

1. History of and Careers in Agriculture Science (14.29%)

Learning Targets

1.1 I can analyze a specific career within the field of agriculture science.

Learning Target	Descriptor	Definition
4	Proficient	I can analyze a specific career within the field of agriculture science.
3	Developing	I can explain a specific career within the field of agriculture science.
2	Basic	I can differentiate between agriculture and agriculture science
1	Minimal	I can identify major resources for obtaining a career in agricultural science.
0	No Evidence	No evidence shown.

1.2 I can prove how agriculture allowed the development of civilization

Learning Target	Descriptor	Definition
4	Proficient	I can prove how agriculture allowed the development of civilization
3	Developing	I can cite specific examples of science in agriculture, and explain how that allowed civilization to occur.
2	Basic	I can summarize how science has improved agriculture throughout history.
1	Minimal	I explain the origin of agriculture
0	No Evidence	No evidence shown.

2. Growth Mediums (14.29%)

Learning Targets

2.1 I can justify the importance of soil formation, health, and classification to agriculture

Learning Target	Descriptor	Definition
4	Proficient	I can justify the importance of soil formation, health, and classification to agriculture
3	Developing	I can differentiate between soil classes and describe factors that lead to different types of soil
2	Basic	I can summarize processes of soil formation and identify indicators of soil health.
1	Minimal	I can list different types of soil
0	No Evidence	No evidence shown.

2.2 I can analyze a soil sample using various soil tests to determine the general health of that soil.



Learning Target	Descriptor	Definition
4	Proficient	I can analyze a soil sample using various soil tests to determine the general health of that soil.
3	Developing	I can differentiate between each of the test and explain the importance of each in crop selection.
2	Basic	I can explain what each test performed tells about the soil quality
1	Minimal	I can list the tests performed during a general soil analysis
0	No Evidence	No evidence shown.

2.3 I can compare and contrast the six major types of hydroponic growth systems, identifying benefits and draw backs of each of the systems and selecting ideal opportunities for their use

Learning Target	Descriptor	Definition
4	Proficient	I can compare and contrast the six major types of hydroponic growth systems, identifying benefits and draw backs of each of the systems and selecting ideal opportunities for their use
3	Developing	I can explain the pros and cons of each of the hydroponic growth systems.
2	Basic	I can describe each of the hydroponic growth systems
1	Minimal	I can list the six types of hydroponic growth systems.
0	No Evidence	No evidence shown.

2.4 I can design, construct, and maintain a hydroponic growth system. This system will be used to grow and maintain a selected plant.

Learning Target	Descriptor	Definition
4	Proficient	I can design, construct, and maintain a hydroponic growth system. This system will be used to grow and maintain a selected plant.
3	Developing	I can grow a plant utilizing my hydroponic growth system.
2	Basic	I can construct a hydroponic growth system.
1	Minimal	I can design a hydroponic growth system.
0	No Evidence	No evidence shown.

3. Aquaculture and Aquaponics (14.29%)

Learning Targets

3.1 I can justify the importance of aquaculture to the future of agriculture and sustainability

Learning Target	Descriptor	Definition



Learning Target	Descriptor	Definition
4	Proficient	I can justify the importance of aquaculture to the future of agriculture and sustainability
3	Developing	I can explain the importance of aquaculture
2	Basic	I can provide examples of aquaculture
1	Minimal	I can define aquaculture.
0	No Evidence	No evidence shown.

3.2 I can compare and contrast each of the types of aquaculture systems, identifying benefits and draw backs of each of the systems and selecting ideal opportunities for their use.

Learning Target	Descriptor	Definition
4	Proficient	I can compare and contrast each of the types of aquaculture systems, identifying benefits and draw backs of each of the systems and selecting ideal opportunities for their use.
3	Developing	I can explain the pros and cons of each of the aquaculture growth systems.
2	Basic	I can describe each of the aquaculture growth systems
1	Minimal	I can list each of the different types of aquaculture systems.
0	No Evidence	No evidence shown.

3.3 I can synthesize an explanation of the relationship between the different organisms and their needs in an aquaponic system

Learning Target	Descriptor	Definition
4	Proficient	I can synthesize an explanation of the relationship between the different organisms and their needs in an aquaponic system
3	Developing	I differentiate between the different organisms and parts of an aquaponic system
2	Basic	I can explain how an aquaponics system works
1	Minimal	I can define aquaponics
0	No Evidence	No evidence shown.

3.4 I can explain the operations, science, and systems used to raise a specific organism in aquaculture

Learning Target	Descriptor	Definition
4	Proficient	I can explain the operations, science, and systems used to raise a specific organism in aquaculture



Learning Target	Descriptor	Definition
3	Developing	I can analyze the science behind the operating conditions of my selected species using a visual presentation.
2	Basic	I can explain preferred operating conditions of my selected species in the system used to commonly raise it using a visual presentation.
1	Minimal	I can describe the system used to raise a specific organism, and explain why it is used using a visual presentation.
0	No Evidence	No evidence shown.

4. Integrated Pest Management (14.29%)

Learning Targets

4.1 I can evaluate how different major pest groups adversely affect agriculture science and justify both beneficial and detrimental roles that insects play in agriculture.

Learning Target	Descriptor	Definition
4	Proficient	I can evaluate how different major pest groups adversely affect agriculture science and justify both beneficial and detrimental roles that insects play in agriculture.
3	Developing	I can explain and cite evidence of the impacts pest groups can have on different crops.
2	Basic	I can describe the positive and negative effects of insects in agriculture
1	Minimal	I can list major pest groups in agriculture
0	No Evidence	No evidence shown.

4.2 I can justify the importance of integrated pest management

Learning Target	Descriptor	Definition
4	Proficient	I can justify the importance of integrated pest management
3	Developing	I can differentiate between cultural, chemical, biological, and mechanical pest management controls.
2	Basic	I can compare integrated pest management strategies
1	Minimal	I can define integrated pest management.
0	No Evidence	No evidence shown.

4.3 I can develop a detailed, comprehensive integrated pest management plan to treat a specific pest

Learning Target	Descriptor	Definition



Learning Target	Descriptor	Definition
4	Proficient	I can develop a detailed, comprehensive integrated pest management plan to treat a specific pest
3	Developing	I can differentiate between cultural, chemical, biological, and mechanical pest management strategies for my pest
2	Basic	I can identify different tactics used to control that pest population
1	Minimal	I can describe the specific pest and issues that arise from it
0	No Evidence	No evidence shown.



5. Crop and Animal Science (14.29%)

Learning Targets

5.1 I can compare and contrast conditions necessary to grow major classes of fruits and vegetables.

Learning Target	Descriptor	Definition
4	Proficient	I can compare and contrast conditions necessary to grow major classes of fruits and vegetables.
3	Developing	I can cite evidence to explain different requirements necessary for the growth of different crops
2	Basic	I can describe requirements for the growth of all plants to germinate and grow.
1	Minimal	I can identify major classes of fruits and vegetables.
0	No Evidence	No evidence shown.

5.2 I can grow and maintain a plant. While doing so I will keep data on general health and growth of the plant, as well as environmental conditions (i.e. humidity, temperature, light, soil, soil acidity, etc.)

Learning Target	Descriptor	Definition
4	Proficient	I can grow and maintain a plant. While doing so I will keep data on general health and growth of the plant, as well as environmental conditions (i.e. humidity, temperature, light, soil, soil acidity, etc.)
3	Developing	I can grow and maintain a plant while keeping data on its general health.
2	Basic	I can grow and maintain a plant.
1	Minimal	I can grow a plant
0	No Evidence	No evidence shown.

5.3 I can formulate an argument, using evidence, for or against factory farming.

Learning Target	Descriptor	Definition
4	Proficient	I can formulate an argument, using evidence, for or against factory farming.
3	Developing	I can explain issues surrounding factory farming.
2	Basic	I can identify issues surrounding factory farming.
1	Minimal	I can define factory farming
0	No Evidence	No evidence shown.



6. Genetic Engineering and Agriculture (14.29%)

Learning Targets

6.1 I can compare and contrast the different methods of genetic engineering, and explain how genetic modification led to the development of most of the common crops grown in agriculture.

Learning Target	Descriptor	Definition
4	Proficient	I can compare and contrast the different methods of genetic engineering, and explain how genetic modification led to the development of most of the common crops grown in agriculture.
3	Developing	I can explain each of the different types of genetic engineering and genetic modification.
2	Basic	I can differentiate between genetic engineering and genetic modification.
1	Minimal	I can list the different types of genetic engineering.
0	No Evidence	No evidence shown.

6.2 I can formulate an argument, using evidence, for or against genetic engineering in agriculture.

Learning Target	Descriptor	Definition
4	Proficient	I can formulate an argument, using evidence, for or against genetic engineering in agriculture.
3	Developing	I can explain issues surrounding genetic engineering and modification.
2	Basic	I can identify issues surrounding genetic engineering and modification
1	Minimal	I can define genetic engineering and genetic modification
0	No Evidence	No evidence shown.



7. Agri-Business Planning (14.26%)

Learning Targets

7.1 I can create and justify a hypothetical agricultural business utilizing strategies and procedures for marketing agricultural commodities in order to maximize profits.

Learning Target	Descriptor	Definition
4	Proficient	I can create and justify a hypothetical agricultural business utilizing strategies and procedures for marketing agricultural commodities in order to maximize profits.
3	Developing	I can create an agricultural business that is missing 2-4 major Operations, List of Assets, Government Policies, Taxes, Location, Goals, Market, Loans, Employees, and Sources identified.
2	Basic	I can create an agricultural business that has most of the major Operations, List of Assets, Government Policies, Taxes, Location, Goals, Market, Loans, Employees, and Sources identified.
1	Minimal	I can create an agricultural business but am missing large amounts of Operations, Assets, Government Policies, Taxes, Location, Goals, Market, Loans, Employees, and Sources identified
0	No Evidence	No evidence shown.

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