FLOYD COUNTY SCHOOLS' CURRICULUM RESOURCES
"Building a Better Future for Every Child - Every Day!"
Summer 2013

Subject Content: _____Mathematics_____**Grade** _____7____

	Indicates the Curriculum Map

Weeks 1 – 3	Weeks 4 – 6
Unit/Topic **Number System** **(Fractions, Decimals, Percents)**	**Unit/Topic** **Number System** **(Rational Numbers, Complex Fractions, Integers)**
In this section IDENTIFY **Common Core Standards** **CC.7.RP.3, CC.7.NS.2d** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.RP.3 (8 to 7) – percentages and proportions	**In this section IDENTIFY** **Common Core Standards** **CC.7.NS.1a-d, CC.7.NS.2a-c, CC.7.NS.3, CC.7.RP.1, CC.7.RP.3,** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.NS.1c (8 to 7) – irrational/rational numbers, identify properties for addition/subtraction CC.7.NS.2c (8 to 7) – add, subtract, multiply and divide rational numbers CC.7.NS.3 (8 to 7) – add, subtract, multiply and divide rational numbers CC.7.RP.1 (8 to 7) – derivation and use formulas for various rates CC.7.RP.3 (8 to 7) – percentages and proportions

CURRICULUM			CURRICULUM		
Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**
Identify **Sub-Topics** **Fractions, Decimals, Percents**	**Identify** **Sub-Topics** **Solve Problems with Percents**	**Identify** **Sub-Topics** **Terminating and Repeating Decimals**	**Identify** **Sub-Topics** **Order of Operations of Integers** Operations of Add/Subtract with Rational Numbers	**Identify** **Sub-Topics** **Order of Operations of Rational Numbers Multiplication/Division with Rational Numbers**	**Identify** **Sub-Topics** **Complex Fractions**

I CAN STATEMENTS:	I CAN STATEMENTS:	I CAN STATEMENTS:	I CAN STATEMENTS:	I CAN STATEMENTS:	I CAN STATEMENTS:
1. Convert a rational number to a decimal using long division. 2. Apply and extend previous understandings of multiplication and division of fractions to multiply and divide rational numbers.	1. Apply proportional reasoning to solve multistep ratio and percent problems.	1. Explain that the decimal form of a rational number terminates in zeroes or repeats.	1. **I can add/subtract rational numbers.** 2. **I can represent addition and subtraction on a number line.** 3. **I can describe real-life situations where opposite quantities combine to make 0.** 4. **I can understand that subtracting rational numbers is the same as adding the additive inverse.** 5. **I can apply the properties of operations to add/subtract rational numbers.**	1. **I can understand that multiplication of fractions extends to rational numbers.** 2. **I can multiply rational numbers using appropriate rules for integers.** 3. **I can understand that integers can be divided using the appropriate rules and properties.** 4. **I can convert a rational number to a decimal using long division.** 5. **I can recognize that a terminating decimal or repeating decimal is a rational number.**	1. **I can solve real-world mathematical problems involving addition of fractions.** 2. **I can solve real-world mathematical problems involving subtraction of fractions.** 3. **I can solve real-world mathematical problems involving multiplication of fractions.** 4. **I can solve real-world mathematical problems involving division of fractions.**
Critical Vocabulary • **Proportion** • **Ratio** • **Percent**	**Critical Vocabulary** • **Proportional**	**Critical Vocabulary** • **Terminates**	**Critical Vocabulary** • **Integers** • **Absolute Value** • **Additive Inverse**	**Critical Vocabulary** • **Terminating decimal** • **Repeating decimals**	**Critical Vocabulary** • **Complex Fractions**
Suggested Strategies/Activities Real-world manipulatives Conversion factors	**Suggested Strategies/Activities** Real-world manipulatives Conversion factors	**Suggested Strategies/Activities** Convert fraction to decimal with division	**Suggested Strategies/Activities** • Use horizontal and vertical number line activities • Study Island	**Suggested Strategies/Activities** • Pattern Pieces • You tube Multiplication	**Suggested Strategies/Activities** • Pattern Pieces • Fraction Pieces • Drawing/Modeling • Study Island

Geometry Software Scale Drawings	Geometry Software Scale Drawings		• Brain Pop	videos • Study Island • Funbrain.com	• Brainpop • Funbrain
Balanced Assessment: _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** _Formative_ Bell ringers Flip Boards Exit Slips Homework _Summative_ Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams
Resources Needed **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**	**Resources Needed** **KhanAcademy.org** **Textbooks www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**	**Resources Needed** **KhanAcademy.org** **Textbooks www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down** **Crosswalk Coach** **Study Island Games**

Weeks 7-9			Weeks 10-12		
Unit/Topic **Ratios and Proportional Relationships**			**Unit/Topic** **Expressions and Equations** **(Algebraic Expressions, Algebraic Equations, Inequalities)**		
In this section IDENTIFY **Common Core Standards** **CC.7.RP.1, CC.7.RP.2a-d, CC.7.RP.3** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.RP.1 (8 to 7) – derivation and use formulas for various rates CC.7.RP.2c (8 to 7) – understand and apply proportional reasoning CC.7.RP.3 (8 to 7) – percentages and proportions			**In this section IDENTIFY** **Common Core Standards** **CC.7.EE.1, CC.7.EE.2, CC.7.EE.3, CC.7.EE.4a-b** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.EE.3 (8 to 7) – computing fractions, decimals, percents and integers in the real world CC.7.EE.4b (8 to 7) – investigate linear inequalities		
CURRICULUM			**CURRICULUM**		
Week 7	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Identify **Sub-Topics** Ratios/Rates	**Identify** **Sub-Topics** Proportions	**Identify** **Sub-Topics** Proportions	**Identify** **Sub-Topics** **Write, Simplify and Evaluate Algebraic Expressions**	**Identify** **Sub-Topics** **Write and Solve Algebraic Equations**	**Identify** **Sub-Topics** **Inequalities**
I CAN STATEMENTS: 1. I can compute unit rates associated with ratios of fractions in like or different units.	**I CAN STATEMENTS:** 1. Analyze two ratios to determine if they are proportional to one another with a variety of strategies.	**I CAN STATEMENTS:** 1. I can analyze tables, graphs, equations, diagrams and verbal descriptions of proportional relationships to identify the constant of proportionality.	**I CAN STATEMENTS:** 1. I can write equivalent expressions with fractions, decimals, percents and integers.	**I CAN STATEMENTS:** **1. I can use variables and construct equations to represent quantities from real-world and mathematical problems.** **1. I can solve word problems leading to equations.**	**I CAN STATEMENTS:** **1. I can solve word problems leading to inequalities.** **2. I can interpret the solution set of an inequality in the context of the problem.**
Critical Vocabulary **Unit Rate** **Ratio**	**Critical Vocabulary** **Proportion** **Proportional**	**Critical Vocabulary** **Ratio** **Rate** **Proportion**	**Critical Vocabulary** **Expression** **Algebraic Expression** **Variable**	**Critical Vocabulary** **Equation** **Inverse Operations** **Solution**	**Critical Vocabulary** **Inequality** **Solution of an** **inequality**

Compute		Proportional	Term Constant Coefficient Evaluate	Open Sentence Addition Property of Equality Subtraction Property of Equality Division Property of Equality Multiplication Property of Equality	
Suggested Strategies/Activities • Teach how to compute unit rate using newspaper ads, mph, etc. • Add to this lesson using complex fractions as learned in week 6 1/2mi/1/4hr. • Teach rates, then advance to unit rate and advance to using complex fractions as in week 6-1/2mi/1/4hr	**Suggested Strategies/Activities** • Teach proportions and solve problems involving proportions in real world. • Apply these rates, scaling, similarity • Testing for equivalent ratios in a table • Graph on coordinate plane observing whether the graph is a straight line thru the origin.	**Suggested Strategies/Activities** • ID unit rate tables, graphs, leading to equations • Proportional equations • Apply proportions to real world situations	**Suggested Strategies/Activities** • AAA Math website (aaa.study.com) • Variablemachinenctm.org • Math Interactives (learnalberta.ca) • Mathgoodies.com	**Suggested Strategies/Activities** • Cover up Method (guess and check) • Drawing method (draw blance beam and work equation to solve) • Cups and counters • Inverse Operations • Algebra Tiles • Algebra Blocks	**Suggested Strategies/Activities** • Purple Math • Mathisfun.com • Algebra's cool • Algebra 1 Online
Balanced Assessment: <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>	**Balanced Assessment:** <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>	**Balanced Assessment:** <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>	**Balanced Assessment:** <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>	**Balanced Assessment:** <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>	**Balanced Assessment:** <u>Formative</u> Bell ringers Flip Boards Exit Slips Homework <u>Summative</u>

Quizzes Assessments Open Responses Constructed Responses **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Quizzes Assessments Open Responses Constructed Responses **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Quizzes Assessments Open Responses Constructed Responses **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams
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Weeks 13-15			Weeks 16-18		
Unit/Topic **Geometry** **(Similar Figures, Scale Drawings, Constructions)**			**Unit/Topic** **Geometry** **(Cross Sections, Circles, Angles)**		
In this section IDENTIFY **Common Core Standards** **CC.7.G.1, CC.7.G.2** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.G.1 (8 to 7) – transformations, congruency, proportionality, and/or similarity CC.7.G.2 (9-12 to 7) – line segments, rays and angles, draw/construct 2D and 3D objects using various tools			**In this section IDENTIFY** **Common Core Standards** **CC.7.G.3, CC.7.G.4, CC.7.G.5** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.G.3 (9-12 to 7) – intersection of 2D and 3D objects and spaces CC.7.G.5 (9-12 to 7) – analyze and apply angle relationships		
CURRICULUM			**CURRICULUM**		
Week 13	**Week 14**	**Week 15**	**Week 16**	**Week 17**	**Week 18**
Identify **Sub-Topics** **Similar Figures**	**Identify** **Sub-Topics** **Proportional Relationships**	**Identify** **Sub-Topics** **Scale Drawings**	**Identify** **Sub-Topics** **Construct Geometric Shapes**	**Identify** **Sub-Topics** **Cross Sections of Three-Dimensional Figures**	**Identify** **Sub-Topics** **Angles**
I CAN STATEMENTS: 1. I can Identify corresponding sides of scaled geometric figures. 2. I can compute lengths and areas from scale drawings using strategies such as proportions.	**I CAN STATEMENTS:** 1. I can represent proportional relationships by writing equations. 2. I can explain what the points on a graph of a proportional relationship means in terms of a specific situation. 3. I can apply proportional reasoning to solve multistep ratio and percent problems, *e.g.,*	**I CAN STATEMENTS:** 1. I can use ratios and proportions to create scale drawings. 2. I can reproduce a scale drawing that is proportional to a given geometric figure using a different scale.	**I CAN STATEMENTS:** 1. I can analyze given conditions based on the three measures of angles or sides of a triangle to determine when there is a unique triangle, more than one triangle, or no triangle. 2. I can construct triangles from three given angle measures to determine when there is a unique triangle, more than one triangle or no triangle using appropriate tools	**I CAN STATEMENTS:** 1. I can define slicing as the cross-section of a 3D figure. 2. I can describe the two-dimensional figures that result from slicing a three-dimensional figure such as a right rectangular prism or pyramid. I can analyze three-dimensional shapes by examining two I can	**I CAN STATEMENTS:** 1. I can identify and recognize types of angles: supplementary, complementary, vertical, and adjacent angles. 2. I can determine complements and supplements of a given angle. 3. I can determine unknown angle measures by writing and solving algebraic equations based

simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, percent error, etc.			(freehand, rulers, protractors, and technology).	dimensional cross-sections.	on relationships between angles.
Critical Vocabulary **Equations** **Proportional** **Relationships**	**Critical Vocabulary** **Proportions** **Proportional** **Relationships** **Equations**	**Critical Vocabulary** **Ratios** **Scale Drawings** **Scale Models** **Scale** **Reproduce**	**Critical Vocabulary** **Construct** **Triangle Angle Sum Theorem** **Triangle Inequality Theorem**	**Critical Vocabulary** **Prism** **Cube** **Altitude** **Slant Height** **Vertex** **Base** **Square Pyramid**	**Critical Vocabulary** **Acute Angle** **Obtuse Angle** **Adjacent Angle** **Vertical Angle** **Supplementary Angle** **Complementary Angle**
Strategies/Activities *** Bring and compare exercise. Everyone brings a triangle, square, or other object from home and compare them for similarity.**	**Strategies/Activities** ***Use of sale papers to find if competing products are proportional.** ***Use of the cost of real items to find out how many more or less would cost.**	**Strategies/Activities** * Gym floor exercise that uses the actual measurements with a scale that is on a sheet of paper. This exercise can be used with other areas of the school like the classroom.	**Strategies/Activities** * Geometric shape making kit with connectors and pieces that can be used to actually make different triangles of different lengths to verify they are in fact triangles.	**Strategies/Activities** * Use of Styrofoam shapes from Wal-Mart or other places to actually perform cross sections of the shape. This can be done with paper produced shapes for cost effectiveness.	**Strategies/Activities** * School exploration activity in looking for and recording on paper or journal of the angle found and the type. Once the trip around the school is complete the students will share their findings with the rest of the class.
Balanced Assessment: Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments

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Weeks 19-21			Weeks 22-24		
Unit/Topic **Geometry** **(Area)**			**Unit/Topic** **Geometry** **(Surface Area)**		
In this section IDENTIFY **Common Core Standards** **CC.7.G.6** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.G.6 (8 to 7) – determine, compare and apply area and volume of 2D and 3D figures			**In this section IDENTIFY** **Common Core Standards** **CC.7.G.6** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.G.6 (8 to 7) – determine, compare and apply area and volume of 2D and 3D figures		
CURRICULUM			**CURRICULUM**		
Week 19	**Week 20**	**Week 21**	**Week 22**	**Week 23**	**Week 24**
Identify **Sub-Topics** **Triangles**	**Identify** **Sub-Topics** **Quadrilaterals and Polygons**	**Identify** **Sub-Topics** **Circles**	**Identify** **Sub-Topics** **Elements of 3D shapes**	**Identify** **Sub-Topics** **Prisms**	**Identify** **Sub-Topics** **Pyramids**
I CAN STATEMENTS: **I can identify the formula and characteristics of a triangle to solve real world problems.** **I can find the perimeter and area of a triangle.** **I can form and apply the formula of a triangle in complex figures.**	**I CAN STATEMENTS:** **I can find the area and perimeter of quadrilaterals like rectangles, squares, trapezoids, parallelograms, and rhombuses'.**	**I CAN STATEMENTS:** I can identify the parts of a circle including radius, diameter, area, circumference, center, and chord. I can compute the area and circumference given the radius, diameter, area, or circumference. I can apply circumference or area	**I CAN STATEMENTS:** **I can identify the different aspects of 3 dimensional shapes including quadrilaterals, polygons, cubes, and right prisms.** **I can associate the correct formula with each of the different 3 dimensional figures.**	**I CAN STATEMENTS:** I can apply the formulas for area and volume and then procedure for finding surface area and when to use them in real-world and math problems for two- and three- dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	**I CAN STATEMENTS:** I can solve real-world and math problems involving area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

		formulas to solve mathematical and real-world problems I can justify the formulas for area and circumference of a circle and how they relate to π Informally derive the relationship between circumference and area of a circle.		I can solve real-world and math problems involving area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	I can solve real-world and math problems involving area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
Critical Vocabulary **Perimeter** **Area** **Height**	**Critical Vocabulary** **Polygon** **Parallelogram** **Rhombus**	**Critical Vocabulary** **Diameter** **Radius** **Circumference** **Chord**	**Critical Vocabulary** **Edges** **Faces** **Vertices** **Angles** **Congruent Parts**	**Critical Vocabulary** **3 Dimensional** **Surface Area** **Net**	**Critical Vocabulary** **3 Dimensional** **Surface Area** **Net**
Suggested Strategies/Activities ***Grid Paper Exercise showing the area by counting the square units in the figure.** *** Use actual triangles in the tiles of the school or gym floor by marking them off and calculating the area of actual triangles.**	**Suggested Strategies/Activities** * Grid Paper Exercise by drawing the figures as directed and then counting the square units of the figure. * Use of actual quadrilaterals around the building or marking some off to actually calculate. * Student choice by having them bring in a quad they have and demonstrate how to get the area of the figure.	**Suggested Strategies/Activities** * Grid Paper Exercise by drawing a circle using a compass and then counting the square units on the inside. * Ball Exercise using baseballs, tennis balls, basketballs, and others to find the area. * Planet Exercise by using the diameter of the planets given by online research to find the area of each planet if the circle was 2	**Suggested Strategies/Activities** * Drawings using grid paper to develop nets of popular figures covering all of the shapes. * Have the students bring in boxes and other cardboard shapes that can be cut and use them to make tangible nets of the figures showing the process.	**Suggested Strategies/Activities** * Use the drawings and cardboard cutouts to find the surface area of the figures and have the students demonstrate their findings. * Have the students use figures they can cut apart to mentally find each of the sides using drawings to show their work while finding the surface area of each figure.	**Suggested Strategies/Activities** * Use the drawings and cardboard cutouts to find the surface area of the figures and have the students demonstrate their findings. * Have the students use figures they can cut apart to mentally find each of the sides using drawings to show their work while finding the surface area of each figure.

		dimensional.			
Balanced Assessment:	**Balanced Assessment:**	**Balanced Assessment:**	**Balanced Assessment:**	**Balanced Assessment:**	**Balanced Assessment:**
Formative	Formative	Formative	Formative	Formative	Formative
Bell ringers	Bell ringers	Bell ringers	Bell ringers	Bell ringers	Bell ringers
Flip Boards	Flip Boards	Flip Boards	Flip Boards	Flip Boards	Flip Boards
Exit Slips	Exit Slips	Exit Slips	Exit Slips	Exit Slips	Exit Slips
Homework	Homework	Homework	Homework	Homework	Homework
Summative	Summative	Summative	Summative	Summative	Summative
Quizzes	Quizzes	Quizzes	Quizzes	Quizzes	Quizzes
Assessments	Assessments	Assessments	Assessments	Assessments	Assessments
Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	**Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)**	**Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)**	**Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)**	**Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)**	**Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)**
Discovery Probes	Discovery Probes	Discovery Probes	Discovery Probes	Discovery Probes	Discovery Probes
End of Unit Exams	End of Unit Exams	End of Unit Exams	End of Unit Exams	End of Unit Exams	End of Unit Exams
Resources Needed	**Resources Needed**	**Resources Needed**	**Resources Needed**	**Resources Needed**	**Resources Needed**
KhanAcademy.org	**KhanAcademy.org**	**KhanAcademy.org**	**KhanAcademy.org**	**KhanAcademy.org**	**KhanAcademy.org**
Textbooks	**Textbooks**	**Textbooks**	**Textbooks**	**Textbooks**	**Textbooks**
www.phschool.com	**www.phschool.com**	**www.phschool.com**	**www.phschool.com**	**www.phschool.com**	**www.phschool.com**
www.coolmath.com	**www.coolmath.com**	**www.coolmath.com**	**www.coolmath.com**	**www.coolmath.com**	**www.coolmath.com**
Discovery Education	**Discovery Education**	**Discovery Education**	**Discovery Education**	**Discovery Education**	**Discovery Education**
Quia/quiz/303651	**Quia/quiz/303651**	**Quia/quiz/303651**	**Quia/quiz/303651**	**Quia/quiz/303651**	**Quia/quiz/303651**
www.thatquiz.org/	**www.thatquiz.org/**	**www.thatquiz.org/**	**www.thatquiz.org/**	**www.thatquiz.org/**	**www.thatquiz.org/**
Buckle Down	**Buckle Down**	**Buckle Down**	**Buckle Down**	**Buckle Down**	**Buckle Down**
Crosswalk Coach	**Crosswalk Coach**	**Crosswalk Coach**	**Crosswalk Coach**	**Crosswalk Coach**	**Crosswalk Coach**
Study Island Games	**Study Island Games**	**Study Island Games**	**Study Island Games**	**Study Island Games**	**Study Island Games**

Weeks 25-27			Weeks 28-30		
Unit/Topic **Geometry** **(Volume)**			**Unit/Topic** **Statistics and Probability** **(Probability, Compound Events, Samples)**		
In this section IDENTIFY **Common Core Standards** **CC.7.G.6** ***IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.*** CC.7.G.6 (8 to 7) – determine, compare and apply area and volume of 2D and 3D figures			**In this section IDENTIFY** **Common Core Standards** **CC.7.SP.1, CC.7.SP.2, CC.7.SP.5, CC.7.SP.6, CC.7.SP.7a-b, CC.7.SP.8a-c** ***IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.*** CC.7.SP.6 (8 to 7) – analyze situations to make predictions using probabilities CC.7.SP.7a (8 to 7) – concepts of randomness and independent events CC.7.SP.8a (9-12 to 7) – computer probability of a compound event CC.7.SP.8b (8 to 7) – identify and describe possible arrangements of several objects CC.7.SP.8c (8 to 7) – predictions, conclusions and results from experiments or simulations		
CURRICULUM			**CURRICULUM**		
Week 25	**Week 26**	**Week 27**	**Week 28**	**Week 29**	**Week 30**
Identify **Sub-Topics** **Prisms**	**Identify** **Sub-Topics** **Pyramids**	**Identify** **Sub-Topics** **Real-world applications**	**Identify** **Sub-Topics** **Probability**	**Identify** **Sub-Topics** **Compound Events**	**Identify** **Sub-Topics** **Samples**
I CAN STATEMENTS: I can apply the formulas for area and volume and then procedure for finding surface area and when to use them in real-world and math problems for two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. I can solve real-world and	**I CAN STATEMENTS:** I can apply the formulas for area and volume and then procedure for finding surface area and when to use them in real-world and math problems for two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. I can solve real-world and	**I CAN STATEMENTS:** I can apply the formulas for area and volume and then procedure for finding surface area and when to use them in real-world and math problems for two- and three- dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	**I CAN STATEMENTS:** I can draw conclusions to determine that a greater likelihood occurs as the number of favorable outcomes approaches the total number of outcomes. I can determine the relationship between experimental and theoretical probabilities by using the law of large numbers.	**I CAN STATEMENTS:** I can define and describe a compound event and simulation. I can determine that the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. I can identify the outcomes in the sample space for an	**I CAN STATEMENTS:** I can define random sample. I can Identify an appropriate sample size. I can analyze & interpret data from a random sample to draw inferences about a population with an unknown characteristic of interest.

				everyday event.	I can generate multiple
math problems involving area, surface area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	math problems involving area, surface area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	I can solve real-world and math problems involving area, surface area and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	I can predict the relative frequency (experimental probability) of an event based on the (theoretical) probability	I can find probabilities of compound events using organized lists, tables, tree diagrams, etc. and analyze the outcomes. I can choose the appropriate method such as organized lists, tables and tree diagrams to represent sample spaces for compound events. I can design and use a simulation to generate frequencies for compound events.	samples (or simulated samples) of the same size to determine the variation in estimates or predictions by comparing and contrasting the samples. I can develop a uniform probability model and use it to determine the probability of each outcome/event. I can develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. I can analyze a probability model and justify why it is uniform or explain the discrepancy if it is not.
Critical Vocabulary **Volume** **Height** **Prism** **Length**	**Critical Vocabulary** **Volume** **Height** **Square Pyramid** **Length**	**Critical Vocabulary** **Volume** **Height** **Prism** **Length** **Square Pyramid**	**Critical Vocabulary** **Probability** **Possible Outcomes** **Theoretical Probability** **Favorable Outcomes** **Experimental Probability**	**Critical Vocabulary** **Compound Events** **Independent Variable** **Dependant Variable** **Probability** **Sample Spaces** Simulation	**Critical Vocabulary** **Population** **Sample** **Biased Sample** **Data** **Probability** **Discrepancy**
Suggested Strategies/Activities *** Use of different cones to use as hands on examples to compare the volume of each of the figures using sand to**	**Suggested Strategies/Activities** *** Using real and tangible examples of the shapes in question, use the facts about the shape to find the volume or specific**	**Suggested Strategies/Activities** *** Note card activity matching the formulas with the correct shape that can be used to find the volume for that**	**Suggested Strategies/Activities** * Di exercise by determining the probability of numbers using on di and then add more than on to show what outcomes are	**Suggested Strategies/Activities** * Di and Spinner Exercise can be done by showing the probability of using more than on type of measurement tool to	**Suggested Strategies/Activities** * Population Exploration using the kids in the school by surverying them using guided questions to demonstrate biased and

show the volume and weight of each based on the number of ounces that each will hold with the objects being similar.	characteristics about the figure. * Have each of the students bring in an example of their favorite, making sure each shape is used and let the students explain how they found the volume and the characteristics of their shape.	figure.	possible when more opportunities are available. * Sports Statistics Exercise can be used with stats from the internet using performance or win and loss numbers to generate real life situations that can be estimated using probability.	generate possible outcomes. * Use actual classroom students from different grade levels by finding a survey item like favorite food or soda to generate information to make ratios and probability outcomes to make predictions then verify with other class surveys.	unbiased samples. * Data collection using frequency tables and proportions to make estimates on the results, while discussing sample type and size using kids, colors, and favorite items and things of others.
Balanced Assessment: Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	**Balanced Assessment:** Formative Bell ringers Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams
Resources Needed **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**	**Resources Needed** **KhanAcademy.org** **Textbooks** **www.phschool.com** **www.coolmath.com** **Discovery Education** **Quia/quiz/303651** **www.thatquiz.org/** **Buckle Down**

Crosswalk Coach Study Island Games	Crosswalk Coach Study Island Games	Crosswalk Coach Study Island Games	Crosswalk Coach Study Island Games	Crosswalk Coach Study Island Games	Crosswalk Coach Study Island Games

Weeks 31-33			Weeks 34-36		
Unit/Topic **Statistics and Probability** **(Central Tendency, Variation, Mean Absolute Deviation)**			**Unit/Topic** **Statistics and Probability** **(Predictions Using Data and Comparing Data Sets)**		
In this section IDENTIFY **Common Core Standards** **CC.7.SP.3, CC.7.SP.4** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.SP.3 (8 to 7) – data representation CC.7.SP.4 (8 to 7) – characteristics of data			**In this section IDENTIFY** **Common Core Standards** **CC.7.SP.2, CC.7.SP.3, CC.7.SP.4** *IDENTIFY GAPS for Math/Literacy in this section. These topics/skills need to be taught for 2 – 3 years to avoid gaps in student learning.* CC.7.SP.3 (8 to 7) – data representation CC.7.SP.4 (8 to 7) – characteristics of data		
CURRICULUM			**CURRICULUM**		
Week 31	**Week 32**	**Week 33**	**Week 34**	**Week 35**	**Week 36**
Identify **Sub-Topics** **Measures of Central Tendency**	**Identify** **Sub-Topics** **Measures of Variation**	**Identify** **Sub-Topics** **Mean Absolute Deviation**	**Identify** **Sub-Topics** **Making Predictions Using Data and Comparing Data Sets**	**Identify** **Sub-Topics** **STATE ASSESSMENT**	**Identify** **Sub-Topics** **STATE ASSESSMENT**
I CAN STATEMENTS: I can find measures of central tendency (mean, median, and mode) and measures of variability (range, quartile, etc.). I can analyze and interpret data using measures of central tendency and variability.	**I CAN STATEMENTS:** I can identify measures of variation including upper quartile, lower quartile, upper extreme-maximum, lower extreme-minimum, range, interquartile range, and mean absolute deviation (i.e. box-and-whisker plots, line plot, dot plots, etc.).	**I CAN STATEMENTS:** Identify measures of central tendency (mean, median, and mode) in a data distribution.	**I CAN STATEMENTS:** I can compare the differences in the measure of central tendency in two numerical data distributions by measuring the difference between the centers and expressing it as a multiple of a measure of variability.	**I CAN STATEMENTS:**	**I CAN STATEMENTS:**

I can draw informal comparative inferences about two populations from random samples.	assessing the degree of visual overlap.				
Critical Vocabulary **Mean** **Median** **Mode** **Central Tendency** **Variability**	**Critical Vocabulary** **Quartile** **Range** **Data Set** **Interquartile Range** **Outlier**	**Critical Vocabulary** **Mean Absolute** **Deviation**	**Critical Vocabulary** **Prediction** **Population** **Distribution** **Variability**	**Critical Vocabulary**	**Critical Vocabulary**
Suggested Strategies/Activities * Grade calculation exercise by giving each of the students their own grades to show how each part of central tendency can be calculated and used for future use and improvement. * Use of actual statistics from what ever sport is going including their own stats from games to make different graphs and plots then using central tendency to determine more about the numbers.	**Suggested Strategies/Activities** * Use any collected data from previous exercises to discuss range and variation of the data participants. This can be done using line plots and box and whisker plots. * Take different data sets close in similarity and compare the two using plots of different kinds.	**Suggested Strategies/Activities** * Use the height of each student in inches as the data set. Once complete get the mean and then find the deviation from the mean of each and then the absolute deviation of the mean.	**Suggested Strategies/Activities** * Making predictions on a data set should be done with each exercise on data analysis, but the data that has been collected should be evaluated to make predictions for future occurrences.	**Suggested Strategies/Activities**	**Suggested Strategies/Activities**
Balanced Assessment: Formative Bell ringers	**Balanced Assessment:** Formative Bell ringers	**Balanced Assessment:** Formative Bell ringers	**Balanced Assessment:** Formative Bell ringers	**Balanced Assessment:** Formative Bell ringers	**Balanced Assessment:** Formative Bell ringers

Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams	Flip Boards Exit Slips Homework Summative Quizzes Assessments **Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)** Discovery Probes End of Unit Exams
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