
$n \geq 0$	$n \geq 1$	$n \geq 2$	$n \geq 6$	$n \geq 15$

$w_1 =$

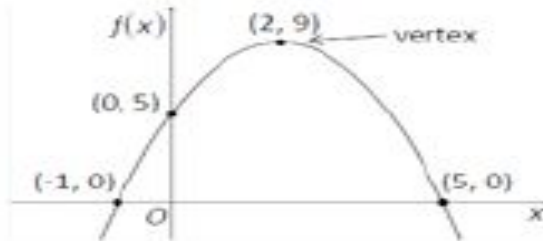
$w_n =$,

where n is , such that

Submit Answer

Algebra Sample Question

A portion of the graph of a quadratic function $f(x)$ is shown in the xy -plane. Selected values of a linear function $g(x)$ are shown in the table.

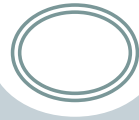


x	$g(x)$
-4	7
-1	1
2	-5
5	-11

For each comparison below, use the drop-down menu to select a symbol that correctly indicates the relationship between the first and the second quantity.

First Quantity	Comparison	Second Quantity
The y -coordinate of the y -intercept $f(x)$	<input type="text"/>	The y -coordinate of the y -intercept $g(x)$
$f(3)$	<input type="text"/>	$g(3)$
Maximum value of $f(x)$ on the interval $-5 \leq x \leq 5$	<input type="text"/>	Maximum value of $g(x)$ on the interval $-5 \leq x \leq 5$
$\frac{f(5) - f(2)}{5 - 2}$	<input type="text"/>	$\frac{g(5) - g(2)}{5 - 2}$

Questions or Comments



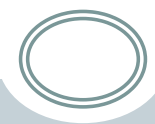
Please feel free to contact

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World Language 6-8



World Language Program

Spanish



Chinese



Italian



French



Vision: The West Orange World Language and ESL programs will offer **exemplary programs** that develop **globally competent**, **multilingual**, and **culturally responsive** citizens.

Mission: The West Orange World Language and ESL programs will provide our students with a **linguistic** and **cultural education** so that every student graduates with **global competence** and **multilingual proficiency**.

By the end of 8th grade students will be prepared to enter a High School **Level 2 course or higher** and **graduate with the Seal of Biliteracy**

World Language Program

Spanish



Chinese



Italian



French



In Middle School we offer 4 Languages:

Spanish Chinese Italian French

6th grade- A semester of Spanish and a Semester of Chinese.

7th grade- A choice of Spanish, Chinese, Italian, or French every other day.

8th grade- A choice of Spanish, Chinese, Italian, or French every day.

Why Global Competence and Multilingual Proficiency

Spanish



Chinese



Italian



French



- It's a 21st Century Skill
- Increases global understanding
- Improves chances in the job market
- Improves communication in a global society
- Increases cultural understanding
- Increases appreciation of international film, literature and art
- Improves travel opportunities
- Improves acceptance rates for college

The Curriculum Includes...

Spanish



Chinese



Italian



French



- 1) Three modes of Communication-
Linguistic content
 - Interpretive- Listening and reading comprehension and interpretation.
 - Interpersonal- Two way means of communicating in authentic situations with others to understand and make yourself understood.
 - Presentational- Preparing spoken or written communication for an audience.

- 2) Cultural Content
 - Geography
 - Customs
 - Traditions
 - History

- 3) Performance Based Assessments that incorporate linguistic and cultural content through the modes of communication.

Seal of Biliteracy

Spanish



Chinese



Italian



French



- End of grade 8 goal is to enter a high school Level 2 course or higher and graduate with the [Seal of Biliteracy](#)
- On January 19, 2016, **New Jersey became the 15th state to implement a legislated statewide Seal of Biliteracy.** By achieving the Seal of Biliteracy, students demonstrate to colleges and employers that they are able to [speak](#), [read](#), [listen](#), and [write](#) in two or more languages at a [high level of proficiency](#).
- **PREPARING FOR THIS ACHIEVEMENT BEGINS NOW**



New Jersey Seal of
Biliteracy

English as a Second Language 6-8



English as a Second Language (ESL)



Vision: The West Orange World Language and ESL programs will offer **exemplary programs** that develop **globally competent, multilingual, and culturally responsive** citizens.

Mission: The West Orange World Language and ESL programs will provide our students with a **linguistic and cultural education** so that every student graduates with **global competence** and **multilingual proficiency**.

- We provide a **High Intensity ESL Program** with a curriculum that is aligned to:
 - **New Jersey Student Learning Standards**
 - **WIDA English Language Development Standards**
- Program model consists of:
 - At least one period of **ESL instruction**.
 - At least one period of **tutoring** or **in class support** in core content classes.
 - Content area instruction from teachers that **receive training** on how to support ELLs in the general education classes.

English as a Second Language (ESL)



- ESL Curriculum is differentiated to support 3 Level clusters of English proficiency:
 - ESL Beginners (Level 1-2)
 - ESL Intermediate (Level 2-3)
 - ESL Advanced (Level 4-5)
- Curriculum includes instructional materials to support student progress in:
 - English Language Proficiency

AND

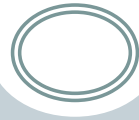
 - Academic Content Knowledge

English as a Second Language (ESL)



- Curriculum addresses **5 English Language Development Standards**:
 - Social Instructional Language
 - Language of Language Arts
 - Language of Math
 - Language of Social Studies
 - Language of Science
- Curriculum prepares the students to take the **state assessment for English Language Proficiency- The ACCESS test**.
- Goal for ESL curriculum is to prepare students to:
 - Meet the criteria to exit the ESL program.
 - Graduate with the Seal of Biliteracy- Academic Proficiency in Academic English and Proficiency in another language.

Questions or Comments



Please feel free to contact

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