ST. LOUIS PUBLIC SCHOOLS

Language Companion to the DESE Math Model Curriculum, Grade 3

Developed as part of Saint Louis Public Schools
“Math Success for ELLs” grant,
a partnership between Webster University, Magic House,
and Saint Louis Public Schools ESOL Program,
funded by the US department of Education

Grade 3- Area and Perimeter

Essential Measurable Learning Objectives	Language Objective	Sentence Frame
Recognize area as an attribute of plane figures and understand concepts of area measurement. (A) A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. (B) A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.	Students will explain verbally or in writing how to find area using square units and provide examples in complete sentences.	Area means _____ and I find it by ______. Examples of square units are ____. Example: *Area means the space inside a polygon and I find it by counting the square units. Examples of square units are square centimeters, square meters, square inches, and square feet*.
Students will measure areas by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).	Students will explain orally their strategy of finding the area of a given polygon using a complete complex sentence.	The area of my ______ is ________ (*square centimeters, square meters, square inches, square feet*) because I _____. Example: *The area of my polygon is 12 square centimeters because I counted 12 square units.*
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	Students will describe the attributes about a given polygon using *if…then* statements. Students will defend verbally why rectangles with the same area could have varying	If the side of this rectangle/square is ____, then the opposite side is also _____. Example: *If the side of this rectangle/square is 4 units, than the opposite side is also 4 units.* These shapes both have an area of ____ square units. This shape has a perimeter of

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	perimeters using connector words/conjunctive adverbs (*while, because*). Students will explain verbally their method for finding perimeter of a plane figure using present tense verbs (*is, has, are, have*) in complete sentences.	____ units, while this shape has a perimeter of _____ because _____. Example: *These shapes both have an area of 12 square inches. This shape has a perimeter of 14 inches, while this shape has a perimeter of 16 inches because the rectangles' sides have different lengths*. The perimeter of my polygon is _____________ (*units*) because the side lengths are ________ (*units*) and I ____________ the lengths of the sides. Example: *The perimeter of my polygon is 12 inches because the side lengths are 4 inches, 3 inches, and 5 inches and I added the lengths of the sides.*

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Grade 3- Finding Fractions

Essential Measurable Learning Objectives	Language Objective	Sentence Frame
Students will build and compare fractions using unit fractions.	Students will describe the concept of part to whole orally using target vocabulary (*divided into, equal parts, greater than, less than, equal to, halves, fourths, thirds, whole*)	This ________ has been divided into __________ equal parts, so __/__ is ____ (*greater than/less than/equal to*)___/___.
Students will determine the denominator as the total number of equal parts the whole was partitioned into and the numerator as the number of equal parts being described.	Students will explain fractions orally using prepositions: *of, over, out of.*	
Students will understand that the size of a fractional part is relative to the size of the whole.	Students will describe in writing the same fractional part of different sized shapes or sets using comparative adjectives: *greater than, less than, or equal.*	Example: *Half of one small pizza is less than half of one large pizza.*
Students will represent halves, thirds, fourths, sixths, and eights using various fraction models including a number line.	Students will explain in writing their fractional representation (number line, bar, set, shape) using target vocabulary: *divide, equal, partition, pieces.*	Example: *I used a number line to show one third. I divided my line into three equal parts and highlighted one piece to represent one third.*

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Grade 3- Multiplication and Division

<table>
<tr><th>Essential Measurable Learning Objectives</th><th>Language Objective</th><th>Sentence Frame</th></tr>
<tr><td>Students will represent/ model a given situation involving multiplication using sets, arrays, and repeated addition.</td><td>Students will label and describe their visual representations of a multiplication problem using target vocabulary: array, rows, columns, sets, equal groups, repeated addition, and times.</td><td>Example: Use a three column chart.<table><tr><td>Array</td><td>Repeated Addition</td><td>Sets</td></tr><tr><td></td><td></td><td></td></tr></table>
My array shows ____.
I added ___, ____ times.
I drew ___ sets of ____.</td></tr>
<tr><td>Students will apply properties of operations as strategies to multiply. Examples: If 6X4=24 is known, 4x6=24 is also known. (Commutative property of multiplication)</td><td>Students will describe the properties of multiplication orally using using if…then statements.</td><td>If ___x___ equals___, then _____.

Example: If 5X4 equals 20, then 4X5 equals 20.

Example: If (3X2) X 5 equals 30, then 3X (2X5) equals 30.

If I’m multiplying ___X___, then _____.

Example: If I’m multiplying 8X7, then I can multiply 8X (5+2).</td></tr>
<tr><td>Students will describe the relationship between multiplication and division.</td><td>Students will describe in writing the relationship of multiplication and division using conjunctions: and, but, or.</td><td>I know ___ groups of ___ equals ____, and that means that I can divide ____ into equal groups of ____.

Example: I know three groups of two equals six and that means that I can divide six into three groups of two.</td></tr>
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Students will interpret whole-number quotients of whole numbers, e.g., interpret 56÷8 as a number of objects in each share when 56 objects are partitioned equally into 8 shares or interpret 56÷8 as a number of shares when 56 objects are partitioned.	Students will explain two different visual representations of a division problem orally using a compound sentence.	I can show __÷__ by making ___ groups of ____ , or I can have ___ in each of ___ groups. Example: *I can show 8÷4 by making 4 groups of 2, or I can have 4 in each of 2 groups.*

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Grade 3- Time is on the Line

Essential Measurable Learning Objectives	Language Objective	Sentence Frame
Students will tell and write time to the nearest minute.	Students will state the time using target vocabulary: *hour, minute, o'clock, quarter after, quarter to, quarter of, quarter til, half past, before*. Students will explain how they found the time using target vocabulary: *hour hand, minute hand, o'clock, after, before*.	The time is ____. I know the time is _____ because the hour hand is pointing (*in front of, before, after*) the _____ and the minute hand is pointing to ________. Example: *I know the time is 6 o'clock because the hour hand is pointing to the 6 and the minute hand is pointing to the 12.*
Students will model and solve word problems involving elapsed time.	Students will explain orally how to find elapsed time using using *if…then* statements.	If I start at ______ and end at ______, then I know that _____ time has elapsed because I ______________.

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