# Española Public Schools 

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## $8^{\text {th }}$ Grade

## Mathematics

## Curriculum Guide

Developed: June 2016

## Curriculum Team:

Emmanuel Espinoza, Team Leader


## Curriculum Facilitation:

Vivian Valencia, Instructional Coach


MaryEllen Fresquez, Instructional Coach


| Grade Band | Resource | District Contact |
| :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline 7-8 \\ 2013-2018 \end{array}$ | College Preparatory Math <br> Website: <br> www.textbooks.cpm.org | Office of Curriculum, Instruction \& Assessment <br> Myra L. Martinez, Associate <br> Superintendent <br> Julie Gutierrez, CFVMS Principal <br> Robert Quiñonez, CFVMS Assistant Principal |
| $\begin{array}{\|l\|} \hline \text { Pre K } \\ 2013-2018 \end{array}$ | Creative Classroom <br> Website: | Office of Curriculum, Instruction \& Assessment <br> Myra L. Martinez, Associate <br> Superintendent <br> MaryEllen Fresquez, Pre K Coordinator |
| $\begin{aligned} & \mathrm{K}-6 \\ & 2013-2018 \end{aligned}$ | Website: <br> www.pearsonsuccessnet.com | Office of Curriculum, Instruction \& Assessment <br> Myra L. Martinez, Associate <br> Superintendent <br> MaryEllen Fresquez, Instructional Coach <br> Vivian Valencia, Instructional Coach |
| $\begin{aligned} & \hline 7-8 \\ & 2013-2018 \end{aligned}$ | College Preparatory Math (CPM) <br> CPM teacher log in: <br> http://textbooks.cpm.org/?238090954324249223 <br> CPM student log in: <br> http://en8467.textbooks.cpm.org/?409553627727330301 | Office of Curriculum, Instruction \& Assessment <br> Myra L. Martinez, Associate <br> Superintendent <br> Robert Quiñonez, CFVMS Assistant <br> Principal |

## Mathematics Resources

## Adopted Curriculum

| 9-12 | College Preparatory Math (CPM) |  <br> 2013-2018 |
| :--- | :--- | :--- |
|  | Assessment <br> Myra L. Martinez, Associate <br> CPM teacher log in: <br> http://textbooks.cpm.org/?238090954324249223 | Superintendent <br> CPM student log in: <br> http://en8467.textbooks.cpm.org/?409553627727330301 |

Mathematics Resources

## Supplemental Curriculum Resources

| Grade Band | Resource | District Contact: |
| :---: | :---: | :---: |
| Pre K 2016-2021 | Insert Resource Website: Insert <br> Insert Resource Website: Insert | Office of Curriculum, Instruction \& Assessment Myra L. Martinez, Associate Superintendent MaryEllen Fresquez, Pre K Coordinator <br> Larry DeAguerro, Federal Programs (Title I) Deirdra Montoya, Special Education Director TBA, Assessment \& RtI Facilitator |
| $\begin{aligned} & \text { K -6 } \\ & \text { 2016-2021 } \end{aligned}$ | Insert Resource Website: Insert <br> Insert Resource Website: Insert | Office of Curriculum, Instruction \& Assessment Myra L. Martinez, Associate Superintendent MaryEllen Fresquez, Instructional Coach Vivian Valencia, Instructional Coach <br> Larry DeAguerro, Federal Programs (Title I) Deirdra Montoya, Special Education Director TBA, Assessment \& RtI Facilitator |
| $\begin{aligned} & 7-8 \\ & 2016-2021 \end{aligned}$ | Insert Resource Website: Insert <br> Edgenuity <br> Website: Insert | Office of Curriculum, Instruction \& Assessment Myra L. Martinez, Associate Superintendent <br> Robert Quiñonez, CFVMS Assistant Principal Insert Name, Edgenuity Administrator Larry DeAguerro, Federal Programs (Title I) Deirdra Montoya, Special Education Director TBA, Assessment \& RtI Facilitator |
| $\begin{aligned} & \mathbf{9 - 1 2} \\ & 2015-2020 \end{aligned}$ | Insert Resource Website: <br> Edgenuity <br> Website: Insert | Office of Curriculum, Instruction \& Assessment Myra L. Martinez, Associate Superintendent <br> Insert Name, EVHS Department Chair Insert Name, Edgenuity Administrator Larry DeAguerro, Federal Programs (Title I) Deirdra Montoya, Special Education Director TBA, Assessment \& RtI Facilitator |

Adopted Curriculum

| Grade <br> Band | Resource | District Contact: |
| :--- | :--- | :--- |
| Pre K <br> 2016-2021 | Insert Resource <br> Website: Insert | Office of Curriculum, <br> Instruction \& Assessment <br> Myra L. Martinez, Associate |
| Superintendent |  |  |
| MaryEllen Fresquez, Pre K |  |  |
| Coordinator |  |  |, | Assessment Contact: |
| :--- |
| TBA, Assessment \& RtI |
| Facilitator |

Mathematics Resources
Adopted Curriculum

|  |  | Assessment Contact: <br> TBA, Assessment \& RtI Facilitator |
| :---: | :---: | :---: |
| 7-12 | End of Course Exams (EoC) <br> Public Education Department <br> College Prepatory Math (CPM) <br> CPM teacher log in: <br> http://textbooks.cpm.org/?238090954324249223 <br> CPM student log in: <br> http://en8467.textbooks.cpm.org/?409553627727330301 | Office of Curriculum, Instruction \& Assessment Myra L. Martinez, Associate Superintendent MaryEllen Fresquez, Instructional Coach Vivian Valencia, Instructional Coach <br> Assessment Contact: <br> TBA, Assessment \& RtI Facilitator |

Mathematics Resources
Supplemental Curriculum Resources

| Grade <br> Band | Resource | District Contact: |
| :---: | :---: | :---: |
| $\begin{aligned} & \hline 7-8 \\ & 2015-2020 \end{aligned}$ | Pearson's Connected Mathematics Project Textbook <br> www.kutasoftware.com <br> www.ixl.com <br> www.teachertube.com <br> Common Core Crosswalk Coach 6-8 <br> Common Core Buckle Down 6-8 <br> Common Core Practice Coach 6-8 <br> Assessment Common Core Coach 6-8 <br> www.tenmarks.com <br> www.thatquiz.com <br> Pizzazz Pre-Algebra Workbook <br> Engage NY <br> https://www.engageny.org/common-core-curriculum <br> Making Number Talks Matter Textbook <br> www.khanacademy.com <br> https://www.illustrativemathematics.org/ <br> http://www.insidemathematics.org/ <br> http://www.learningupgrade.com/algebraup/au index.asp <br> www.hoodamath.com <br> www.coolmath.com <br> https://learnzillion.com/resources/73932 <br> Edgenuity <br> Website: https://learn.education2020.com/ | Office of Curriculum, Instruction <br> \& Assessment <br> Myra L. Martinez, Associate <br> Superintendent <br> Emmanuel Espinoza, Math Lead <br> Teacher <br> Julie Gutierrez, Edgenuity <br> Administrator <br> Larry DeAguero, Federal <br> Programs (Title I) <br> Deirdra Montoya, Special <br> Education Director <br> TBA, Assessment \& RTI <br> Facilitator |

## Mathematics Resources

## Assessment Resources

| Grade Band | Resource | District Contact: |
| :--- | :--- | :--- |
| $\mathbf{7 - 8}$ | Core Assessments <br> College Preparatory Math (CPM) | Emmanuel Espinoza, Math Lead Teacher |
| $\mathbf{6 - 1 2}$ | Supplemental Assessments <br> Common Core Crosswalk Coach 6-8 <br> Common Core Buckle Down 6-8 <br> Common Core Practice Coach 6-8 <br> Assessment Common Core Coach 6-8 <br> Connected Mathematics Project (CMP) <br> Assessments | Emmanuel Espinoza, Math Lead Teacher |
| $\mathbf{2 - 1 2}$ | STAR Math |  <br> Assessment <br> Myra L. Martinez, Associate Superintendent <br> MaryEllen Fresquez, Instructional Coach <br> Vivian Valencia, Instructional Coach |
| $\mathbf{3 - 1 1}$ | PARCC | Assessment Contact: <br> TBA, Assessment \& RTI Facilitator |
| $\mathbf{7 - 1 2}$ |  <br> Assessment <br> Myra L. Martinez, Associate Superintendent <br> MaryEllen Fresquez, Instructional Coach <br> Vivian Valencia, Instructional Coach |  |
| End of Course Exams (EoC) | Assessment Contact: <br> TBA, Assessment \& RTI Facilitator |  |

# Mathematics Pacing Guide at a Glance <br> $8^{\text {th }}$ Grade 

2016-2017

| UNIT 1 | Start: 8/15/2016 Teaching Days: 43 | Remediation Days: 6 |  |  | End: 10/14/2016 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DOMAIN | COMMON CORE STATE STANDARDS | FOCUS | RESOURCES (Core \& Supplemental) | ASSESSMENTS <br> (Formative and Summative) | PARCC FRAMEWORK |
| The <br> Number System <br> Expressions and Equations | Know that there are numbers that are not rational, and approximate them by rational numbers. <br> 8.NS.1* Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. <br> 8.NS.2* Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., $\pi^{\wedge} 2$ ). For example, by truncating the decimal expansion of $\sqrt{ } 2$ (square root of 2 ), show that $\sqrt{ } 2$ is between 1 and 2 , then between 1.4 and 1.5, and explain how to continue on to get better approximations. <br> Work with radicals and integer exponents. <br> 8.EE. 1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^{\wedge} 2 \times 3^{\wedge}(-5)=3^{\wedge}(-3)=$ $1 /\left(3^{\wedge} 3\right)=1 / 27$. <br> 8.EE.2* Use square root and cube root symbols to represent solutions to equations of the form $x^{\wedge} 2=p$ and $x^{\wedge} 3=p$, where $p$ is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{ } 2$ is irrational. | A. What is an irrational number? (Classify a number based on its decimal expansion) <br> B. Convert repeating decimal into a rational number. <br> A. Estimate and find rational approximations for irrational numbers (between which two whole numbers?) <br> B. Plot estimated value on a number diagram. <br> A. Use and evaluate square roots. <br> B. Use and evaluate cube roots. | Core Adapted <br> College Preparatory <br> Math (CPM) <br> Chapter 2, 3 <br> Supplement <br> Connected <br> Mathematics <br> Textbook <br> www.kutasoftware.co <br> m <br> www.ixl.com <br> www.teachertube.com <br> Triumph Learning: <br> Common Core <br> Crosswalk Coach 6-8 <br> Common Core Buckle <br> Down 6-8 <br> Common Core <br> Practice Coach 6-8 <br> www.tenmarks.com <br> www.thatquiz.com <br> Pizzazz Pre-Algebra <br> Engage NY <br> Success to Ladders <br> Making Number Talks <br> Matter <br> www.khanacademy.c om <br> https://www.illustrati | FORMATIVE <br> College <br> Preparatory Math (CPM) <br> Chapter 2, 3 <br> MATH TASK <br> SUMMATIVE <br> Triumph Learning Assessment Common Core Coach 6-8 | The Number System <br> A. Know that there are numbers that are not rational, and approximate them by rational numbers. <br> Expressions and Equations <br> A. Work with radicals and integer $\square$ exponents. <br> B. Understand the connections between proportional relationships, lines and linear equations |

Key: Major Clusters; Supporting Clusters; Additional Clusters

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# Mathematics Pacing Guide at a Glance 

$8^{\text {th }}$ Grade
2016-2017


Key: Major Clusters; Supporting Clusters; Additional Clusters

* Indicates a Common Core standard has been broken into smaller areas of emphasis. For this module, only the listed areas are to be covered and/or assessed.

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# Mathematics Pacing Guide at a Glance <br> $8^{\text {th }}$ Grade 

2016-2017

| UNIT 2 | Start: 10/17/2016 Teaching Days: 45 | Remediation Days: 4 |  |  | End: 3/17/2017 <br> PARCC FRAMEWORK |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DOMAIN | COMMON CORE STATE STANDARDS | FOCUS | RESOURCES (Core \& Supplemental) | ASSESSMENTS <br> (Formative and Summative) |  |
| Expressions and Equations | Understand the connections between proportional relationships, lines, and linear equations. <br> EE.5* Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. (For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.) <br> EE.6* Use similar triangles to explain why the slope $m$ is the same between any two distinct points on a nonvertical line in the coordinate plane; derive the equation $y=m x$ for a line through the origin and the equation $y=$ $m x+b$ for a line intercepting the vertical axis at $b$. <br> Analyze and solve linear equations and pairs of simultaneous linear equations. <br> EE.8* Analyze and solve pairs of simultaneous linear equations. <br> a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. <br> b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3 x+2 y=5$ and $3 x+2 y=6$ have no solution because $3 x+2 y$ cannot simultaneously be 5 and 6 . | A. Graph proportional relationships recognizing slope. <br> B. Compare two different proportions represented differently. <br> A. Use similar triangles to explain same slope. <br> B. Derive $y=m x(0,0)$ <br> C. Derive $y=m x(0, b)$ | Core Adapted <br> College Preparatory <br> Math (CPM) <br> Chapter 2, 3, 4, 5, 8 <br> Supplement <br> Connected <br> Mathematics <br> Textbook <br> www.kutasoftware.co <br> m <br> www.ixl.com <br> www.teachertube.com <br> Triumph Learning: <br> Common Core <br> Crosswalk Coach 6-8 <br> Common Core Buckle <br> Down 6-8 <br> Common Core <br> Practice Coach 6-8 <br> www.tenmarks.com <br> www.thatquiz.com <br> Pizzazz Pre-Algebra <br> Engage NY <br> Success to Ladders <br> Making Number Talks <br> Matter <br> www.khanacademy.c <br> om <br> https://www.illustrati | FORMATIVE <br> College <br> Preparatory Math (CPM) <br> Chapter 2, 3, 4, 5, <br> 8 <br> MATH TASK <br> SUMMATIVE <br> Triumph Learning Assessment Common Core Coach 6-8 | Expressions and Equations <br> A. Work with radicals and integer exponents. B. Understand the connections between $\qquad$ proportional relationships, lines and linear equations. <br> C. Analyze and solve linear $\qquad$ equations and pairs of $\qquad$ |

Key: Major Clusters; Supporting Clusters; Additional Clusters

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# Mathematics Pacing Guide at a Glance 

$8^{\text {th }}$ Grade


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|  | of change and initial value of the function from a <br> description of a relationship or from two ( $x, y$ ) values, <br> including reading these from a table or from a graph. <br> Interpret the rate of change and initial value of a linear <br> function in terms of the situation it models, and in terms <br> of its graph or a table of values. | B. Determine and <br> interpret the slope and <br> $y$-intercept. |  |  |
| :--- | :--- | :--- | :--- | :--- |

# Mathematics Pacing Guide at a Glance <br> $8^{\text {th }}$ Grade 

2016-2017

| UNIT 3 | Start: 1/9/2017 Teaching Days: 43 | Remediation Days: 4 |  |  | End: 3/17/2017 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DOMAIN | COMMON CORE STATE STANDARDS | FOCUS | RESOURCES (Core \& Supplemental) | ASSESSMENTS <br> (Formative and Summative) | PARCC FRAMEWORK |
| Geometry | Understand congruence and similarity using physical models, transparencies, or geometry software. <br> 8.G.1* Verify experimentally the properties of rotations, reflections, and translations: <br> a. Lines are taken to lines, and line segments to line segments of the same length. <br> b. Angles are taken to angles of the same measure. <br> c. Parallel lines are taken to parallel lines. <br> 8.G.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. <br> 8.G.3 Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates. <br> 8.G.4 Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar twodimensional figures, describe a sequence that exhibits the similarity between them. <br> 8.G.5* Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of | A. Interior and exterior angle sums. <br> B. Transversals <br> C. Similarity | Core Adapted <br> College Preparatory <br> Math (CPM) <br> Chapter 2, 3, 4, 5, 8 <br> Supplement <br> Connected <br> Mathematics <br> Textbook <br> www.kutasoftware.co <br> m <br> www.ixl.com <br> www.teachertube.com <br> Triumph Learning: <br> Common Core <br> Crosswalk Coach 6-8 <br> Common Core Buckle <br> Down 6-8 <br> Common Core <br> Practice Coach 6-8 <br> www.tenmarks.com <br> www.thatquiz.com <br> Pizzazz Pre-Algebra <br> Engage NY <br> Success to Ladders <br> Making Number Talks <br> Matter <br> www.khanacademy.c om <br> https://www.illustrati | FORMATIVE <br> College <br> Preparatory Math (CPM) <br> Chapter 2, 3, 4, 5, <br> 8 <br> MATH TASK <br> SUMMATIVE <br> Triumph Learning Assessment Common Core Coach 6-8 | Geometry <br> $\square$ A. Understand congruence and similarity using physical models, transparencies or geometry software. <br> B. Solve real- <br> world and mathematical problems involving volume of cylinders, cones and spheres. |

Key: Major Clusters; Supporting Clusters; Additional Clusters

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# Mathematics Pacing Guide at a Glance <br> $8^{\text {th }}$ Grade 

2016-2017


Key: ■ Major Clusters; Supporting Clusters; 期 Additional Clusters

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[^2]:    * Indicates a Common Core standard has been broken into smaller areas of emphasis. For this module, only the listed areas are to be covered and/or assessed.

[^3]:    * Indicates a Common Core standard has been broken into smaller areas of emphasis. For this module, only the listed areas are to be covered and/or assessed.

[^4]:    **Pacing guide reference: http://commoncore.bryantschools.org/index.php/grades-6-8/

