

Florida Department of Education
CURRICULUM FRAMEWORK

Program Title: Orientation to Agriscience, Technology and Environmental Sciences

Occupational Area: Agriscience and Natural Resources

Secondary

Program Numbers 8100110
 CIP Number 0101.99100R
 Grade Level 6-9, 30, 31
 Length 0.5 credits
 Certification AGRI @4
 AGRICULTUR 1 @2
 EXP AG @4
 VOC AGRI @4

- I. **MAJOR CONCEPTS/CONTENT:** The purpose of this course is to acquaint students with career opportunities, job requirements, and tasks performed in a broad range of agribusiness and natural resources occupations.

The content includes, but is not limited to, agriscience and technology careers, kinds of jobs, career paths, financial rewards, educational requirements, equipment and terminology, the free enterprise system, and consumer and economic education.

- II. **LABORATORY ACTIVITIES:** Hands-on laboratory experiences are an integral part of this course, including the safe use of field hand tools, basic mechanics' hand tools and basic carpentry hand tools.

- III. **SPECIAL NOTE:** None

- IV. **INTENDED OUTCOMES:** After successfully completing this course, the student will be able to:

- 01.0 Demonstrate knowledge and skills in agricultural research and related professions.
- 02.0 Demonstrate knowledge and skills in agricultural production.
- 03.0 Demonstrate knowledge and skills in agricultural supplies, sales and service.
- 04.0 Demonstrate knowledge and skills in agricultural mechanization and engineering.
- 05.0 Demonstrate knowledge and skills in agricultural processing and marketing (distribution and marketing).
- 06.0 Demonstrate knowledge and skills in environmental horticulture.
- 07.0 Demonstrate knowledge and skills in forestry.
- 08.0 Demonstrate knowledge and skills in environmental resources.
- 09.0 Demonstrate knowledge and skills in agricultural education and communication.
- 10.0 Demonstrate concepts of free enterprise and consumer economics.
- 11.0 Demonstrate employability and social skills.

- 12.0 Explore individual interests and aptitudes as they relate to a career.
- 13.0 Demonstrate leadership and communication skills.

**Florida Department of Education
STUDENT PERFORMANCE STANDARDS**

Program Title: Orientation to Agriscience, Technology and
Environmental Sciences

Secondary Number: 8100110

Postsecondary Number:

01.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL RESEARCH AND RELATED PROFESSIONS--The student will be able to:

- 01.01 Define the scope of agricultural research and the related professions. (LA.B.2.3.1)
- 01.02 Discuss the impact of agricultural research on agriculture and our society. (LA.B.2.3.1; SS.A.2.3.6)
- 01.03 Identify the process by which agricultural research is conducted (including the scientific method). (SC.H.1.3.4; SC.H.3.3; LA.A.2.3.6)
- 01.04 Conduct a scientific experiment to solve an agricultural problem or answer an agricultural question. (MMA.A.3.3.1; MA.E.1.3.1; MA.3.3.1; SC.H.1.3.1; SC.H.1.3.2; SC.H.1.3.3; SC.H.1.3.4; SC.H.1.3.5; SC.H.1.3.6; SC.H.1.3.7; MA.E.2.3.1; MA.E.2.3.2; SC.H.3.3.1; SC.H.3.3.2; SC.H.3.3.3; SC.H.3.3.4; SC.H.3.3.5; SC.H.3.3.6; SC.H.3.3.7; LA.B.2.3; LA.A.2.3; VA.A.1.2.1; VA.A.1.3.2; VA.A.1.3.3; MA.B.1.3; MA.B.4.3)

02.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL PRODUCTION--The student will be able to:

- 02.01 Define agricultural production. (LA.B.2.3.1)
- 02.02 Describe products of agricultural production. (LA.C.3.3.3)
- 02.03 Grow/raise an agricultural plant or animal. (SC.F.1.3.1; SC.F.1.3.7; SC.F.2.3.1; SC.F.2.3.2; SC.D.1.3.4; HE.A.1.3.5; HE.A.1.3.7; HE.B.1.3.1; HE.B.1.3.2)
- 02.04 Discuss impact of science and technology on production agriculture and our society. (SC.H.3.3.4; SC.H.3.3.5; SC.H.3.3.6; SC.H.3.3.7; SS.A.2.3.6; LA.C.3.3.3)

03.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL SUPPLIES, SALES AND SERVICES--The student will be able to:

- 03.01 Define agricultural supplies and services. (LA.B.2.3.1)
- 03.02 Identify agricultural supplies. (LA.A.2.3.1)
- 03.03 Identify agricultural services. (LA.A.2.3.1)
- 03.04 Demonstrate knowledge of agricultural supplies and services by completing a project related to this area. (LA.C.3.3.3; VA.A.1.3.1; VA.A. 1.3.2; VA.A.1.3.3; VA.A.1.3.4)

04.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL MECHANIZATION AND ENGINEERING--The student will be able to:

- 04.01 Define the scope of agricultural mechanization and engineering. (LA.B.2.3.1)

- 04.02 Discuss the impact of agricultural mechanization and engineering on our society. (SS.A.2.3.3; SS.A.2.3.6)
 - 04.03 Identify tools, machines, and equipment used in agriculture. (LA.A.2.3.7)
 - 04.04 Complete a project demonstrating the safe use of agricultural tools, machinery, or equipment. (MA.B.3.3.1; MA.B.4.3.1; MA.B.4.3.2; LA.C.3.3.3; VA.A.1.3.1; VA.A.1.3.2; VA.A.1.3.3; VA.A.1.3.4)
- 05.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL PROCESSING AND MARKETING (DISTRIBUTION AND MARKETING)--The student will be able to:
- 05.01 Define agricultural processing. (LA.B.2.3.1)
 - 05.02 Describe the processing of agricultural products. (SC.H.3.3.4; LA.A.2.3.6)
 - 05.03 Define agricultural marketing. (LA.B.2.3.1)
 - 05.04 Describe the marketing of agricultural products. (SS.B.2.3.2; SS.D.2.3.3)
 - 05.05 Prepare and process an agricultural product. (LA.A.2.3.5; HE.B.1.3.1)
 - 05.06 Market an agricultural product. (LA.A.2.3.8; LA.B.1.3.1; LA.B.1.3.2; LA.B.1.3.3; LA.B.2.3.3; SS.D.1.3.3; SS.D.2.3.1; MA.B.3.3.1; MA.E.3.3.1; VA.A.1.3.1; VA.A.1.3.3; VA.B.1.3.4)
- 06.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN ENVIRONMENTAL HORTICULTURE--The student will be able to:
- 06.01 Define environmental horticulture. (LA.B.2.3.1)
 - 06.02 Describe the different types of environmental horticulture enterprises. (LA.B.2.3.1)
 - 06.03 Identify environmental horticulture plants. (SC.G.1.3.3)
 - 06.04 Propagate environmental horticulture plants. (SC.F.2.3.1)
 - 06.05 Maintain environmental horticulture plants. (SC.G.1.3.4; SC.G.1.3.5)
- 07.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN FORESTRY--The student will be able to:
- 07.01 Define forestry. (LA.B.2.3.1)
 - 07.02 Identify forest products. (LA.A.2.3.6)
 - 07.03 Describe modern forest management techniques. (LA.B.2.3.1; SC.G.1.3.2; SC.G.1.3.3; SC.G.2.3.1; SC.G.2.3.2; SC.G.2.3.3; SC.G.2.3.4; MA.B.1.3.1; MA.B.1.3.4; SS.B.1.3.1)
 - 07.04 Identify trees commonly found in Florida. (LA.A.2.3.6)
 - 07.05 Develop a specimen collection of local forest trees. (LA.A.2.3.6; VA.A.1.3.1; VA.A.1.3.4)
 - 07.06 Plant a forest tree. (LA.C.1.3.1; HE.A.1.3.7; HE.B.1.3.2)
- 08.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN ENVIRONMENTAL RESOURCES--The student will be able to:
- 08.01 Define renewable and nonrenewable natural resources. (LA.B.2.3.1; SC.G.2.3.1; SC.G.2.3.2; SC.G.2.3.3; SC.G.2.3.4)

- 08.02 Identify renewable and nonrenewable natural resources. (LA.B.2.3.1; SC.G.2.3.1; SC.G.2.3.2; SC.G.2.3.3; SC.G.2.3.4)
 - 08.03 Describe agricultural management practices that conserve natural resources. (LA.B.2.3.1; SC.G.1.3.2; SC.G.1.3.3; SC.G.2.3.1; SC.G.2.3.2; SC.G.2.3.3; SC.G.2.3.4; SC.D.1.3.1; SC.D.1.3.2)
 - 08.04 Describe effects of pollution on the environment (soil, water, air). (SC.D.2.3.1; SC.D.2.3.2; SC.D.1.3.3)
 - 08.05 Recycle or conserve a natural resource. (SC.D.2.3.2; SC.G.2.3.1; SC.G.2.3.2; SC.G.2.3.3; SC.G.2.3.4)
- 09.0 DEMONSTRATE KNOWLEDGE AND SKILLS IN AGRICULTURAL EDUCATION AND COMMUNICATION--The student will be able to:
- 09.01 Define the scope of agricultural education and communications. (LA.B.2.3.1)
 - 09.02 Discuss the importance of education and communication as it relates to agricultural research and technology and the general public. (LA.C.3.3.2; FL.B.1.3.1; FL.B.1.3.4; SC.H.3.3.6)
 - 09.03 Identify sources of agricultural information and misinformation. (LA.A.2.3.6; LA.A.2.3.7; LA.A.2.3.8)
 - 09.04 Develop an agricultural communiqué (newsletter, fact sheet, poster, etc.) to inform the general public about an agricultural issue. (LA.B.1.3.1; LA.B.1.3.2; LA.B.1.3.3; LA.B.2.3.1; LA.B.2.3.2; LA.B.2.3.3; LA.B.2.3.4; VA.A.1.3.1; VA.A.1.3.2; VA.A.1.3.3; VA.A.1.3.4; VA.B.1.3.2; VA.B.1.3.4)
- 10.0 DEMONSTRATE CONCEPTS OF FREE ENTERPRISE AND CONSUMER ECONOMICS--The student will be able to:
- 10.01 Define "free enterprise." (LA.B.2.3.1; SS.D.1.3.1; SS.D.1.3.2; SS.D.1.3.3; SS.D.2.3.1; SS.D.2.3.2; SS.D.2.3.3)
 - 10.02 Define the terms "supply" and "demand." (LA.B.2.3.1; SS.D.1.3.1; SS.D.1.3.2; SS.D.1.3.3; SS.D.2.3.1; SS.D.2.3.2; SS.D.2.3.3)
 - 10.03 Compare cost, quality and quantity of consumer items. (MA.A.4.3.1; MA.B.3.3.1; MA.A.3.3.3; MA.B.2.3.1; LA.A.2.3.6)
 - 10.04 Identify and compare USDA standards and grades for agricultural products. (LA.A.2.3.6)
 - 10.05 Describe how processing, packaging, and marketing affects the price of an item. (S.S.D.2.3.2; VA.A.1.3.3; VA.B.1.3.2; MA.B.3.3.1; MA.B.3.3.2; MA.B.2.3.1; MA.A.2.3.2; MA.A.3.3.2)
 - 10.06 Recognize misleading advertising. (LA.A.2.3.8; LA.C.2.3.1; LA.D.2.3.3; LA.D.2.3.4)
- 11.0 DEMONSTRATE EMPLOYABILITY AND SOCIAL SKILLS--The student will be able to:
- 11.01 Identify qualities and characteristics of a good employee. (FL.B.1.3.1; LA.D.1.3.3)
 - 11.02 Identify acceptable social skills. (FL.B.1.3.1; LA.D.1.3.3)
- 12.0 EXPLORE INDIVIDUAL INTERESTS AND APTITUDES AS THEY RELATE TO A CAREER--The student will be able to:

- 12.01 Describe individual strengths and weaknesses. (FL.B.1.3.1; HE.C.1.3.7; HE.B.3.3.3; HE.B.3.3.4; HE.B.3.3.5; HE.B.3.3.6)
 - 12.02 Discuss individual interests related to a career. (SS.C.2.3.6; HE.C.1.3.7)
 - 12.03 Identify careers within a specific area of agritechology. (LA.A.2.3.6)
 - 12.04 Explore careers within specific areas of interest. (LA.A.2.3.6)
- 13.0 DEMONSTRATE LEADERSHIP AND COMMUNICATION SKILLS--The student will be able to:
- 13.01 Describe the aims and purposes of the FFA organization. (LA.C.3.3.3)
 - 13.02 Identify opportunities available to FFA members. (LA.A.2.3.6)
 - 13.03 Identify characteristics of a good leader. (HE.B.1.3.3; HE.B.2.3.4; HE.B.3.3.1; HE.B.3.3.2; HE.B.3.3.3; HE.B.3.3.4; HE.B.3.3.5; HE.B.3.3.6; HE.B.3.3.7; HE.B.3.3.8)
 - 13.04 Participate in a cooperative leadership development activity. (FL.B.1.3.2; HE.C.2.3.5)
 - 13.05 Identify the importance of effective communication skills. (LA.D.2.3.1; LA.D.2.3.6; LA.D.1.3.3; LA.C.3.3.1; LA.C.3.3.2; LA.C.3.3.3)