

**Applied Skills in Environmental, Natural, & Agricultural Science – Grade Levels 9-10
TEKS Manager**

Credit: ½

Place a check (√) in each column to show TEKS taught.

| | TEKS | 1 st 6 wks | 2 nd 6 wks | 3 rd 6 wks |
|---|--|--------------------------|--------------------------|--------------------------|
| (b) Introduction. To be prepared for careers in the broad field of agriculture/agribusiness, students need to attain academic knowledge and skills, to acquire knowledge and skills related to the broad field of agriculture/agribusiness and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings. | | | | |
| (c) Knowledge and skills. (1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to: | (A) identify career development and entrepreneurship opportunities in the field of agriculture/agribusiness; | | | |
| | (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agriculture/agribusiness; | | | |
| | (C) demonstrate knowledge of personal and occupational safety practices in the workplace; | | | |
| | (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and | | | |
| | (E) plan and conduct supervised agricultural experience programs. | | | |
| (2) The student identifies the nature and properties of soils and soil formations. The student is expected to: | (A) identify the components and properties of soils; | | | |
| | (B) describe the process of soil formation; and | | | |
| | (C) classify soil formations. | | | |
| (3) The student performs technical skills related to plant and | (A) describe the structure and functions of plant parts; | | | |

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|--|--|---------------------------------|---------------------------------|---------------------------------|
| soil science and technology. The student is expected to: | (B) discuss plant germination, growth, and development; | | | |
| | (C) know plant reproduction, genetics, and breeding; and | | | |
| | (D) identify plants of importance to agriculture. | | | |
| (4) The student performs technical skills related to animal science and technology. The student is expected to: | (A) explain animal growth and development; | | | |
| | (B) describe animal anatomy and physiology; | | | |
| | (C) identify breeds and classes of livestock; and | | | |
| | (D) discuss animal selection, reproduction, breeding, and genetics. | | | |
| (5) The student describes the principles of food science technology. The student is expected to: | (A) identify the importance of food science technology; and | | | |
| | (B) determine trends in world food production. | | | |
| (6) The student safely performs basic mechanical skills in agricultural applications. The student is expected to: | (A) identify major areas of mechanized agriculture; | | | |
| | (B) demonstrate safety and appropriate laboratory procedures; | | | |
| | (C) perform basic agricultural construction skills; | | | |
| | (D) identify lumber and computes a bill of materials; and | | | |
| | (E) identify and use fasteners. | | | |
| (7) The student explains the relationship between agriculture and the environment. The student is expected to: | (A) determine the effects of chemicals upon the environment; | | | |
| | (B) identify requirements for the proper use of agricultural chemicals; | | | |
| | (C) list alternative energy sources; and | | | |
| | (D) identify fuel and water conservation methods. | | | |
| (8) The student demonstrates agricultural and personal business management skills. The student is expected to: | (A) prepare a personal budget; | | | |
| | (B) maintain a record-keeping system; and | | | |
| | (C) identify opportunities for entrepreneurship. | | | |