

**Glencoe/McGraw-Hill**

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correlated to

**Alabama  
Course of Study for Marine Biology  
Grades 9-12**

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**ALABAMA**  
**COURSE OF STUDY FOR MARINE BIOLOGY**  
**GRADES 9–12**

<b>OBJECTIVES</b>	<b>PAGE REFERENCES</b>
1. Select appropriate equipment for scientific field investigations in marine environments.	
<ul style="list-style-type: none"> <li>• Identifying patterns and relationships determined from collected data (AHSGE Standard I: 1)</li> </ul>	The opportunity to address this objective is available. See the following: SE: 18, 20
<ul style="list-style-type: none"> <li>• Solving for unknown quantities by manipulating variable</li> </ul>	The opportunity to address this objective is available. See the following: SE: 18, 20
2. Differentiate among freshwater, brackish water, and saltwater.	The opportunity to address this objective is available. See the following: SE: 40–43, 44–49, 253, 386
3. Describe physical characteristics of oceans, including topography of the ocean floor, plate tectonics, wave motion, depth, and pressure.	SE: 21–22, 24–33, 34–37, 39, 48–51, 52–61, 229–232, 354–355
4. Recognize interactions between the atmosphere and the ocean.	
<ul style="list-style-type: none"> <li>• Describing how waves, ocean currents, and tides are generate</li> </ul>	SE: 52–61
5. Discuss the physical and chemical properties of saltwater.	SE: 43–49, 50–51, 52–61, 74–76, 77–78
6. Describe components of major marine ecosystems, including estuaries, coral reefs, benthic communities, and open-ocean communities.	SE: 226–233, 234–242, 243–247, 248, 249–250, 251–252, 253–264, 265, 266–267, 268–283, 285–299, 300–308, 309, 311–319, 320–326, 327–338, 343–352, 353–355, 356–361
7. Identify patterns and interrelationships among producers, consumers, scavengers, and decomposers in a marine ecosystem.	SE: 87–89, 93–95, 97–99, 132–133, 211–213, 214–217, 220–222, 233, 255–258, 260, 263–264, 271–276
8. Describe characteristics of marine plant and algae divisions. (AHSGE Standard III: 2)	

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<ul style="list-style-type: none"> <li>• Describing commercial, economical, and medicinal values of marine plants and alga</li> </ul>	SE: 108–110, 366, 382, 384
9. Arrange various forms of marine life from most simple to most complex. (AHSGE Standard III: 1, 2)	
<ul style="list-style-type: none"> <li>• Classifying marine organisms using binomial nomenclature</li> </ul>	The opportunity to address this objective is available. See the following: SE: 81–84, 85, 125, 144
<ul style="list-style-type: none"> <li>• Identifying characteristics of ocean-drifting organism</li> </ul>	SE: 88, 89, 95, 96, 131, 222–223, 246–247, 254–255, 266–267, 311–319, 320–322
<ul style="list-style-type: none"> <li>• Identifying characteristics of marine invertebrate</li> </ul>	SE: 113–116, 117–120, 121–124, 126–130, 131–134, 135, 136–140, 141, 142–143
<ul style="list-style-type: none"> <li>• Identifying characteristics of marine vertebrate</li> </ul>	SE: 146–152, 153–160, 161–168, 169, 172–175, 176–178, 179–189, 190–200, 201
<ul style="list-style-type: none"> <li>• Identifying characteristics of marine plants</li> </ul>	SE: 79, 110–111, 243, 254, 258–262, 263–264, 275–276, 296
<ul style="list-style-type: none"> <li>• Describing adaptations in the marine environment</li> </ul>	SE: 74, 207, 253–254, 260, 347–352

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10. Describe the anatomy and physiology of representative aquatic organisms.	
<ul style="list-style-type: none"> <li>• Identifying different aquatic species using dichotomous keys</li> </ul>	The opportunity to address this objective is available throughout. See, for example: SE: 82, 134, 188, 200, 238, 272, 280, 304, 308, 318, 324, 344
11. Describe the positive and negative effects of human influence on marine environments. (AHSGE Standard VI: 1)	SE: 374–379, 382–383, 385, 390–402, 404–405, 406–408, 409
12. Identify various careers related to marine science.	The opportunity to address this objective is available. See the following: SE: 5, 20, 380

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