GEORGIA MIDDLE SCHOOL
Instructional Resources
CAREER, TECHNICAL, & AGRICULTURAL EDUCATION

AGRICULTURE

COURSE: Exploring Agriculture Education

UNIT 1: Agriculture Makes Life Good

INTRODUCTION

Annotation:

This unit includes lessons on agriculture's impact on our local area, state, and country as well as becoming familiar with agriculture byproducts and how they are created. Students will learn how agriculture impacts their everyday life and the origin of products they use every day. They will also learn the steps of the agriculture industry and the steps required to make an agriculture product.

Grade(s):

	6th
X	7th
	8th

Time:

Ten 50 minute class periods

Author:

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Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided appropriately. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation. Many students (both with and without disabilities) who struggle with reading may benefit from the use of text reading software or other technological aids to provide access to printed materials. Many of these are available at little or no cost on the internet.

✅ FOCUS STANDARDS

GPS Focus Standards:

MSAGED7-1 **Express the importance of agriculture in daily life.**
a) Identify products and byproducts from agriculture commodities.
b) Describe and explain the impact of agriculture on daily life.
c) Describe and demonstrate safe operation of agricultural lab equipment.
d) Identify the sources of different types of food and fiber.

MSAGED7-2 **Compare/contrast the importance of Georgia agriculture.**
a) Identify the top ten agricultural commodities and economic value.
b) Demonstrate an understanding of agriculture in your local area.
c) Summarize the importance of agriculture to Georgia's economy.

GPS Academic Standards:

S7CS1 **Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.**

M7P4 **Students will make connections among mathematical ideas and to other disciplines.**

✅ UNDERSTANDING & GOALS

Enduring Understandings:

Agriculture provides products that we use every day. The agriculture industry creates jobs which have a great impact on the economy of Georgia and the U.S.

Essential Questions:

- What does agriculture provide for you that you use every day?
- What is an agriculture byproduct? Where do they come from?
- What are the four main areas of the agriculture industry?
- How does agriculture affect Georgia's economy?
- How does agriculture affect the county you live in?

Knowledge from this Unit:

Students will:
- Identify products created from the agriculture industry
- Describe and explain each step of the agriculture industry
- Define an agriculture byproduct
- Explain the affect agriculture has on the state of Georgia and your local community
- Describe how agriculture products are created

Skills from this Unit:

Students will:

- Prepare a poster labeling byproducts made from agriculture commodities

🔥 ASSESSMENTS

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

____	Pre-test
X	Objective assessment - multiple-choice, true- false, etc.
	__ Quizzes/Tests
	_X_ Unit test
X	Group project
____	Individual project
____	Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
	__ Self-check rubrics
	__ Self-check during writing/planning process
	__ Journal reflections on concepts, personal experiences and impact on one's life
	__ Reflect on evaluations of work from teachers, business partners, and competition judges
	__ Academic prompts
	__ Practice quizzes/tests
X	Subjective assessment/Informal observations
	__ Essay tests
	_X_ Observe students working with partners
	__ Observe students role playing
____	Peer-assessment
	__ Peer editing and commentary of products/projects/presentations using rubrics
	__ Peer editing and/or critiquing
X	Dialogue and Discussion
	__ Student/teacher conferences
	_X_ Partner and small group discussions
	__ Whole group discussions
	__ Interaction with/feedback from community members/speakers and business partners
____	Constructed Responses
	__ Chart good reading/writing/listening/speaking habits
	__ Application of skills to real-life situations/scenarios
X	Post-test

Assessment(s) Title:

Unit Exam: Introduction to Agriculture
Grading Rubric for Byproduct Poster

Attachments for Assessment(s):

Introduction to Agriculture Test

LESSON PLANS

INTRODUCTION

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

   MSAGED7-1   **Express the importance of agriculture in daily life.**
   a) Identify products and byproducts from agriculture commodities.
   b) Describe and explain the impact of agriculture on daily life.
   c) Describe and demonstrate safe operation of agricultural lab equipment.
   d) Identify the sources of different types of food and fiber.

   MSAGED7-2   **Compare/contrast the importance of Georgia agriculture.**
   a) Identify the top ten agricultural commodities and economic value.
   b) Demonstrate an understanding of agriculture in your local area.
   c) Summarize the importance of agriculture to Georgia's economy.

   S7CS1   **Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.**

   M7P4   **Students will make connections among mathematical ideas and to other disciplines.**

2. Review Essential Questions. Post Essential Questions in the classroom.

   - What does agriculture provide for you that you use every day?
   - What is an agriculture byproduct? Where do they come from?
   - What are the four main areas of the agriculture industry?
   - How does agriculture affect Georgia's economy?
   - How does agriculture affect the county you live in?

3. Identify and review the unit vocabulary.

Agriculture	Commodity	Fiber	Production
Agriculture Industry	Distribution	Forestry	Processing
Byproduct	Farm	Industry	
Commercial Agriculture	Farming	Marketing	

• LESSON 1: AGRICULTURE MAKES LIFE GOOD

1. Review Essential Questions. Post Essential Questions in the classroom.

   - What does agriculture provide for you that you use every day?

2. Lead a discussion about the daily use of agriculture.
   - Ask students, "Can you think of products you use every day that come from agriculture?"
   - What do you think agriculture is?
     o Write the different answers to this question on the board.
     o As a class, decide which is the best definition for agriculture.

3. Emphasize Agriculture's Importance
   - Show the **Agriculture Makes Life Good** PowerPoint presentation.
     - o See attached supplementary files
   - As you go through the PowerPoint, ask students to point out what products they use on a daily basis, and whether they knew if it came from agriculture.

4. Group Activity
   - Divide students into small groups and give each group an **Agriculture A to Z** worksheet.
     - o See attached supplementary files
   - Have students think of one agriculture example for each letter of the alphabet. Tell students they should speak softly enough so that other groups will not hear them and steal their answers.

- ## LESSON 2: WHERE DO PRODUCTS COME FROM?

1. Review Essential Questions. Post Essential Questions in the classroom.

   - What does agriculture provide for you that you use every day?
   - What is an agriculture byproduct? Where do they come from?

2. Review with students some of the agriculture products they identified during Lesson 1.

3. Lead a brief discussion about the origin of agriculture products.
   - Ask students, "What is a byproduct?"
   - What are some examples of byproducts?

4. Show students the **Where do Products Come From** PowerPoint presentation.
   - See attached supplementary files
   - During the presentation, give students a chance to guess what each product is made from before showing them the answer.

- ## LESSON 3: BYPRODUCTS POSTER

1. Review Essential Questions. Post Essential Questions in the classroom.

   - What is an agriculture byproduct? Where do they come from?

2. Briefly review byproducts from Lesson 2.
   - Ask students, "Do you remember what a byproduct is?"
   - What are some examples of byproducts?
   - Where do these byproducts come from?

3. Group Poster Project
   - Split the class up into groups. Give each group an **Agriculture Byproducts Poster - Instruction and Grading Sheet** handout.
     - o See attached supplementary files
   - Review the instruction sheet with the class. Explain to students they will create a poster about agriculture byproducts using internet resources.
   - Each group will research a different crop or animal. These can either be assigned or chosen by the group members.
   - Students will compile a list of byproducts made from their commodity and use pictures and this list to illustrate their poster.
   - **Note:** If you have a large class and not much computer space, allow half the class to work on their posters, while the other half works on the computers.

- **LESSON 4: WHAT IS THE AGRICULTURE INDUSTRY?**

1. Review Essential Questions. Post Essential Questions in the classroom.

   - What are the four main areas of the agriculture industry?

2. Hold up an agriculture product, such as a bottle of orange juice or a bag of potato chips, and ask students to guess how many jobs they think it took to create this one product.

3. What is the Agriculture Industry?
   - Show students the **What is the Agriculture Industry** PowerPoint presentation.
     - o See attached supplementary files
   - During the presentation, discuss the steps it takes to create one agriculture product.
   - Try to relate the PowerPoint back to the product you showed at the beginning of class.
   - Emphasize the number of jobs it takes to create one product and the steps involved.

4. The Agriculture Cycle
   - Pass out **The Agriculture Cycle** worksheet to the class.
     - o See attached supplementary files
   - Explain the directions, making sure to describe each of the jobs listed so students will put them in the correct category.
   - Allow students to link job titles with each of the steps in the agriculture industry.
   - **Note:** The worksheets may be collected for a grade.

- **LESSON 5: HOW MANY JOBS DOES IT TAKE?**

1. Review Essential Questions. Post Essential Questions in the classroom.

   - What are the four main areas of the agriculture industry?

2. Review the different parts of the agriculture industry with the class, explaining the jobs at each step.

3. Interactive Game Activity
   - Divide the class into equal groups and pass out the **How Many Jobs Does It Take** instruction sheet.
     - o See attached supplementary files
     - o **Examples of products for the game:** Apple sauce, orange juice, beef jerky, turkey lunch meat, yogurt, cotton t-shirt, potato chips, chocolate milk, packaged bacon, chicken nuggets
   - Explain the game instructions and required materials.
     - o Each group needs one piece of paper and one person to write for the group
     - o Each group will be assigned a different product and will have to list as many jobs they can think of from the agriculture industry that it took to create the product.
   - Set a 20 or 25 minute time limit for students to create their lists.
   - Once the time is up, collect the list and go over the paper of the group that has the most jobs listed.
   - Discuss the jobs listed with the class. Determine the class winner and give prize for that group if desired.

- **LESSON 6: AGRICULTURE'S IMPACT ON GEORGIA'S ECONOMY**

1. Review Essential Questions. Post Essential Questions in the classroom.

   - How does agriculture affect Georgia's economy?

2. Lead a discussion about Georgia agriculture.
   - Ask students, "What is Georgia's number one industry?"
     - o If students guess agriculture, ask them, "How does agriculture bring money to Georgia?"
   - How many of you know someone that works in the agriculture industry?
   - What is a commodity?
   - What commodities are grown in Georgia?

3. Show students the **Agriculture's Impact on Georgia Economy** PowerPoint presentation.
   - See attached supplementary files
   - During the PowerPoint, discuss where most of Georgia's agriculture is located in the state.
   - Discuss how agriculture helps keep Georgia's economy going and how it has a positive effect on Georgia's workforce.

- **LESSON 7: AGRICULTURE'S EFFECT ON YOUR COUNTY**

1. Review Essential Questions. Post Essential Questions in the classroom.

   - How does agriculture affect the county you live in?

2. Before teaching this lesson, input the agricultural statistics for your county into the **Agriculture's Effect on Houston County** PowerPoint presentation.
   - See attached supplementary files
   - County statistics can be found at **www.caed.uga.edu**.

3. Lead a brief discussion to review commodities in Georgia.
   - Ask students, "Does anyone remember what a commodity is from Lesson 6?"
   - What commodities are grown in Georgia?
   - Are there any commodities grown in our county?

4. Agriculture in Our County
   - Show students the PowerPoint presentation.
   - During the presentation, have students point out any commodities or other agricultural industries in the county.
   - Discuss how agriculture affects the local economy.

5. Agriculture Pie Chart
   - Pass out copies of the **Agriculture Pie Charts** worksheet.
     - See attached supplementary files
   - Using the commodities from your county input the amount of money each commodity brings in during one year.
   - Have students convert these figures into percents, using the formula on the worksheet.
   - Once students have determined percentages, have them graph the percentages into a pie chart.
   - Instruct students to color each section of the pie chart and label it with the correct commodity and percentage.

- ## LESSON 8: INTROUDUCTION TO AGRICULTURE TEST

1. Give a copy of the **Introduction to Agriculture Test** to each student. Read over the directions and ask if there are any questions.
   - See attached supplementary files

2. Have a word search or other activity for students to work on if they finish the test early to discourage students from talking while others are still working.

- ## ATTACHMENTS FOR LEARNING EXPERIENCES

   Agriculture A to Z
   Agriculture Byproducts Poster-Instruction and Grading Sheet
   Agriculture Makes Life Good
   Agriculture's Effect on Houston County
   Agriculture's Impact on Georgia Economy
   How Many Jobs Does It Take
   The Agriculture Cycle
   What is the Agriculture Industry
   Where do Products Come From
   Introduction to Agriculture Test
   Agriculture Pie Charts

- ## NOTES & REFLECTIONS

   Before you teach lesson 7, Agriculture's Affect on Your County, it will be necessary for you to look up the agriculture statistics for the county in which you teach. Input your information into the slides while deleting the information on Houston County.

CULMINATING PERFORMANCE TASK

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Attachments for Culminating Performance Task:

UNIT RESOURCES

Web Resources:

www.caed.uga.edu

Attachment(s):

Materials & Equipment:

- Computer
- Projector & Screen
- 16x12 construction paper
- Markers
- Colored Pencils

What 21st Century Technology was used in this unit:

x	Slide Show Software		Graphing Software		Audio File(s)
	Interactive Whiteboard		Calculator		Graphic Organizer
	Student Response System		Desktop Publishing		Image File(s)
	Web Design Software		Blog		Video
	Animation Software		Wiki		Electronic Game or Puzzle Maker
	Email	x	Website		