

Guiding our Teachers: A Briefer on Using The Math MELCs

Identifying the learning competencies in the Mathematics K to 10 Curriculum that satisfy the criterion endurance posits that these most essential learning competencies necessitates the realization of the twin goals of Mathematics – problem solving and critical thinking. Laying the foundational concepts and skills at each grade level are pivotal in the learning progression of each child. This consequently scaffold the learner’s understanding and acquisition of higher skills.

The identified most essential learning competencies in Math puts premium on the development of numeracy skills which are fundamental to practical and real-life problems, rather than Math content-knowledge; and on the development of higher-order thinking skills which goes beyond procedural fluency. It followed the content domains as articulated in the curriculum – Numbers and Number Sense, Measurement, Geometry, Patterns and Algebra, and Statistics and Probability.

Similarly, the skills and processes to be developed as emphasized in the curriculum, are maintained. These include knowing and understanding; estimating, computing and solving; visualizing and modelling, representing and communicating, conjecturing, reasoning, proving and decision-making; and applying and connecting.

It is further aimed that the values and attitudes – accuracy, creativity, objectivity, perseverance, and productivity, be strongly honed among learners especially at this crucial time of health emergencies. The use of various instructional resources, especially calculators, computers, smart phones and tablets, while ensuring its appropriate use with respect to age and grade level of the learners, are likewise encouraged.

The value of Mathematics as a learning area should not be confined in the corners of a classroom or any learning space. Its application to real-life world problems should be dealt with depth and breadth which may be mirrored in classroom instruction.

Teachers, as the instructional leader in the implementation of the curriculum in the classroom, should use the identified most essential learning competencies as outlined in this document to help them decide on how to scaffold the achievement of the learning goals and meaningful learning in Math, in a reduced time allotment.

Examples:

Grade 1: Quarter 1

Learning Competencies	Comments/Recommendation	Identified MELCs
Visualizes and represents numbers from 0 to 100 using a variety of materials	Clustered as counting the number of objects subsumed or is part of visualizing and representing numbers	Visualizes and represents numbers from 0 to 100 using a variety of materials
Counts the number of objects in a given set by ones and tens		

Learning Competencies	Comments/Recommendation	Identified MELCs
Visualizes and count by 2s, 5s, and 10s through 100		
Composes and decomposes a given number, e.g. 5 is 5 and 0, 4 and 1, 3 and 2, 2 and 3, 1 and 4 and 0 and 5	Omitted as this will is also discussed in Quarter 3	
Visualizes, represents and compares two sets using expressions “less than,” “more than,” and “as many as”	Clustered and rephrased	Compares two sets using the expressions “less than,” “more than,” and “as many as” and orders sets from least to greatest and vice versa
Visualizes, represents and orders sets from least to greatest and vice versa		
Visualizes, represents and compares numbers up to 100 using relation symbols	Clustered and rephrased	Compares numbers up to 100 using relations symbols and ordering them in increasing and decreasing order
Visualizes, represents and orders numbers up to 100 in increasing or decreasing order		
Identifies the 1 st , 2 nd , 3 rd up to 10 th object in a given set from a given point of reference	Clustered and rephrased	Identifies, reads and writes ordinal numbers: 1 st , 2 nd , 3 rd , up to 10 th object in a given set from a given point of reference
Reads and writes ordinal numbers: 1 st , 2 nd , 3 rd up to 10 th		

Grade 2, Quarter 4

Learning Competencies	Comments/Recommendation	Identified MELCs
Visualizes and finds the elapsed time in days	Omitted, subsumed in the next LC	Visualizes, represents and solves problems involving time (minutes including a.m and p.m and elapsed time in days)
Shows and uses the appropriate unit of length and their abbreviation cm and m to measure a particular object	Clustered and rephrased	Measures objects using appropriate measuring tools and units of length in m or cm
Measures objects using appropriate measuring tools in m or cm		
Compares length in meters or centimeters	Clustered and rephrased; the mathematical focus is on the comparing measures	Compares the following unit of measures: <ul style="list-style-type: none"> a. Length in meters or centimeters b. Mass in grams or kilograms c. Capacity in mL or L
Compares mass in grams or kilograms		
Shows and uses the appropriate unit of weight and their abbreviations g and kg to measure a particular object	Clustered and rephrased	Measures objects using appropriate measuring tools and measuring units in g or kg
Measures objects using appropriate measuring units in g or kg		

Learning Competencies	Comments/Recommendation	Identified MELCs
Illustrates area as measure of how much surface is covered or occupied by a plane figure	Omitted, subsumed in the LC of finding the area using square tiles	
Collects data on one variable using questionnaire	Omitted, learners have better grasps of this LC in Grade 4 be as they may not be somehow struggling in reading and writing	
Sorts, classifies, and organizes data in tabular form and present this into a pictograph without and with scales		
Tells whether an event is likely, equally likely, unlikely to happen	Omitted as this may also be taken in Grade 3 for the discussion of probability of events	
Describe events in real-life situations using the phrases “likely to happen” or “unlikely to happen” or “equally likely to happen”		

Grade 6 Quarter 2

Learning Competencies	Comments/Recommendation	Identified MELCs
Sets up proportions for groups of objects or numbers and for given situation	omitted	
Identifies real-life situations that make use of integers	Clustered and rephrased	Describe the set of integers and identify real-life situations that make use of it
Describes the set of integers		
Represents integers on the number line	LC is subsumed to the next LC	Compares and arranges integers on the number line
Compares and arranges integers		

Grade 8 Quarter 2

Learning Competency	Comments/Recommendations	Identified MELCS
Illustrates linear inequalities in two variables	Clustered, rephrased	Illustrates and graphs linear inequalities in two variables
Graphs linear inequalities in two variables		
Illustrates a linear function	Clustered and rephrased	Graphs and illustrates a linear function and its (a) domain; (b) range; (c) table of values; (d) intercepts; and (e) slope
Graphs a linear function and its (a) domain; (b) range; (c) table of values; (d) intercepts; and (e) slope		

How to Use the MELCs in Math

6. Appraise the content standards in each quarter of your grade level. This will guide you in tracking the learning content being focused per quarter.
7. Plan the instructional activities suited for the type of learning delivery modality being used based from the performance standards specified in a particular quarter. Ensure the appropriateness of the learning materials, instructional resources and/or instructional device to be utilized to achieve these standards.
8. Examine the identified most essential competencies for each week. This will be the learning goal for the week. If the learning competency is seemingly a big chunk of a learning goal, then it has to be sub-tasked. But bear in mind that the development of math skill is arguably of more importance than the competence of content-knowledge in Math. For example, place a great emphasis on how to perform operations on fractions and how it can be utilized in real life context than on defining the different types of fractions
9. In your instructional plans, design activities or assessment tasks wherein learners will have a great deal of analysis and problem-solving. A case in point is on analyzing the graph of an equation where tasks should not be concentrated on how the learners will draw the graph of the equation as this may be augmented through the use of spreadsheets or software application, but on the analysis of the graph and how these graphs are illustrated in solving real-life problems.