

6-12 AGRICULTURAL SCIENCE Standards/Benchmarks/Grade Level Expectations (GLE)

Updated 4/7/08

Standard 1: Aware of the history of agriculture and the effects on society and its career choices.					
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Understands commodities are produced in geographic areas of commodity production in the United States and world.	a. Identifies career opportunities in the production agriculture industry.	a. Develops effective interview skills.
b.	b.	b.	b. Identifies career opportunities in the production agriculture industry.	b. Recognizes relevant ethic issues in agricultural business.	b. Evaluates a job offer
c.	c.	c.	c.	c.	c. Explains the relationship between meeting employer objectives, employment performance and continued employment.
d.	d.	d.	d.	d.	d. Identifies career opportunities in the agriculture business.

Standard 2: Develop goal setting and planning in entrepreneurship
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			Interval Benchmark 1: Explain the goal setting process.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Compares agricultural enterprises and diversification versus specialized farming.	a. Identifies the personal characteristics of entrepreneurs.	a. Identifies facets involved with labor management.
b.	b.	b.	b.	b.	b. Identifies skills required of a business owner.

			Interval Benchmark 3: Complete a supervised agricultural experience project.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12

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a.	a.	a.	a. Selects FFA supervised agricultural experience.	a. Expands or reevaluates current FFA supervised agricultural experience.	a. Expands FFA supervised agricultural experience.
b.	b.	b.	b.	b.	b. Adopts additional FFA supervised agricultural experience projects related to education and interests.
c.	c.	c.	c.	c.	c.

Standard 3: Understand problem solving, analysis and decision-making.

			Interval Benchmark 1 Analyze situations, use problem solving and make appropriate decisions.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Analyzes the impact of production agricultural on the economy.	a. Analyzes the impact of production agricultural on the economy.	a. Describes the value of computerized record systems in agriculture production.
b.	b.	b.	b. Compares agronomic production systems.	b. Compares agronomic production systems.	b. Accesses and evaluate agricultural Internet sites to obtain current trends ad information.

Standard 4: Relate the effects of agricultural trends and world situations, and cultural diversity on market prices and view the world as a potential market for commodities.

			Interval Benchmark 1: Understand how cultures and world situation affect world trade.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a.	a.	a. Analyzes and interprets charts, graphs and other information to make sound management decisions.
b.	b.	b.	b.	b.	b. Analyzes and interprets economic principles as they apply to agriculture.
c.	c.	c.	c.	c.	c. Explains the principles involved in producing for

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					specific market both domestic and global.
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Standard 5: Apply basic skills and knowledge of math, earth and physical science, and language arts to related agricultural areas.

Interval Benchmark 1: Apply basic required skills to practical applications.

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Writes essays of animal agriculture.	a. Writes essays of crop agriculture.	a. Writes essays of current agricultural unit.
b.	b.	b.	b. Solves mathematic problems related to animal agriculture.	b. Solves mathematic problems related to crop agriculture.	b. Solves mathematic problems related to agriculture business.
c.	c.	c.	c.	c.	c. Evaluates a soil site and makes recommendations for use.

Standard 6: Apply proper terminology in areas of agriculture that will allow appropriate communications in career choices and life long learning.

Interval Benchmark 1: Develop strategies to make the transition from school to work.

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Participates in Career Development Activities.	a. Participates in Career Development Activities.	a. Passes the Iowa Private Pesticide Applicator Licenses.
b.	b.	b.	b. Conducts FFA supervised agricultural experience.	b. Conducts FFA supervised agricultural experience.	b. Participates in Career Development Activities.
					c. Conducts FFA supervised agricultural experience.
					d. Develops job seeking skills (writes resume and letter of application, and interviews)

Standard 7: Appreciate the natural resources and be aware of national, state, and local strategies in resource management and conservation.

Interval Benchmark 1: Become aware of government regulations that

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			affect agriculture.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Identifies animal-related governmental regulations.	a. Identifies laws and regulations that affect commodity production.	a. Explains soil and water conservation practices and select the best practice for the site.
b.	b.	b.	b.	b.	b. Identifies and evaluate various power and energy sources in agriculture.

Standard 8: Have environmental and ecological views that will be congruent with social concern.

			Interval Benchmark 1: Understand social concerns related to agriculture.		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Recognizes the social issues related to agricultural production.	a. Recognizes the social issues related to agricultural production.	a. Recognizes the social issues related to agricultural production.
b.	b.	b.	b. Recognizes quality assurance procedures related to animal agriculture.	b. Develops a conservation plan in compliance with federal programs.	b. Analyzes the environmental impact that agricultural practices may have on surface and ground water, wildlife, soil, air and people.

Standard 9: Develop an awareness of the dangers and hazards of agricultural occupations and understand the safety procedures and practices required in areas of employment.

			Interval Benchmark 1:		
Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Demonstrates proper handling procedure of animals.	a. Demonstrates proper handling procedure of stored grains.	a. Demonstrates proper handling procedure of animals.

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					b. Explores new energy sources.
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Standard 10: Have an open mind toward changes in the future and be willing to investigate and adopt new technology and practices that will benefit the producer and consumer.

Interval Benchmark 1: Develop strategies to effectively adapt to new situations and rapid changes in agriculture.

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Understands the basics of animal genetics.	a. Understands the impact of genetically modified crops.	a. Explains the importance of global positioning systems in relation to crop production.

Standard 11: Understand the essential elements of plant and animal care and the handling of their products

Interval Benchmark 1:

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Explains management procedures related to animal production.	a. Explains management procedures related to crop production.	a. Explains management procedures related to soil conservation.

Standard 12: Identify economic traits of livestock and crops that will lead to productivity efficiency.

Interval Benchmark 1:

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Explains market grading systems and sampling techniques for applicable commodities.	a. Explains market grading systems and sampling techniques for applicable commodities.	a. Explains market grading systems and sampling techniques for applicable commodities.
b.	b.	b.	b. Identifies major genetic characteristics of animal breeds.	b. Analyzes opportunities in diversified crop enterprises.	b.

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c.	c.	c.	c. Explains the facets involved with seed selection and grading.	c. Explains the facets involved with seed selection and grading.	c.
d.	d.	d.	d.	d. Identifies/demonstrates plant growth and reproduction scientific principles.	d.
				e. Explains the facets involved with seed selection and grading.	

Standard 13: Understand leadership, cooperation and ethics development in agriculture.

Interval Benchmark 1: Apply principles of leadership and ethical behavior.

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Exhibits livestock, crop a static projects at the local activities.	a. Exhibits livestock, crop a static projects at the local activities.	a. Exhibits livestock, crop and static projects at the local activities.
b.	b.	b.	b. Leads a discussion.	b. Demonstrates abilities of parliamentary procedure.	b. Leads a discussion.
c.	c.	c.	c.	c. Leads a discussion.	c.
d.	d.	d.	d.	d.	d.

Interval Benchmark 2: HIGHLIGHT TEXT AND TYPE BENCHMARK HERE.

Grade Level Expectations 6	Grade Level Expectations 7	Grade Level Expectations 8	Grade Level Expectations 9	Grade Level Expectations 10	Grade Level Expectations 11-12
a.	a.	a.	a. Participates in group educational strategies.	a. Participates in group educational strategies.	a. Participates in group educational strategies.
b.	b.	b.	b. Participates in FFA team activities.	b. Participates in FFA team activities.	b. Participates in FFA team activities.
c.	c.	c.	c.	c. Runs for FFA office.	c. Runs for FFA office.