

**K to 12 BASIC EDUCATION CURRICULUM  
SENIOR HIGH SCHOOL – CORE SUBJECT**

**Grade:** 11/12

**Subject Title:** Disaster Readiness and Risk Reduction

**No. of Hours/Semester:** 80 hours/semester

**Prerequisite (if needed):** Grades 3-10 Science

**Subject Description:** This course focuses on the application of scientific knowledge and the solution of practical problems in a physical environment. It is designed to bridge the gap between theoretical science and daily living.

<b>CONTENT</b>	<b>CONTENT STANDARD</b>	<b>PERFORMANCE STANDARD</b>	<b>LEARNING COMPETENCIES</b>	<b>CODE</b>
Basic concept of disaster and disaster risk	<p><i>The learners demonstrate understanding of the...</i></p> <ol style="list-style-type: none"> <li>1. Concept of disaster</li> <li>2. Concept of disaster risk</li> <li>3. Nature of disasters</li> <li>4. Effects of disasters</li> </ol>	The learners relate the concept of disaster with daily life.	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Explain the meaning of disaster;</li> <li>2. Differentiate the risk factors underlying disasters;</li> <li>3. Describe the effects of disasters on one’s life;</li> <li>4. Explain how and when an event becomes a disaster;</li> <li>5. Identify areas/locations exposed to hazards that may lead to disasters; and</li> <li>6. Analyze disaster from the different perspectives (physical, psychological, socio-cultural, economic, political, and biological).</li> </ol>	<p><b>DRR11/12-Ia-b-1</b> <b>DRR11/12-Ia-b-2</b></p> <p><b>DRR11/12-Ia-b-3</b></p> <p><b>DRR11/12-Ia-b-4</b></p> <p><b>DRR11/12-Ia-b-5</b></p> <p><b>DRR11/12-Ia-b-6</b></p>

K to 12 BASIC EDUCATION CURRICULUM  
SENIOR HIGH SCHOOL – CORE SUBJECT

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Exposure and Vulnerability	<i>The learners demonstrate understanding of...</i>	The learners conduct hazard hunts of exposed elements and propose corresponding corrective actions for one's preparedness.	<i>The learners...</i> <ol style="list-style-type: none"> <li>1. Enumerate elements exposed to hazards;</li> <li>2. Explain the meaning of vulnerability;</li> <li>3. Explain why certain sectors of society are more vulnerable to disaster than others;</li> <li>4. Analyze why certain structures are more vulnerable to specific hazards than others;</li> </ol>	<p><b>DRR11/12-Ic-7</b> <b>DRR11/12-Ic-8</b></p> <p><b>DRR11/12-Ic-9</b></p> <p><b>DRR11/12-Ic-10</b></p>
	Various elements that may be exposed to hazards: <ol style="list-style-type: none"> <li>1. <i>Physical</i></li> <li>2. <i>Social</i></li> <li>3. <i>Economic</i></li> <li>4. <i>Environmental</i></li> </ol> Vulnerability of each exposed element.		<ol style="list-style-type: none"> <li>5. Determine the elements that are exposed to a particular hazard;</li> <li>6. Recognize vulnerabilities of different elements exposed to specific hazards; and</li> <li>7. Differentiate among hazards, exposure, and vulnerabilities and give examples from actual situations.</li> </ol>	<p><b>DRR11/12-Id-11</b></p> <p><b>DRR11/12-Id-12</b></p> <p><b>DRR11/12-Id-13</b></p>
Basic concept of hazard	<i>The learners demonstrate understanding of the...</i> <ol style="list-style-type: none"> <li>1. Concept of hazard</li> <li>2. Types of hazards</li> <li>3. The impact of various hazards</li> </ol>	The learners relate various types of hazard with a specific area for one's preparedness.	<i>The learners...</i> <ol style="list-style-type: none"> <li>1. Define hazards;</li> <li>2. Give examples of the types of hazards; and</li> <li>3. Explain the impact of various hazards on different exposed elements.</li> </ol>	<p><b>DRR11/12-Ie-14</b> <b>DRR11/12-Ie-15</b> <b>DRR11/12-Ie-16</b></p>

K to 12 BASIC EDUCATION CURRICULUM  
SENIOR HIGH SCHOOL – CORE SUBJECT

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Earthquake Hazards	<p><i>The learners demonstrate understanding of...</i></p> <p>Potential earthquake hazards:</p> <ol style="list-style-type: none"> <li>1. <i>Ground shaking</i></li> <li>2. <i>Ground rupture</i></li> <li>3. <i>Liquefaction</i></li> <li>4. <i>Earthquake-induced ground subsidence</i></li> <li>5. <i>Tsunami</i></li> <li>6. <i>Earthquake-induced landslide</i></li> </ol>	The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after an earthquake.	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Identify various potential earthquake hazards;</li> <li>2. Recognize the natural signs of an impending tsunami;</li> <li>3. Analyze the effects of the different earthquake hazards;</li> </ol>	<p><b>DRR11/12-If-g-17</b></p> <p><b>DRR11/12-If-g-18</b></p> <p><b>DRR11/12-If-g-19</b></p>
			<ol style="list-style-type: none"> <li>4. Interpret different earthquake hazard maps; and</li> <li>5. Apply precautionary and safety measures before, during, and after an earthquake.</li> </ol>	<p><b>DRR11/12-If-g-20</b></p> <p><b>DRR11/12-If-g-21</b></p>
Volcano Hazards	<p><i>The learners demonstrate understanding of...</i></p> <p>Signs of impending volcanic eruptions</p> <p>Potential volcano-related hazards:</p> <ol style="list-style-type: none"> <li>1. <i>Lahar</i></li> <li>2. <i>Ash fall</i></li> <li>3. <i>Pyroclastic flow</i></li> <li>4. <i>Ballistic projectile</i></li> <li>5. <i>Volcanic gasses</i></li> <li>6. <i>Lava flow</i></li> </ol>	The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after a volcanic eruption.	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Explain various volcano-related hazards;</li> <li>2. Differentiate among different volcano hazards;</li> <li>3. Recognize signs of an impending volcanic eruption;</li> </ol>	<p><b>DRR11/12-Ih-i-22</b></p> <p><b>DRR11/12-Ih-i-23</b></p> <p><b>DRR11/12-Ih-i-24</b></p>
			<ol style="list-style-type: none"> <li>4. Interpret different volcano hazard maps; and</li> <li>5. Apply appropriate measures/interventions before, during, and after a volcanic eruption.</li> </ol>	<p><b>DRR11/12-Ih-i-25</b></p> <p><b>DRR11/12-Ih-i-26</b></p>

K to 12 BASIC EDUCATION CURRICULUM  
SENIOR HIGH SCHOOL – CORE SUBJECT

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Other related geological hazards	<p><i>The learners demonstrate understanding of...</i></p> <p>Related geological hazards</p> <ol style="list-style-type: none"> <li>1. <i>Rainfall-induced landslide</i></li> <li>2. <i>Sinkhole</i></li> </ol>	<p>The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after the occurrence of events that cause geological hazards.</p>	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Discuss the different geological hazards;</li> <li>2. Analyze the causes of geological hazards;</li> <li>3. Recognize signs of impending geological hazards;</li> </ol>	<p><b>DRR11/12-IIa-b-27</b> <b>DRR11/12-IIa-b-28</b> <b>DRR11/12-IIa-b-29</b></p>
			<ol style="list-style-type: none"> <li>4. Interpret geological maps; and</li> <li>5. Apply mitigation strategies to prevent loss of lives and properties.</li> </ol>	<p><b>DRR11/12-IIa-b-30</b> <b>DRR11/12-IIa-b-31</b></p>
Hydrometeorological hazards	<p><i>The learners demonstrate understanding of...</i></p> <p>Potential hydrometeorological hazards:</p> <ol style="list-style-type: none"> <li>1. <i>Typhoon</i></li> <li>2. <i>Thunderstorm</i></li> <li>3. <i>Flashflood</i></li> <li>4. <i>Flood</i></li> <li>5. <i>Stormsurge</i></li> <li>6. <i>El niño</i></li> <li>7. <i>La niña</i></li> </ol>	<p>The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after the occurrence of events that cause hydrometeorological hazards.</p>	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Distinguish and differentiate among and between different hydrometeorological hazards;</li> <li>2. Recognize signs of impending hydrometeorological hazards;</li> </ol>	<p><b>DRR11/12-IIc-d-32</b> <b>DRR11/12-IIc-d-33</b></p>
		<p>The learners develop proficiency in executing emergency response plans through safety drills.</p>	<ol style="list-style-type: none"> <li>3. Apply appropriate measures/interventions before, during, and after hydrometeorological hazards;</li> <li>4. Interpret different hydrometeorological hazard maps; and</li> <li>5. Use available tools for monitoring hydro-meteorological hazards.</li> </ol>	<p><b>DRR11/12-IIc-d-34</b> <b>DRR11/12-IIc-d-35</b> <b>DRR11/12-IIc-d-36</b></p>

K to 12 BASIC EDUCATION CURRICULUM  
SENIOR HIGH SCHOOL – CORE SUBJECT

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Fire hazard	<p><i>The learners demonstrate understanding of...</i></p> <p>Fire hazards and related concepts:</p> <ol style="list-style-type: none"> <li>1. <i>Fire triangle</i></li> <li>2. <i>Causes of fires</i></li> <li>3. <i>Phases of a fire emergency</i></li> </ol>	The learners develop a family emergency preparedness plan to guide them on what to do before, during, and after a fire incident.	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Recognize elements of the fire triangle in different situations;</li> <li>2. Analyze the different causes of fires;</li> <li>3. Observe precautionary measures and proper procedures in addressing a fire incident;</li> </ol>	<p><b>DRR11/12-IIe-f-37</b> <b>DRR11/12-IIe-f-38</b> <b>DRR11/12-IIe-f-39</b></p>
			<ol style="list-style-type: none"> <li>4. Apply basic response procedures during a fire incident; and</li> <li>5. Follow fire emergency and evacuation plans;</li> </ol>	<p><b>DRR11/12-IIe-f-40</b> <b>DRR11/12-IIe-f-41</b></p>
Concept of Disaster Risk Reduction (DRR) and Disaster Risk Reduction and Management (DRRM)	<p><i>The learners demonstrate understanding of...</i></p> <p>Disaster risk reduction:</p> <ol style="list-style-type: none"> <li>1. Concept of DRR</li> <li>2. Importance of DRR</li> <li>3. Key principles</li> </ol>	The learners are able to develop a community emergency preparedness plan and community disaster preparedness plan to minimize vulnerability and disaster risk in the community and avoid or	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Discuss the key concepts, principles, and elements of DRR;</li> <li>2. Recognize the importance of DRR on one's life;</li> </ol>	<p><b>DRR11/12-IIg-h-42</b> <b>DRR11/12-IIg-h-43</b></p>

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SENIOR HIGH SCHOOL – CORE SUBJECT**

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	<p>Community-based disaster risk reduction and management for preparedness</p> <ol style="list-style-type: none"> <li>1. <i>Emergency plan</i></li> <li>2. <i>Monitoring and Evaluation</i></li> <li>3. <i>Early Warning Systems</i></li> <li>4. <i>Survival kits and materials</i></li> </ol>	<p>limit adverse impacts of hazards.</p> <p>The learners practice and develop proficiency in executing emergency response protocols/procedures through safety drills.</p>	<ol style="list-style-type: none"> <li>3. Discuss different community-based practices for managing disaster risk to specific hazards;</li> <li>4. Develop a community preparedness plan; and</li> <li>5. Prepare survival kits and materials for one’s family and for public information and advocacy.</li> </ol>	<p><b>DRR11/12-IIg-h-44</b></p> <p><b>DRR11/12-IIg-h-45</b></p> <p><b>DRR11/12-IIg-h-46</b></p>
<p>What to expect between the State and the citizens</p>	<p><i>The learners demonstrate understanding of...</i></p> <ol style="list-style-type: none"> <li>1. Policies of DRRM -The Philippine DRRM Law RA 10121 and its Implementing Rules and Regulations</li> <li>2. Information and resources from the Government (Projects and Programs)</li> </ol>	<p>The learners are able to develop a community disaster preparedness plan to minimize vulnerability and disaster risk in the community and avoid or limit adverse impacts of hazards.</p>	<p><i>The learners...</i></p> <ol style="list-style-type: none"> <li>1. Explain DRR-related laws and policies;</li> <li>2. Avail of existing DRR-related services programs and projects; and</li> <li>3. Abide by public policies on DRRM.</li> </ol>	<p><b>DRR11/12-IIi-j-47</b></p> <p><b>DRR11/12-IIi-j-48</b></p> <p><b>DRR11/12-IIi-j-49</b></p>

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**Code Book Legend**

**Sample: DRR11/12-Id-11**

LEGEND		SAMPLE	
<b>First Entry</b>	Learning Area and Strand/ Subject or Specialization	Disaster Readiness and Risk Reduction	<b>DRR11/12</b>
	Grade Level	Grade 11/12	
			-
<b>Roman Numeral</b> <i>*Zero if no specific quarter</i>	Quarter	First Quarter	<b>1</b>
<b>Lowercase Letter/s</b> <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Weeks four	<b>D</b>
			-
<b>Arabic Number</b>	Competency	Determine the elements that are exposed to a particular hazard;	<b>11</b>