Florida Department of Education • Florida Institute of Education

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


# SCIENCE

## GRADES PRE K-2

http://www.firn.edu/doe/bin00013/em_plan/teacher.htm

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

Science 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

## SCIENCE PREK-2

| STRAND A: THE NATURE OF MATTER | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student understands that all matter has observable, measurable properties. (SC.A.1.1.)** | 1. Knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color, size, and shape). | Hurricanes, Lesson Plan 3, p. 36-37 |
| | 2. Recognizes that the same material can exist in different states. | Floods, Lesson Plan 1, p. 50-51 |
| | 3. Verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt). | Floods, Lesson Plan 1, p. 50-51<br>Earthquakes, Lesson Plan 1, p. 115-116 |
| **Standard 2: The student understands the basic principles of atomic theory. (SC.A.2.1.)** | 1. Recognizes that many things are made of smaller pieces, different amounts, and various shapes. | Floods, Lesson Plan 2, p. 55 |

| STRAND B: ENERGY | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student recognizes that energy may be changed in form with varying efficiency (SC.B.1.1.)** | 1. Knows that the sun supplies heat and light energy to Earth. | Floods, Lesson Plan 1, p. 50-51 |
| | 2. Knows that light can pass through some objects and not others. | |
| | 3. Describes a model energy system (e.g., an aquarium or terrarium). | Floods, Lesson Plan 1, p. 50-51 |
| | 4. Knows that heat can be produced in many ways (e.g., by burning and rubbing). | Lightning, Lesson Plan 1, p. 96-97<br>Earthquakes, Lesson Plan 1, p. 115-118 |
| | 5. Knows that every human action requires energy that comes from food. | General Preparedness, Lesson Plan 1, p. 9 |
| **Standard 2: The student understands the interaction of matter and energy. (SC.B.2.1.)** | 1. Recognizes systems of matter and energy. | Floods, Lesson Plan 1, p. 50-51<br>Lightning, Lesson Plan 1, p. 96-97<br>Earthquakes, Lesson Plan 1, p. 115-118<br>Earthquakes, Lesson Plan 2, p. 122<br>Earthquakes, Lesson Plan 3, p. 128-131 |

| STRAND C: FORCE AND MOTION | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student understands that types of motion may be described, measured, and predicted. (SC.C.1.1.)** | 1. Understands that different things move at different speeds. | Tornadoes, Lesson Plan 1, p. 70-71<br>Tornadoes, Lesson Plan 2, p. 74-76 |
| | 2. Knows that there is a relationship between force and motion. | Hurricanes, Lesson Plan 1, p. 27<br>Tornadoes, Lesson Plan 1, p. 70-71<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Tornadoes, Lesson Plan 5, p. 90-91<br>Earthquakes, Lesson Plan 1, p. 115-118<br>Earthquakes, Lesson Plan 2, p. 123-124<br>Earthquakes, Lesson Plan 3, p. 128-131<br>Earthquakes, Lesson Plan 4, p. 138-140 |
| **Standard 2: The student understands that the types of force that act on an object and the effect of that force can be described, measured, and predicted. (SC.C.2.1.)** | 1. Knows that one way to change how something is moving is to give it a push or a pull. | Tornadoes, Lesson Plan 1, p. 70-71<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Tornadoes, Lesson Plan 5, p. 90-91<br>Earthquakes, Lesson Plan 1, p. 115-118<br>Earthquakes, Lesson Plan 2, p. 123-124<br>Earthquakes, Lesson Plan 3, p. 128-131<br>Earthquakes, Lesson Plan 4, p. 138-140 |
| | 2. Knows that sound is caused by vibrations (pushing and pulling) to cause waves. | |

| STRAND D: PROCESSES THAT SHAPE THE EARTH | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student recognizes that processes in the lithosphere, atmosphere, hydrosphere, and biosphere interact to shape the earth. (SC.D.1.1.)** | 1. Recognizes that the solid materials making up the Earth come in all sizes, from boulders to grains of sand. | Floods, Lesson Plan 2, p. 54-55<br>Earthquakes, Lesson Plan 2, p. 123-124 |
| | 2. Knows that life occurs on or near the surface of the Earth in land, air, and water. | Earthquakes, Lesson Plan 1, p. 114-118<br>Earthquakes, Lesson Plan 3, p. 128-131 |
| | 3. Recognizes patterns in weather. | Hurricanes, Lesson Plan 1, p. 26-27<br>Hurricanes, Lesson Plan 2, p. 30-31<br>Floods, Lesson Plan 1, p. 50-51<br>Floods, Lesson Plan 3, p. 64<br>Tornadoes, Lesson Plan 1, p. 70-71<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Tornadoes, Lesson Plan 3, p. 78<br>Tornadoes, Lesson Plan 4, p. 86-88<br>Earthquakes, Lesson Plan 2, p. 122-125 |
| **Standard 2: The student understands the need for protection of the natural systems on Earth. (SC.D.2.1.)** | 1. Understands that people influence the quality of life of those around them. | |

| STRAND E: EARTH AND SPACE | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student understands the interaction and organization in the Solar System and the universe and how this affects life on Earth. (SC.E.1.1.)** | 1. Knows that the light reflected by the moon looks a little different every day but looks the same again about every 28 days. | |
| | 2. Knows that the appearance of sunrise and sunset is due to the rotation of Earth every 24 hours. | Hurricanes, Lesson Plan 2, p. 30 |
| **Standard 2: The student recognizes the vastness of the universe and Earth's place in it. (SC.E.2.1.)** | 1. Knows that there are many objects in the sky that are only visible at night. | |

| STRAND F: PROCESSES OF LIFE | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student describes patterns of structure and function in living things. (SC.F.1.1.)** | 1. Knows the basic needs of all living things. | General Preparedness, Lesson Plan 3, p. 16<br>General Preparedness, Lesson Plan 4, p. 18-19<br>Hurricanes, Lesson Plan 3, p. 36-37<br>Tornadoes, Lesson Plan 5, p. 90-92 |
| | 2. Knows how to apply knowledge about life processes to distinguish between living and non-living things. | |
| | 3. Describes how organisms change as they grow and mature. | Earthquakes, Lesson Plan 2, p. 122-125 |
| | 4. Understands that structures of living things are adapted to their function in specific environments. | |
| | 5. Compares and describes the structural characteristics of plants and animals. | |
| **Standard 2: The student understands the process and importance of genetic diversity. (SC.F.2.1.)** | 1. Knows that living things have offspring that resemble their parents. | |
| | 2. Knows that there are many different kinds of living things that live in a variety of environments. | General Preparedness, Lesson Plan 4, p. 19 |

| STRAND G: HOW LIVING THINGS INTERACT WITH THEIR ENVIRONMENT | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student understands the competitive, interdependent, cyclic nature of living things in the environment. (SC.G.1.1.)** | 1. Knows that environments have living and non-living parts. | |
| | 2. Knows that plants and animals are dependent upon each other for survival. | |
| | 3. Knows that there are many different plants and animals living in many different kinds of environments (e.g., hot, cold, wet, dry, sunny, and dark). | |
| | 4. Knows that animals and plants can be associated with their environment by an examination of their structural characteristics. | |
| **Standard 2: The student understands the consequences of using limited natural resources. (SC.G.2.1.)** | 1. Knows that if living things do not get food, water, shelter, and space, they will die. | General Preparedness, Lesson Plan 1, p. 7<br>General Preparedness, Lesson Plan 4, p. 19 |
| | 2. Knows that the activities of humans affect plants and animals in many ways. | |

| STRAND H: THE NATURE OF SCIENCE | | |
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| **STANDARD** | **BENCHMARK** | **MASTERS OF DISASTER LESSON** |
| **Standard 1: The student uses the scientific processes and habits of mind to solve problems. (SC.H.1.1.)** | 1. Knows that in order to learn, it is important to observe the same things often and compare them. | Hurricanes, Lesson Plan 2, p. 30-31<br>Floods, Lesson Plan 2, p. 54-55<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Tornadoes, Lesson Plan 4, p. 88<br>Lightning, Lesson Plan 1, p. 96-98<br>Earthquakes, Lesson Plan 2, p. 122-125<br>Earthquakes, Lesson Plan 3, p. 128-131 |
| | 2. Knows that when tests are repeated under the same conditions, similar results are usually obtained. | Floods, Lesson Plan 2, p. 54-55<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Lightning, Lesson Plan 1, p. 96-98<br>Earthquakes, Lesson Plan 1, p. 115-116<br>Earthquakes, Lesson Plan 2, p. 122-125<br>Earthquakes, Lesson Plan 3, p. 128-131 |
| | 3. Knows that, in doing science, it is often helpful to work with a team and to share findings with others. | Hurricanes, Lesson Plan 1, p. 27<br>Floods, Lesson Plan 1, p. 50-51<br>Tornadoes, Lesson Plan 1, p. 70-71<br>Lightning, Lesson Plan 1, p. 96-97<br>Earthquakes, Lesson Plan 1, p. 114-118<br>Earthquakes, Lesson Plan 2, p. 122-125<br>Earthquakes, Lesson Plan 3, p. 128-131 |

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| | 4. Knows that people use scientific processes including hypotheses, making inferences, and recording and communicating data when exploring the natural world. | General Preparedness, Lesson Plan 1, p. 9<br>Hurricanes, Lesson Plan 2, p. 30-31<br>Hurricanes, Lesson Plan 3, p. 36-37<br>Floods, Lesson Plan 1, p. 50-51<br>Floods, Lesson Plan 2, p. 54-55<br>Tornadoes, Lesson Plan 1, p. 70-71<br>Tornadoes, Lesson Plan 2, p. 74-76<br>Tornadoes, Lesson Plan 4, p. 88<br>Earthquakes, Lesson Plan 2, p. 125<br>Earthquakes, Lesson Plan 3, p. 128-131 |
| | 5. Uses the senses, tools, and instruments to obtain information from his or her surroundings. | Hurricanes, Lesson Plan 1, p. 27<br>Hurricanes, Lesson Plan 2, p. 30-31<br>Floods, Lesson Plan 3, p. 62-64<br>Tornadoes, Lesson Plan 4, p. 88<br>Lightning, Lesson Plan 1, p. 96-98<br>Earthquakes, Lesson Plan 3, p. 128-131<br>Earthquakes, Lesson Plan 4, p. 138-140 |
| **Standard 2: The student understands that most natural events occur in comprehensible, consistent patterns. (SC.H.2.1.)** | 1. Knows that most natural events occur in patterns. | Hurricanes, Lesson Plan 2, p. 30-31<br>Floods, Lesson Plan 1, p. 50-51<br>Floods, Lesson Plan 3, p. 64<br>Tornadoes, Lesson Plan 3, p. 78<br>Tornadoes, Lesson Plan 4, p. 88<br>Lightning, Lesson Plan 1, p. 96-98<br>Earthquakes, Lesson Plan 2, p. 122-125<br>Earthquakes, Lesson Plan 3, p. 128-131 |
| **Standard 3: The student understands that science, technology, and society are interwoven and interdependent. (SC.H.3.1.)** | 1. Knows that scientists and technologists use a variety of tools (e.g., thermometers, magnifiers, rulers, and scales) to obtain information in more detail and to make work easier. | |