

Lawn Boy

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Curriculum Author

Eva Johnston, Federal Reserve Bank of St. Louis

Standards and Benchmarks (see page 59)

Grade Level

6-8

Curriculum Description

This six-session curriculum corresponds to the book *Lawn Boy* by Gary Paulsen, with each session related to specific chapters of the book.

Session 1: Markets and Circular Flow **3**
Lawn Boy Chapters 1 and 2

Students view the video Circular Flow (8:29) either in class or as homework and complete the outer ring of a circular flow diagram. The teacher leads discussion about product and factor markets and the factors of production. Working in pairs, the students review flashcards of economic terms addressed in the story.

Session 2: Supply/Demand/Opportunity Cost **9**
Lawn Boy Chapters 3 and 4

Students view two videos, Supply (3:57) and Demand (6:53), either in class or as homework and then discuss the videos relative to the circular flow diagram. The teacher leads discussion about opportunity cost and the class gives examples from the story. Working in pairs, the students complete a handout to review the economic concepts taught in the session and then review the flashcards.

Session 3: Stocks **14**
Lawn Boy Chapters 3 and 4

Students view the video Get into Stocks (8:58) either in class or as homework. The teacher leads discussion about stocks and entrepreneurship. Working in pairs, the students review the flashcards on the factors of production.

Session 4: Productivity16

Lawn Boy Chapters 5 and 6

Students discuss supply, demand, and the factors of production relative to *Lawn Boy's* experiences. Working in pairs, they use the flashcards and the book to complete a handout to review the economic concepts learned.

Session 5: Capital Markets and Taxes.....20

Lawn Boy Chapters 7 and 8

Students view the video *Understanding Capital Markets* (5:33) either in class or as homework and then complete the inner ring of the circular flow diagram. The teacher leads discussion on capitalism, gross and net pay, taxes, and the risk-reward relationship. Working in pairs, the students use the flashcards to complete a handout to review the economic concepts learned and answer questions based on the risk-reward pyramid of investment.

Session 6: Portfolio Diversification and Review28

Lawn Boy Chapters 9 to 15

The teacher leads discussion on stock portfolios and diversification. Working in pairs, the students review the flashcards for liquidity, legal guardian, taxes, money, and capital gains. They then review the remaining flashcards to prepare for and then play a game.

Session 1: Markets and Circular Flow

Based on

Lawn Boy by Gary Paulsen, Chapters 1 and 2

Session Description

Students view the video **Circular Flow** (8:29) either in class or as homework and complete the outer ring of a circular flow diagram. The teacher leads discussion about product and factor markets and the factors of production. Working in pairs, the students review flashcards of economic terms addressed in the story.

Time Required

20 minutes (including viewing the video but not reading the book)

Concepts

Circular flow model
Factors of production: land, labor, capital, and entrepreneurship
Factor (resource) markets
Macroeconomics
Microeconomics
Product (goods and services) markets

Materials

- Internet access and screen/monitor (if the video noted in Procedure #1 is shown in class)
 - Handout 1.1, one copy for each student
 - Handout 1.1—Answer Key for the teacher
 - Handout 1.2, copied and cut into flashcards to provide one set for each pair of students (**Note: When printing the flashcards, make sure your printer is set to print on both sides and choose “flip on short edge” (Windows) or “short-edge binding” (Mac) so that the fronts and backs of the flashcards line up properly.**)
 - Student copies of *Lawn Boy*
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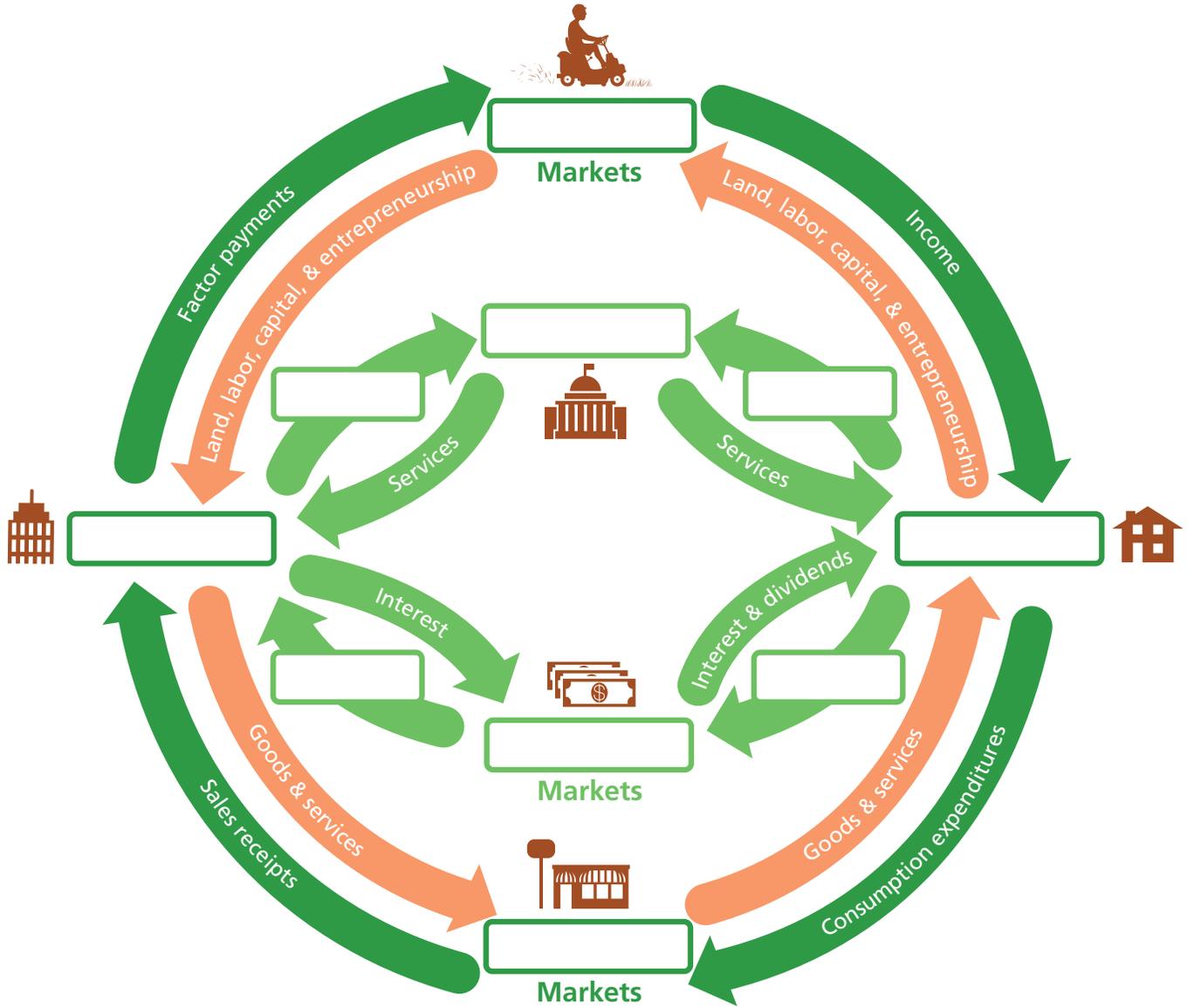
Procedure

1. After reading *Lawn Boy* Chapters 1 and 2, watch the following video (i) as a class or (ii) assign as homework.
 - For class viewing:
Economic Lowdown: Episode 6—Circular Flow (8:29);
<https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-6-circular-flow>.
 - For individual homework:
Economic Lowdown Video Q&A: Episode 6—Circular Flow (8:29).
The video is followed by nine multiple-choice questions. For instructions on how to sign up your students to view the video individually, go to
<https://www.stlouisfed.org/education/video-q-a-for-teachers-and-students>.
2. Explain the following concepts:
 - Households and businesses interact in **product** and **factor markets**.
 - The factors of production (resources): **land, labor, capital, and entrepreneurship**
 - Households sell their factors of production in factor, or resource, markets. In turn, businesses produce goods and services in the product market and sell them to households.
 - The terms **resources** and **factors** are often used interchangeably. **Markets for resources** and **factor markets** are the same thing.
 - The **circular flow model** is a **macroeconomic** model of the entire economy. It includes all households and all businesses. The “**a**” in **macro** can serve as a reminder that **macro** refers to **all** markets for goods and services.
 - **Microeconomics** is the study of individual markets. Individual markets together make up the circular flow model. The “**i**” in **micro** can serve as a reminder that **micro** refers to **individual** markets.
3. Divide the class into pairs and distribute a copy of *Handout 1.1: Lawn Boy Circular Flow Diagram* to each student. Review the instructions for #1 and then have the students complete the activity (labeling the outer ring of the diagram). Remind them to label the outer ring only. After students have completed the outer ring, check for understanding by reviewing the diagram labels (see Handout 1.1—Answer Key).
4. Instruct the students to complete #2 on Handout 1.1—but *not 3 and 4* as these will be completed in later sessions. Allow them a few minutes to complete the matching and then review their answers (see Handout 1.1—Answer Key).

Tell the students to keep their copies of *Handout 1: Lawn Boy Circular Flow Diagram* for use in later sessions.

5. Ask the students to take out their *Lawn Boy* books. Distribute a set of flashcards from *Handout 1.2: Lawn Boy Flashcards* to each pair of students. Instruct the pairs to review the cards together and sort them into terms they already know and terms they don't know. They are to then review the stack of terms new to them, referencing the book for some flashcards as needed. Allow students time to complete the activity and then collect the flashcards for future use.

Handout 1.1: *Lawn Boy* Circular Flow Diagram (page 1 of 2)



Handout 1.1: *Lawn Boy* Circular Flow Diagram (page 2 of 2)

1. Label the outer ring of the diagram below using the following terms:

Goods and Services Households Factor Businesses

2. For each factor, draw a line to the item that corresponds to that factor in *Lawn Boy*.

Factors of Production

Lawn Boy

Land

Lawn Boy

Labor

None

Capital

Lawn Boy

Entrepreneurship

Lawn mower

3. Fill in the blanks below to show you know the difference between micro and macro.

a. _____ economics is the study of *individual* markets.

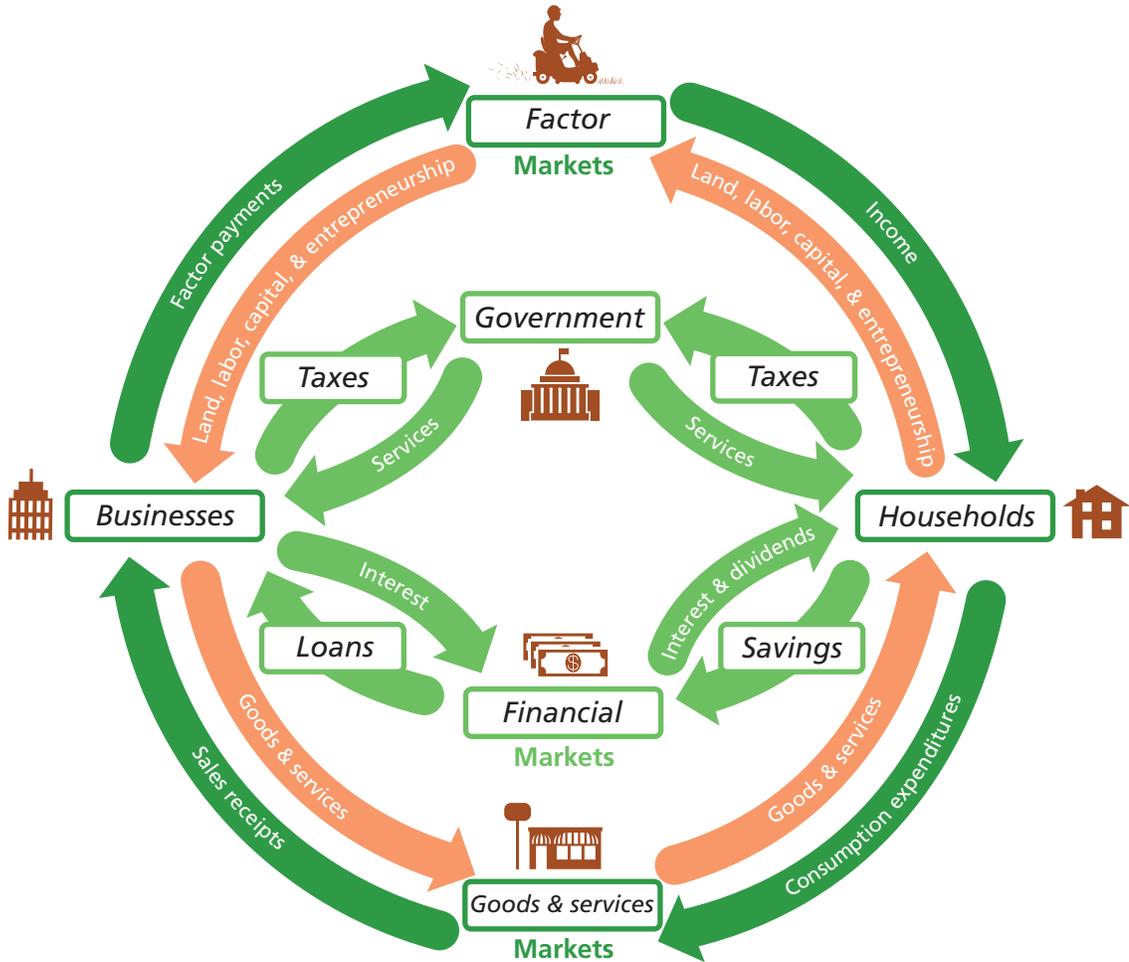
b. _____ economics is the study of *all* the businesses and households in the economy.

Session 5

4. After reading chapters 7 and 8, watching the Understanding Capital Markets video, and class discussion, fill-in the inner blanks of the diagram on page 1 using the following terms:

Financial Government Savings Taxes Loans Taxes

Handout 1.1: *Lawn Boy* Circular Flow Diagram—Answer Key



2. For each factor, draw a line to the item that corresponds to that factor in *Lawn Boy*.

<u>Factors of Production</u>	<u>Lawn Boy</u>
Land	Lawn Boy
Labor	None
Capital	Lawn Boy
Entrepreneurship	Lawn mower

3. Fill in the blanks below to show you know the difference between micro and macro.

a. Micro economics is the study of *individual* markets. (i)

b. Macro economics is the study of *all* the businesses and households in the economy. (a)

Session 2: Supply/Demand/Opportunity Cost

Based on

Lawn Boy by Gary Paulsen, Chapters 3 and 4

Session Description

Students view two videos, **Supply** (3:57) and **Demand** (6:53), either in class or as homework and then discuss the videos relative to the circular flow diagram. The teacher leads discussion about opportunity cost and the class gives examples from the story. Working in pairs, the students complete a handout to review the economic concepts taught in the session and then review the flashcards.

Time Required

25 minutes (including viewing the videos but not reading the book)

Concepts

Supply and demand
Opportunity cost
Trade-off

Materials

- Internet access and screen/monitor (if the videos noted in Procedure #1 are shown in class)
 - Student copies of *Handout 1.1: Lawn Boy Circular Flow Diagram* (as used in Session 1)
 - Handout 2.1, one copy for each student
 - Handout 2.1—Answer Key for the teacher
 - Student copies of *Lawn Boy*
 - *Lawn Boy* flashcard sets
-

Procedure

1. After reading *Lawn Boy* chapters 3 and 4, watch the following videos (i) as a class or (ii) assign as individual homework:
 - For class viewing:
 - Economic Lowdown: Episode 1—Supply** (3:57);
<https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-1-supply>.
 - Economic Lowdown: Episode 2—Demand** (6:53);
<https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-2-demand>.
 - For individual homework:
 - Economic Lowdown Video Q&A: Episode 1—Supply** (3:57).
The video is followed by five multiple-choice questions.
 - Economic Lowdown Video Q&A: Episode 2—Demand** (6:53).
The video is followed by six multiple-choice questions.

For instructions on how to sign up your students to view the videos individually, go to <https://www.stlouisfed.org/education/video-q-a-for-teachers-and-students>.
2. Have students get out their copies of *Handout 1.1: Lawn Boy Circular Flow Diagram*. Instruct students to review the diagram as you explain the following concepts:
 - **Supply** is the quantity of a good or service that businesses (producers) are willing and able to sell at all possible prices during a certain time period.
 - **Demand** is the quantity of a good or service that households (consumers) are willing and able to buy at all possible prices during a certain time period.
3. Discuss the following:
 - In *Lawn Boy*, who was the producer and what did he produce, and who were the consumers and what did they demand? (*Lawn Boy was the producer and the service he produced was moving lawns. The neighbors were the consumers and their demand was to have their lawns mowed.*)
 - Arnold was the first to negotiate with Lawn Boy about what? (*Price*)
 - What does it mean to have a cash-flow problem? (*It means you do not have cash readily available.*)
 - How did Arnold propose to pay Lawn Boy? (*Arnold proposed to pay through barter—they would trade. Arnold would buy stocks for Lawn Boy in exchange for lawn mowing services.*)
 - Why was Lawn Boy turning away jobs? (*He was not able to mow more lawns without additional workers.*)
 - How did Arnold offer to help Lawn Boy? (*Arnold introduced him to Pasqual.*)

4. Explain the following:
 - **Opportunity cost** is the value of the next-best alternative when a decision is made; it's what is given up.

5. Discuss the following:
 - Why wasn't going away to sleepaway summer camp an opportunity cost for Lawn Boy? (*He was burned out on sports and didn't want to go, so he did not have to give up camp to mow lawns.*)
 - Why weren't working at Clucket Bucket or Dairy Whip opportunity costs for Lawn Boy? (*He was too young to get a job at either place, so he did not give up these opportunities to mow lawns.*)
 - What were Lawn Boy's opportunity costs for mowing lawns? (*His opportunity costs were the values of his next-best alternatives—what he gave up to mow lawns. Given that he mowed lawns all summer, he likely had many opportunity costs. Two specific things he mentioned that he would give up are a vacation and bike trips with his best friend, Allen. [p. 15]*)

6. Explain the following:
 - Opportunity cost involves choosing among things you would like and are possible.
 - A **trade-off** differs from an opportunity cost in that a trade-off is not an all-or-nothing decision. A trade-off involves giving up a little of one thing to gain a little of something else.

7. Discuss the following:
 - When Lawn Boy was given the chance to mow bigger lawns, what trade-offs did he face? (*He would have to travel farther to mow lawns, but he would make more money. So he gave up some time to earn some more money. He would have to pay more for gas to mow the bigger lawns, but he would make more money. So he had to give up some money to pay for gas, but he earned some more money, too.*) Note again that a trade-off differs from an opportunity cost. Lawn Boy would choose to travel further only if the additional benefits (more money) exceeded the additional costs (lost time and more money spent on gas).

8. Divide the class into pairs. Distribute a copy of *Handout 2.1: Supply and Demand: What Makes the Circular Flow Go?* to each student. Instruct the students to complete Handout 2.1 and then discuss it with their partners.

9. Ask the students to take out their copies of *Lawn Boy*. Distribute the *Lawn Boy* flashcards to the pairs. Instruct them to sort the cards into three piles: (1) terms they knew before the first two sessions, (2) terms they now know from the first two sessions, and (3) terms they are still trying to master. They are to write the terms from the latter two piles on the bottom of Handout 2.1. After the activity, collect the flashcards for future use.

Handout 2.1: Supply and Demand: What Makes the Circular Flow Go?

1. Fill in the blanks below based on what you have learned from reading *Lawn Boy* Chapters 3 and 4, watching the Economic Lowdown Supply and Demand videos, and listening in class.
 - a. _____ is the quantity of a good or service that consumers are willing and able to buy at all prices during a certain time period.
 - b. _____ is the quantity of a good or service that producers are willing and able to sell at all possible prices during a certain time period.
 - c. Consumers are willing and able to buy more when prices are _____.
 - d. Producers are willing and able to sell more when prices are _____.
 - e. _____ is the value of the next-best alternative when a decision is made; it's what is given up.
2. On the lines below, show what you know about who the producer is and who the consumers are in Lawn Boy's circular flow. Include the opportunity costs Lawn Boy faces.

3. Write new words you now know from reviewing the flashcards in the first two sessions:

_____	_____
_____	_____
_____	_____

Write new words that you are still working to master from the flashcards:

_____	_____
_____	_____
_____	_____

Handout 2.1: Supply and Demand: What Makes the Circular Flow Go?— Answer Key

1. Fill in the blanks below based on what you have learned from reading *Lawn Boy* Chapters 3 and 4, watching the Economic Lowdown Supply and Demand videos, and listening in class.
 - a. **Demand** is the quantity of a good or service that consumers are willing and able to buy at all prices during a certain time period.
 - b. **Supply** is the quantity of good or service that producers are willing and able to sell at all possible prices during a certain time period.
 - c. Consumers are willing and able to buy more when prices are **low** .
 - d. Producers are willing and able to sell more when prices are **high** .
 - e. **Opportunity cost** is the value of the next-best alternative when a decision is made; it's what's given up.

2. On the lines below, show what you know about who the producer is and who the consumers are in Lawn Boy's circular flow. Include what opportunity costs Lawn Boy faces.

Lawn Boy is the producer of lawn mowing services in the goods and services market. His neighbors who purchase his services are the consumers in that market. Lawn Boy's opportunity cost (the next-best thing he gives up for mowing lawns) is what he would have done instead of moving lawns, so possibly a vacation or bike trip with his friend, Allen.

3. Write new words you now know from reviewing the flashcards in the first two sessions:

_____	_____
_____	_____
_____	_____

Write new words that you are still working on mastering from the flashcards:

_____	_____
_____	_____
_____	_____

Session 3: Stocks

Based on

Lawn Boy by Gary Paulsen, Chapters 3 and 4

Session Description

Students view the video **Get into Stocks** (8:58) either in class or as homework. The teacher leads discussion about stocks and entrepreneurship. Working in pairs, the students review the flashcards on the factors of production.

Time Required

20 minutes (including viewing the video)

Concepts

Capital gains
Dividend
Stock
Stockbroker

Materials

- Internet access and screen/monitor (if the video noted in Procedure #1 is shown in class)
 - *Lawn Boy* flashcard sets
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Procedure

1. Watch the following video (i) as a class or (ii) assign as individual homework:

- For class viewing:

No-Frills Money Skills: Get into Stocks—Episode 3 (8:58):

<https://www.stlouisfed.org/education/no-frills-money-skills-video-series/episode-3-get-into-stocks>.

- For individual homework:

Video Q&A: No-Frills Money Skills: Get into Stocks—Episode 3 (8:58).

The video is followed by eight multiple-choice questions. For instructions on how to sign up your students to view the video individually, go to <https://www.stlouisfed.org/education/video-q-a-for-teachers-and-students>.

2. Discuss the following:

- What is a **stock**? (*A financial investment that signifies ownership in a company and makes claims on that company's earning.*) Note that stocks are often traded publicly.
- Why do companies sell stocks? (*Companies sell stocks to raise funds—money—to expand their businesses.*)
- Where do businesses sell stocks? (*They sell stock in stock exchanges such as the New York Stock Exchange.*) Note that selling of stock is often called “trading.”
- Arnold is a **stockbroker**, which means he buys and sells stock on behalf of clients. Where and how does he conduct his business? (*He works from home and buys and sells stocks online using his computer.*)
- Why do people buy stocks? (*People buy stocks to make money.*)
- How do people make money in the stock market? (*People make money in the stock market when they sell stocks for more than they paid for them or earn a dividend.*)
- What are **capital gains**? (*Capital gains are the profit from the sale of a financial investments; the increase in the value of a financial investment—including stock—from the time of purchase until the time of sale.*)
- What is a **dividend**? (*A dividend is a share of the company's profits paid to stockholders.*)
- Arnold purchased stock in a manufacturing company for Lawn Boy. What did the company make? (*Coffins*)
- What is the trade-off business owners face when their businesses go public? (*They trade control of the company for money. The shares of stock they sell give decisionmaking rights to the stockholders in exchange for the funds the stockholders provide to the company so that the company can expand for example, by buying equipment, building, or hiring.*) Note that the stockholders want to see the business maximize its profit to increase the stock price and earn capital gains and dividends.
- What does Arnold mean when he says Pasqual is an example of “entrepreneurship at its finest”? (*Pasqual figures out new ways to overcome obstacles and get things done.*)

3. Divide the class into pairs. Instruct them to pull out and review these five flashcards: the factors of production, land, labor, capital, and entrepreneurship. After allowing a few minutes for review, discuss with the class entrepreneurship and why Pasqual and Lawn Boy are examples of entrepreneurs. Have students brainstorm ways they could be entrepreneurs. Collect the flashcards for future use.

Session 4: Productivity

Based on

Lawn Boy by Gary Paulsen, Chapters 5 and 6

Session Description

Students discuss supply, demand, and the factors of production relative to Lawn Boy's experiences. Working in pairs, they use the flashcards and the book to complete a handout to review the economic concepts learned.

Time Required

10 minutes (excluding reading the book)

Concepts

Factors of production: land, labor, capital, and entrepreneurship

Human capital

Physical capital

Productivity

Seasonal employment

Materials

- Student copies of *Handout 1.1: Lawn Boy Circular Flow Diagram* (as used in earlier sessions)
 - Handout 1.1—Answer Key for the teacher
 - Handout 4.1, one copy for each student
 - Handout 4.1—Answer Key for the teacher
 - Student copies of *Lawn Boy*
 - *Lawn Boy* flashcard sets
-

Procedure

1. After reading *Lawn Boy* Chapters 5 and 6, discuss the following:
 - What is the connection between demand and Lawn Boy needing Pasqual's help? (*The demand for lawn mowing services was so great Lawn Boy could not do all the work alone.*)
 - How did Pasqual help Lawn Boy? (*Pasqual did lawn work at night and had his cousin bring his truck and mower to help Lawn Boy mow more lawns during the day.*)
 - How have the **factors of production** changed in the story so far? (*There is now more labor [Pasqual and Louis], more capital [Louis's truck and mower, Pasqual's headlight and trimmers], and another entrepreneur [Pasqual].*)
2. Ask students to take out their *Lawn Boy* books. Divide the class into pairs. Distribute a copy of Handout 4.1 to each student and provide each pair with a set of *Lawn Boy* flashcards. Instruct the students to work together to complete the handout, referring to their *Lawn Boy* books and the flashcards for answers as needed. After the handouts are completed, review the students' answers using Handout 4.1—Answer Key. Collect the flashcards for future use.

Handout 4.1: Productivity

Directions: Fill in the blanks below. Reference the *Lawn Boy* book and flashcards as needed.

1. Capital is one of the four factors of production needed to produce goods and services. Capital can be broken down into two types: physical and human.

a. Define physical capital: _____

b. Define human capital: _____

c. List examples of physical capital in *Lawn Boy*:

d. List examples of how Lawn Boy developed his human capital:

2. Define productivity: _____

3. List ways Lawn Boy increased his productivity:

4. Define seasonal employment: _____

5. Why was Lawn Boy's work seasonal? _____

Handout 4.1: Productivity—Answer Key

Directions: Fill in the blanks below. Reference the *Lawn Boy* book and flashcards as needed.

1. Capital is one of the four factors of production needed to produce goods and services. Capital can be broken down into two types: physical and human.
 - a. Define physical capital: *Goods that have been produced and are used to produce other goods and services; goods used over and over again in the production process (also called capital goods and capital resources).*
 - b. Define human capital: *The knowledge and skill that people obtain through education, experience, and training.*
 - c. List examples of physical capital in *Lawn Boy*: *Possible answers include the following: lawn mowers, truck, trimmers, headlamp, and notebooks.*
 - d. List examples of how *Lawn Boy* developed his human capital:
He packed his lunch. (p. 31)
He checked the oil in the lawnmower to avoid breakdowns. (p. 31)
He sent workers directly to lawns rather than gathering at Arnold's. (p. 34)
He leaned into turns so the mower wouldn't leave rough patches that needed to be trimmed by hand. (p. 33)
He read Sports Illustrated to learn how to stripe lawns. (p. 33)
2. Define productivity: *The ratio of output per worker per period of time.*
3. List ways *Lawn Boy* increased his productivity: *He hired more workers, got more capital equipment (e.g., mowers), and developed his human capital.*
4. Define seasonal employment: *Employment during a certain season, sometimes with specific weather conditions.*
5. Why was *Lawn Boy*'s work seasonal? *He could mow only in warm weather when the grass grew and he was not in school.*

Session 5: Capital Markets and Taxes

Based on

Lawn Boy by Gary Paulsen, Chapters 7 and 8

Session Description

Students view the video **Understanding Capital Markets** (5:33) either in class or as homework and then complete the inner ring of the circular flow diagram. The teacher leads discussion on capitalism, gross and net pay, taxes, and the relationship between risk and reward. Working in pairs, the students use the flashcards to complete a handout to review the economic concepts learned and answer questions based on the risk-reward pyramid of investment.

Time Required

15-20 minutes (including viewing the video but not reading the book)

Concepts

Capitalism
Employment
Gross income
Net income

Materials

- Internet access and screen/monitor (if the video noted in Procedure #1 is shown in class)
 - Student copies of *Handout 1.1: Lawn Boy Circular Flow Diagram* (as used in earlier sessions)
 - Handout 5.1, one copy for each student
 - Handout 5.1—Answer Key for the teacher
 - *Lawn Boy* flashcard sets
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Procedure

1. After reading *Lawn Boy* chapters 7 and 8, watch the following video (i) as a class or (ii) assign as individual homework:
 - For class viewing:

Episode 1—Understanding Capital Markets—Tools for Enhancing The Stock Market Game™: Invest It Forward™ (5:33);
<https://www.stlouisfed.org/education/tools-for-enhancing-the-stock-market-game-invest-it-forward/episode-1-understanding-capital-markets>.
 - For individual homework:

Video Q&A: Episode 1—Understanding Capital Markets—Tools for Enhancing The Stock Market Game™: Invest It Forward™ (5:33).
 The video is followed by six multiple-choice questions. For instructions on how to sign up your students to view the video individually, go to
<https://www.stlouisfed.org/education/video-q-a-for-teachers-and-students>.
2. Have students get out their copies of *Handout 1.1 Lawn Boy Circular Flow Diagram*. Instruct them to complete #4 on the handout (labeling the inner ring of the diagram using the terms provided). After they have completed the activity, review the diagram labels using Handout 1.1—Answer Key.
3. Discuss the following:
 - Who said the following in *Lawn Boy*, and what do you think it means? “Free-market industry and capitalism at their best. It’s like watching a really good documentary about business. Far-out.” (*Arnold*. Answers will vary, but students may know that capitalism offers tremendous opportunity to those who work hard and are innovative.)
 - What is **capitalism**? (*Students may or may not know the answer. If necessary, explain that capitalism is an economic system where most of the factors of production are privately owned by businesses and individuals. This system allows buyers to compete against buyers and sellers to compete against sellers in a market to determine prices. Risk and work are often tied to monetary reward [that is, an incentive]—profit.*)
 - Have student’s look at their additions to the circular flow diagram and discuss with them what Arnold meant by his comment—that capitalism offers tremendous opportunity to those who work hard and are innovative.
 - All of *Lawn Boy*’s 15 employees and Arnold are households; these households buy in the goods and services market and sell in the factor market.
4. Explain the following concepts:
 - According to the Bureau of Labor Statistics, people 16 years of age and older who have paying jobs count as employed.

- **Gross income** is the total amount of money earned before any taxes and other deductions are taken out.
 - **Net income** is the amount left after taxes and other deductions have been taken out.
 - Penny stocks are stocks traded for less than \$5 per share and are considered highly speculative, or high risk. The low price is often because the company is new with little information known about it or older and facing bankruptcy. Lack of information regarding the viability of business plans and future business success of such companies makes penny stocks risky.
 - There is a connection between risk and reward for financial investments. The higher the risk of loss of principal for investment, the greater the potential reward. Conversely, the lower the risk of loss of principal investment, the lower the potential reward.
 - The government provides public goods and services paid for by taxes. For example, at the national level government provides national parks, defense, and interstate highways; at the state level it provides state parks, state roads, state troopers, and public schools; and at the local level it provides police officers, firefighters, streetlights, and public education.
5. Divide the class into pairs. Distribute a copy of *Handout 5.1: Economic Terms* to each student and a set of *Lawn Boy* flashcards to each pair. Instruct the pairs to complete the handout, referring to the flashcards as needed. Allow time for students to complete the handout.
6. Discuss the following using Handout 5.1—Answer Key:
- What is the connection between risk and reward for financial investments? (*The higher the risk of loss of principal for an investment, the greater the potential reward. Conversely, the lower the risk of loss of principal for an investment, the lower the potential reward.*)
 - What are some risks a person takes when purchasing stock in a company? (*Answers will vary but may include the following: The stock could lose value if the financial health of the company becomes poor, the demand for the good or service of the company could decrease, or the company could become less competitive in its industry. If the price of a company's stock decreases, you could lose some or all of your money. If the company goes out of business, you could lose all of your money.*)
 - What is the connection between low stock prices and risk? (*Stocks priced below \$5 per share are often referred to as penny stocks and are considered the riskiest type of stocks to purchase.*)
 - What evidence is there in the story regarding the risk of Arnold's purchase of Memorial Wooden Container Corporation stock? (*Arnold purchased 80 shares of Memorial Wooden Container Corporation at 50 cents a share, so the stock qualifies as a penny stock and therefore a high-risk stock. [Pages 22-23]*)

- Why are penny stocks considered risky? (*Penny stocks are considered risky because the companies are new with little information known about them or old and facing bankruptcy.*)
- What new information comes to light about capital resources owned by the Memorial Wooden Container Corporation? (*The company owns 2,000 acres of hardwood forest, which increases the value of the company.*)

Handout 5.1: Economics Terms (page 1 of 2)

Directions: Answer the following questions using the flashcards for reference as needed.

1. _____ is an economic system where most of the tools of production are privately owned by businesses and individuals.
2. _____ are where the sellers of a specific good or service meet with the buyers of that good or service and there is potential for voluntary exchange to take place.
3. According to the Bureau of Labor Statistics, to be considered employed a person must be _____ years of age or older and have a paying job.
4. _____ income is the total amount of income earned in a given period before any deductions or taxes are paid.
5. _____ income is the amount left after taxes and other deductions have been taken out.
6. What is the connection between risk and reward? _____

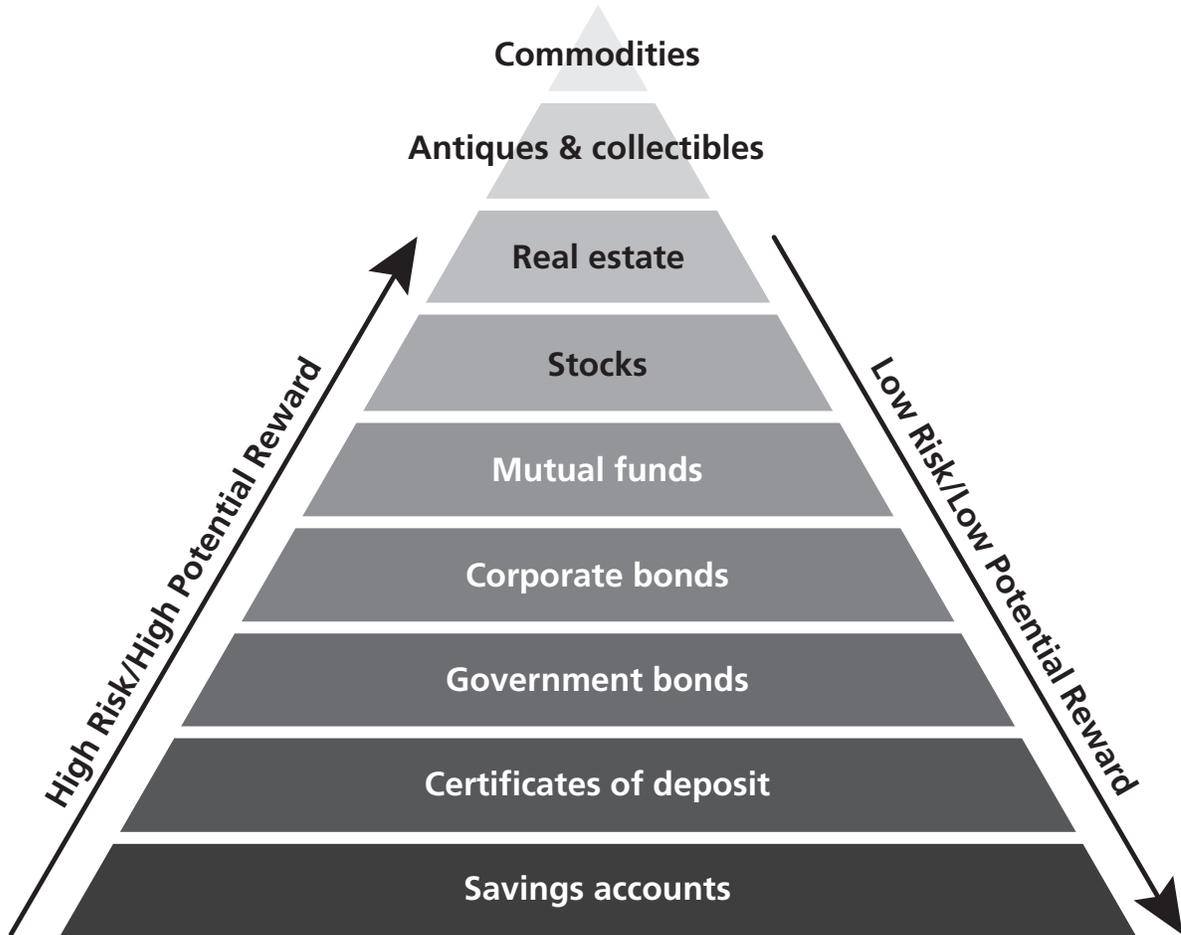
7. What exactly does risk mean? _____

8. Companies that have low-priced stock and are new with little information known about them or old and nearing bankruptcy are often called _____ stocks.
9. What new information came to light about Memorial Wooden Container Company that increased the value of its stock? _____

10. Businesses and individuals pay taxes to the _____ and in return receive goods and services.
11. Roads are an example of a _____ provided by the government.
12. Military protection is an example of a _____ provided by the government.

Handout 5.1: Economics Terms (page 2 of 2)

Risk-Reward Investment Pyramid



Based on the pyramid above, select the best answers for the following questions:

13. What type of investments are the safest? _____
14. What type of investment are the riskiest? _____
15. Which investments are considered riskier, stocks or bonds? _____

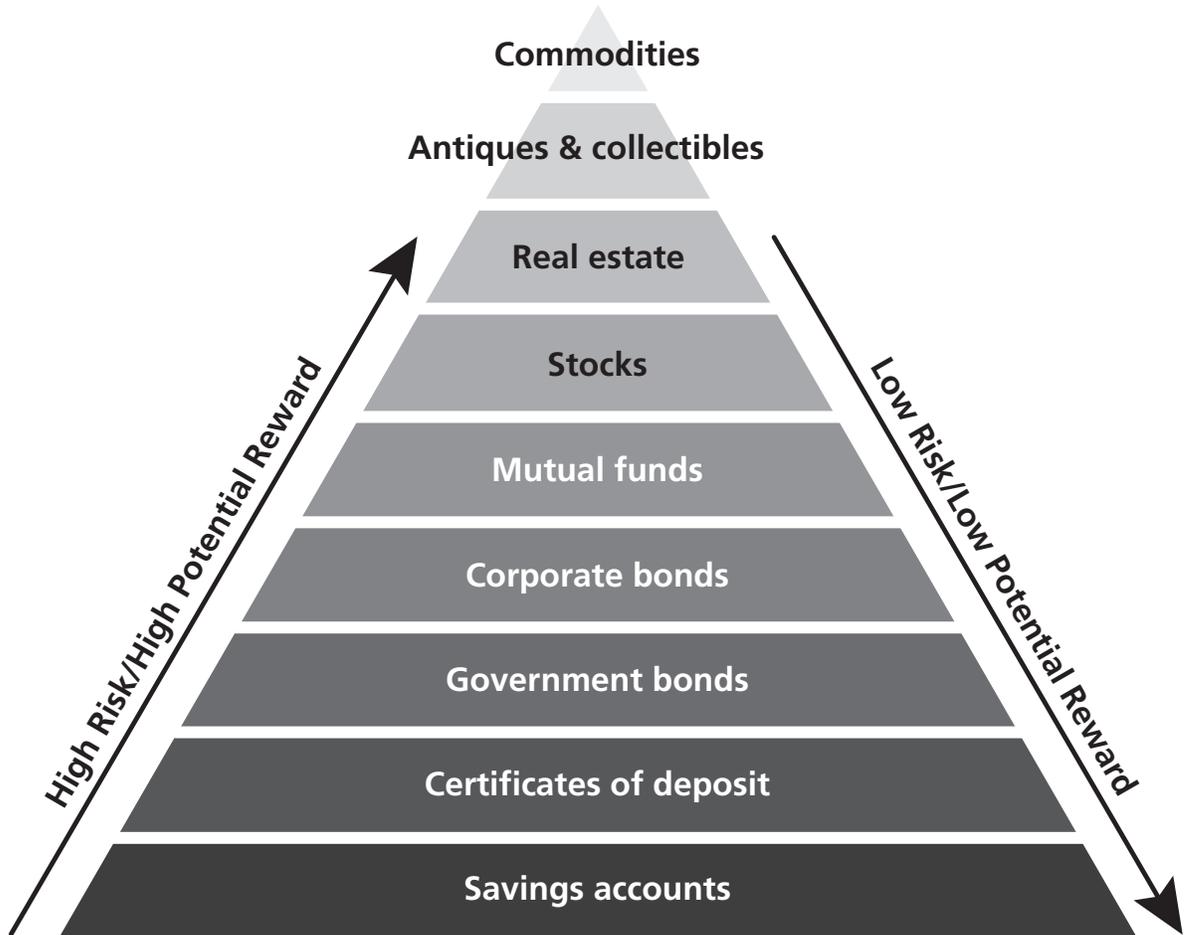
Handout 5.1: Economics Terms—Answer Key (page 1 of 2)

Directions: Answer the following questions using the flashcards for reference as needed.

1. Capitalism is an economic system where most of the tools of production are privately owned by businesses and individuals.
2. Markets are where the sellers of a specific good or service meet with the buyers of that good or service and there is potential for voluntary exchange to take place.
3. According to the Bureau of Labor Statistics, to be considered employed a person must be 16 years of age or older and have a paying job.
4. Gross income is the total amount of income earned in a given period before any deductions or taxes are paid.
5. Net income is the amount left after taxes and other deductions have been taken out.
6. What is the connection between risk and reward? *The higher the risk, the higher the potential reward but also the higher likelihood of loss.*
7. What exactly does risk mean? *The chance of loss*
8. Companies that have low-priced stock and are new with little information known about them or old and nearing bankruptcy are often called penny stocks.
9. What new information came to light about Memorial Wooden Container Company that increased the value of its stock? *The company owned 2,000 acres of hardwood timber.*
10. Businesses and individuals pay taxes to the government and in return receive goods and services.
11. Roads are an example of a good provided by the government.
12. Military protection is an example of a service provided by the government.

Handout 5.1: Economics Terms—Answer Key (page 2 of 2)

Risk-Reward Investment Pyramid



Based on the pyramid above, select the best answers for the following questions:

13. What type of investments are the safest? Savings accounts
14. What type of investment are the riskiest? Commodities
15. Which investments are considered riskier, stocks or bonds? Stocks

Session 6: Portfolio Diversification and Review

Based on

Lawn Boy by Gary Paulsen, Chapters 9 to 15

Session Description

The teacher leads discussion on stock portfolios and diversification. Working in pairs, the students review the flashcards for liquidity, legal guardian, taxes, money, and capital gains. They then review the remaining flashcards to prepare for and then play a game.

Time Required

30 minutes (excluding reading the book)

Concepts

Diversification
Investment portfolio

Materials

- *Lawn Boy* flashcard sets
 - Handout 6.1 for the teacher
-

Procedure

1. After reading *Lawn Boy* Chapters 9-15, discuss the following:
 - What is an **investment portfolio**? (*An investment portfolio is a list of all the financial assets a person or company owns.*)
 - Why did Arnold want to diversify *Lawn Boy*'s portfolio? (*Arnold said, "so if one thing goes down another might go up—to cover you." [pp. 49-50]*)
 - What does **diversification** do for a stock holder? (*Diversification spreads out risk.*)
 - Did Arnold intend to buy the sole sponsorship of Joey Pow? Cite specific evidence from the story in your answer. (*No. Arnold confessed he had not read the details closely on a sports fund and *Lawn Boy* ended up the sole sponsor of Joseph Powdermilk, Jr., aka Joey Pow, a prizefighter. [pp. 51-52]*)
-

- How did Joey Pow develop his human capital? (*He developed his human capital by training.*)
2. Divide the class into pairs and provide each pair with a set of *Lawn Boy* flashcards. Instruct the pairs to find and review the following flashcards and discuss how they were referenced in the story: liquidity, legal guardian, taxes, money, and capital gains. They are then to review the rest of the flashcards to prepare for the Joey Pow Knock-Out Game. (Skip the review if you think the students are ready to play the game.)
 3. Divide students into two teams. Tell them they are going to play the Joey Pow Knock-Out Game. Explain the directions:
 - The teams will line up so that the two players at the front of the line will face each other to answer a question.
 - The teams will alternate answering questions.
 - A coin toss will determine which teams goes first.
 - Each player will have one opportunity to answer a question.
 - When a player gives a correct answer, his or her team scores a point, which will be tallied on the board, and the player moves to the back of the line.
 - When a player gives an incorrect answer, the player moves to the back of the line and the other team is given an opportunity to “steal”—to answer the question and gain a point.
 - Play continues as such between the teams until a correct answer is given.
 - After each correct answer, play reverts to the team that did *not* score the point.
 - Players must listen carefully—NO question will be repeated.
 - If any player shouts out an answer or makes noise so that a question cannot be heard, that player’s team loses a point.
 - The team with the most points at the end of the game wins.
 4. Line up the teams, assign a scorekeeper, and flip a coin to see which team goes first. Play the game, asking questions from *Handout 6.1: Game Questions*. At the end of the questions, tally up the scores and see which team is the champion!

Handout 6.1: *Lawn Boy* Game Questions (page 1 of 2)

1. What are the two sides of the circular flow model? (*Households and businesses*)
2. Which side of the circular flow model was *Lawn Boy* on when he mowed lawns? (*Businesses*)
3. What was *Lawn Boy* producing? (*Lawn mowing and additional lawn care and cleaning services*)
4. What are the factors of production? (*Land, labor, capital, and entrepreneurship*)
5. What capital resource did *Lawn Boy* get as a present from Grandma for his birthday? (*Lawn mower*)
6. Why had the supply of lawn workers in *Lawn Boy's* neighborhood decreased? (*Other kids were away at camp. The boss of the previous lawn service ran away with someone's wife.*)
7. Why were neighbors willing to hire *Lawn Boy*? (*Any one answer is acceptable: He was a kid and considered safe. His prices were cheap.*)
8. What are the two characteristics of demand? (*Willingness and ability to pay*)
9. Why did Arnold lack the ability to pay *Lawn Boy* in cash? (*He had a liquidity [or cash-flow] problem—all of his cash was tied up in stocks.*)
10. Arnold offered to trade his stockbroker services for lawn services and invest money for *Lawn Boy*. What is the term for this type of exchange? (*Barter*)
11. *Lawn Boy* could have hung out with his best friend Allen and had fun rather than mow lawns. The next-best alternative that you give up when making a choice is known as what? (*Opportunity cost*)
12. Owning shares in a company means one owns what? (*Stock*)
13. What do you call an investment that is similar to an IOU, where you loan money and earn interest and the principal is returned upon maturity of the investment? (*A bond*)
14. Pasqual wearing a headlamp to work at night is an example of “what at its finest!” according to Arnold. (*Entrepreneurship*)

Handout 6.1: Lawn Boy Review Questions (page 2 of 2)

15. A stock that is sold for less than \$5 per share is known as what kind of stock?
(*A penny stock*)
16. What do you call the likelihood of loss? (*Risk*)
17. Investors should be careful about penny stocks because they are considered what?
(*High risk*)
18. How did Arnold help Lawn Boy expand his business? (*He introduced him to Pasqual, who did work and provided additional workers.*)
19. What does it mean to have seasonal employment? (*It means to work only during a specific season and not all year.*)
20. What do you call the ratio of output per worker per period of time? (*Productivity*)
21. How did Lawn Boy boost his productivity? (*Any one answer is acceptable: He improved his knowledge of mowing so that he was more efficient. He increased his labor and capital supply—he hired more workers and used more machines.*)
22. How did Lawn Boy diversify his business? (*His workers also cleaned pools, trimmed shrubs, edged sidewalks, and cleaned garages in addition to mowing lawns.*)
23. According to Arnold, what do responsible business owners pay? (*Taxes, wages, and bonuses to seasonal employees*)
24. What did the Memorial Wooden Container Corporation make? (*Coffins*)
25. When stocks are sold at a price higher than what they initially paid, what do you call the earnings on which taxes must be paid? (*Capital gains*)
26. What investment in capital goods did Arnold make on Lawn Boy's behalf so that the lawn crews could stay in contact? (*Cell phones*)

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Tools for Teaching Lawn Boy

Barter

Q: What does Arnold offer to **barter** in exchange for having his lawn mowed? (p. 18)

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Bond

Q: What does Arnold say about the risk of investing in **bonds**? (p. 47)

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Bonus

Q: Why does Arnold say Lawn Boy should give his lawn workers **bonuses** at the end of the summer? (pp. 37-39)

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Budget

Q: What evidence from conversations between Lawn Boy and his parents indicate his family has a tight **budget**? (pp. 1-2, 11)

A form of debt (like an IOU), where **the holder is the lender** and the issuer (government or corporation) is the borrower

Bonds allow the issuer to finance long-term investments or current expenses. In return, **the holder of the bond earns interest**. Bonds have a maturity date, after which the bond is redeemed. (See the risk-reward investment pyramid flashcard for more information.)

A: Arnold says that bonds are solid and safe investments.

NOTE: Lower risk usually means a lower potential reward.

Trading goods or services for other goods or services without using money

A: Arnold offers to **barter** stocks—he will purchase \$35 of stock for Lawn Boy and give him the proceeds in exchange for having his lawn mowed.

A plan for managing income, spending, and saving during a given period of time (usually one month)

A: Neither Lawn Boy nor his parents had much money. His dad was an inventor who wasn't making money at the time because it takes time to work out new ideas. Lawn Boy says they "were a little broke." (p. 2) They didn't have enough money in their budget to go out and watch the latest IMAX film. (p. 11)

A payment made to an employee above their standard pay; a reward to an employee for a job well done

A: Arnold tells Lawn Boy he should set aside 20% of his income to ease the transition of his workers into other forms of employment.

Capitalism

Capital gains

Q: When will Lawn Boy have to pay a **capital gains** tax? (p. 49)

Consumers

Q: Who are **consumers** in the story?

Circular flow model

An economic system where

- the tools of production are mostly privately owned by businesses and individuals;
- buyers compete against buyers and sellers compete against sellers in a market to determine prices; and
- risk and work are often tied to a monetary reward (that is, an incentive)—profit

Profit from the sale of financial investments

A: When Lawn Boy sells his stock (actually, when someone sells it on his behalf), he will have to pay taxes on the profit—the **capital gains**—he makes from the sale of that stock.

People who buy goods and services to satisfy their wants

- A:**
- Lawn Boy's neighbors (customers): They buy his lawn mowing services.
 - Lawn Boy: He purchases business supplies (e.g., gas and oil) and a bike inner tube.
 - Arnold: He buys lawn services, stocks, and the weird tea that he drinks.

Highlights the “flows” within the economy—the flow of economic resources, goods and services, and money among households and businesses

For example, when a customer pays \$40 to have his lawn mowed, Lawn Boy buys supplies, pays his workers' wages, and purchases other goods and services. The money he—and his workers—pay to purchase goods and services is then used by those businesses for the upkeep of their businesses and to pay their workers. Those workers can then use that money to buy goods and services—such as lawn mowing. Money and resources flow around and around through markets. That's why it's called the circular *flow* model of the economy.

See **Economic Lowdown: Episode 6—Circular Flow**; <https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-6-circular-flow>.

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Discretionary income

Q: What portion of the money that Lawn Boy earns is his **discretionary income**?

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Demand

Q: Does the **demand** for Lawn Boy's mowing services increase or decrease in the story? (p. 10)

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Dividend

Q: According to the Get into Stocks video, besides earning capital gains, what is the other reason people generally buy stocks?

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Diversification

Q: How does Arnold **diversify** Lawn Boy's investment portfolio? (p. 47, 49)

The portion of personal **income available for spending after taxes and basic essentials have been deducted** (Basic essentials include items such as food, clothing, and shelter—things used on a daily basis. For a business owner, basic essentials include the costs of running the business.)

A: Lawn Boy has two sources of income—profit from his business and capital gains from the sale of stock. He receives revenue from his customers when they pay to have their lawns mowed. From this revenue Lawn Boy must pay his costs of production, or business expenses (employee wages, gas and oil, and other business supplies). From his income (profit and return on capital gains) he must pay his taxes and basic essentials—food, clothing, shelter, and so on. (His parents provide shelter and they likely pay for all of his food and clothing, so he might not have to pay for any basic essentials for himself, just his business.) What remains is his discretionary income.

The quantity of a good or service that buyers are willing and able to buy at all possible prices during a certain time period

A: The **demand** for Lawn Boy's mowing services **increases**.

A share of the company's profits paid to stockholders

A: People buy stocks to earn **dividends**, a share of the company's profits. **NOTE:** You do not have to sell stock to earn dividends (as you must do to earn capital gains). Dividends are paid only if the company makes a profit.

Investment in various financial instruments to reduce risk—that is, some investments may do poorly while others may do well, so any **losses in one area are balanced with gains in another**

A: Arnold invests some of Lawn Boy's money in several places: in Memorial Wooden Container Corporation, a coffin company; in Walleye, a software company; and in an athletic fund that sponsors Joseph Powdermilk, Jr. (aka Joey Pow). Arnold also suggests reinvesting some of Lawn Boy's earnings in "safe blue-chip stocks and government bonds." (p. 47)

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Entrepreneur

Q: How is Lawn Boy an entrepreneur?

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Employed

Q: Is Lawn Boy employed?

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Factors of production

Q: What factors of production does Lawn Boy employ?

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Expenses

Q: What likely expenses does Lawn Boy have?

People 16 years old and older who have jobs

A: Lawn boy has the help of an adult, Arnold, who is his stockbroker and business partner (for a commission of 5%). Because of Arnold's help, Lawn Boy has 15 employees in his lawn care business.

NOTE: Legally, Lawn Boy is not counted as **employed** because he is only 12 years old. Although many young people younger than 16 act as entrepreneurs and often provide goods and services—such as lemonade, hand-crafted jewelry, pet sitting, or lawn mowing—they are not legally considered employed.

An individual who is willing to take risks to develop new products and start new businesses
Entrepreneurs recognize opportunities, enjoy working for themselves, and accept challenges.

A: Lawn Boy started his own lawn mowing business.

Land (any natural resource that is in or on the earth, e.g., water or wood), **labor, capital,** and **entrepreneurship** used to produce goods and services

A:

- **Land:** Water (to drink while working outside)
- **Labor** (workers): Pasqual, Louis, and others
- **Capital:** Lawn mowers, gas, oil, trucks, etc.
- **Entrepreneurship:** Lawn Boy's willingness to work hard to maintain and grow his business

The costs people incur for goods and services; are often categorized as fixed, variable, and periodic:

- **Fixed expenses**—Expenses that occur each month in a regular amount (e.g., rent, car payments)
- **Variable expenses**—Expenses that change from one period to the next (e.g., food, clothing, gas)
- **Periodic expenses**—Expenses that occur several times a year (e.g., insurance)

A: Lawn Boy's likely expenses include fixed expenses for gas, oil, and paying his workers; variable expenses for repairs and maintenance; and periodic expenses for bonuses.

Financial investment

Q: What **financial investments** does Arnold make for Lawn Boy? (pp. 23, 45, 51-52)

Goods

Q: What are examples of **goods** in the story?

Gross income

Q: What sources of income provide Lawn Boy's **gross income**?

Human capital

Q: How does Lawn Boy improve his **human capital** by running his own lawn mowing business?

Objects that satisfy people's wants

A: Lawn mowers, gas, oil, bottled water, Arnold's tea, Pasqual's headlamp, a bike inner tube, and so on

Placing money in a savings account or in any number of financial assets, such as stocks, bonds, or mutual funds, with the intention of making a financial gain

A: Arnold **invests** Lawn Boy's earnings first by purchasing stock in a coffin company. He then purchases stock in a tech business called Walleye and then in a mutual fund that sponsors Joey Pow, a prizefighter. Arnold says he will reinvest some of Lawn Boy's money in "safe blue-chip stocks and government bonds." (p. 47)

The knowledge and skills that people obtain through education, experience, and training

A: By running his lawn mowing business, Lawn Boy has learned how to mow a lawn more efficiently and better, take care of his mower (such as checking the oil), manage a large number of jobs and workers, and invest in the stock market.

Total amount of **income** earned in a given period **before** any **deductions** or taxes are paid

A: Lawn Boy's **gross income** comes from payments made by his customers for lawn services, capital gains from stocks, and dividends from Joey Pow's winnings.

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Labor

Q: Who provides the **labor** in the story?

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Land (aka natural resources)

Q: What natural resources does Lawn Boy need to run his lawn mowing business?

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Law of demand

Q: How does the **law of demand** affect Lawn Boy's lawn mowing business?
(p. 10)

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Law of supply

Q: How does the **law of supply** affect Lawn Boy's lawn mowing business?

Things that occur naturally in and on the earth that are used to produce goods and services (e.g., water and wood)

A: Lawn Boy needs water for himself and his employees to drink and sunlight so he is able to mow. (Later the business uses a capital resource—Pasqual’s headlamp—to extend the amount of time in a given day work can be done.)

The quantity and quality of **human effort** directed toward **producing goods and services**

A:

- Lawn Boy: Lawn mowing and running the business
- Arnold: Investing and advising Lawn Boy
- Pasqual, Louis, and the other workers: Lawn care
- Joey Pow: Prizefighting and business security

As the **price** of a good or service **rises**, the **quantity supplied** of that good or service **rises**. Likewise, as the **price** of a good or service **falls**, the **quantity supplied** of that good or service **falls**.

A: As the price of lawn services increased, Lawn Boy was willing and able to supply more lawn mowing services.

As the **price** of a good or service **rises**, the **quantity demanded** of that good or service **falls**. Likewise, as the **price** of a good or service **falls**, the **quantity demanded** of that good or service **rises**.

A: Lawn Boy’s lawn mowing services are, as he says, “cheap” (p. 10), so he is employed to mow a larger number of lawns.

Legal guardian

Q: Why is a **legal guardian** needed to help Lawn Boy with his finances? (p. 50)

Liquidity

Q: Do Lawn Boy's stocks have **liquidity**? (pp. 49-50)

Macroeconomics

Q: How does the story illustrate the workings of the **macroeconomy**?

Markets

Q: In what individual **markets** is Lawn Boy involved?

A person or persons (automatically a child's parents unless the right has been taken away) with the **legal authority** and duty to care for the personal and property interests of another person (usually called a ward)

A: Lawn Boy must pay taxes on the earnings he has received from the stocks Arnold purchased. Because Lawn Boy is only 12, his **legal guardians** (his parents) will need to help him pay the taxes.

The quality that makes an asset **easily convertible into cash** with relatively little loss of value in the conversion process

A: Yes. Arnold explains that if Lawn Boy wants to have the actual money rather than the stocks, he could **liquidate** (sell) the stocks.

The **study of the broad economy** (that is, all of the markets in that economy), such as how an economy grows and how growth is maintained

A: The story shows how Lawn Boy's business grows and is maintained over time. If you consider that a lot of businesses are growing, all at the same time—and you think about **all of the consumers and producers** (buyers and sellers) that are interacting in markets on a larger scale—you get a good idea of how the **macroeconomy** works.

Where the **sellers** of a specific good or service **meet** with the **buyers** of that good or service and there is potential **for voluntary exchange** to take place

A: Lawn Boy is a seller in the market for lawn mowing services. He is a buyer in the markets for items such as gas and oil and a bike inner tube. Through his stockbroker, he is a buyer and seller in the stock market.

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Microeconomics

Q: How does the story illustrate the workings of the **microeconomy**?

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Money

Q: How is **money** used in the story?

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Net income

Q: What expenses would Lawn Boy have to deduct to calculate his **net income**?

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Opportunity cost

Q: What is Lawn Boy's **opportunity cost** for running his lawn mowing business in the summer? (p. 15)

Anything widely accepted in exchange for goods and services; something generally acceptable as payment

Money that is **uniform** is more readily acceptable. Money should also generally be **divisible** (easily divided into smaller values), **durable**, relatively **scarce**, and **portable**.

A: Customers use **money to pay** for lawn mowing services. Lawn Boy uses **money** he's earned **to buy** goods, such as a bike inner tube, gas, and oil, and to pay his workers for their services. Through his stockbroker, he also invests his money in stocks.

The study of the **individual markets** that make up the broad economy

A: The story focuses primarily on **one market**—the market for lawn mowing. It tells how the business owner makes decisions as he interacts as a seller in the market for lawn mowing and a buyer in other markets.

The value of the next-best alternative when a decision is made; what is given up

A: Lawn Boy says he will have “no vacation, no summer fun, no bike trips with my best friend, Allen.” (p. 15) It is hard to tell exactly what the next-best alternative would be, but it seems likely his **opportunity cost** might be an awesome bike trip with his best friend Allen.

The amount of income left after taxes and other business expenses are deducted

A: For Lawn Boy, his income is the profit he earns from his lawn mowing business (revenue minus costs of production) and the interest he receives from his investments. From this he must deduct his taxes. The amount left is his **net income**.

Penny stock

Q: What **penny stock** does Arnold invest in for *Lawn Boy*? (pp. 43, 45)

Physical capital (aka capital resources)

Q: What **physical capital** do *Lawn Boy* and his workers use to provide lawn mowing services?

Portfolio

Q: What financial investments does Arnold make for *Lawn Boy*'s investment **portfolio**? (pp. 43, 45, 47, 51-52)

Producers

Q: Who is a **producer** in the story?

Stocks that trade for less than \$5 a share and are considered highly speculative, or **high risk**; low priced stock for companies that are (i) **new with little information** known about them or (ii) **older and facing bankruptcy**

Lack of information regarding the viability of business plans and the future business success of such companies makes penny stocks risky.

A: Arnold invested Lawn Boy's earnings in a coffin company (80 shares at 50 cents a share) and a software company (3,000 shares at 60 cents a share).

A list or collection of financial assets that an individual or company holds

A: On Lawn Boy's behalf, Arnold purchases stocks in a coffin company and a tech company and a mutual fund that sponsors Joey Pow, a prizefighter. Arnold says he will diversify Lawn Boy's **portfolio** and invest in "safe blue-chip stocks and government bonds." (p. 47)

Goods that have been produced and are used to produce other goods and services; goods used over and over again in the production process (also called capital goods and capital resources)

A: The **physical capital** Lawn Boy and his workers use to provide lawn mowing services include **lawn mowers, trucks, headlamps, clippers, and phones**.

People who make goods and services

A: Lawn Boy is a **producer** of lawn mowing services, which he sells to buyers in his area. All of Lawn Boy's workers are **producers**. Arnold is a **producer** of stockbroker services and management of lawn mowing services.

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Tools for Teaching *Lawn Boy*

Productivity

Q: Read Lawn Boy's thoughts at the top of p. 15. How **productive** is he? At this point in the story, how many yards can he mow per day? How could he be more productive?

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Profit

Q: Read about Lawn Boy's first mowing job on pp. 9-10. What was Lawn Boy's **profit**? How much did he earn per hour?

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Resource utilization

Q: What was Lawn Boy's initial **resource utilization** and how and why did he expand it?

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Risk

Q: What are examples of **risk** that Lawn Boy faces in the story?

The amount of revenue that remains after a business pays the costs of producing a good or service

A: Lawn Boy earned \$20 for mowing his first lawn. He paid \$3 for gas, so he made a \$17 profit. The job took him 2 hours, so he made \$8.50 an hour.
 $\$20 - \$3 = \$17$
 $\$17/2 \text{ hours} = \8.50

The ratio of output per worker per period of time

A: Lawn Boy is able to mow 3 lawns a day. If he mows 7 days a week, he can mow 21 lawns in a week ($3 \times 7 = 21$). To be more **productive**, he could expand his business by hiring more workers or he could get better tools that will allow him to do more work faster and with less energy.

The chance of loss

A: Each of the investments Arnold makes for Lawn Boy has **risk**. Lawn Boy could potentially lose some or all of his money invested. For example, the stocks could lose value or the companies go bankrupt or the prizefighter Joey Pow could lose his fights.

The ratio of productive resources used to the total possible resources available for use:

Utilization = Used productive resources/available productive resources

A: Lawn Boy used the productive resources he had to mow as many lawns as he could. When demand for his lawn mowing service was greater than his available productive resources, he needed to expand. He **hired more workers** with more mowers **to meet the increased demand**.

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Saving

Q: What was Lawn Boy's original **savings** goal? (p. 1)

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Risk-reward investment pyramid

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Seasonal employment

Q: Why are jobs for lawn mowing services classified as **seasonal employment**?

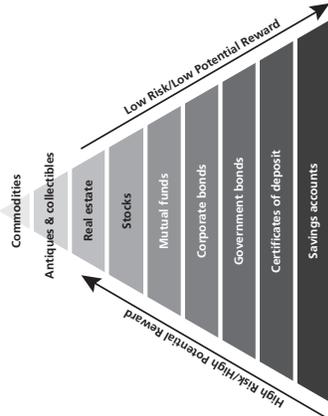
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Scarcity

Q: What is an example of **scarcity** faced by Lawn Boy in the story?

Risk-Reward Investment Pyramid



Risk-reward relationship—The higher the risk of loss of principal for an investment, the greater the potential reward. Conversely, the lower the risk of loss of principal for an investment, the lower the potential reward.

Keeping some income to **buy things in the future**

A: Lawn Boy wanted to buy a new inner tube for his ten-speed bike.

Employment during a certain season, sometimes with specific weather conditions

A: Lawn mowing services are generally needed only during the spring and summer months, when the weather promotes growth of grass and other greenery.

Not having enough resources to produce everyone's wants

A: Lawn Boy had to deal with labor **scarcity** because he did not have enough workers to meet the demand for his lawn mowing services.

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Tools for Teaching *Lawn Boy*

Services

Q: What **services** does Lawn Boy's business provide?

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Specialization

Q: In what activities do a few of the characters **specialize**?

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Spending

Q: What are some things Lawn Boy **spends** his money on?

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Stock

Q: In which **stocks** does Arnold invest for *Lawn Boy*? (pp. 43, 45, 47)

Devoting productive resources to a specific task

A: Joey Pow **specializes** in prizefighting and security. Arnold **specializes** in stocks and financial investing. Pasqual **specializes** in lawn care. Lawn Boy may not have established his specialization yet, but running his summer lawn mowing business may lead him to specialization in management in the future.

Actions that can satisfy wants

A: Lawn Boy mows and takes care of lawns, cleans pools, trims shrubs, edges sidewalks, and cleans garages. (p. 32)

A financial investment that signifies ownership in a company and makes claims on that company's earnings

A: On Lawn Boy's behalf, Arnold purchases **stock** in Memorial Wooden Container Corporation, a casket company, and Walleye, a software company. Arnold also talks about reinvesting Lawn Boy's money in safe blue-chip stocks.

Using some or all of your income to **buy things you want now**

A: Lawn Boy **spends** his money on things such as a new bike inner tube and supplies for running his business (oil, gas, etc.).

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Supply

Q: What determines the **supply** of lawn mowing services Lawn Boy's business can provide?

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Taxes

Q: On what is Lawn Boy required to pay **taxes**?

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Trade-off

Q: What is an example of a **trade-off** Lawn Boy faced? (p. 15)

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Unintended consequence

Q: What is an example of a good **unintended consequence** Lawn Boy faced? What is an example of a bad unintended consequence Lawn Boy faced?

The quantity of a good or service that producers are willing and able to sell at all possible prices during a certain time period

A: The **supply** of lawn mowing services Lawn Boy's business can provide is determined by his labor supply (how many workers he has), his capital (equipment), and how many yards those workers can service each day with the equipment.

Giving up some of one thing in order to gain some of another thing

A: Lawn Boy was paid more to mow the larger lawns farther away but it was a trade-off in that he gave up travel time and extra gasoline to gain the profit from mowing larger lawns.

Fees charged by the government on business and individual income, activities, property, or products that people are required to pay

A: Lawn Boy is required to pay **taxes** on his income from mowing lawns and on his capital gains (earnings from stocks) once he liquidates (sells his stocks for cash).

The unexpected and unplanned result(s) of a decision or action

A: A **good unintended consequence** Lawn Boy faced is the **rapid growth** and expansion of his **lawn mowing business** after mowing Arnold's yard for the first time. A **bad unintended consequence** Lawn Boy faced is the **negative attention** and **threats received from Rock and his men** after Lawn Boy expands his business.

Standards and Benchmarks

Common Core State Standards: English Language Arts

All Sessions

Reading Literature

- **Key Ideas and Details**

CCSS.ELA-Literacy.RL.4.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-Literacy.RL.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

- **Integration of Knowledge and Ideas**

CCSS.ELA-Literacy.RL.4.7: Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

CCSS.ELA-Literacy.RL.5.7: Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

CCSS.ELA-Literacy.RL.6.7: Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.

- **Speaking and Listening**

CCSS.ELA-Literacy.SL.4.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others’ ideas and expressing their own clearly.

CCSS.ELA-Literacy.SL.4.1.a: Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

CCSS.ELA-Literacy.SL.4.1.b: Follow agreed-upon rules for discussions and carry out assigned roles.

CCSS.ELA-Literacy.SL.4.1.c: Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.

CCSS.ELA-Literacy.SL.4.1.d: Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

CCSS.ELA-Literacy.SL.5.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others’ ideas and expressing their own clearly.

CCSS.ELA-Literacy.SL.5.1.a: Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

CCSS.ELA-Literacy.SL.5.1.b: Follow agreed-upon rules for discussions and carry out assigned roles.

CCSS.ELA-Literacy.SL.5.1.c: Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

CCSS.ELA-Literacy.SL.5.1.d: Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

CCSS.ELA-Literacy.SL.6.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.*

CCSS.ELA-Literacy.SL.6.1.a: Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

CCSS.ELA-Literacy.SL.6.1.b: Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

CCSS.ELA-Literacy.SL.6.1.c: Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

CCSS.ELA-Literacy.SL.6.1.d: Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

Common Core State Standards: Grades 6-12 Literacy in History/Social Studies, Science, & Technical Subjects

History/Social Studies

- **Key Ideas and Details**

CCSS.ELA-Literacy.RH.6-8.3: Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

- **Integration of Knowledge and Ideas**

CCSS.ELA-Literacy.RH.6-8.7: Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Session 1: Markets and Circular Flow

National Standards in Economics

Standard 1: Scarcity—Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

- **Benchmark 2, Grade 4:** Economic wants are desires that can be satisfied by consuming a good (an object), a service (an action), or a leisure activity.
- **Benchmark 6, Grade 4:** Productive resources are the natural resources, human resources, and capital goods available to make goods and services.
- **Benchmark 7, Grade 4:** Natural resources, such as land, are “gifts of nature;” they are present without human intervention.
- **Benchmark 8, Grade 4:** Human resources are the quantity and quality of human effort directed toward producing goods and services.
- **Benchmark 9, Grade 4:** Capital goods are goods that are produced and used to make other goods and services.
- **Benchmark 11, Grade 4:** Most people produce and consume. As producers they help make goods and services; as consumers they use goods and services to satisfy their wants.

Standard 5: Trade—Voluntary exchange occurs only when all participating parties expect to gain. This is true for trade among individuals or organizations within a nation, and among individuals or organizations in different nations.

- **Benchmark 2, Grade 4:** Exchange is trading goods and services with people for other goods and services (called barter) or for money.

Standard 7: Markets and Prices—A market exists whenever buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and resources.

- **Benchmark 2, Grade 4:** A market exists whenever buyers and sellers exchange goods and services.

Standard 13: Income—Income for most people is determined by the market value of the productive resources they sell. What workers earn primarily depends on the market value of what they produce.

- **Benchmark 1, Grade 4:** Labor is a human resource that is used to produce goods and services.
- **Benchmark 2, Grade 4:** People can earn income by exchanging the use of their labor (physical or mental work) for wages or salaries.
- **Benchmark 2, Grade 8:** To earn income people sell productive resources. These include their labor, capital, natural resources, and entrepreneurial talents.

Standard 14: Entrepreneurship—Entrepreneurs take on the calculated risk of starting new businesses, either by embarking on new ventures similar to existing ones or by introducing new innovations. Entrepreneurial innovation is an important source of economic growth.

- **Benchmark 2, Grade 8:** Entrepreneurs organize resources to produce goods and services because they expect to earn profits.
- **Benchmark 3, Grade 8:** Entrepreneurs (as well as other sellers) earn profits when the revenues they receive from selling the products they sell are greater than the costs of production.

National Standards for Financial Literacy

Standard 1: Earning Income—Income for most people is determined by the market value of their labor, paid as wages and salaries. People can increase their income and job opportunities by choosing to acquire more education, work experience, and job skills. The decision to undertake an activity that increases income or job opportunities is affected by the expected benefits and costs of such an activity. Income also is obtained from other sources such as interest, rents, capital gains, dividends, and profits.

- **Benchmark 2, Grade 4:** People earn an income when they are hired by an employer to work at a job.
- **Benchmark 3, Grade 4:** Workers are paid for their labor in different ways such as wages, salaries, or commissions.
- **Benchmark 6, Grade 4:** People who own a business can earn a profit, which is a source of income.
- **Benchmark 7, Grade 4:** Entrepreneurs are people who start new businesses. Starting a business is risky for entrepreneurs because they do not know if their new businesses will be successful and earn a profit.

Session 2: Supply/Demand/Opportunity Cost

National Standards in Economics

Standard 1: Scarcity—Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

- **Benchmark 5, Grade 4:** The opportunity cost of an activity is the value of the best alternative that would have been chosen instead. It includes what would have been done with the money spent and the time and other resources used in undertaking the activity.

Standard 5: Trade—Voluntary exchange occurs only when all participating parties expect to gain. This is true for trade among individuals or organizations within a nation, and among individuals or organizations in different nations.

- **Benchmark 1, Grade 4:** Exchange is trading goods and services with people for other goods and services (called barter) or for money.
- **Benchmark 2, Grade 4:** The oldest form of exchange is barter, the direct trading of goods and services between people.

Standard 7: Markets and Prices—A market exists whenever buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and resources.

- **Benchmark 1, Grade 4:** A price is what people pay when they buy a good or service, and what they receive when they sell a good or service.
- **Benchmark 2, Grade 4:** A market exists whenever buyers and sellers exchange goods and services.

Standard 8: Role of Prices—Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.

- **Benchmark 1, Grade 4:** Higher prices for a good or service provide incentives for buyers to purchase less of that good or service, and for producers to make or sell more of it. Lower prices for a good or service provide incentives for buyers to purchase more of that good or service, and for producers to make or sell less of it.
- **Benchmark 2, Grade 8:** An increase in the price of a good or service encourages producers to supply more, and vice versa. This relationship between price and quantity supplied is normally true as long as other factors influencing costs of production and supply do not change.

Session 3: Stocks

National Standards for Financial Literacy

Standard 5: Financial Investing—The purchase of financial assets to increase income or wealth in the future. Investors must choose among investments that have different risks and expected rates of return. Investments with higher expected rates of return tend to have greater risk. Diversification of investment among a number of choices can lower investment risk.

- **Benchmark 2, Grade 4:** A financial investment is the purchase of a financial asset such as a stock with the expectation of an increase in the value of the asset and/or increase in future income.
- **Benchmark 3, Grade 8:** When people buy corporate stock, they are purchasing ownership shares in a business. If the business is profitable, they will expect to receive income in the form of dividends and/or from the increase in the stock's value. The increase in the value of an asset (like a stock) is called a capital gain. If the business is not profitable, investors could lose the money they have invested.
- **Benchmark 6, Grade 8:** Financial risk means that a financial investment has a range of possible returns, including possibilities of actual losses. Higher-risk investments have a wider range of possible returns.

Session 4: Productivity

National Standards in Economics

Standard 6: Specialization—When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase.

- **Benchmark 2, Grade 4:** Division of labor occurs when the production of a good is broken down into numerous separate tasks, with different workers performing each task.
- **Benchmark 3, Grade 4:** Specialization and division of labor usually increase the productivity of workers.
- **Benchmark 1, Grade 8:** Labor productivity is output per worker.

Standard 14: Entrepreneurship—Entrepreneurs take on the calculated risk of starting new businesses, either by embarking on new ventures similar to existing ones or by introducing new innovations. Entrepreneurial innovation is an important source of economic growth.

- **Benchmark 2, Grade 4:** Entrepreneurs and workers often are innovative. They attempt to solve problems by developing and marketing new or improved products and processes.
 - **Benchmark 2, Grade 8:** Entrepreneurs organize resources to produce goods and services because they expect to earn profits.
 - **Benchmark 3, Grade 8:** Entrepreneurs (as well as other sellers) earn profits when the revenues they receive from selling the products they sell are greater than the costs of production.

Standard 15: Economic Growth—Investment in factories, machinery, new technology, and in the health, education, and training of people stimulates economic growth and can raise future standards of living.

- **Benchmark 1, Grade 4:** When workers learn and practice new skills they improve their productivity by improving their human capital
- **Benchmark 2, Grade 4:** Workers can improve their productivity by using physical capital such as tools and machinery.
- **Benchmark 4, Grade 8:** Increases in productivity can result from advances in technology or increases in physical or human capital.

Session 5: Capital Markets and Taxes

Session 6: Portfolio Diversification and Review

National Content Standards in Economics

Standard 2: Decision Making—Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something: few choices are “all or nothing” decisions.

- **Benchmark 5, Grade 12:** People sometimes fail to treat gains and losses equally, placing extra emphasis on losses.
- **Benchmark 5, Grade 12:** Some decisions involve taking risks in that either the benefits or the costs could be uncertain. Risk taking carries a cost. When risk is present, the costs should be treated as higher than when risk is not present.
- **Benchmark 7, Grade 12:** Risk can be reduced by diversification.

Standard 19: Unemployment and Inflation—Unemployment imposes costs on individuals and the overall economy. Inflation, both expected and unexpected, also imposes costs on individuals and the overall economy. Unemployment increases during recessions and decreases during recoveries.

- **Benchmark 1, Grade 8:** To be counted as unemployed, a person must be in the labor force. The labor force consists of people age 16 and over who are employed or actively seeking work. Thus the labor force is the sum of total employment and unemployment.
- **Benchmark 3, Grade 12:** Unemployment can be caused by people changing jobs, by seasonal fluctuations in demand, by changes in the skills needed by employers, or by cyclical fluctuations in the level of national spending.

Sessions 5 and 6

National Standards for Financial Literacy

Standard 2: Buying Goods and Services—People cannot buy or make all the goods and services they want; as a result, people choose to buy some goods and services and not buy others. People can improve their economic well-being by making informed spending decisions, which entails collecting information, planning, and budgeting.

- **Benchmark 5, Grade 8:** A budget includes fixed and variable expenses, as well as income and taxes.
- **Benchmark 6, Grade 8:** People may revise their budget based on unplanned expenses or income.

Standard 5: Financial Investing—The purchase of financial assets to increase income or wealth in the future. Investors must choose among investments that have different risks and expected rates of return. Investments with higher expected rates of return tend to have greater risk. Diversification of investment among a number of choices can lower investment risk.

- **Benchmark 2, Grade 4:** A financial investment is the purchase of a financial asset such as a stock with the expectation of an increase in the value of the asset and/or increase in future income.
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- **Benchmark 3, Grade 8:** Financial risk means that a financial investment has a range of possible returns, including possibilities of actual losses. Higher-risk investments have a wider range of possible returns.
- **Benchmark 5, Grade 12:** An investment with greater risk than another investment will commonly have a lower market price, and therefore a higher rate of return, than the other investment.
- **Benchmark 7, Grade 12:** Diversification by investing in different types of financial assets can lower investment risk.