

AGRI-FINANCE



YOUTH LEADERS

Sowing Leadership, Harvesting Success

WORKBOOK

UNIVERSITY OF
MARYLAND
EXTENSION

Troy Anthony Anderson, Kelly Bryant, Hayden Schug,
Susan Russell, and Patricia Hopkins

University programs, activities, and facilities are available to all without regard to race, color, sex, gender identity or expression, sexual orientation, marital status, age, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.

MEET THE TEAM



Troy Anthony Anderson
FCS Extension Agent
Calvert County Extension



Kelly Bryant
4-H Extension Agent
Charles County Extension



Hayden Schug
AgFS Extension Agent
Charles County Extension



Agriculture & Food Systems



Susan Russell
4-H Agent Associate
St. Mary's County Extension



Patricia Hopkins
4-H Program Management Specialist
Calvert County Extension





Agri-Finance

YOUTH LEADERS

Sowing Leadership, Harvesting Success



LET'S GROW TOGETHER



About the Lessons

TABLE OF CONTENTS

Lesson	Topic	Pages
1	Dream It, Plan It, Do It	4-9
2	Money Basics	10-17
3	Money Tools and Staying Safe from Scams	18-24
4	Entrepreneurship: Marketing and Branding	25-30
5	Grow It, Raise It, Sell It	31-36
6	Smart Farming: Drones, Data and Technology	37-41
7	Leading from the Frontline	42-46
8	Run Your Own Farm	47-53

<https://extension.umd.edu>



LESSON 1



Lesson 1: Dream It, Plan It, Do It!

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- *Develop short-term and long-term personal and career goals.*
- *Demonstrate basic leadership and teamwork skills.*
- *Explore career pathways in agriculture, finance, and technology.*

Materials Needed: *Goal-setting worksheet, Markers or pens, Scenario cards for role-play, Career exploration handout or internet access*

Lesson Activities

1. Warm-Up (10 minutes): Dream Big!

- Ask students: “What do you want your future to look like?”
- Have students share ONE dream or goal (career, lifestyle, achievement).
- Write responses on the board to show variety and possibility.

2. Mini Lesson: SMART Goals (15 minutes)

- Introduce the SMART framework and provide an example: “I want to save money” → becomes → “I will save \$100 in 2 months by setting aside \$12.50 each week.”
- Discuss why clear goals lead to better success.

3. Activity: Personal Goal-Setting (15 minutes)

- Use Part 1-5 Worksheets included
- Optional: Pair and share for feedback

4. Leadership in Action: Role-Play (15 minutes)

- Divide students into small groups.
- Give each group a scenario (*Example: planning an event, solving a team conflict, leading a project*).
- Students act out how they would respond using teamwork and leadership skills.
- Brief group reflection: What worked? What would you change?

5. Career Exploration Mapping (10–15 minutes)

Introduce careers and have students choose one career and map the skills needed, education/training, steps to get there:

- Agriculture (*Example: Agronomist, Food Scientist, Extension Agent*)
- Finance (*Example: Financial Planner, Economist, Extension Agent*)

Assessment & Reflection (5 minutes) Ask students:
What is one goal you are excited about?
What is one step you can take this week to get started?



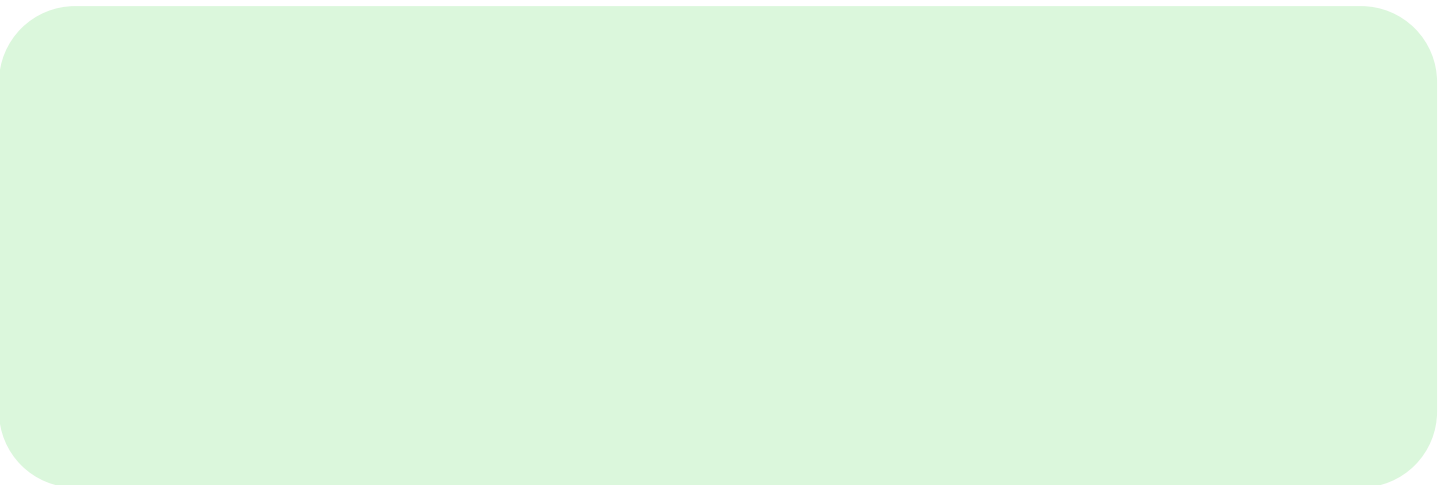
Part 1: Dream It (Your Big Ideas)

Think about your future. Don't hold back, this is your time to dream BIG!

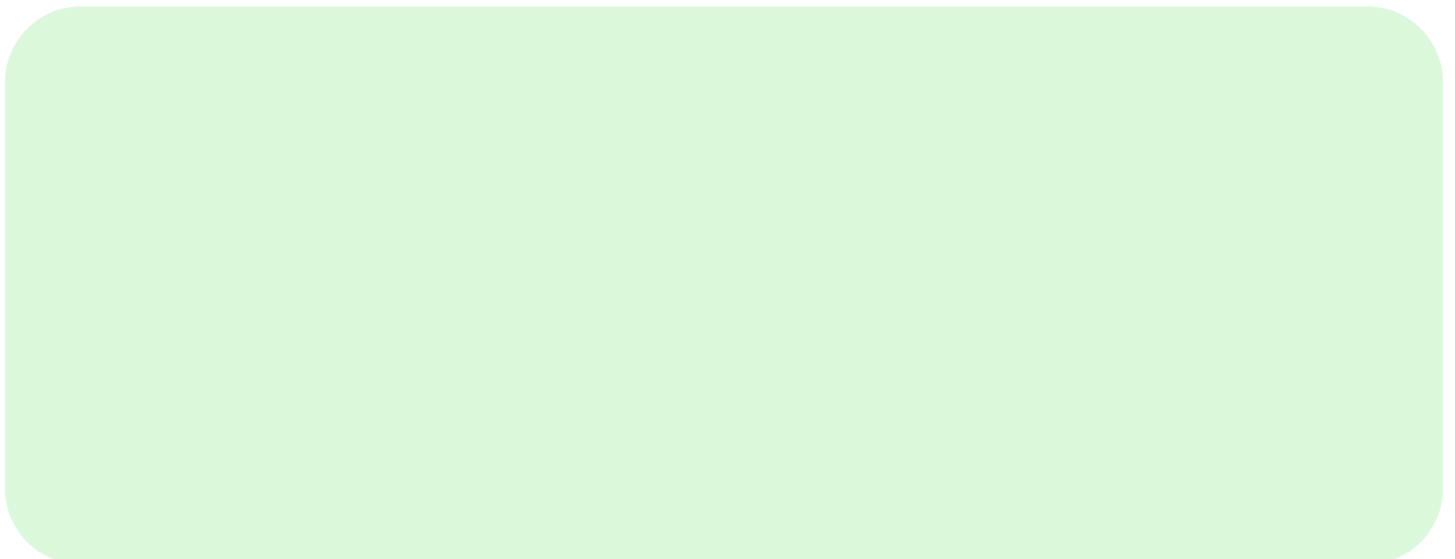
1. What are 3 things you would love to achieve in your life?



2. What career(s) or job(s) interest you right now? Why?



3. If you could learn any skill, what would it be?



Part 2: Plan It (Set Your Goals)

A goal is something you work toward. Let's make your dreams more specific.

Choose **ONE** dream from Part 1 and turn it into a goal:

My Goal:

Make it a **SMART** Goal:

S (Specific): What exactly do you want to do?

M (Measurable): How will you know you've reached it?

A (Achievable): Is it realistic for you right now?

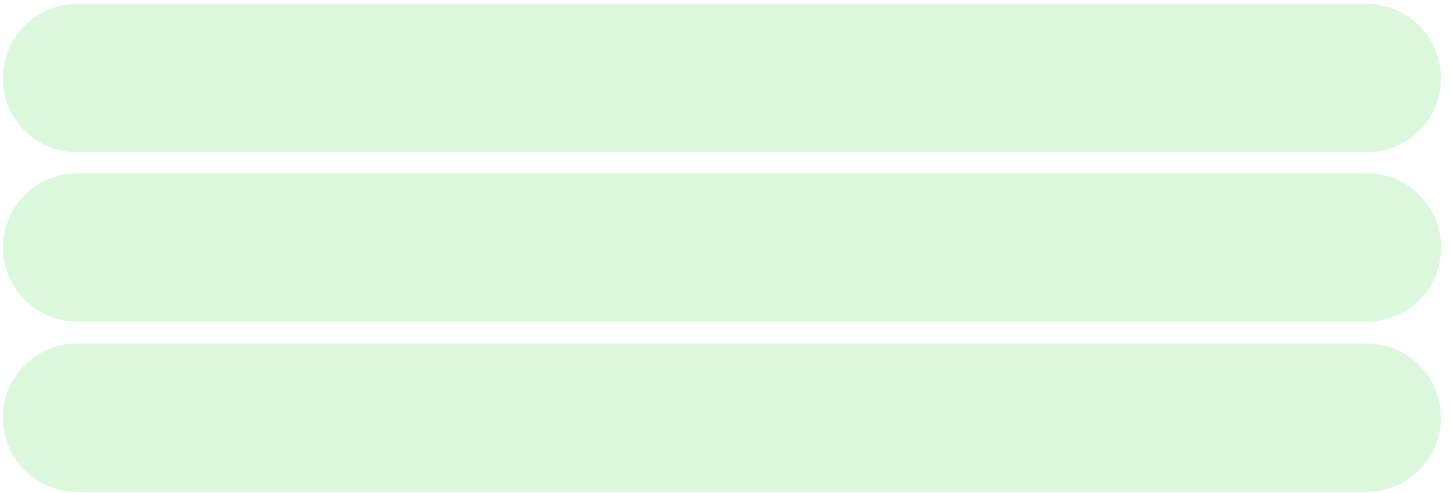
R (Relevant): Why is this important to you?

T (Time-bound): When do you want to achieve it?

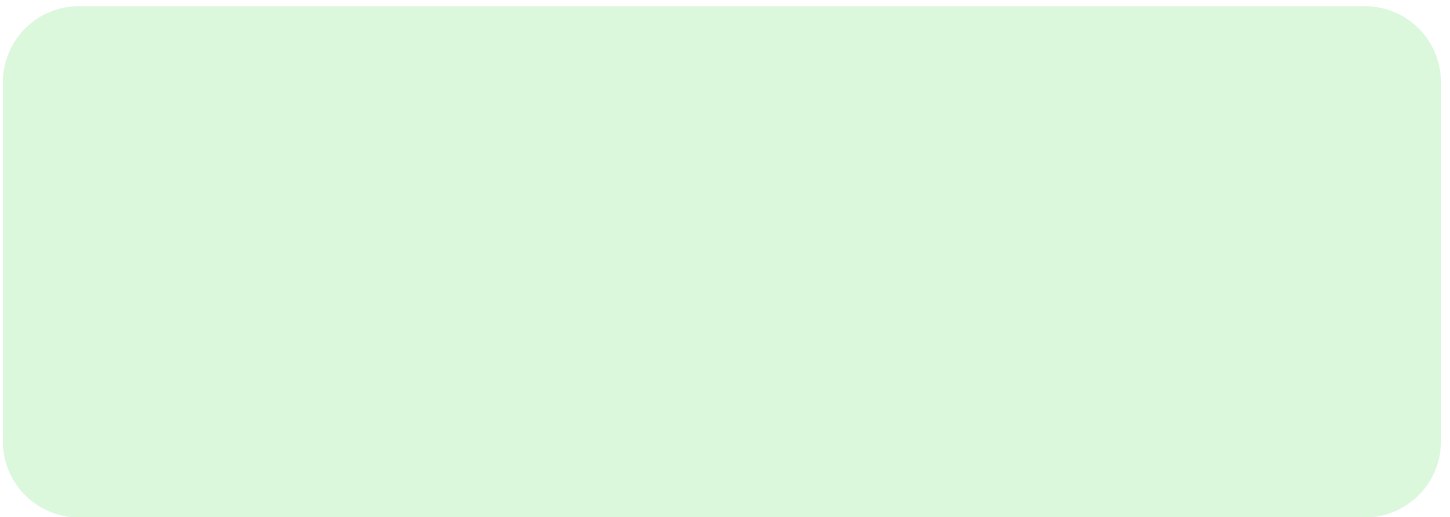
Part 3: Do It (Take Action!)

Now let's break your goal into steps.

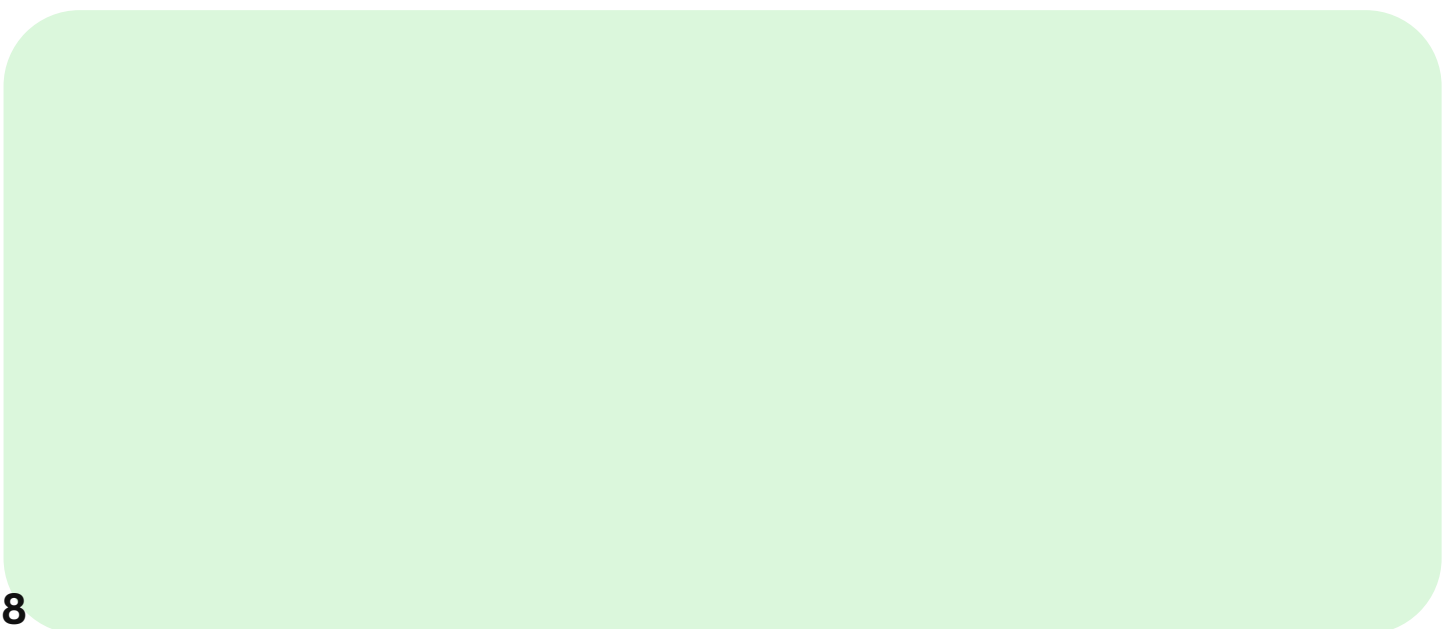
List 3 action steps you can take:

Three light green rounded rectangular boxes stacked vertically, intended for listing three action steps.

What might get in your way? (Challenges)

A large light green rounded rectangular box intended for listing potential challenges.

How will you overcome it?

A large light green rounded rectangular box intended for describing strategies to overcome challenges.

Part 4: Temperature Check

1. Who can support or help you reach your goal?

2. How will you stay motivated when things get hard?

3. Write yourself a positive reminder:

Role Play Scenarios and Reflection

School Garden Project

Your class has been given permission to start a small school garden. The team needs someone to lead the project by organizing volunteers, setting goals, and keeping everyone motivated. Some students are excited, while others think the project will be too much work.

School Community Fun Night

Your student club has been asked to organize a "Community Fun Night" at school. The event is only three weeks away, and your team must decide on activities, food, music, and decorations. One group member wants a sports theme, another wants a movie night, and another is worried about staying within budget.

The Group Project Disagreement

A group of students is working on a class presentation. Two students are frustrated because they feel one teammate is not helping enough, while that teammate says they were never told what to do. Tension is growing, and the project deadline is approaching.

What is one thing you learned from this activity?



LESSON 2

Lesson 2: Money Basics

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- Define key financial literacy terms such as income, expenses, taxes, receipts, and budget.
- Distinguish between needs and wants.
- Create a personal or agribusiness budget.
- Demonstrate how to write a check correctly.
- Explain the importance of keeping receipts for expense tracking.
- Apply financial decision-making skills to real-life scenarios.

Materials Needed: Financial literacy vocabulary, Budget worksheet, Check-writing practice sheet, Expense tracking worksheet, Pens, pencils, and calculators

Lesson Activities

1. Warm-Up (10 minutes): Where Does Your Money Go?

Ask students:

- What are some ways people earn money?
- What are common things people spend money on?
- Why is it important to have a plan for your money?

Have students list three ways they would spend \$100. Discuss which items are needs and which are wants.

2. Mini Lesson: Financial Literacy Terms (20 minutes)

- Introduce financial literacy terms using vocabulary worksheet.

3. Activity: Create a Monthly Budget (20 minutes)

- Assist students to track their expenses.
- Create a budget (personal or business).
- Practice how to write a check.
- Discuss scenarios in pairs then share with whole group.



Extension Option: Students can choose to create either a personal budget, or a small agribusiness budget (*Example: selling eggs, vegetables, or handmade products*).

Reflection and Discussion (10-15 minutes) Ask students:

- What surprised you about budgeting?
- How can keeping receipts help you save money?
- Why is it important to understand taxes?
- What is one financial habit you want to improve?

Part 1: Financial Literacy Vocabulary Match

Match each term to its definition.

Terms

1. Income
2. Expense
3. Budget
4. Tax
5. Receipt
6. Savings

Definitions

- A. Money set aside for future use
- B. Proof of purchase
- C. Money earned
- D. Spending plan
- E. Required payment to government
- F. Money spent

Part 2: Needs vs. Wants

Classify each item as a Need (N) or Want (W).

Item

- Food
- New video game
- School supplies
- Designer shoes
- Housing
- Streaming subscription
- Transportation
- Candy

N or W

Part 3: Expense Tracker

MONTH: _____

FIXED EXPENSES

AMOUNT

SHOPPING

AMOUNT

Rent/Mortgage

Clothes

FOOD

AMOUNT

MEDICAL

AMOUNT

Groceries

Doctor Visits

TRANSPORTATION

AMOUNT

FITNESS

AMOUNT

Public transport

Gym Memberships

ENTERTAINMENT

AMOUNT

EDUCATION

AMOUNT

Movies

Tuition Fees

Concerts/Events

Books

SUMMARY

SUMMARY



INCOME STREAMS

AFTER TAX	BUDGET	ACTUAL	DIFFERENCES
Income			
Side Hustles			
Business			
Others			

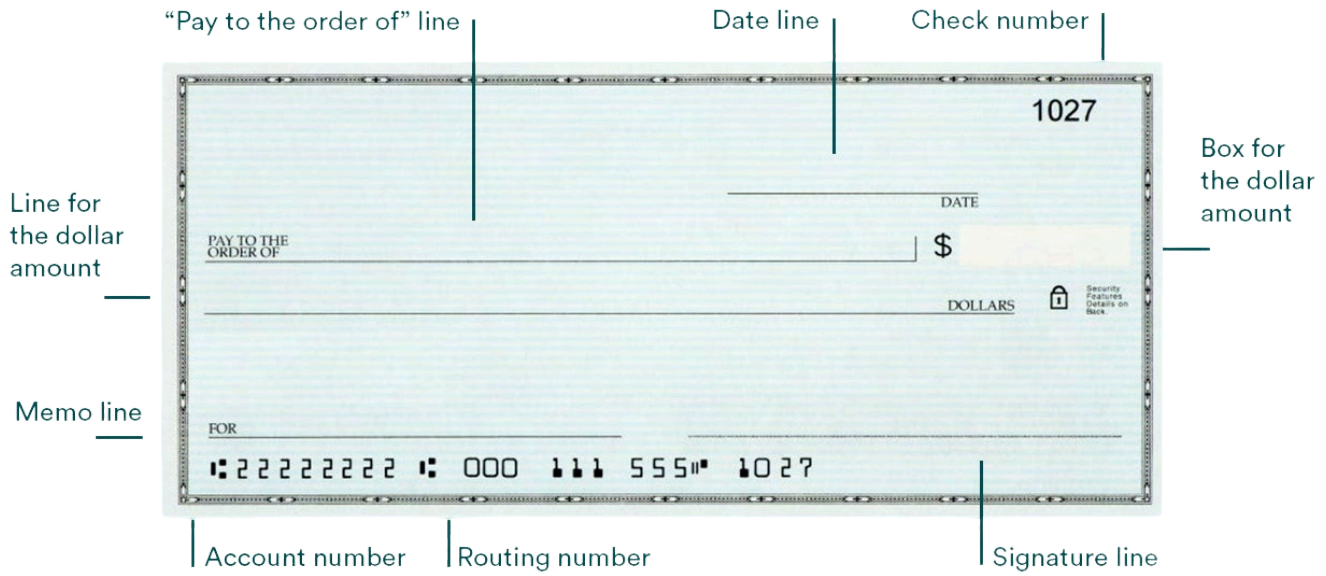
FIXED AND VARIABLE EXPENSES

EXPENSES	BUDGET	ACTUAL	DIFFERENCES

SAVINGS

TOTAL SAVINGS	
Total Income (After Tax)	
Total Fixed Expenses	
Total Variable Expenses	
Savings - Income + Expenses	

Part 5: Writing Checks



Fill out the checks below with the information provided.

You are buying a couch for \$1298.52 from Ashley's Furniture.

1001

_____ 20_____ 09-765/432

PAY TO THE ORDER OF _____ \$

_____ DOLLARS

MEMO _____

⑆ 123456789⑆ 0987654321⑆ 1001⑆

You are buying a TV for \$398.48 from Best Buy.

1001

_____ 20_____ 09-765/432

PAY TO THE ORDER OF _____ \$

_____ DOLLARS

MEMO _____

⑆ 123456789⑆ 0987654321⑆ 1001⑆

Part 6: Financial Decision Making Scenarios

Scenario 1: You earn \$250 this month and want to buy a \$180 pair of shoes, but you also need \$75 for school supplies. What should you do?

Scenario 2: You notice you spent \$60 on snacks last month. How could tracking receipts help you save money?

Scenario 3: Your small egg business earned \$320. Feed costs were \$90 and packaging costs were \$25. How much profit did you make?

Part 7: Calculating Sales Tax

If the sales tax rate is 6%, calculate the total cost.

Item Price

\$10.00

\$25.00

\$48.50

\$120.00

Sales Tax

\$ _____

\$ _____

\$ _____

\$ _____

Total Cost

\$ _____

\$ _____

\$ _____

\$ _____



Part 8: Temperature Check

Money Basics

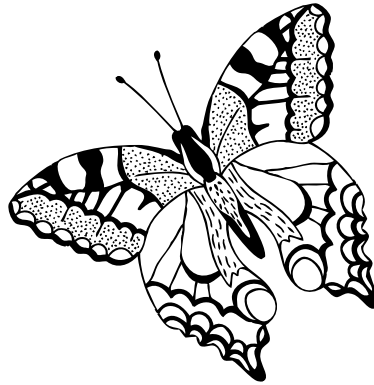
Unscramble the words below using vocabulary from words you learned during Lesson 2.

No.	Scrambled Letters	Your Answer
1.	EOMCNI	<input type="text"/>
2.	PEEXNES	<input type="text"/>
3.	BUTGED	<input type="text"/>
4.	EDNE	<input type="text"/>
5.	NATW	<input type="text"/>
6.	ASNIGV	<input type="text"/>
7.	EKCCH	<input type="text"/>
8.	KBNA	<input type="text"/>
9.	IESOTPD	<input type="text"/>
10.	OEMNY	<input type="text"/>



A decorative border consisting of several thin, leafy branches with small, oval-shaped leaves, arranged in a circular pattern around the central text and butterfly.

LESSON 3



Lesson 3: Money Tools & Staying Safe from Scams

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- *Understand what credit scores and credit reports are and why they matter.*
- *Identify common financial risks and scams.*
- *Use banking tools such as checking accounts, savings accounts, debit cards, and online banking safely.*
- *Compare loans and explain how interest rates affect borrowing costs.*
- *Apply strategies for building credit and managing debt responsibly.*

Materials Needed: Credit score simulation worksheet, Loan comparison worksheet, Scam detection case study worksheet, Calculator, Pencils or pens, Optional internet access for exploring free credit education resources

Lesson Activities

1. Warm-Up (15 minutes): Money Tools You Already Use

Ask students:

- What money tools do adults use every day?
- What is the difference between a debit card and a credit card?
- Have you ever seen a suspicious text, email, or social media message asking for money or personal information?

Write student responses on the board and introduce the idea that financial tools can help us build wealth - but only when used wisely and safely.

2. Mini Lesson: Understanding Credit and Banking Tools (15 minutes)

- What Is a Credit Score? A credit score is a number that shows how responsibly a person uses borrowed money.
- What Affects a Credit Score?
- Credit Report vs. Credit Score
- Common Banking Tools and Safe Banking Tips

3. Activity: Credit Score Simulation (15 minutes)

- Use the worksheets to start with a score of 700 and apply different actions that raise or lower the score. Students calculate their final score and discuss how behaviors impact credit. Students read financial scenarios and determine whether they are legitimate or scams.



Reflection and Discussion (15 minutes) Ask students:

What is one thing that can improve a credit score?

How can you protect your banking information?

What is one red flag that suggests a scam?

Part 1: Credit Score Simulation

Starting Credit Score: 700
Apply each event to your credit score.

Event	Change	New Score
• Starting Score	-	700
• Paid all bills on time for 6 months	+20	_____
• Used less than 30% of credit limit	+15	_____
• Missed one payment	-60	_____
• Applied for two new credit cards	-20	_____
• Paid down credit card balance	+25	_____
• Maxed out credit card	-50	_____
	Final Score:	_____

Reflection Questions

1. Which action had the biggest impact?

2. What habits help build strong credit?

3. Why is a good credit score important?

Part 2: Loan Comparison Exercise

You want to borrow \$5,000.

Loan Option	Interest Rate	Loan Term	Estimated Total Repaid
A	5%	2 years	\$5264
B	10%	2 years	\$5548
C	18%	2 years	\$6000

Loan Comparison Questions

Which loan has the lowest total cost?

How much more does Loan C cost than Loan A?

Which borrower is most likely to qualify for Loan A?

Why do lenders charge different interest rates?

Part 3: Scam Detection Case Study

Read each situation and decide whether it is a scam.

Scenario 1: You receive a text message saying your bank account is locked. It asks you to click a link and enter your password immediately. Is this a scam? **Yes / No**

Red flags:

What should you do instead?

Scenario 2: A social media post promises you can earn \$1,000 in one day if you send \$100 first. Is this a scam? **Yes / No**

Red flags:

What should you do instead?

Scenario 3: Your bank's official app sends a notification asking you to verify a recent purchase that you actually made. Is this a scam? **Yes / No**

How can you verify the message is legitimate?

Part 4: Banking Tools Match Up

Match each financial tool with its purpose.

Tool

1. Checking Account
2. Savings Account
3. Debit Card
4. Credit Report
5. Mobile Banking App.

Purpose

- A. Builds money for future goals
- B. Used for everyday spending
- C. Record of youth borrowing history
- D. Access money from your checking account
- E. Allows you to check balances and transfer money

Answers

1. _____
2. _____
3. _____
4. _____
5. _____



CREDIT SCORE





LESSON 4



Lesson 4: Entrepreneurship - Marketing & Branding

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- *Explain the importance of marketing and branding in entrepreneurship.*
- *Identify the key elements of a successful brand.*
- *Develop a simple marketing plan for a product or produce business.*
- *Create a brand identity including a logo, slogan, and target audience.*
- *Practice communication and teamwork skills through business planning activities.*

Materials Needed: Student worksheets, Markers, colored pencils, or pens, Poster paper or chart paper, Internet access (optional for logo research), and Sample food products, produce photos, or packaging examples.

Lesson Activities

1. Warm-Up Activity (10 Minutes): Brand Recognition Challenge

Ask students:

- What brands do you recognize immediately?
- Why do certain businesses stand out?
- What makes people want to buy a product?

Show examples of popular logos or food brands and ask students to identify: *The business name, the colors used, and the message or feeling the brand gives. Discuss how branding helps customers remember products.*

2. Mini Lesson: Marketing and Branding (20 minutes)

Entrepreneurship is the process of creating and running a business.

What is Branding? Branding is how a business presents itself to customers. It includes: *Business name, Logo, Colors, Slogan, Product packaging, Customer experience*

What is Marketing? Marketing is how businesses promote and sell products. Examples of marketing strategies: *Social media posts, Flyers and posters, Word-of-mouth advertising, Product samples, Farmers markets, School announcements.*

Example Business Idea: A student business could grow and sell: *Tomatoes, Herbs, Lettuce, Strawberries, Homemade salsa, Fruit smoothies, and Honey or jams* (Teacher should discuss how students could market these products to their school or community).

3. Activity: Build Your Business Brand (30 minutes)

Students will create a business concept using the worksheet provided. Students should:

- *Choose a product or produce item to sell; Create a business name; Design a logo and slogan; Identify their target customers; Decide how they will advertise the product; and Encourage creativity and teamwork.*

Part 1: Marketing Pitch

Divide students into small groups or pairs. Each group will prepare a 1–2 minute marketing pitch explaining:

- Their product
- Why customers should buy it
- Their slogan
- Where they would sell it
- How they would advertise it

Encourage students to speak confidently and creatively. After presentations, allow students to provide positive feedback. Possible Questions may include:

- What makes your business memorable?
- Why is branding important?
- What marketing strategy do you think works best for teens or a specific target audience?
- What challenges might young entrepreneurs face?

Discuss how entrepreneurship can create opportunities in agriculture, business, and community development.

Part 2: Product or Produce I Want to Sell

Why I Chose This Product?

Who Would Buy My Product?

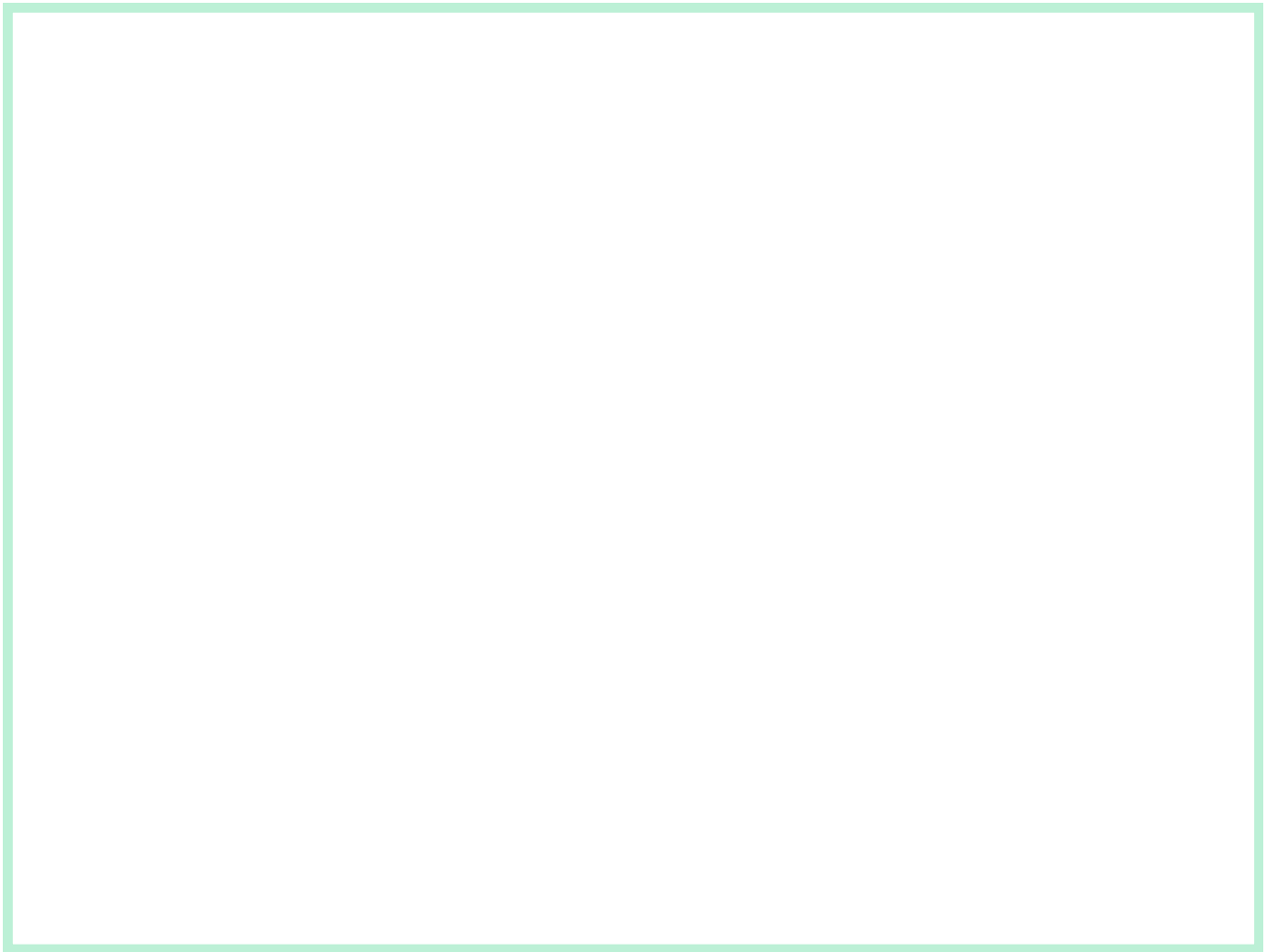
Where Would I Sell My Product?

Part 3: Branding my Business

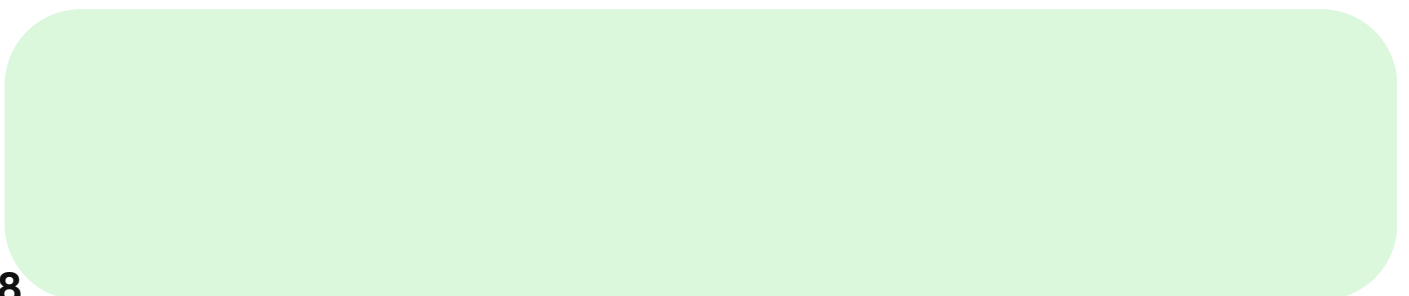
Create a Slogan _____

Brand Colors _____

Draw Your Logo



What Feeling Do You Want Customers to Have?



Part 4: Marketing Plan

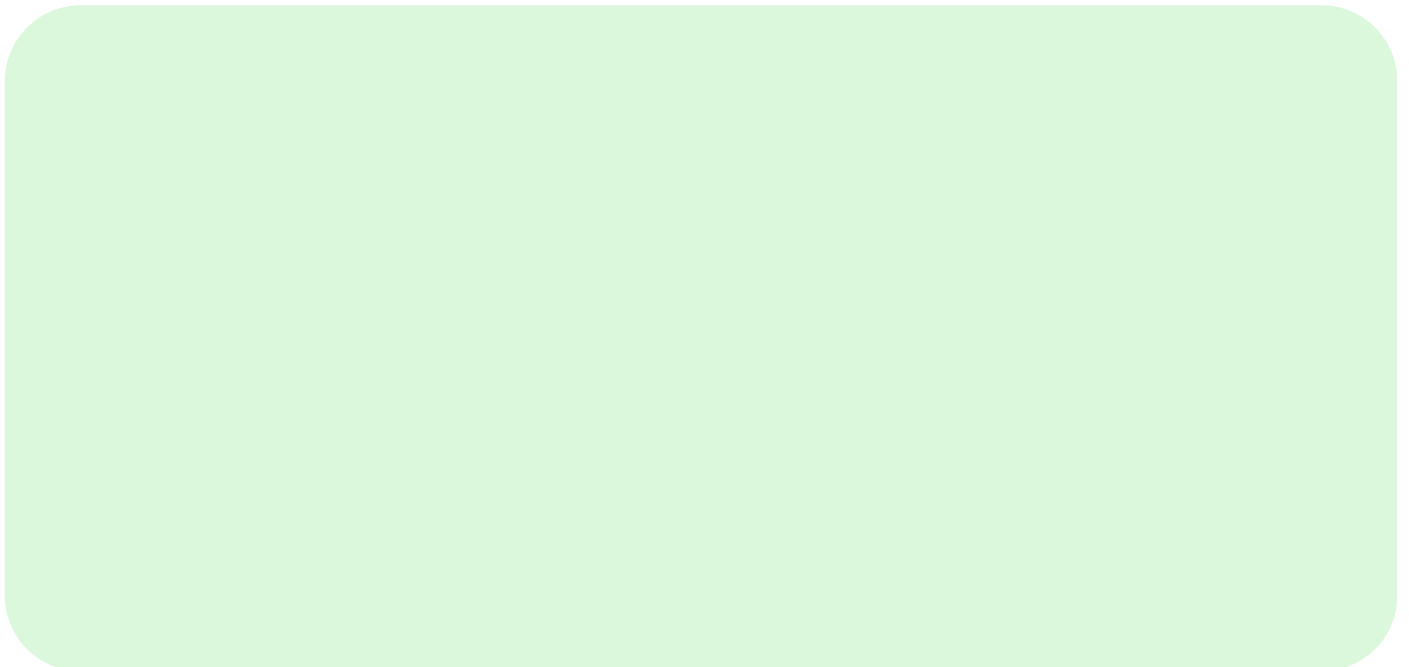
How Will You Advertise Your Product? (Check all that apply)

- Flyers
- Social Media
- School Announcements
- Word of Mouth
- Farmers Market
- Samples/Taste Testing
- Posters
- Other: _____

Write One Advertisement for Your Product:



What Makes Your Product Special?



Part 4: My Entrepreneur Pitch

Business Name:

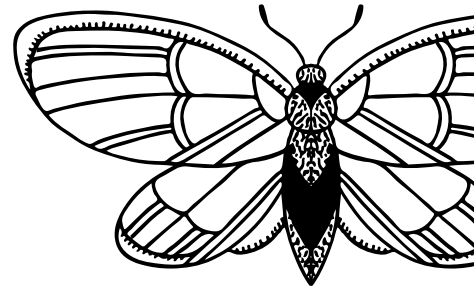
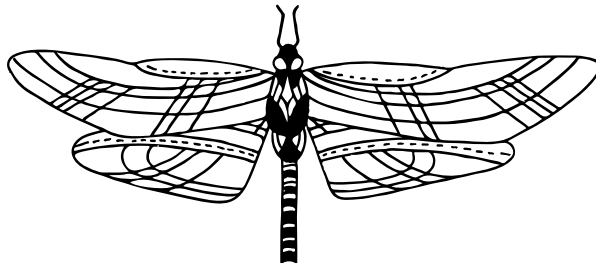
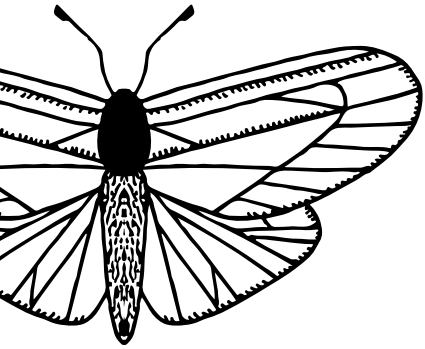
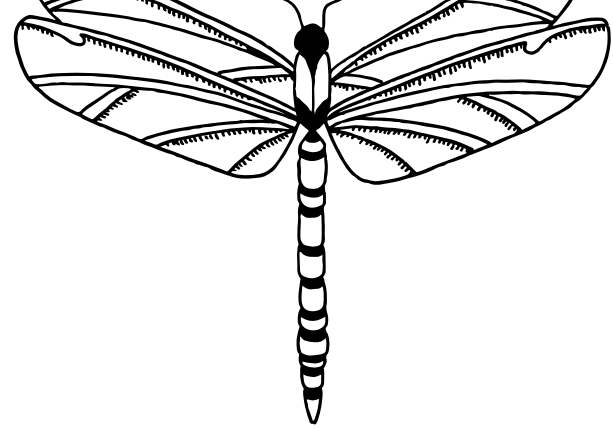
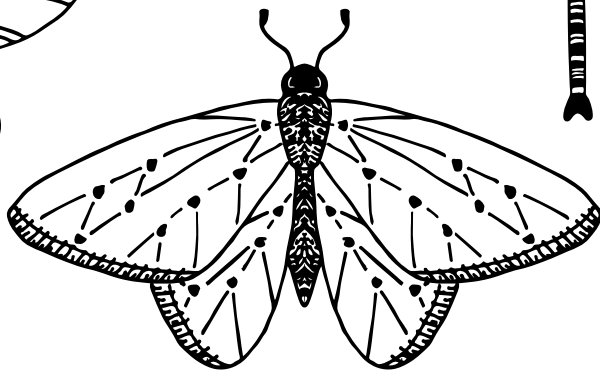
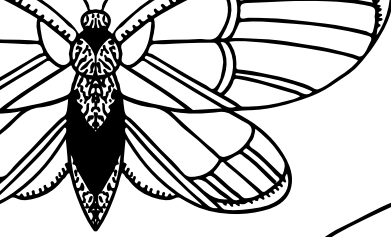
Product:

Why Should Customers Buy It?

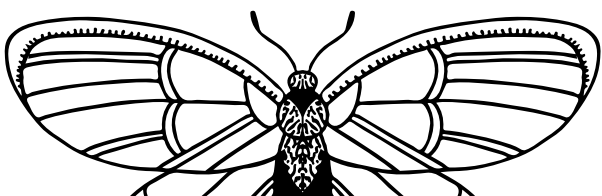
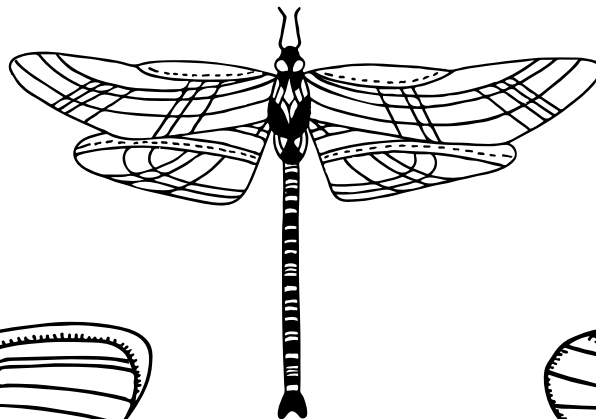
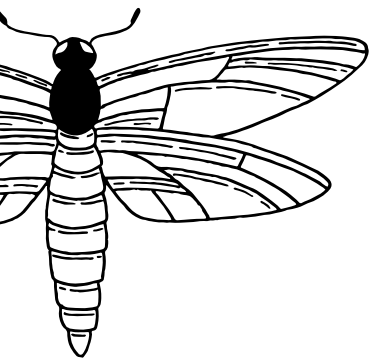
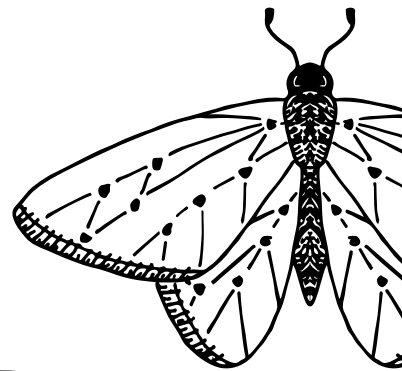
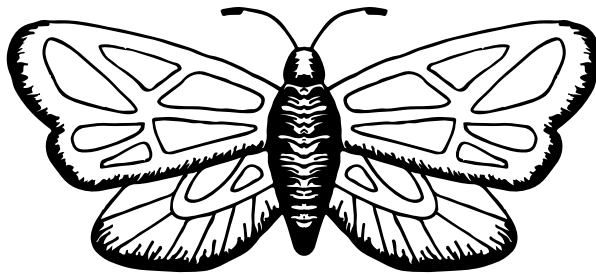
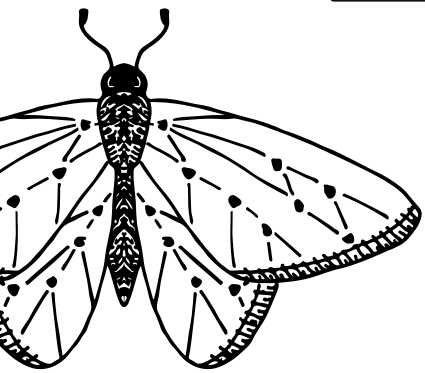
My Slogan:

Where Will I Sell It?

My Presentation Notes:



LESSON 5



Lesson 5: Grow it, Raise it, Sell it

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- Identify agricultural products that are needed in their community.
- Understand that different crops and livestock have different production timelines.
- Use calculations to estimate costs, prices, and profits.
- Predict which products may be the most profitable.
- Develop a simple agricultural business plan.

Materials Needed: Community needs worksheet, Poster paper to create production timeline, Mini Business plan template, Calculators, Pens or pencils, Optional: Internet access for local market research

Lesson Activities

1. Warm-Up (10 minutes): What Does Our Community Need?

Ask students:

- What fruits, vegetables, meats, or other farm products do people in our community buy regularly?
- Which products are hard to find locally?
- What products are popular at farmers markets or grocery stores?

Record responses on the board. **Discussion Prompt:** *If you could grow or raise one product to sell in your community, what would it be and why?*

2. Mini Lesson: Grow it-Raise it-Sell it (20 minutes)

Explain that every agricultural business follows three steps:

- Grow It – Plant crops or raise animals.
- Raise It – Care for the product until it is ready.
- Sell It – Market and sell to customers.

3. Activity: Mini Business Plan Overview (30 minutes)

- Students complete the Mini Business plan template.

Reflection and Discussion (15 minutes) Ask students:

- What product did you choose and why?
- How long will it take before you can sell your product?
- What do you predict your profit will be?
- What is one challenge your business might face?
- What is one next step to turn your idea into reality?



Part 1: Goals and Community Needs

GOAL	WHY	MOTIVATION
-------------	------------	-------------------

START DATE	DEADLINE	REWARD
-------------------	-----------------	---------------

OBSTACLES TO OVERCOME

RESOURCES

BIG STEPS

- _____
- _____
- _____
- _____

LITTLE STEPS

- _____
- _____
- _____
- _____

NOTES

Part 2: Mini Business Plan Overview

Business Name:

MISSION STATEMENT

VISION STATEMENT

CONTACT INFORMATION

Email:

Phone:

Website:

SOCIAL MEDIA

Instagram:

Facebook:

LinkedIn:

CORE VALUES

○ _____

○ _____

○ _____

○ _____

○ _____

Part 3: Mini Business Plan Template

Vision, Mission & Unique Selling Point (USP)

Vision _____

Mission _____

Unique Value / USP _____

Target Audience _____

SWOT Analysis

Strengths

-
-
-

Weaknesses

-
-
-

Opportunities

-
-
-

Threats

-
-
-

SMART Goals

Specific	Measurable	Achievable	Relevant	Time-Bound

Tip: Define 1–3 goals. Keep each statement concise and action-oriented.

Pricing Strategy

Cost (COGS) _____

Profit Margin (%) _____

Platform Fees _____

Shipping (if any) _____

Break-even Price _____

Retail Price _____

Discount / Offer _____

Final Price _____

NOTES:

Formula: Final = Cost + Fees + Margin

Check competitors before finalizing

Key Performance Indicators (KPI) Snapshot

Conversion Rate _____

Avg. Order Value _____

Monthly Revenue _____

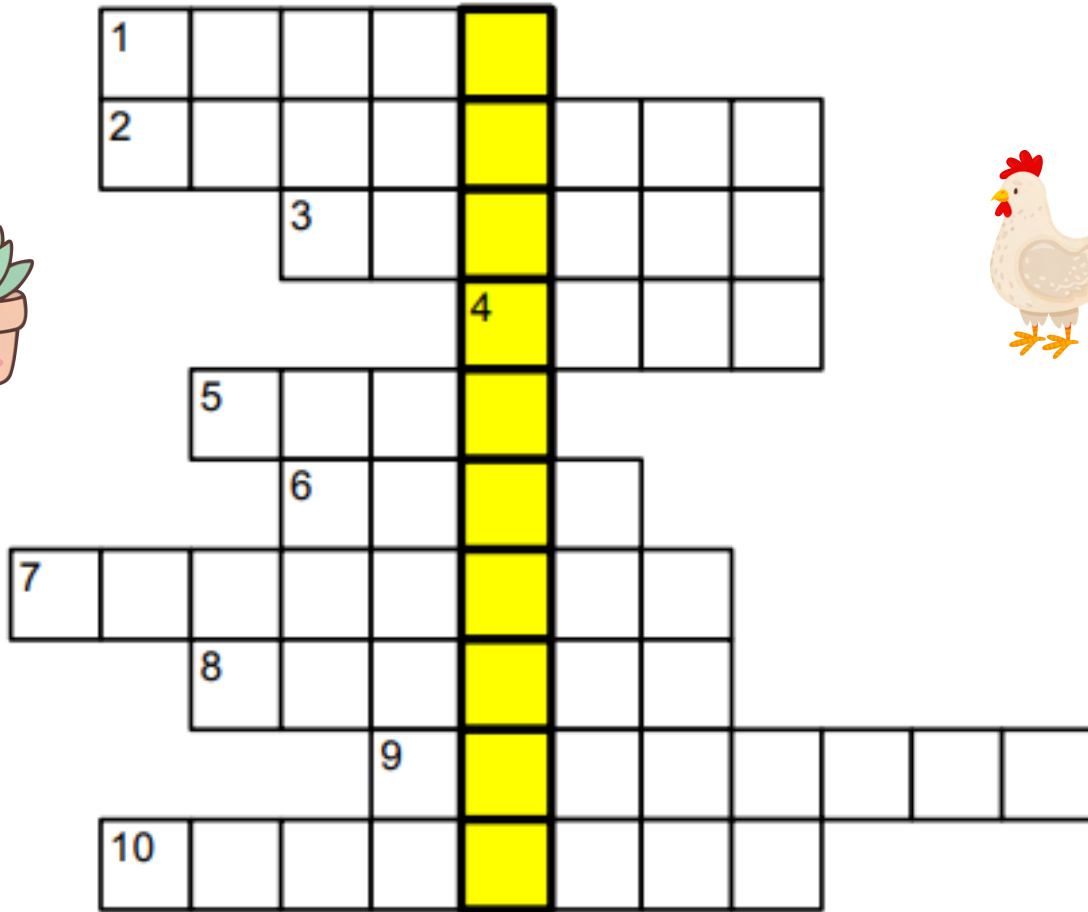
Total Orders _____

Snapshot for this quarter/month. Update values weekly or monthly.

Part 4: Temperature Check

Fill the answers of the clues in the puzzle.

If you use the words in this lesson, you will find a hidden word in the yellow boxes.



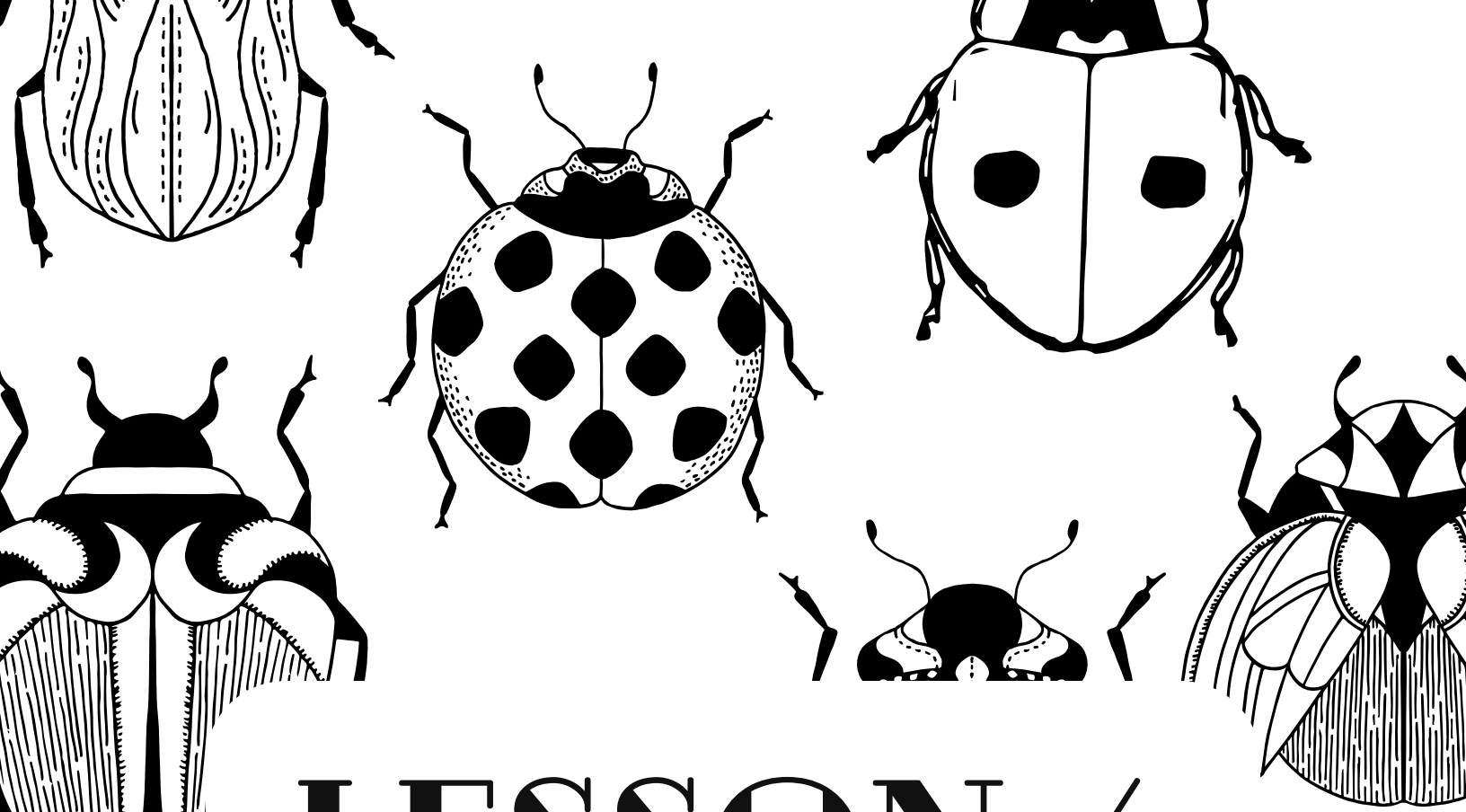
The hidden word is:

****not all words will be used****

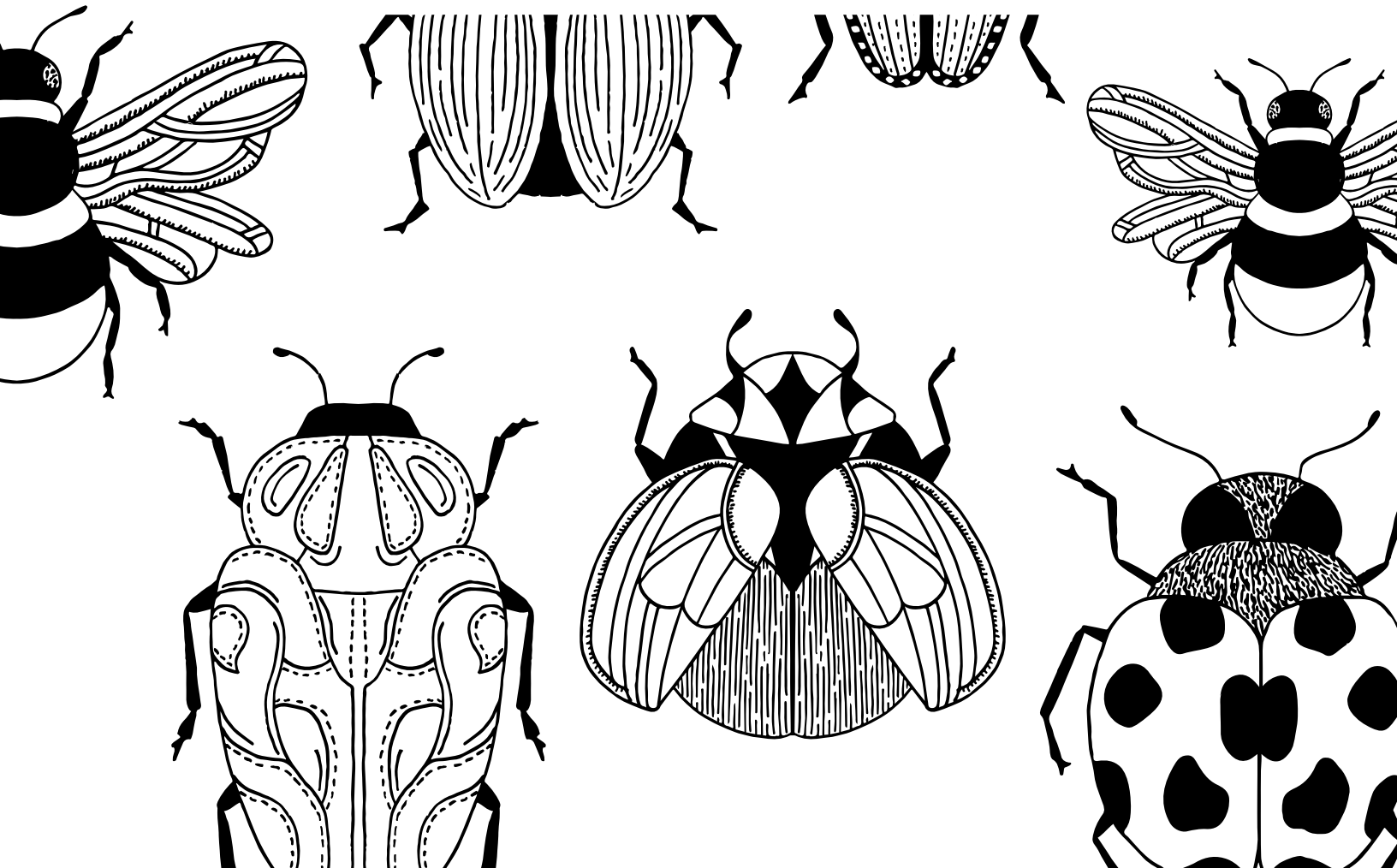
needs business product
sale expenses loss evaluate
plan timeline profit risk
cost operating income supplies

1. When making a business plan, you must first know the ... of your community.
2. To judge the outcome and possible outcomes to make a plan.
3. Money that is earned from doing work; after operating expenses.
4. The price of something.
5. An act of exchanging something for money.
6. The possibility of something bad happening.
7. The amount of money that is needed to pay for or buy something.
8. Money that is earned in trade or business after paying the costs of producing and selling.
9. The amount of something that is available to be used.
10. A plan which shows the order of events that will happen, things that will be done, etc.





LESSON 6



Lesson 6: Smart Farming: Data, Drones and Technology

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- *Understand the purpose of precision agriculture tools.*
- *Explore how drones and data are used in modern farming.*
- *Analyze how technology improves efficiency, productivity, and sustainability in agriculture.*
- *Compare traditional farming practices with smart farming technologies.*

Materials Needed: Drone observation form, Crop analysis scenarios, Internet access and laptop, Projector or smart board, Markers, pens, or pencils, Sample crop data charts or printed scenarios (not included), Drone demonstration or drone simulator app

Lesson Activities

1. Warm-Up Activity (10 Minutes): Farming Then vs. Now

Ask students:

- How do you think farming looked 100 years ago?
- What technology do farmers use today?

Create a T-chart on the board labeled: Traditional Farming versus Smart Farming

- Have students brainstorm differences. Which is more efficient and why?

2. Mini Lesson: Technology in Agriculture (15 minutes)

- Introduce precision agriculture and explain how technology supports farmers. Show examples of: *Agricultural drones, GPS-guided tractors, Soil sensors, and crop-monitoring apps*
- Discuss how technology helps farmers: *Save water, Reduce chemical use, Improve crop yields, and Detect problems early*

3. Activity: Drone Demonstration (30 minutes)

- Demonstrate a drone or show a short video/simulation.

Students observe and answer:

- What information can the drone collect?
- How would this help a farmer?
- What challenges might exist when using drones?
- Then incorporate worksheets provided to support this lesson.



Reflection and Discussion (10 minutes) Ask students:

What is one smart farming technology you found interesting?

How can technology help farmers protect the environment?

Would you consider a career involving agriculture technology? Why or why not?

Part 1: Drone Observation Feedback

Watch the drone demonstration, video, or simulation. Answer the questions below.

1. What are three things a drone can help farmers do?



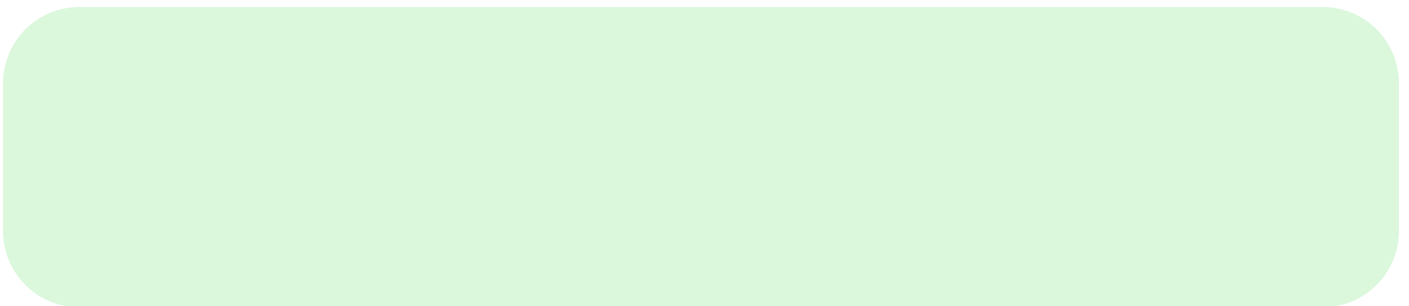
2. What type of information can drones collect?



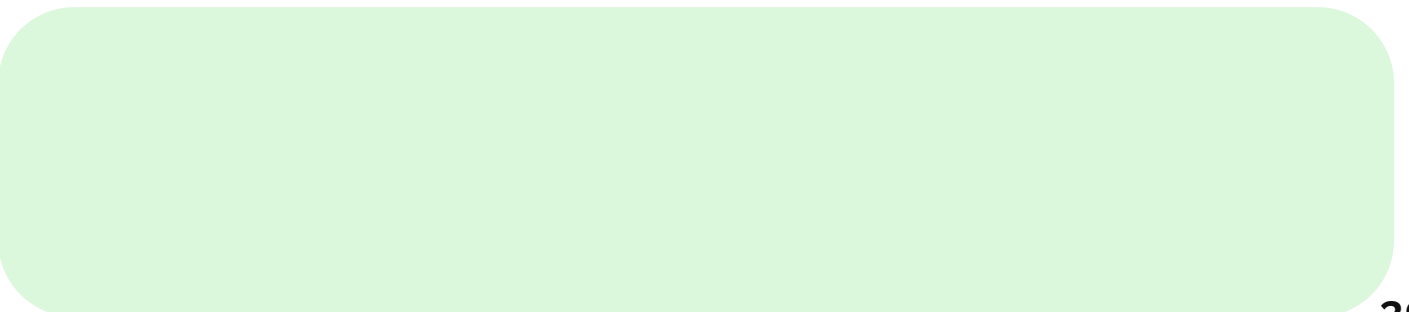
3. How could drones help farmers save time or money?



4. What challenges might farmers face when using drones?

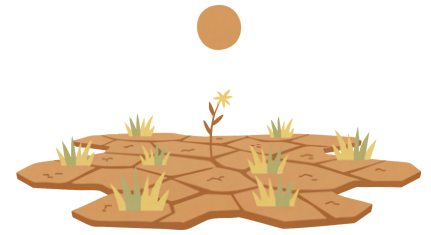


5. Would you want to use drones in farming? Why or why not?



Part 2: Crop Data Analysis Scenarios

Read each scenario and answer the questions.



Scenario A

A farmer notices that one section of the field has dry soil and weak crops.
What problem is happening?

What technology could help the farmer?

How would the technology improve the situation?

Scenario B

A farmer wants to reduce water usage while keeping crops healthy.

Which smart farming technology would help?



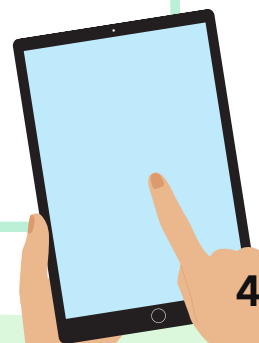
Why is this technology useful?

Part 3: Temperature Check

Discuss the role of technology in farming and its impact on agriculture.
Organize your ideas below.

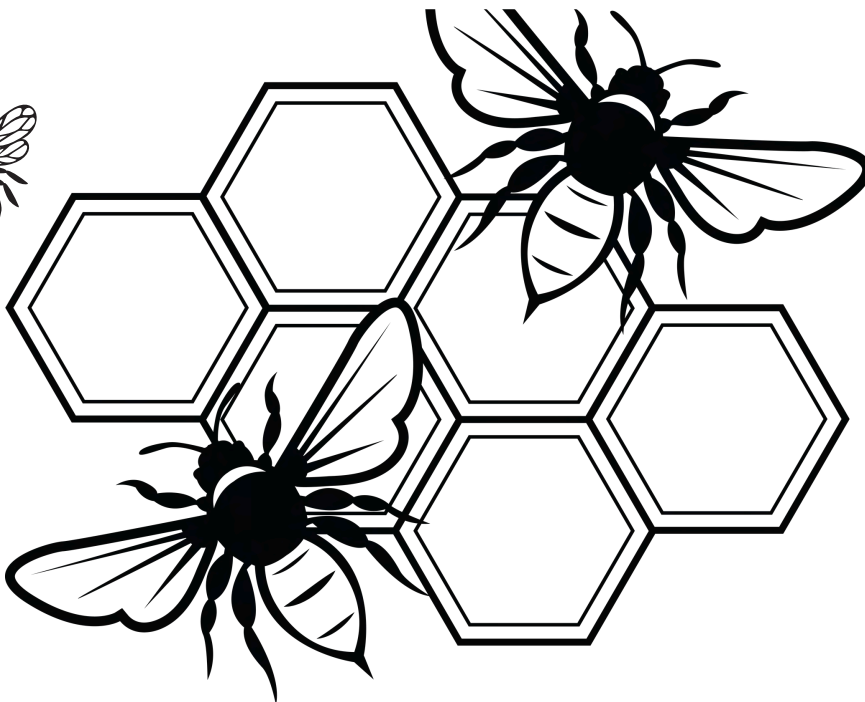
ADVANTAGES

DISADVANTAGES





LESSON 7



Lesson 7: Leading from the Frontline

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- *Understand how financial decisions impact agricultural businesses.*
- *Demonstrate leadership, teamwork, and problem-solving skills while managing a mini-farm business.*
- *Incorporate basic financial concepts through the lens of agriculture by running a hands-on “mini-farm business.”*

Materials Needed: Play money included, Printed menus and worksheets, Poster paper, Markers, Tape, Small cups + soil + seeds (optional but fun), Event cards, Printed - Weather cards are green, Bonus cards are blue, and Market Shift cards are red, Pictures of farms/products

Lesson Activities

1. Warm-Up Activity (10 Minutes): Farm Stand Trivia

Ask students: What would you do with a farm?

Show youth pictures of small farms, gardens, or youth agricultural projects (*Example: vegetable stands, egg sales, flower gardens*).

Ask: (1) If you had a small farm, what would you grow or raise? (2) How do you think farmers make money? and (3) What do you think farmers have to spend money on?

2. Mini Lesson: Understanding Farm Finances (20 minutes)

Hold up two items: A packet of seeds and a basket of vegetables (real or picture)

Ask: Which one costs money? Which one makes money? Let youth guess - this reiterates the idea of expenses vs. income.

3. Activity: Build Your Own Farm (30 minutes)

Build your own mini farm (Farmer Starter Kit Instructions included with reproducible master)

Reflection and Discussion (10 minutes) Ask students:

What did your farm sell?

What were your expenses?

How much income did you earn?

What was your profit?

If you did this again, what would you change?

Why is saving important for farmers?



Optional Exit Ticket

Write one thing you learned about how farmers use money.

Part 1: Building Your Mini Farm Starter Kit



Students work in small groups (2–4). Each group receives a Farm Starter Kit:

Kit Materials (simple and low-cost):

- 10 “UME bucks” (play money)

A menu of items they can “buy”:

- *Seeds (2 bucks)*
- *Soil (1 buck)*
- *Water tokens (free or 1 buck depending on realism)*
- *Tools (2 bucks)*
- *Chickens (5 bucks)*
- *Feed (1 buck)*
- *A blank “Farm Plan Sheet”*
- *A small cup of soil and a few fast-sprouting seeds (optional real planting)*

Task - Groups must decide:

- What they want to “produce” (*vegetables, eggs, flowers, herbs*)
- What supplies they need
- How to spend their 10 UME bucks wisely

They record:

- Expenses
- Expected income (*teacher provides a price list - Example: vegetables sell for 3 bucks, eggs for 2 bucks, flowers for 4 bucks*)

Part 1: Building Your Mini Farm Starter Kit Continued

How Farm Money Works

Using their farm plans, guide youth through key concepts:

- Income - money earned from selling farm products
- Expenses - money spent on supplies
- Profit - income minus expenses
- Savings - money kept for future needs
- Risk - weather, pests, or low prices can affect profit

Interactive Explanation - Have each group share:

- What they bought
- What they plan to sell
- Why they made those choices
- Then introduce the formula: Profit = Income – Expenses

Let groups calculate their projected profit.

Hands-On Simulation: “Market Day”

Now youth “sell” their products. How it works:

- Each group sets up a mini-stand (*paper sign and their product drawings or real seedlings*).
- Other groups receive 5 UME bucks to “shop.”
- Youth buy from each other based on interest and price.
- Create a Farm Plan using poster paper.
- Sellers record income.

Twist Options (choose one):

- Weather Event Card: “Heavy rain ruined half your crop so subtract 2 bucks from income.”
- Bonus Card: “Your flowers were featured at a school event so add 3 bucks to income.”
- Market Shift: “Vegetable prices drop by 1 buck today.”

These introduce real-world agricultural financial challenges.

Part 2: Temperature Check

S	U	C	E	L	B	A	N	I	A	T	S	U	S
C	O	M	M	U	N	I	C	A	T	I	O	N	Y
F	T	N	E	M	T	S	E	V	N	I	P	T	E
I	N	E	M	S	T	R	A	T	E	G	I	C	S
N	S	E	P	P	R	E	P	A	R	E	N	C	N
A	O	P	O	O	A	P	R	O	J	E	C	T	E
N	A	E	W	P	P	E	M	P	L	O	Y	E	E
C	F	T	E	E	E	R	P	R	E	L	T	M	A
I	C	R	R	S	S	N	O	I	S	I	C	E	D
A	P	R	E	S	E	N	T	A	T	I	O	N	E
L	T	T	D	N	F	A	R	M	E	R	R	M	T
T	T	R	A	N	S	P	A	R	E	N	C	Y	P
N	T	A	X	E	S	I	X	E	R	T	I	S	A
A	G	R	I	B	U	S	I	N	E	S	S	M	R

Agribusiness
Transparency
Farmer
Project
Decisions
Investment

Empowered
Strategic
Taxes
Communication
Prepare
Presentation

Employee
Sustainable
Financial



LESSON 8



Lesson 8: Run Your Own Farm

Grade Level: Middle to High School (Grades 6–12).

Duration: 60–75 minutes

Learning Objectives - By the end of this lesson, students will be able to:

- Explain how farm management decisions impact profit and loss.
- Understand the basic costs associated with agricultural production.
- Evaluate tradeoffs between low-cost and high-investment production strategies.
- Calculate revenue, expenses, profit, and break-even points.
- Work collaboratively to make financial decisions in a simulated farm game.

Materials Needed: Farm game, Worksheets included, Calculators, Pencils or pens, Dice or spinner (optional for weather/events), Whiteboard or projector, Play money or tokens (optional), Team score sheets

Lesson Activities

1. Warm-Up Activity (10-15 Minutes): Would You Invest?

Ask students:

- Got a farm? What would you grow or raise?
- Would you rather spend more money for a chance at bigger profits or spend less money with lower risk?
- What problems might farmers face when trying to make money?

2. Mini Lesson: Run Your Own Farm Challenge (20-30 minutes)

Divide students into teams of 3-5. Each team starts with: \$500 Farm Budget, One Farm Planning worksheet included, One Profit Tracker Worksheet

Each team must choose one or more agricultural enterprises: Produce Farm, Chicken Farm, Flower Farm, House Plant Business

Teams will decide: (1) What products to produce, (2) How much money to invest, and (3) Which supplies or upgrades to purchase

Assessment & Reflection (20-30 minutes) Ask students:

What production strategy did your team choose?

Did your farm make a profit or loss?

What financial decision helped your team the most?

What would you change if you played again?

Why is financial planning important in agriculture?

Students may complete responses individually or discuss as a class.



Part 1: Run Your Own Farm Challenge

Challenge Rounds are as follows:

Round 1: Planning and Investment

Teams complete their farm planning worksheets included.

Round 2: Production Results

The teacher announces market or weather events.

Examples: *Drought reduces produce harvests; High demand increases flower prices; chicken feed prices increase; and House plants trend on social media and sales rise.*

Round 3: Sales and Profit Calculation

Teams calculate:

- Total Expenses
- Total Revenue
- Profit or Loss
- Use the Profit Tracker Worksheet

Round 4: Reflection and Strategy Adjustment

Teams discuss:

What worked well?

What would they change?

Was the high-investment strategy worth the risk?

*Optional: Play a second round with new conditions or use **Life on the Farm** game board shown above (Purchase seperately).*



Part 2: Farm Planning

Starting Budget: \$500

Step 1: Choose Your Farm Enterprise

Check all that apply:

- Produce Farm
- Chicken Farm
- Flower Farm
- House Plant Business

Step 2: Plan Your Investments

Item	Cost	Quantity	Total Cost
Seeds	\$25	_____	_____
Fertilizer	\$20	_____	_____
Chicken Feed	\$30	_____	_____
Equipment	\$50	_____	_____
Labor	\$40	_____	_____
Greenhouse Supplies	\$60	_____	_____
Decorative Pots	\$15	_____	_____
Grow Lights	\$45	_____	_____

Total Expenses: _____

Budget Remaining: _____

Step 3: Production Strategy

Describe your strategy:

Part 3: Farm Event Card Tracker

Record the events affecting your farm.

Round/Event	What Happened?	Impact on Your Farm
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

Part 4: Profit Tracker

Revenue: *The total amount of money your business brings in from selling goods or services.*

Total Cost: *All of your combined expenses (such as materials, labor, rent, and taxes).*

Profit: *What is left over after you subtract those expenses from the money you brought in.*

$$\text{Profit} = \text{Revenue} - \text{Total Cost}$$

My Profit:

$$\text{\$} \underline{\hspace{2cm}} - \text{\$} \underline{\hspace{2cm}} = \text{\$} \underline{\hspace{2cm}}$$

Part 5: Reflection

What type of farm business did your team manage?



What was your team's biggest expense?



Did your team choose a low-cost or high-investment strategy?



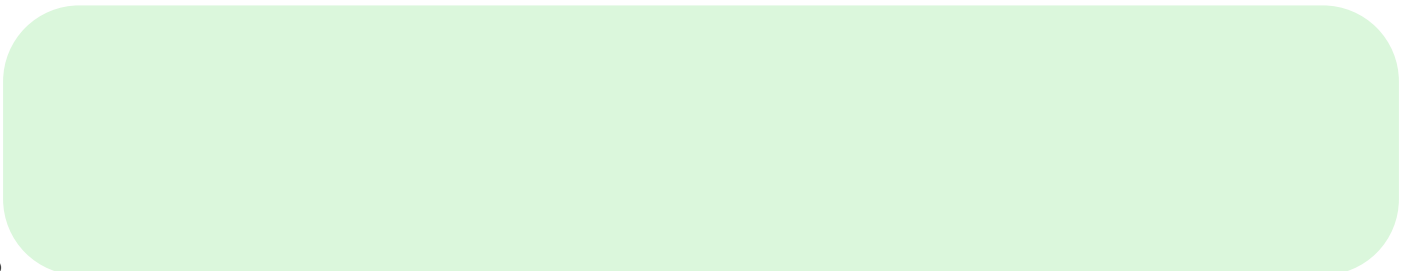
What financial decision helped your team the most?



If you could replay the game, what would you change?



Why is budgeting important in agriculture?



Part 6: Temperature Check

N	L	A	V	M	A	J	X	V	P	S	E	E	D	I
N	F	Q	E	A	N	I	M	A	L	S	W	N	Y	W
L	H	A	G	R	F	P	F	F	O	D	B	M	P	W
V	B	J	E	K	A	A	O	L	B	K	U	S	R	S
H	N	B	T	E	R	P	R	O	F	I	T	C	D	P
D	F	Q	A	T	M	T	U	W	D	Y	K	Q	N	K
N	I	X	B		C	N	H	E	A	I	H	S	B	P
K	O	S	L	S	G	G	Y	R	V	X	D	S	V	O
B	F	K	E	T	P	U	M	S	M	S	A	L	E	Y
U	R	G	Z	A	N	X	M	C	P	B	W	Q	O	D
D	H	A	A	N	S	E	G	G	S	C	T	K	T	I
G	C	R	U	D	K	E	S	U	P	P	L	I	E	S
E	T	D	B	L	O	S	S	C	C	L	F	Q	D	V
T	D	E	V	U	N	Y	O	S	A	V	I	N	G	G
E	N	N	X	G	P	E	S	T	T	S	P	V	P	H

Seed
Profit
Loss
Sale

Garden
Vegetable
Flowers
Pest

Supplies
Disease
Budget
Saving

Market Stand
Farm
Eggs
Animals

Answer *Key*

Lesson 2: Money Basics

Part 1:

1-C, 2-F, 3-D, 4-E, 5-B, 6-A

Part 6:

Scenario 3: Profit = $\$320 - (\$90 + \$25) = \205

Part 7: Calculating Sales Tax

Item Price	Sales Tax	Total Cost
\$10.00	\$0.60	\$10.60
\$25.00	\$1.50	\$26.50
\$48.50	\$2.91	\$51.41
\$120.00	\$7.20	\$127.20

Part 8: Scramble Words

Scrambled	Your
E O M C N I	INCOME
P E E X N E S	EXPENSE
B U T G E D	BUDGET
E D N E	NEED
N A T W	WANT
A S N I G V	SAVING
E K C C H	CHECK
K B N A	BANK
I E S O T P D	DEPOSIT
O E M N Y	MONEY

Lesson 7: Leading from the Frontline



S	U	C	E	L	B	A	N	I	A	T	S	U	S
C	O	M	M	U	N	I	C	A	T	I	O	N	Y
F	T	N	E	M	T	S	E	V	N	I	P	T	E
I	N	E	M	S	T	R	A	T	E	G	I	C	S
N	S	E	P	P	R	E	P	A	R	E	N	C	N
A	O	P	O	O	A	P	R	O	J	E	C	T	E
N	A	E	W	P	P	E	M	P	L	O	Y	E	E
C	F	T	E	E	E	R	P	R	E	L	T	M	A
I	C	R	R	S	S	N	O	I	S	I	C	E	D
A	P	R	E	S	E	N	T	A	T	I	O	N	E
L	T	T	D	N	F	A	R	M	E	R	R	M	T
T	T	R	A	N	S	P	A	R	E	N	C	Y	P
N	T	A	X	E	S	I	X	E	R	T	I	S	A
A	G	R	I	B	U	S	I	N	E	S	S	M	R

Lesson 8: Run your own Farm

N	L	A	V	M	A	J	X	V	P	S	E	E	D	I
N	F	Q	E	A	N	I	M	A	L	S	W	N	Y	W
L	H	A	G	R	F	P	F	F	O	D	B	M	P	W
V	B	J	E	K	A	A	O	L	B	K	U	S	R	S
H	N	B	T	E	R	P	R	O	F	I	T	C	D	P
D	F	Q	A	T	M	T	U	W	D	Y	K	Q	N	K
N	I	X	B	C	N	H	E	A	I	H	S	B	P	
K	O	S	L	S	G	G	Y	R	V	X	D	S	V	O
B	F	K	E	T	P	U	M	S	M	S	A	L	E	Y
U	R	G	Z	A	N	X	M	C	P	B	W	Q	O	D
D	H	A	A	N	S	E	G	G	S	C	T	K	T	I
G	C	R	U	D	K	E	S	U	P	P	L	I	E	S
E	T	D	B	L	O	S	S	C	C	L	F	Q	D	V
T	D	E	V	U	N	Y	O	S	A	V	I	N	G	G
E	N	N	X	G	P	E	S	T	T	S	P	V	P	H

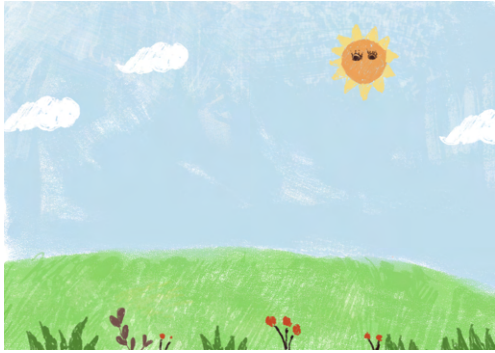


Intentionally left blank

Lesson 7: Leading from the Frontline

WEATHER

PERFECT WEATHER!
Your crops are thriving!
Add 2 UME Bucks.



SCHOOL GARDEN DAY

Your products are featured!
Add 3 UME Bucks!



PRICES DROP

Reduce your product prices by
1 UME Buck each.



PRICES RISE

Increase your product prices
by 1 UME Buck each.



Intentionally left blank

Lesson 7: Leading from the Frontline

WEATHER

HEAVY RAIN
Half your crop is damaged.
Subtract 2 UME Bucks.



WEATHER

DROUGHT
You must buy extra water.
Pay 1 UME Buck.



CUSTOMER FAVORITE

One product becomes popular.
Add 1 UME Buck.



COMMUNITY SUPPORT

A neighbor donates supplies.
Subtract 1 UME Buck from
expenses.

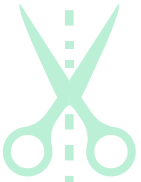
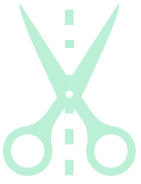


Intentionally left blank

Lesson 7: Leading from the Frontline

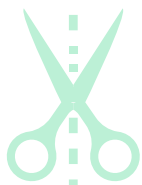
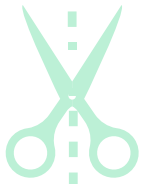
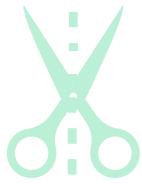
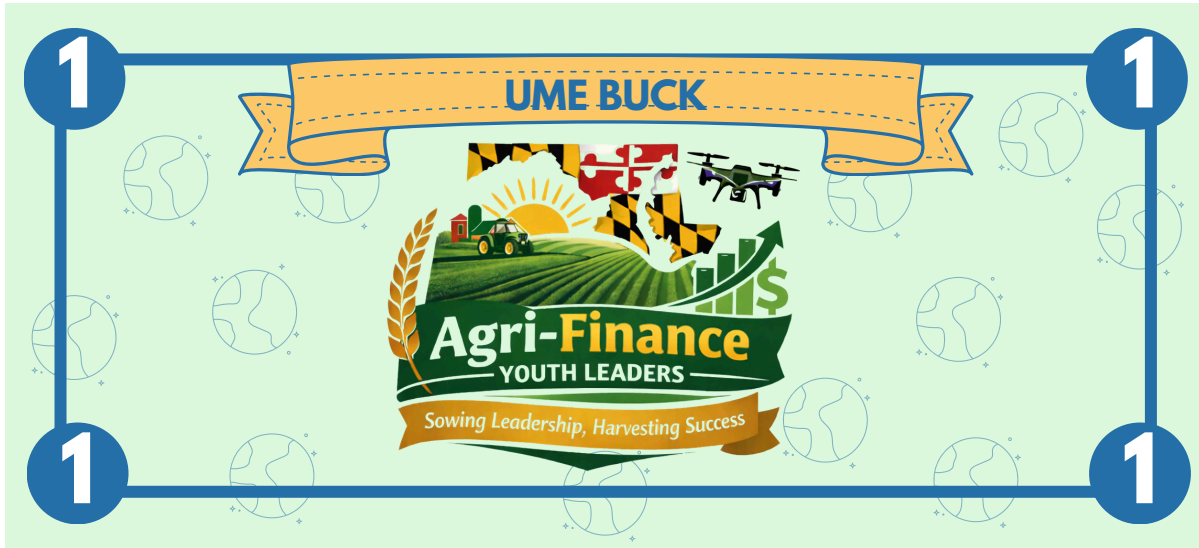
**NEW
COMPETITION**

Another farm sells the same product. Lose 1 UME Buck.



Intentionally left blank

Lesson 7: Leading from the Frontline



UNIVERSITY OF MARYLAND EXTENSION





AgFS
Agriculture & Food Systems

