

Alignment of the Masters of Disaster Curriculum to Florida's Sunshine State Standards



MATHEMATICS

GRADES PRE K-2

ALIGNMENT OF MASTERS OF DISASTER CURRICULUM TO FLORIDA'S SUNSHINE STATE STANDARDS

Mathematics PreK-2

WHAT IS THE PURPOSE OF THIS DOCUMENT?

This document is a correlation of the Masters of Disaster (MOD) curriculum of the American Red Cross with Florida's Sunshine State Standards. Correlation has been completed through the benchmark level of each Standard in an effort to assist teachers with the integration of important disaster safety information into their regular lesson plans. Foremost in our efforts was the desire to provide teachers with easily accessible material that can enhance the delivery of each of four subject areas within the school curriculum: Language Arts, Mathematics, Science, and Social Studies.

WHAT ARE THE SUNSHINE STATE STANDARDS?

The Sunshine State Standards were approved by the State Board of Education in 1996 to provide expectations for student achievement in Florida. The Standards approved in 1996 were written in seven subject areas, each divided into four separate grade clusters (PreK-2, 3-5, 6-8, and 9-12). This format was chosen to provide flexibility to school districts in designing curriculum based on local needs. However, as Florida moves toward greater accountability for student achievement at each grade level, the Sunshine State Standards have been further defined. In the subject areas of language arts, mathematics, science, and social studies, the Sunshine State Standards have been expanded to include Grade Level Expectations. These Grade Level Expectations will eventually become the basis for state assessments at each grade 3-10 in language arts and mathematics--and may eventually be used in state assessments in science and social studies.

More information on the Sunshine State Standards is available at:

<http://www.firn.edu/doe/curric/prek12/frame2.htm>

All benchmarks for each of the core subject areas (language arts, math, science, and social studies) are included in each of the three grade levels (K-2, 3-5 and 6-8). Linkages between the Sunshine State Standards and Masters of Disaster lesson plans are listed where they apply. Space for teacher notes is provided adjacent to those benchmarks not addressed by MOD.

The benchmark alignments in this document are based on implementing the Masters of Disaster lesson plans with fidelity, but teachers may address additional benchmarks by making minor adjustments in some of the lesson plan activities.

We hope that teachers find the materials to be a useful and valuable aid to the use of the MOD curriculum. Educators are encouraged to direct any comments or recommended changes to this document to Julie Collins, Office of Safe Schools, Florida Department of Education, 325 West Gaines Street #301, Tallahassee, Florida 32399-0400; via electronic mail at julie.collins@fldoe.org or via telephone at (850) 414-7778.

ALIGNMENT OF MASTERS OF DISASTER CURRICULUM TO FLORIDA'S SUNSHINE STATE STANDARDS

MATHEMATICS PREK-2

STRAND A: NUMBER SENSE, CONCEPTS, AND OPERATIONS		
STANDARD	BENCHMARK	MASTERS OF DISASTER LESSON
Standard 1: The student understands the different ways numbers are represented and used in the real world. (MA.A.1.1.)	1. Associates verbal names, written word names, and standard numerals with the whole numbers less than 1000.	Tornadoes, Lesson Plan 3, p. 78-79 Lightning, Lesson Plan 3, p. 106-107 Earthquakes, Lesson Plan 2, p. 124-125
	2. Understands the relative size of whole numbers between 0 and 1000.	Tornadoes, Lesson Plan 3, p. 78-79
	3. Uses objects to represent whole numbers or commonly used fractions and relates these numbers to real-world situations.	General Preparedness, Lesson Plan 1, p. 9 General Preparedness, Lesson Plan 4, p. 19
	4. Understands that whole numbers can be represented in a variety of equivalent forms.	
Standard 2: The student understands number systems. (MA.A.2.1.)	1. Understands and applies the concepts of counting (by 2s, 3s, 5s, 10s, 25s, 50s), grouping, and place value with whole numbers between 0 and 100.	Tornadoes, Lesson Plan 3, p. 78-79 Lightning, Lesson Plan 3, p. 106-107
	2. Uses number patterns and the relationships among counting, grouping, and place value strategies to demonstrate an understanding of the whole number system.	Tornadoes, Lesson Plan 3, p. 78-79

Standard 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving. (MA.A.3.1.)	1. Understands and explains the effects of addition and subtraction on whole numbers, including the inverse (opposite) relationship of the two operations.	General Preparedness, Lesson Plan 2, p. 14 Earthquakes, Lesson Plan 2, p. 124-125
	2. Selects the appropriate operation to solve specific problems involving addition and subtraction of whole numbers.	General Preparedness, Lesson Plan 1, p. 9 General Preparedness, Lesson Plan 3, p. 16 Earthquakes, Lesson Plan 2, p. 124-125
	3. Adds and subtracts whole numbers to solve real-world problems using appropriate methods of computing, such as objects, mental mathematics, paper and pencil, calculator.	General Preparedness, Lesson Plan 1, p. 9 General Preparedness, Lesson Plan 3, p. 16 Earthquakes, Lesson Plan 2, p. 124-125
Standard 4: The student uses estimation in problem solving and computation. (MA.A.4.1.)	1. Provides and justifies estimates for real-world quantities.	General Preparedness, Lesson Plan 1, p. 9 Hurricanes, Lesson Plan 3, p. 36-37
Standard 5: The student understands and applies theories related to numbers. (MA.A.5.1.)	1. Classifies and models numbers as even or odd.	

STRAND B: MEASUREMENT

STANDARD	BENCHMARK	MASTERS OF DISASTER LESSON
<p>Standard 1: The student measures quantities in the real world and uses the measures to solve problems. (MA.B.1.1.)</p>	<p>1. Uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.</p>	<p>General Preparedness, Lesson Plan 1, p. 9 Hurricanes, Lesson Plan 1, p. 27 Hurricanes, Lesson Plan 3, p. 36-37 Floods, Lesson Plan 2, p. 54-55 Lightning, Lesson Plan 3, p. 106-107 Earthquakes, Lesson Plan 2, p. 123-125 Earthquakes, Lesson Plan 3, p. 131 Earthquakes, Lesson Plan 5, p. 144</p>
	<p>2. Uses standard customary and metric (centimeter, inch) and nonstandard units, such as links or blocks, in measuring real quantities.</p>	<p>Hurricanes, Lesson Plan 1, p. 27</p>
<p>Standard 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.1.)</p>	<p>1. Uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (length, weight).</p>	<p>Hurricanes, Lesson Plan 1, p. 27 Floods, Lesson Plan 2, p. 55 Tornadoes, Lesson Plan 1, p. 70-71 Tornadoes, Lesson Plan 2, p. 76 Lightning, Lesson Plan 3, p. 106-107</p>
	<p>2. Understands the need for a uniform unit of measurement to communicate in real-world situations.</p>	
<p>Standard 3: The student estimates measurements in real-world problem situations. (MA.B.3.1.)</p>	<p>1. Using a variety of strategies, estimates lengths, widths, time intervals, and money and compares them to actual measurements.</p>	<p>Lightning, Lesson Plan 3, p. 106-107 Earthquakes, Lesson Plan 3, p. 131 Earthquakes, Lesson Plan 5, p. 144</p>

<p>Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations. (MA.B.4.1.)</p>	<p>1. Selects and uses an object to serve as a unit of measure, such as a paper clip, eraser, or marble.</p>	
	<p>2. Selects and uses appropriate instruments, such as scales, rulers, clocks, and technology to measure within customary or metric systems.</p>	<p>Hurricanes, Lesson Plan 2, p. 30-31 Earthquakes, Lesson Plan 1, p. 117-118 Earthquakes, Lesson Plan 5, p. 144</p>

STRAND C: GEOMETRY AND SPATIAL SENSE

STANDARD	BENCHMARK	MASTERS OF DISASTER LESSON
<p>Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes. (MA.C.1.1.)</p>	<p>1. Understands and describes the characteristics of basic two- and three-dimensional shapes.</p>	<p>Tornadoes, Lesson Plan 2, p. 76 Tornadoes, Lesson Plan 4, p. 86-88</p>
<p>Standard 2: The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed. (MA.C.2.1.)</p>	<p>1. Understands basic concepts of spatial relationships, symmetry, and reflections.</p>	<p>Hurricanes, Lesson Plan 3, p. 36-37 Earthquakes, Lesson Plan 1, p. 114-118</p>
	<p>2. Uses objects to perform geometric transformations, including flips, slides, and turns.</p>	
<p>Standard 3: The student uses coordinate geometry to locate objects in both two- and three-dimensions and to describe objects algebraically. (MA.C.3.1.)</p>	<p>1. Uses real-life experiences and physical materials to describe, classify, compare, and sort geometric figures, including squares, rectangles, triangles, circles, cubes, rectangular solids, spheres, pyramids, cylinders, and prisms, according to the number of faces, edges, bases, and corners.</p>	
	<p>2. Plots and identifies positive whole numbers on a number line.</p>	

STRAND D: ALGEBRAIC THINKING

STANDARD	BENCHMARK	MASTERS OF DISASTER LESSON
Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions. (MA.D.1.1.)	1. Describes a wide variety of classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, similar events.	
	2. Recognizes, extends, generalizes, and creates a wide variety of patterns and relationships using symbols and objects.	General Preparedness, Lesson Plan 2, p. 14
Standard 2: The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.1.)	● ■ ▲ 1. Understands that geometric symbols (, ,) can be used to represent unknown quantities in expressions, equations, and inequalities.	
	2. Uses informal methods to solve real-world problems requiring simple equations that contain one variable.	

STRAND E: DATA ANALYSIS AND PROBABILITY

STANDARD	BENCHMARK	MASTERS OF DISASTER LESSON
<p>Standard 1: The student understands and uses the tools of data analysis for managing information. (MA.E.1.1.)</p>	<p>1. Displays solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts.</p>	<p>General Preparedness, Lesson Plan 4, p. 19 Hurricanes, Lesson Plan 2, p. 30-31 Floods, Lesson Plan 2, p. 55 Tornadoes, Lesson Plan 3, p. 78-79</p>
	<p>2. Displays data in a simple model to use the concepts of range, median, and mode.</p>	<p>Floods, Lesson Plan 2, p. 55 Tornadoes, Lesson Plan 3, p. 78-79</p>
	<p>3. Analyzes real-world data by surveying a sample space and predicting the generalization onto a larger population through the use of appropriate technology, including calculators and computers.</p>	
<p>Standard 2: The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.1.)</p>	<p>1. Understands basic concepts of chance and probability.</p>	<p>General Preparedness, Lesson Plan 1, p. 9 Hurricanes, Lesson Plan 2, p. 30-31 Tornadoes, Lesson Plan 3, p. 78-79</p>
	<p>2. Predicts which simple event is more likely, equally likely, or less likely to occur.</p>	<p>General Preparedness, Lesson Plan 1, p. 9 Tornadoes, Lesson Plan 3, p. 78-79</p>
<p>Standard 3: The student uses statistical methods to make inferences and valid arguments about real-world situations. (MA.E.3.1.)</p>	<p>1. Designs a simple experiment to answer a class question, collects appropriate information, and interprets the results using graphical displays of information, such as line graphs, pictographs, and charts.</p>	<p>Floods, Lesson Plan 2, p. 55</p>
	<p>Decides what information is appropriate and how data can be collected, displayed, and interpreted to answer relevant questions.</p>	