Course Name: Aquatic Science
School Year: 2025-2026

Course Purpose and Relevance:

In Aquatic Science, students study the interactions of biotic and abiotic components in aquatic environments, including impacts on aquatic systems. Investigations and field work in this course may emphasize fresh water or marine aspects of aquatic science depending primarily upon the natural resources available for study near the school. Students who successfully complete Aquatic Science will acquire knowledge about a variety of aquatic systems, conduct investigations and observations of aquatic environments, work collaboratively with peers, and develop critical-thinking and problem-solving skills.

Overview of Student Outcomes:

- The student uses scientific methods during laboratory and field investigations.
- The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom.
- Students know that aquatic environments are the product of Earth systems interactions.
- The student conducts long-term studies on local aquatic environments. Local natural environments are to be preferred over artificial or virtual environments.
- The student knows the role of cycles in an aquatic environment.
- The student knows the origin and use of water in a watershed.
- The student knows that geological phenomena and fluid dynamics affect aquatic systems
- The student knows the types and components of aquatic ecosystems.
- The student knows environmental adaptations of aquatic organisms.
- The student knows about the interdependence and interactions that occur in aquatic environments.
- The student understands how human activities impact aquatic environments.

Available Support for Student Learning:

Refer to the teacher's Course Syllabus for resources and course specific opportunities.
Student textbook and/or digital version are available through the CCISD Student Portal.

Link to Course TEKS on State website:

Aquatic Science TEKS Link

Year-at-a-Glance 25-26	Subject	Aquatic Science

	First Semester Instruction
1st Nine Weeks	**Unit 1: Scientific and Engineering Practices** BB 1: Lab Safety in Aquatic Science (1C) BB 2: Exploring Phenomena through Inquiry (1-4) ***TEKS 1-4 will be embedded throughout each unit supporting the implementation of 3-Dimensional Instruction***
	Unit 2: Understanding Water in Aquatic Ecosystems BB 1: Molecular Properties of Water (5A) BB2: Water's Physical Properties and Ecological Impact (5B, 5C*, 11A)
	Unit 3: The Role of Cycles in an Aquatic Environment BB1: The Water Cycle- (9A) BB2: Nutrient Cycles– (9A, 7C*) BB3: Investigating Local Aquatic Environments (8A, 8B, 8C)
	Unit 4: Understanding Watersheds and Water Sources BB 1: Sources and Flow of Water in a Watershed (10A, 10B) BB 2: Evaluating Water Quality and Quantity in a Watershed (10C, 14E) BB 3: Human Impacts on Freshwater Resources (10D, 14A*)
	Unit 5: Freshwater Ecology BB1: Understanding Energy and Matter in a Freshwater Ecosystems (7A*) BB2: Factors Influencing Freshwater Populations (7D*)
2nd Nine Weeks	**Unit 6: Rivers and Streams** BB 1: Earth System Interactions in Rivers & Streams (6A*, 6B*, 11D) BB 2: River and Stream Ecology (7B*, 7E*, 12B*, 13B*) BB3: Human Impacts in Rivers and Streams (14D*, 14F*)
	Unit 7: Lakes and Ponds BB 1: Earth System Interactions in Lakes and Ponds (6A*, 6B*) BB 2: Lake and Pond Ecology (7B*, 7E*, 11C, 12B*, 13B*) BB3: Human Impacts in Lakes and Ponds (14C*, 14F*)
	Unit 8: Wetlands and Estuaries BB 1: Features and Ecological Roles of Wetlands and Estuaries (6A*, 6B*, 7B*, 12A*) BB2: Wetlands Adaptations (13B*, 13C) BB3: Human Impacts and Restoration in Wetlands (14A*, 14F*)
	Semester Exam H 12/22-1/4 | Early Release 12/19

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	Second Semester Instruction
3rd Nine Weeks	**Unit 9: Oceanography** BB 1: Plate Tectonics (6A*, 6B*, 11B) BB 2: Sea Floor Mapping (6C) BB 3: Ocean Currents and Climate (9B, 11A, 11B, 11C)
	Unit 10: Marine Ecosystems BB 1: Marine Life Zones (12B*) BB 2: Plankton and Vertical Migration (7D*, 7E*)
	Unit 11: Intertidal Environments BB 1: Types and Characteristics of the Intertidal Zone (12B*) BB 2: Tidal Cycles and Intertidal Ecology (7B*, 7D*, 7E*, 9C) BB3: Intertidal Organisms and their Adaptations (13A, 13B*, 13C) BB 4: Human Impact in Intertidal Environments (14A*, 14D*)
4th Nine Weeks	**Unit 12: Neritic Environments** BB 1: Coral Reefs (7B*, 7C*, 7E*, 13B*) BB 2: Kelp Forests (7B*, 7C*, 7E*, 13B*) BB3: Frozen Seas (5C*, 7B*, 7C*, 7E*, 13B*) BB 4: Human Impacts in Neritic Environments (14B*, 14C*)
	Unit 13: Pelagic Environments BB 1: Adaptations for Life in Open Water (13B*, 7E*) BB 2: Deep Sea Environments *(Whale Falls and Hydrothermal Vents)* (7B*, 7E*, 13B*)
	Unit 14: Culminating Project
	Semester Exams **P 5/22 | H 5/25 | Early Release 5/21**