Thomas Edison EnergySmart Charter School 2015-16
Curriculum for 5th Grade Math
Ms. Wood

Big Idea: Whole numbers						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 1	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
How do write a whole number in standard form? How do we write a whole number in word form? How do we write a whole number in expanded form? How do we compare whole numbers? How do we add/subtract whole numbers? How do we multiply/divide whole numbers?	Writing a whole number in standard form Writing a while number in word form Writing a whole number in expanded form Comparing whole numbers Adding/subtracting whole numbers Multiplying/dividing whole numbers	Writing whole numbers in different forms Comparing whole numbers Performing operations on whole numbers	Whole number Place value Units Tens Hundreds Thousands Ten thousands Hundred thousand Million Add Subtract Multiply Divide Sum Difference Product Quotient	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual observation	5.NBT.A.1 5.NBT.A.2 5.NBT.A.3 5.NBT.A.3.A 5.NBT.A.3.B 5.NBT.A.4 5.NBT.B.5 5.NBT.B.6 5.NBT.B.7	Everyday Math
Big Idea: Decimals and Percents						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 2	
Essential questions	Content	Skills	Key terms	Assessment	CCSS	Text
How do we write a	Writing a number as a	Expressing a	Decimals	Teacher created	4.NF.C.6	Everyday

fraction in decimal form? How do we write a decimal as a fraction? How do we write a fraction as a percent? How do we write a percent as a fraction? How do we write a decimal as a percent? How do we write a percent as a decimal? How do we round numbers to the given place value? How do we express fraction in the whole circle? How do we write a perfect square number in exponential form? How do we find percent of a whole number? How do we find the discount amount when	percent, decimal and fraction Algorithm for multiplying a number by powers of 10 Rounding numbers to the given place value Writing a perfect square number in exponential form Writing exponential number in standard form Expressing fractions in a whole circle Calculating percent of a number Finding the discount amount when it is expressed as a percent	decimal as a fraction Expressing a decimal as a percent Expressing a percent as a fraction Expressing a percent as a decimal Expressing a fraction as a percent Expressing a fraction as a decimal Rounding to the given place value Expressing a perfect square in exponential form Expressing a number in exponential form in standard form Finding percent of	Percents Fractions Rounding % Place value Power Base Exponent Circle Discount	assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual observations	5.NBT.A.2 5.NBT.A.3.B 5.NBT.A.4 5.NBT.B.5 5.NBT.B.6 5.NBT.B.7	Math Journals Home Links Skill Links

it is expressed as a percent? How do we multiply decimals? How do we divide a decimal number?		a number Calculating the discount amount when it is expressed as a percent				
Big Idea: Fractions						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 3	
Essential questions	Content	Skill	Terms	Assessment	CCSS	Text
What are fractions? Why do we have to use fractions? How do we use fractions? How do we express fractions? How do find equivalent fractions? What are mixed numbers and improper fractions? How do we find least common multiple? How do we find the common denominators?	Understanding proper, improper and mixed fractions Equivalent fractions Converting mixed into improper fractions Least common multiple Comparing fractions Multiplying fractions Dividing fractions Finding the common denominators Adding fractions Subtracting fractions	Finding equivalent fractions Finding least common multiple Comparing fractions Perform basic operations on fractions- addition, subtraction, multiplication, division Expressing mixed fraction as an improper fraction	Fractions Proper fractions Improper fractions Mixed numbers Numerator Denominators Common denominator Least common multiple	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual observations	5.NF.A.1 5.NF.A.2 5.NF.B.3 5.NF.B.4 5.NF.B.4.A 5.NF.B.4.B 5.NF.B.5 5.NF.B.5.A 5.NF.B.5.B 5.NF.B.6 5.NF.B.7 5.NF.B.7.A 5.NF.B.7.B 5.NF.B.7.C	Everyday Math Journals Home Links Skill Links

How do we compare fractions? How do we add and subtract fractions? How do we multiply fractions? How do we divide fractions? What are negative numbers? What are the uses of negative numbers? How do we add and subtract negative numbers?						
Big Idea: Rates, Ratios and Proportions						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 4	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
What are ratios? How do we express ratios? How do we find the unit rate? How do we set up the proportions?	Ratios and proportions Unit rate Setting up the proportions Application of ratios and proportions	Expressing ratios Setting up the proportions Finding the unit rate Applying ratios to find the unknown value in a given	Ratios Unit rate Proportions	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects	6.RP.A.1 6.RP.A.2 6.RP.A.3 6.RP.A.3.A	Everyday Math Journals Home Links Skill Links

		proportion Determining if a given relation is proportional		Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual observations		
Big Idea: Data and Probability						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 5	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
What tools do we use to collect data? How do we conduct a survey and collect data? How do we organize the data? How do we find the mean or the average? How do express the data as a bar graph? How do we make a line graph? How to we use a	Data collection Survey as a tool to collect data Data representation Bar graph Line graph Circle graph Average Outcomes Equally likely outcomes Tree diagrams	Collecting data Conducting a survey Representing data as a graph Drawing a bar graph Drawing a line graph Drawing a circle graph Finding the mean Finding all the	Data Survey Bar graph Line graph Circle graph Average Mean Outcomes Tree diagram	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework Classroom observations	6.SP.A.1 6.SP.B.4 4.MD.B.4	Everyday Math Journals Home Links Skill Links

percent circle? How do we draw a circle graph? What are equally likely outcomes? How do make tree diagrams?		outcomes in a given event Finding equally likely events Drawing tree diagrams		(whole group) Individual observations		
Big Idea: Geometry						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 6	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
Where do we use geometry in our world? What are the different types of angles? What are parallel lines? What are lines, segments, and rays? What are different kinds of polygons? What are the properties of triangles? What are the properties different quadrilaterals? What are geometric solids?	Geometry in our world Angles Parallel lines Lines Line segments Rays Polygons Triangles Quadrilaterals Solids Circles Congruent shapes	Determining the type of an angle Understanding parallel lines Understanding difference between lines, segments and rays Understanding properties of polygons including triangles and quadrilaterals Drawing congruent shapes Determining if two shapes are	Angles Parallel lines Segments Rays Lines Polygons Congruent Similar Rotation Reflection Translation Tessellation	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual	5.G.B.3 5.G.B.4 4.G.A.1 4.G.A.2 4.G.A.3	Everyday Math Journals Home Links Skill Links

What are the properties of a circle? What are congruent figures? What are similar figures? How do we rotate a shape? How do we reflect a shape? How do we translate a shape? What are tessellations? How do we construct angles of a given measure?	Similar shapes Rotation Reflection Translation Tessellations Construction of angles	congruent Determining if two shapes are similar Rotating a shape Reflecting a shape Translating a shape Constructing angles of given measures		observations		
Big Idea: Measurements						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 7	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
What is metric system? What is US customary system? How do we convert different units of length?	Metric system US customary system Perimeter Circumference Area	Understanding the metric and US customary systems Converting different units of length Finding the	Metric Customary Perimeter Circumference	Teacher created assessments Teacher Observations Rubrics Benchmarks	5.MD.A.1 5.MD.C.3 5.MD.C.3.A 5.MD.C.3.B 5.MD.C.4 5.MD.C.5 5.MD.C.5.A 5.MD.C.5.B	Everyday Math Journals Home Links Skill Links

How do we find the perimeter of a shape? How do we find circumference of a circle? How do we find area? How do we find the volume of a solid shape?	Volume Surface area	perimeter of a shape Finding perimeter Finding area Finding volume Finding surface area	Area Volume Surface area	Projects Progress check 1 Progress check 2 Homework Classroom observations (whole group) Individual observations	5.MD.C.5.C	
Big Idea: Algebra						
Content: Mathematics		Course: Fifth grade			Unit: Everyday math Unit 8	
Essential questions	Content	Skill	Key terms	Assessment	CCSS	Text
What is algebra? What are expressions? What is a number sentence? What are relations? When do we use parentheses? What is the order of operations? What are equations? How do we solve	Expressions Equations Number sentence Relationship Use of parentheses Order of operations Function machines Rule	Writing an expression Writing an equation Solving an equation Writing a number sentence Finding the relation between variables Understanding the order of operations	Expression Equation Number sentence Relation Parentheses Order of operations Function machines Rule	Teacher created assessments Teacher Observations Rubrics Benchmarks Projects Progress check 1 Progress check 2 Homework	5.OA.A.1 5.OA.A.2 5.OA.B.3	

equations? What are function machines? What is a rule?		Understanding the use of parentheses Finding the rule for function machines		Classroom observations (whole group) Individual observations		