

**WORLD AGRICULTURAL SCIENCE AND TECHNOLOGY**  
**Correlation to Texas Essential Knowledge and Skills**

**CHAPTER 1 - INTRODUCTION TO WATER**

<p>Water, Water Everywhere, 1-29</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                  119.12.5(C) (identify the interdependency of agriculture and the environment)                  (D) demonstrate the impacts of agriculture upon land, air, and water resources)</p>
<p>Water Whiz-A Board Game, 1-55</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)                  119.12.5(C) (identify the interdependency of agriculture and the environment)                  (D) demonstrate the impacts of agriculture upon land, air, and water resources)                  119.12.6(D) (identify written and oral communication skills)                  (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>
<p>There "Oughta" Be A Law, 1-165</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)                  119.12.5(B) (identify the political impact of agriculture)                  (C) (identify the interdependency of agriculture and the environment)                  (D) demonstrate the impacts of agriculture upon land, air, and water resources)                  (F) (know environmental protection and remediation methods)                  119.12.6(D) (identify written and oral communication skills)                  (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>

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<p>Uncle Sam Says, "Keep It Clean!", 1-171</p>	<p>119.12.1(B) (apply competencies related to resources, information...)  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)  119.12.5(B) (identify the political impact of agriculture)  (C) (identify the interdependency of agriculture and the environment)  (D) (demonstrate the impacts of agriculture upon land, air, and water resources)  (F) (know environmental protection and remediation methods)  119.12.6(D) (identify written and oral communication skills)  (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>
<p>Is Your Water Well for Drinking?, 1-203</p>	<p>119.12.1(B) (apply competencies related to resources, information...)  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)  119.12.5(C) (identify the interdependency of agriculture and the environment)  (D) (demonstrate the impacts of agriculture upon land, air, and water resources)  (F) (know environmental protection and remediation methods)  119.12.6(D) (identify written and oral communication skills)  119.12.7(D) (describe the scientific method of research)</p>

**CHAPTER 2 - DRINKING WATER AND WASTEWATER TREATMENT**

<p>Drinking Water Jeopardy, 2-21</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                      113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)                      119.12.5(B) identify the political impact of agriculture                      (C) (identify the interdependency of agriculture and the environment)                      (D) (demonstrate the impacts of agriculture upon land, air, and water resources)                      (F) (know environmental protection and remediation methods)                      119.12.6(D) (identify written and oral communication skills)                      (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>
<p>Source Water Protection: Surface Water Sources, 2-33</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                      113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)                      119.12.5(C) (identify the interdependency of agriculture and the environment)                      (D) (demonstrate the impacts of agriculture upon land, air, and water resources)                      (F) (know environmental protection and remediation methods)                      119.12.6(D) (identify written and oral communication skills)                      (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>
<p>Source Water Protection: Groundwater Sources, 2-43</p>	<p>119.12.1(B) (apply competencies related to resources, information...)                      113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)                      119.12.5(C) (identify the interdependency of agriculture and the environment)                      (D) (demonstrate the impacts of agriculture upon land, air, and water resources)                      (F) (know environmental protection and remediation methods)                      119.12.6(D) (identify written and oral communication skills)                      (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>

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<p>The World of Biological Wastewater Treatment, 2-83</p>	<p>119.12.1(B) (apply competencies related to resources, information...)  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)  119.12.5(C) (identify the interdependency of agriculture and the environment)  (D) (demonstrate the impacts of agriculture upon land, air, and water resources)  (F) (know environmental protection and remediation methods)  119.12.6(D) (identify written and oral communication skills)  (E) (apply preparation skills to prepared and extemporaneous oral presentation)  119.12.7(D) (describe the scientific method of research)</p>
<p>Land Application of Wastewater Solids, 2-117</p>	<p>119.12.1(B) (apply competencies related to resources, information...)  113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)  119.12.5(C) (identify the interdependency of agriculture and the environment)  (D) (demonstrate the impacts of agriculture upon land, air, and water resources)  (F) (know environmental protection and remediation methods)  119.12.6(D) (identify written and oral communication skills)  (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>

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<p>Storm Water: Best Management Practices and Pollution Prevention, 1-123</p>	<p>119.12.1(B) (apply competencies related to resources, information...)          113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)          119.12.5(C) (identify the interdependency of agriculture and the environment)              (D) (demonstrate the impacts of agriculture upon land, air, and water resources)              (F) (know environmental protection and remediation methods)          119.12.6(D) (identify written and oral communication skills)              (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>

### CHAPTER 3 - SURFACE WATER RESOURCES

<p>Floods, 3-37</p>	<p>119.12.1(B) (apply competencies related to resources, information...)            113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)            119.12.5(C) (identify the interdependency of agriculture and the environment)                (D) (demonstrate the impacts of agriculture upon land, air, and water resources)            119.12.6(D) (identify written and oral communication skills)                (E) (apply preparation skills to prepared and extemporaneous oral presentation)</p>
<p>Best Management Practices for Forestry, 3-43</p>	<p>119.12.1(B) (apply competencies related to resources, information...)            113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)            119.12.5(B) (identify the political impact of agriculture)            (C) (identify the interdependency of agriculture and the environment)                (D) (demonstrate the impacts of agriculture upon land, air, and water resources)                (F) (know environmental protection and remediation methods)            119.12.6(D) (identify written and oral communication skills)            119.12.7(D) (describe the scientific method of research)</p>
<p>Simple Test for Microbial Contamination, 3-49</p>	<p>119.12.1(B) (apply competencies related to resources, information...)            113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)            119.12.5(C) (identify the interdependency of agriculture and the environment)                (D) (demonstrate the impacts of agriculture upon land, air, and water resources)                (F) (know environmental protection and remediation methods)            119.12.6(D) (identify written and oral communication skills)            119.12.7(D) (describe the scientific method of research)</p>

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<p>Pollutants: How Much Total or How Much Per Unit of Water?, 3-53</p>	<p>119.12.1(B) (apply competencies related to resources, information...)          113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)          119.12.5(C) (identify the interdependency of agriculture and the environment)              (D) (demonstrate the impacts of agriculture upon land, air, and water resources)              (F) (know environmental protection and remediation methods)          119.12.6(D) (identify written and oral communication skills)          119.12.7(D) (describe the scientific method of research)</p>
<p>Ethical Dilemmas What's a Body to Do?, 3-59</p>	<p>119.12.1(B) (apply competencies related to resources, information...)          113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)          119.12.5(C) (identify the interdependency of agriculture and the environment)              (D) (demonstrate the impacts of agriculture upon land, air, and water resources)              (F) (know environmental protection and remediation methods)          119.12.6(D) (identify written and oral communication skills)              (E) (apply preparation skills to prepared and extemporaneous oral presentations)</p>

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What Are Fecal Coliforms and How are They related to Water Quality?, 3-63	<p>119.12.1(B) (apply competencies related to resources, information...)</p> <p>113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)</p> <p>119.12.5(C) (identify the interdependency of agriculture and the environment)</p> <p>(D) (demonstrate the impacts of agriculture upon land, air, and water resources)</p> <p>(F) (know environmental protection and remediation methods)</p> <p>119.12.6(D) (identify written and oral communication skills)</p> <p>119.12.7(D) (describe the scientific method of research)</p>

#### CHAPTER 4 - GROUNDWATER RESOURCES

ACTIVITY	KNOWLEDGE AND SKILLS
From Ground to Water, 4-11	<p>119.12.1(B) (apply competencies related to resources, information...)</p> <p>113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry)</p> <p>119.12.5(C) (identify the interdependency of agriculture and the environment)</p> <p>(D) (demonstrate the impacts of agriculture upon land, air, and water resources)</p> <p>119.12.6(D) (identify written and oral communication skills)</p> <p>(E) (apply preparation skills to prepared and extemporaneous oral presentations)</p>

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Do You Drink It?, 4-37	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)
Hydraulic Head, 4-51	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)
What Is Ground Water Pollution Doing to the Neighborhood?, 4-77	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)

## CHAPTER 5 - WETLANDS AND COASTAL WATERS

ACTIVITY	KNOWLEDGE AND SKILLS
Understanding Marine Resources, 5-15	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)
Wetlands USA- More than Swamps!, 5-25	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)
Erosion Kills the Habitats that Feed You!, 5-59	119.12.1(B) (apply competencies related to resources, information...) 113.12.3(A)(B)(C)(D) (...describes the historical, current, and future significance of the agricultural industry) 119.12.5(C) (identify the interdependency of agriculture and the environment) (D) (demonstrate the impacts of agriculture upon land, air, and water resources) 119.12.6(D) (identify written and oral communication skills) 119.12.7(D) (describe the scientific method of research)