

Scope and Sequence Chart

Lesson Number and Title	K to 12 Learning Competencies	Objectives	Strategies/Techniques	Learning Activities	Assessment Tools
Unit 1 Understanding Disaster and Disaster Risk					
Chapter 1 Facing Disasters and Hazards					
Lesson 1 Introduction to Disasters	<ul style="list-style-type: none"> • Explain the meaning of disaster • Differentiate the risk factors underlying disasters • Describe the effects of disasters on one's life • Explain how and when an event becomes a disaster • Identify areas/locations exposed to hazards that may lead to disasters • Analyze disaster from the different perspectives (physical, 	<ul style="list-style-type: none"> • Differentiate between <i>disaster</i> and <i>hazard</i> • Illustrate how a hazard becomes a disaster • Define <i>disaster risk</i> • Tell how hazard, vulnerability, exposure, and capacity influence disaster risk • Enumerate the effects of disasters on people's lives • Analyze the different perspectives on disasters: physical, psychological, 	<ul style="list-style-type: none"> • Presenting a collage of pictures or a video clip of different major calamities that recently happened in the Philippines • Sharing of thoughts or reaction to the pictures of video clips • Group discussion • Individual reflection • Whole class discussion 	<ul style="list-style-type: none"> • Group activity 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made tests

III	<p>psychological, socio-cultural, economic, political, and biological)</p>	<p>sociocultural, economic, political, and biological views</p>			
<p>Lesson 2 Introduction to Hazard</p>	<ul style="list-style-type: none"> • Enumerate elements exposed to hazards • Explain the meaning of vulnerability • Explain why certain sectors of society are more vulnerable to disaster than others • Analyze why certain structures are more vulnerable to specific hazards than others • Determine the elements that are exposed to a particular hazard • Recognize vulnerabilities of different elements exposed to specific hazards • Differentiate among hazards, exposure, and vulnerabilities and give examples from actual situations 	<ul style="list-style-type: none"> • Explain what hazard is about • Differentiate the types of hazards • Describe the effects of hazards • Enumerate the elements exposed to hazards • Explain the vulnerability of particular groups or areas to hazards • Identify the areas exposed to hazards 	<ul style="list-style-type: none"> • Slideshow or presentation of pictures of different natural and man-made hazards • Video presentation • Group discussion • Group activity • Individual reflection • Whole class discussion 	<ul style="list-style-type: none"> • Group activity • Video/Picture analysis 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made tests • Group activity • Performance task

	<ul style="list-style-type: none"> • Define hazards • Give examples of the types of hazards • Explain the impact of various hazards on different exposed elements 				
<h2>Chapter 2</h2> <h3>Geological Hazards</h3>					
Lesson 1 Earthquakes	<ul style="list-style-type: none"> • Identify various potential earthquake hazards • Recognize the natural signs of an impending tsunami • Analyze the effects of the different earthquake hazards • Interpret different earthquake hazard maps • Apply precautionary and safety measures before, during, and after an earthquake 	<ul style="list-style-type: none"> • Explain what geological hazards are about • Discuss how an earthquake takes place • Enumerate the hazards brought about by an earthquake • Analyze the effects of the different earthquake hazards • Interpret an earthquake hazard map • Apply safety measures before, during, and after an earthquake 	<ul style="list-style-type: none"> • Whole class discussion • Viewing of video about earthquakes and tsunamis • Group sharing • Group activity • Individual reflection 	<ul style="list-style-type: none"> • Earthquake simulation drill • Video analysis • Group activity • Individual reflection 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made tests

Lesson 2 Volcanic Eruptions	<ul style="list-style-type: none"> • Explain various volcano-related hazards • Differentiate among different volcano hazards • Recognize signs of an impending volcanic eruption • Interpret different volcano hazard maps • Apply appropriate measures/interventions before, during, and after a volcanic eruption 	<ul style="list-style-type: none"> • Describe a volcano and its parts • Enumerate the signs of an impending volcanic eruption • Explain what volcano-related hazards are all about • Interpret a volcano hazard map • Apply safety measures before, during, and after a volcanic eruption • Design an emergency preparedness plan for a volcanic eruption 	<ul style="list-style-type: none"> • Doing the “We Belong” activity • Showing a video of the eruption of Mount Pinatubo and what to do before, during and after a volcanic eruption • Whole class discussion 	<ul style="list-style-type: none"> • Video analysis • Playing a game • Individual reflection 	<ul style="list-style-type: none"> • Textbook exercises • Class discussion
Lesson 3 Landslides and Sinkholes	<ul style="list-style-type: none"> • Discuss the different geological hazards • Analyze the causes of geological hazards • Recognize signs of impending geological hazards • Interpret geological maps 	<ul style="list-style-type: none"> • Describe landslides and sinkholes • Identify the signs of landslides and sinkholes • Apply safety measures to take to protect people and structures from 	<ul style="list-style-type: none"> • Showing of photos or videos of different recorded landslide and sinkhole events in the Philippines • Whole class discussion • Question and answer activity 	<ul style="list-style-type: none"> • Video/Picture analysis • Comparing and differentiating landslides from sinkholes 	<ul style="list-style-type: none"> • Textbook exercises • Open discussion • Group activity • Performance task

	<ul style="list-style-type: none"> Apply mitigation strategies to prevent loss of lives and properties 	landslides and sinkholes	<ul style="list-style-type: none"> Individual reflection 		
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Chapter 3

Hydrometeorological Hazards

Lesson 1 Typhoons and Thunderstorms	<ul style="list-style-type: none"> Distinguish and differentiate among and between different hydrometeorological hazards Recognize signs of impending hydrometeorological hazards Apply appropriate measures/interventions before, during, and after hydrometeorological hazards Interpret different hydrometeorological hazard maps Use available tools for monitoring hydrometeorological hazards 	<ul style="list-style-type: none"> Describe a hydrometeorological hazard Identify tools for monitoring hydro meteorological hazards Differentiate between <i>typhoons</i> and <i>thunderstorms</i> Recognize signs of an impending typhoon and thunderstorm Interpret a rain-induced landslide hazard map Apply safety measures for typhoons and thunderstorms 	<ul style="list-style-type: none"> Showing a YouTube video about Earth's biggest super typhoon and what to do before, during, and after a typhoon Open discussion Group activity 	<ul style="list-style-type: none"> Video analysis Group activity Individual reflection 	<ul style="list-style-type: none"> Textbook exercises Teacher-made tests Open discussion
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ix	Lesson 2 Floods, Flash Floods, and Storm Surges	<ul style="list-style-type: none"> Distinguish and differentiate among and between different hydrometeorological hazards Recognize signs of impending hydrometeorological hazards Apply appropriate measures/interventions before, during, and after hydrometeorological hazards Interpret different hydrometeorological hazard maps Use available tools for monitoring hydrometeorological hazards 	<ul style="list-style-type: none"> Differentiate among <i>flood</i>, <i>flash flood</i>, and <i>storm surge</i> Recognize the signs of flood, flash flood, and storm surge Interpret a flood hazard map Apply safety measures for flood, flash flood, and storm surge 	<ul style="list-style-type: none"> Showing different photos of floods and flash floods recorded in the Philippines Showing a video about floods, flash floods Open discussion about the video analysis 	<ul style="list-style-type: none"> Describing and analyzing photos Creating a customized flood hazard map within the school vicinity Group activity Individual reflection 	<ul style="list-style-type: none"> Textbook exercises Teacher-made tests Open discussion
x	Lesson 3 El Niño and La Niña	<ul style="list-style-type: none"> Distinguish and differentiate among and between different hydrometeorological hazards Recognize signs of impending hydrometeorological hazards 	<ul style="list-style-type: none"> Differentiate between <i>El Niño</i> and <i>La Niña</i> Identify the signs of El Niño and La Niña Apply safety measures for El Niño and La Niña 	<ul style="list-style-type: none"> Demonstrating an activity to simulate the El Niño phenomenon Showing a video about the El Niño and La Niña phenomenon Open discussion 	<ul style="list-style-type: none"> Individual activity Individual reflection 	<ul style="list-style-type: none"> Group activity Performance task

	<ul style="list-style-type: none"> • Apply appropriate measures/interventions before, during, and after hydrometeorological hazards • Interpret different hydro meteorological hazard maps • Use available tools for monitoring hydrometeorological hazards 		<ul style="list-style-type: none"> • Picture presentation on the effects El Niño and La Niña to the people and the environment 		
<h2>Chapter 4</h2> <h3>Man-Made Hazards</h3>					
Lesson 1 Understanding Sociological Hazards	<ul style="list-style-type: none"> • Analyze disaster from the different perspectives (physical, psychological, socio-cultural, economic, political, and biological) • Determine the elements that are exposed to a particular hazard • Recognize vulnerabilities of different elements exposed to specific hazards 	<ul style="list-style-type: none"> • Define <i>sociological hazards</i> • Describe the different kinds of sociological hazards • Explain how sociological hazards affect people and their surroundings • Apply safety measures to protect oneself from sociological hazards 	<ul style="list-style-type: none"> • Showing a collection of videos of different modus operandi • Open discussion 	<ul style="list-style-type: none"> • Giving reactions to viewed videos • Group activity • Individual reflection 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made test • Open discussion

	<ul style="list-style-type: none"> Differentiate among hazards, exposure, and vulnerabilities and give examples from actual situations 				
Lesson 2 Understanding Technological Hazards	<ul style="list-style-type: none"> Analyze disaster from the different perspectives (physical, psychological, socio-cultural, economic, political, and biological) Determine the elements that are exposed to a particular hazard Recognize vulnerabilities of different elements exposed to specific hazards Differentiate among hazards, exposure, and vulnerabilities and give examples from actual situations Recognize elements of the fire triangle in different situations 	<ul style="list-style-type: none"> Explain what <i>technological hazards</i> are about Discuss the different types of industrial hazards Describe structural collapse Identify the elements of the fire triangle and fire tetrahedron Explain how an element contributes to fire Describe the phases of fire development Describe power outage Discuss the different types of transportation hazard 	<ul style="list-style-type: none"> Video showing about industrial and chemical hazards and fire Discussion Demonstrating the use of a fire extinguisher Doing Spot the Hazard activity 	<ul style="list-style-type: none"> Reacting to the video viewed Spot the Hazard activity Individual reflection Practice manipulating the fire extinguisher 	<ul style="list-style-type: none"> Textbook exercises Teacher-made tests Group discussion Group activity Performance task

	<ul style="list-style-type: none"> Analyze the different causes of fires Observe precautionary measures and proper procedures in addressing a fire incident Apply basic response procedures during a fire incident Follow fire emergency and evacuation plans 	<ul style="list-style-type: none"> Apply safety measures for the different types of technological hazards 			
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Unit 2

Introduction to Disaster Risk Reduction and Management

Chapter 5

Disaster Risk Reduction and Management

Lesson 1 Introduction to Disaster Risk Reduction	<ul style="list-style-type: none"> Discuss the key concepts, principles, and elements of DRR Recognize the importance of DRR to one's life Discuss different community-based practices for managing disaster risk to specific hazards 	<ul style="list-style-type: none"> Explain what disaster risk reduction is about Enumerate the importance of disaster risk reduction Discuss the principles of disaster risk reduction 	<ul style="list-style-type: none"> Group activity Showing the actual samples or photos of an emergency kit and family "Go-bag" Whole class discussion 	<ul style="list-style-type: none"> Group activity Individual reflection 	<ul style="list-style-type: none"> Textbook exercises Teacher-made tests Open discussion
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		<ul style="list-style-type: none"> Identify community-based practices for managing disaster risk Cite the importance of early warning systems Specify the contents of an emergency kit 			
Lesson 2 Understanding Philippine Disaster Risk Reduction and Management Act of 2010	<ul style="list-style-type: none"> Explain DRR-related laws and policies Avail of existing DRR-related services programs and projects Abide by public policies on DRRM 	<ul style="list-style-type: none"> Explain the importance of disaster risk reduction and management Explain what the Philippine Disaster Risk Reduction and Management Act of 2010 is all about Describe programs and activities related to disaster risk reduction and management 	<ul style="list-style-type: none"> Showing a video of the effects and aftermath of tropical storm Ketsana (Ondoy) Comparing the old National Disaster Coordinating Council (NDCC) with the National Disaster Risk Reduction Management Council (NDRRMC) Open discussion 	<ul style="list-style-type: none"> Reacting to the video viewed Individual reflection 	<ul style="list-style-type: none"> Textbook exercises Teacher-made exercises Open discussion

Lesson 3 Disaster Risk Reduction and Management Councils	<ul style="list-style-type: none"> Explain DRR-related laws and policies Avail of existing DRR-related services programs and projects Abide by public policies on DRRM Develop a community preparedness plan 	<ul style="list-style-type: none"> Describe the roles of the different councils for disaster risk reduction and management Identify the members of the National Disaster Risk Reduction and Management Council Explain the coordination efforts among the different councils for disaster risk reduction and management 	<ul style="list-style-type: none"> Playing a game Review of DRRM policies and measures Discussion 	<ul style="list-style-type: none"> Playing games Individual reflection Video showing on safety and disaster management Formulating the class's Emergency Preparedness Plan 	<ul style="list-style-type: none"> Textbook exercises Teacher-made test Performance task
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Chapter 6

Emergency Response System

Lesson 1 Emergency Response	<ul style="list-style-type: none"> Discuss different community-based practices for managing disaster risk to specific hazards Develop a community preparedness plan 	<ul style="list-style-type: none"> Describe the role and composition of the community emergency response team Explain how to conduct evacuation drill as part of emergency response evacuation 	<ul style="list-style-type: none"> Discussion Formulating Classroom Emergency Response Team Video viewing Conducting an earthquake and fire drills 	<ul style="list-style-type: none"> Organizing a class' Community Emergency Response Team (CERT) Individual reflection 	<ul style="list-style-type: none"> Textbook exercises Teacher-made tests
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	<ul style="list-style-type: none">• Prepare survival kits and materials for one's family and for public information and advocacy				
Lesson 2 Basic Rescue Techniques	<ul style="list-style-type: none">• Discuss different community-based practices for managing disaster risk to specific hazards• Develop a community preparedness plan• Prepare survival kits and materials for one's family, and for public information and advocacy	<ul style="list-style-type: none">• Define <i>first aid</i>• State the qualities of a good first-aider• Explain the techniques for administering rescue breathing• Explain the treatment for different types of injuries• Describe the different ways of moving or transferring a victim of a disaster	<ul style="list-style-type: none">• Showing video about first aid• Whole class discussion• Demonstration of rescue breathing• Group activity• Inviting the school nurse to lead the class in learning how to dress and bandage wounds to control bleeding• Demonstration of different methods of transferring a victim	<ul style="list-style-type: none">• Reacting to the video viewed• Practicing rescue breathing• Practicing how to dress and bandage wounds and stop the bleeding• Practicing different methods of transferring a victim• Pair activity• Group activity• Individual reflection	<ul style="list-style-type: none">• Textbook exercises• Teacher-made tests• Individual activity• Group activity• Performance task

<h2 style="text-align: center;">Chapter 7</h2> <h3 style="text-align: center;">Environmental Protection-Recovery and Sustainability</h3>					
Lesson 1 Solid Waste Management		<ul style="list-style-type: none"> • Explain what the Ecological Solid Waste Management Act of 2000 is all about • Explain what reduce, reuse, and recycle are all about • Enumerate the methods of composting • State ways on how an individual can contribute to the country's solid waste management program 	<ul style="list-style-type: none"> • Showing a video about the closure of the Payatas landfill and waste management in the Philippines • Whole class discussion 	<ul style="list-style-type: none"> • Watching and reacting to a video • Formulating a solid waste management program • Individual reflection 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made exercises
Lesson 2 Wastewater Management		<ul style="list-style-type: none"> • Explain what the Philippine Clean Water Act of 2004 is all about • Discuss how wastewater is managed in the country • State ways to contribute to the control and reduction of water pollution 	<ul style="list-style-type: none"> • Showing a video about the Philippines' water quality • Open discussion 	<ul style="list-style-type: none"> • Reacting to a video viewed • Group activity • Creating a wastewater management program • Individual reflection 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made exercises • Open discussion

Lesson 3 Air Quality Management		<ul style="list-style-type: none"> • Explain what the Philippine Clean Air Act of 1999 is all about • Identify the government agencies involved in the implementation of the act • Identify the major pollutants of the country • State ways to reduce the air pollution 	<ul style="list-style-type: none"> • Showing the video “Ikaw at ang Clean Air Act” • Open discussion • Group activity 	<ul style="list-style-type: none"> • Reacting to a video viewed • Individual reflection • Creating a booklet, pamphlet, brochure, or a flyer about Environmental Protection, Recovery, and Sustainability (Solid Waste, Wastewater, and Air Quality Management) 	<ul style="list-style-type: none"> • Textbook exercises • Teacher-made exercises • Performance task
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