

# The Toothpaste Millionaire

## A Chapter-by-Chapter Teacher Guide

By Marsha Masters  
Economics Arkansas

### Grades 2-3

#### Chapter 1: A New Name, a New Business

#### Chapter 2: Two Notes from Rufus

In these chapters, Kate introduces us to her friend Rufus Mayflower. We learn that Rufus became a millionaire while making toothpaste. Not only does he produce toothpaste, he also makes durable saddlebags. We discover that he is a creative problem solver and is very good at math.

This is a good time to help students learn the concept of human capital. Human capital is how you “train your brain” to develop skills, education, talents and abilities that enable you to be a productive worker.

### Concepts

Human capital, human resource

### Standards

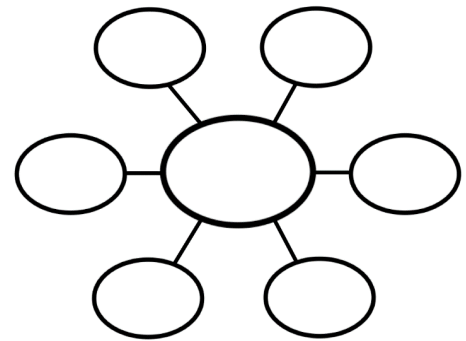
- E.5.2.1 Discuss skills and education that human resources need for jobs (e.g., human capital).
- E.5.3.1 Examine the relationship between human capital and productivity (e.g., division of labor, specialization).

### Lessons about Human Capital

- *Grab & Go Economics—Concept Guides, Guide 9: People earn income when they sell their resources* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)
- *Morris Goes to School (2nd grade)* <https://www.stlouisfed.org/education/morris-goes-to-school>
- *Read Salt in His Shoes: In Pursuit of a Dream* by Delores Jordan. You may also watch online at <https://www.youtube.com/watch?v=Obeh2qqOz88> (10:33). Challenge students to identify Michael Jordan’s skills, abilities and strengths that made him a successful basketball player.

**Quick Assessment Activity**

Give each student a sheet of paper or graphic organizer. Have them write their name or draw their picture in the center of the page. Have students draw 6 large circles around their name or picture. Each student should write or draw an example of skills, talents, etc. that he/she has inside each circle. Help students understand that investment in their human capital develops their skills and prepares them to be productive workers and income earners in the future.

**Chapter 3: Toothpaste and Eye Shadow****Chapter 4: Peppermint, Clove, Vanilla, Curry or Almond?**

In Chapter 3 we learn how Rufus started his company. Many entrepreneurs start businesses to solve problems or bring new goods and services to the marketplace. Rufus started his business because he refuses to pay the price for the toothpaste in the store. Kate begins to reflect on decisions she makes when shopping. She realizes that she doesn't always have a plan when she goes shopping and is often influenced by her friends.

In Chapter 4, Kate arrives at Rufus' house to find he has created many Do-it-Yourself (DIY) toothpaste alternatives. He challenges Kate to put them to the test and identify the toothpaste that she thinks has the best taste.

**Concepts**

Alternatives, benefits, choice, consumer, cost, decision-making, goods, human resource, market, opportunity cost, price, producer, saving, seller, services, spending

**Standards**

- E.4.2.1 Discuss the importance of scarcity in relation to choices and opportunity cost.
- E.4.2.2 Explain a decision in terms of costs and benefits.
- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet).
- E.4.3.1 Illustrate examples of scarcity and opportunity cost within the local community and different regions in the state.
- E.4.3.2 Identify problems, alternatives, and trade-offs involved in making a decision.
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives).

**Lessons and Videos on Choices with Saving and Spending**

- *Every Penny Counts* <http://www.econedlink.org/teacher-lesson/461/Every-Penny-Counts>
- *Grab & Go Economics—Concept Guides, Guide 10: People incur expenses when they buy goods and services* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)

- *Hands On Banking* (online/interactive) <https://handsonbanking.org/htdocs/en/k/#/en/k/>
- *Less Than Zero* <https://www.stlouisfed.org/education/less-than-zero>
- *Piggy Bank Primer* <https://www.stlouisfed.org/education/piggy-bank-primer-saving-and-budgeting>; <https://www.stlouisfed.org/education/the-piggy-bank-primer-budget-and-saving-e-book> (ebook)
- *The Grasshopper and the Ant* <https://www.econedlink.org/resources/the-grasshopper-and-the-ant/>

### Lessons on Producing Toothpaste

Challenge your class to produce your own toothpaste. How does it compare to toothpaste in the store? Why would buyers be interested in purchasing it?

- *DIY Kids Toothpaste* <https://askthedentist.com/recipe/diy-kids-toothpaste/>
- *Toothpaste Science Experiment for the Classroom* <https://blog.reallygoodstuff.com/science-experiment-for-kids-making-toothpaste/>

### Videos on Producing Toothpaste and Toothbrushes

- *Toothpaste Manufacturing* (3:40) <https://www.youtube.com/watch?v=Fepvcgrkq4A>
- *How Toothbrushes are Made* (4:37) <https://www.youtube.com/watch?v=2mgWtHepKMw>

### Quick Assessment Activities

- Write a paragraph explaining whether you are more like Rufus or Kate when you go shopping.
- Challenge students to create a spending diary for two weeks and record how they spend their money.
- Share 3 facts learned about producing toothpaste or toothbrushes from the videos. (There is a fact sheet to record what they have learned and swap for additional facts with others in the classroom. The form, called Fact Swap, is available at [https://www.economicsarkansas.org/for\\_teachers/formative\\_assessments.html](https://www.economicsarkansas.org/for_teachers/formative_assessments.html)).
- Challenge students to think of what should be the next flavor of toothpaste for the market. Have students share the recipe and identify who would want this new toothpaste flavor.

### Chapter 5: Another Nice Thing About Rufus

### Chapter 6: Another Math Problem

Rufus is always solving problems in his head and on paper. In these chapters, he is calculating the number of people who live in the United States and how many of them might like to purchase his new toothpaste in the market.

These chapters provide an opportunity to review dental health and the reason toothpaste is on most families' shopping lists.

### Concepts

Alternatives, benefits, buyers, choice, cost, decision-making, opportunity cost, sellers

**Standards**

- E.4.2.1 Discuss the importance of scarcity in relation to choices and opportunity cost.
- E.4.2.2 Explain a decision in terms of costs and benefits.
- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet).
  
- E.4.3.1 Illustrate examples of scarcity and opportunity cost within the local community and different regions in the state.
- E.4.3.2 Identify problems, alternatives, and trade-offs involved in making a decision.
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives)

**Lessons on Dental Health and Decision-Making**

- *Colgate Bright Smiles, Bright Futures* Free Teaching Kits <https://smiles.colgate.com/page/content/2019-classroom-kits>
- *Delta Dental of Arkansas* <http://www.deltadentalar.com/Resources/classroom-materials>
- *Everyday Opportunities* <https://www.econedlink.org/teacher-lesson/738/Everyday-Opportunities>
- *Smile Smarts Dental Health Elementary Curriculum* <https://www.mouthhealthy.org/en/resources/lesson-plans/smile-smarts>

**Quick Assessment Activities**

- Create a poster promoting dental health.
- Have students keep a log for a week of how many times they brush their teeth and the healthy and unhealthy foods they eat and drink.
- Create a song, jingle, poem or rap that promotes dental health.

**Chapter 7: The Joe Smiley Show****Chapter 8: In Which I Became a Stockholder**

Rufus took recycled items, such as baby food jars, and used them to package his toothpaste. This cut down greatly on his expenses. Rufus' appearance on *The Joe Smiley Show* allowed people to learn about his toothpaste and created quite a demand. We get a great description in this chapter of what Rufus is like as a business leader and provides a great introduction to Rotary's 4 Way Test.

We have a chance to see how Rufus' friends step in to help produce toothpaste in this chapter, and we learn how he negotiates a deal to compensate them for their services.

**Concepts**

Consumers, human resources, incentives, income, natural resources, capital resources, productive resources

**Standards**

- E.5.2.2 Describe goods and services that people in the local community produce and those that are produced in other communities.
- E.5.3.2 Articulate ways entrepreneurs and businesses organize human, natural, and capital resources to produce goods and services in Arkansas.

**Lessons on Business Etiquette**

- Show the *4 Way Test Rotary Test Video* (<https://www.youtube.com/watch?v=MqZKIG1-r6A>; start at 0:17, end at 1:55). Challenge students to find examples of these four questions throughout the story.
  - Is it the TRUTH? (Is Rufus truthful about his toothpaste?)
  - Is it FAIR to all concerned? (Was Rufus thinking about everyone or only himself when he started making toothpaste? Was he offering his customers a quality product at a fair price?)
  - Will it build GOODWILL and BETTER FRIENDSHIPS? (Do Rufus' actions build goodwill with his classmates, family, town?)
  - Will it be BENEFICIAL to all concerned? (Who benefited from Rufus's actions? Everyone or only Rufus?)
- Watch a great read aloud version of *Andy and Elmer's Apple Dumpling Adventure*. <https://www.youtube.com/watch?v=YoV2WZy0KjU> (8:17) Have students write and illustrate what they learned about the 4 Way test from Andy.

**Lessons on Productive Resources**

- *Grab & Go Economics—Concept Guides, Guide 2: Resources are used to produce goods and services* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)
- *Lemonade for Sale* <https://www.stlouisfed.org/education/lemonade-for-sale>
- *Sweet Potato Pie* <https://www.kansascityfed.org/en/education/resources/sweet%20potato%20pie>

**Lessons on Incentives**

- *Economic Incentives in Our Community* <https://www.econedlink.org/resources/economic-incentives-in-our-community/>
- *Incentives Influence Us!* <https://www.econedlink.org/resources/incentives-influence-us/>
- *What's the Incentive?* <https://www.econedlink.org/resources/whats-the-incentive/>

**Quick Assessment Activities**

- Create a poster highlighting Rotary's 4 Way Test.
- Find examples of incentives that would encourage a buyer to be attracted to a good or service in the market. (coupons, sales, buy one, get one, etc.)
- Challenge students to explain whether they would rather Rufus pay them cash or give them shares of stock for their services. Identify the benefits and costs of each.

**Chapter 9: With a Little Help from My Brother James****Chapter 10: A Gross Mistake****Chapter 11: 7,200 Toothpaste Tubes**

Kate finds the perfect birthday present for Rufus at an auction. This is a good time to discuss different types of markets. Kate’s math skills are not on target when she buys the empty tubes and this “gross mistake” lands her in quite a dilemma. The next problem to be addressed is how to get the tubes back to Kate’s house. Kate definitely has a scarcity of space. As always, Rufus does some math and creates a plan.

**Concepts**

Buyer, decision-making, exchange, market, price, seller

**Standards**

- E.4.2.1 Discuss the importance of scarcity in relation to choices and opportunity cost.
- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet).
- E.4.3.1 Illustrate examples of scarcity and opportunity cost within the local community and different regions in the state.
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives).

**Lessons on Market**

- *Grab & Go Economics—Concept Guides, Guide 8: The price of a good, service or resource is determined by buyers and sellers in that market.* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)
- *To Market To Market* <https://www.econedlink.org/resources/to-market-to-market/>

**Lessons on Decision-Making and Scarcity**

- *Grab & Go Economics—Concept Guides, Guide 3: Because many things are scarce, people need ways to allocate them.* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)
- *Grab & Go Economics—Concept Guides, Guide 4: Scarcity requires people to make choices that involve trade-offs and have opportunity costs.* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.htm](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.htm)
- *Too Many Toys* [https://economicsarkansasorg.presencehost.net/file\\_download/inline/cba0558b-349d-41c3-9332-60900a7bf6b2](https://economicsarkansasorg.presencehost.net/file_download/inline/cba0558b-349d-41c3-9332-60900a7bf6b2)
- *No Room for a Sneeze* <https://www.econedlink.org/resources/no-room-for-a-sneeze/>
- *Scarcity Video* <https://www.econedlink.org/resources/scarcity-video-and-quiz/>

**Quick Assessment Activities**

- Challenge students to find examples of markets. Create a list of markets from their research.



- Have students compare and contrast price as it relates to buying an item in the store versus at an auction.
- Have students write whether they think Kate made a good purchase by buying the tubes at the auction. They should explain their analysis based on the goods purchased, the price and other factors associated with her purchase.
- Kate did not have enough space to transport the toothpaste tubes. Challenge students to think of a time they have been faced with a scarcity of space and decisions they made to help with this problem.

### Chapter 12: The Toothpaste Machine

### Chapter 13: Hector and the Happy Lips Plant

In Chapter 1 and 2, students learned about the concept of human capital. Now they see how the toothpaste workers have to invest in their human capital as they learn how to fill the toothpaste tubes. Students will see specialization in action and learn how important capital resources are to human resources.

This chapter allows us to meet Hector and find how his talents in operating this special machine. Because the Happy Lips Plant has closed, Hector is unemployed as Chapter 13 begins, but it looks hopeful that a lot is about to change!

### Concepts

Capital resource, human capital, human resource, specialization

### Standards

- E.5.2.1 Discuss skills and education that human resources need for jobs (e.g., human capital).
- E.5.3.1 Examine the relationship between human capital and productivity (e.g., division of labor, specialization).
- E.6.3.4 Identify factors that affect our economy (e.g., unemployment, inflation).

### Lessons on Human Resources, Capital Resources and Specialization

- *Interdependence Ties Us Together* [https://www.economicsarkansas.org/for\\_teachers/lesson-plans-k-3.html](https://www.economicsarkansas.org/for_teachers/lesson-plans-k-3.html)
- *The Top Job* [https://www.economicsarkansas.org/for\\_teachers/lesson-plans-k-3.html](https://www.economicsarkansas.org/for_teachers/lesson-plans-k-3.html)
- *The Little Red Hen Makes a Pizza* <https://www.stlouisfed.org/education/the-little-red-hen-makes-a-pizza>
- *The Shoemaker's Tools* <https://www.econedlink.org/resources/the-shoemakers-tools/>

### Quick Assessment Activities

- Draw a picture of what you think the toothpaste machine looks like based on these chapters.
- Explain how Hector and the machine will increase the number of tubes of toothpaste for Rufus and his team to sell.

- Challenge students to find an example of a capital tool that has increased productivity for a product.
- Make a list of Hector's special skills, talents and abilities, and explain how that will benefit the toothpaste business.

### Chapter 14: The Trouble with Adults

### Chapter 15: An Exception to the Rule about Adults

These chapters lead us into the financial aspect related to entrepreneurship. Kate and Rufus realize they need services a bank can provide when they are looking for funding to operate their toothpaste factory. It is never too early to introduce students to the idea of credit as responsible borrowing and the role of a bank.

### Concepts

Bank, credit, saving, interest, loan

### Standards

- E.6.2.2 Describe reasons for saving money in banks.
- E.6.3.2 Explain functions of banks (e.g., saving, checking, loans, investments).

### Lessons on Banks, Credit

- *Give Ell Credit* (online course students can work on independently as an entire class) <https://www.stlouisfed.org/education/give-ell-credit-online-consumers>
- *Giving Credit* (3rd grade) <https://www.econedlink.org/resources/giving-credit/>
- *Hands on Banking: Credit and You* (online activity) <https://handsonbanking.org/htdocs/en/k/#/en/k/cr/index.html>
- *The Grasshopper and the Ant* <https://www.econedlink.org/resources/the-grasshopper-and-the-ant/>
- *One Hen: How One Small Loan Made a Big Difference* (3rd grade) <https://www.stlouisfed.org/education/one-hen-how-one-small-loan-made-a-big-difference>
- *Percy Peacock and the Credit Crisis* <https://www.kansascityfed.org/education/fables>

### Quick Assessment Activities

- Challenge students to give an example of when they have been a responsible borrower.
- Ask students to pretend they were Mr. Perkell. Would they have given Rufus a loan? Would they have given Hector a loan?
- Ask students to pretend they are Hector. Ask them to decide if they think Rufus' offer was a fair offer. Explain.

### Chapter 16: Toothpaste 1

### Chapter 17: The Absolutely Honest Commercial

Rufus had to do a lot of math to calculate his expenses in his growing toothpaste production. His profit is not rising, but his costs of production certainly are as he realizes he needs more resources. These chapters



address the impact of marketing and advertising on consumers' buying behaviors. Students are introduced to the idea of competition in this chapter also.

### Concepts

Advertising, competition, consumer, expenses, profit, spending decisions

### Standards

- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet).
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives).

### Lesson on Advertising and Competition

- *Car Wash Capers* <http://www.smckids.com/episodes/?vidlink=02>
- *Competition: Pizza!* (3rd grade) <https://www.econedlink.org/resources/competition-pizza/>
- *What is Competition?* <https://www.econedlink.org/resources/what-is-competition/>
- *What's Your Angle?* (3rd grade) <https://www.econedlink.org/resources/whats-your-angle/>

### Quick Assessment Activities

- Cut out advertisements from newspapers representing a variety of stores in your community. Make a chart comparing the prices of goods and services from different stores. Discuss why these prices vary.
- Challenge students to analyze a commercial they have watched. Have them write whether they think it is an “absolutely honest” commercial. Defend their answer with evidence.
- Design a label for Rufus' toothpaste tube.

### Chapter 18: The Toothpaste War

### Chapter 19: A Movie Script by Mac Kinstrey

Competition is strong in these chapters. Because Rufus is able to sell his toothpaste for much less than the competitors, the competitors get very worried about their sales.

Decision-making comes back in discussion in chapter 19 as *Consumer's Friend* magazine evaluates toothpaste on performance, safety, taste, and price and selects Rufus' Toothpaste as the best alternative.

### Concepts

Alternatives, benefits, competition, costs, decision-making, goods, market, price, sellers

### Standards

- E.4.2.2 Explain a decision in terms of costs and benefits.
- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet)

- E.4.3.2 Identify problems, alternatives and trade-offs involved in making a decision.
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives).

### Lessons on Competition, Decision-Making, Market, Price

- *The Berenstain Bears' Mad, Mad Toy Craze* <https://www.stlouisfed.org/~media/Education/Lessons/pdf/The-Berenstain-Bears-Mad-Mad-Mad-Toy-Craze.pdf>
- *Grab & Go Economics—Concept Guides, Guide 4: Scarcity requires people to make choices that involve trade-offs and have opportunity costs.* [https://www.economicsarkansas.org/for\\_teachers/grab-go-economics-concept-guides.html](https://www.economicsarkansas.org/for_teachers/grab-go-economics-concept-guides.html)
- *Lemon Squeeze-The Lemonade Stand* <https://www.econedlink.org/resources/lemon-squeeze-the-lemonade-stand/>

### Quick Assessment Activities

- Conduct a consumer market survey like Consumer's Friend. This could be a school wide survey, or each student could be charged in asking 5 others and bringing the results back to class. They could ask the very same criteria that was evaluated in the results in the chapter: performance, safety, taste, and price. Graph results.
- Challenge students to explain who benefits from competition and explain why.

### Chapter 20: The Blowup

### Chapter 21: The Board of Directors

Unfortunately, the toothpaste factory was destroyed by the competitors in the toothpaste industry. Rufus learns a lot of hard lessons about the risks of being an entrepreneur.

### Concepts

Business, entrepreneur, profit risk, reward

### Standards

- E.5.2.1 Discuss skills and education that human resources need for jobs.
- E.5.2.3 Describe ways markets exist in various places (e.g., home, physical location, Internet)
- E.5.3.1 Examine the relationship between human capital and productivity.
- E.5.3.3 Analyze economic factors in a market (e.g., supply, demand, competition, incentives).

### Lessons on Entrepreneurship

- *An Entreduction* (3rd grade) <https://www.econedlink.org/resources/an-entreduction/>
- *E-N-T-R-E-P-R-E-N-E-U-R* (3rd grade) [https://economicsarkansasorg.presencehost.net/file\\_download/inline/75a49a69-9c81-4ff4-9e60-2d6de17bd9da](https://economicsarkansasorg.presencehost.net/file_download/inline/75a49a69-9c81-4ff4-9e60-2d6de17bd9da)

- *I Can Be an Entrepreneur* (3rd grade) <https://www.econedlink.org/resources/i-can-be-an-entrepreneur/>
- *Open for Business* <https://www.econedlink.org/resources/open-for-business/>
- *Jay Starts a Business* (3rd grade) <https://www.kansascityfed.org/education/jaystartsabiz>
- *Sweet Potato Pie* (3rd grade) <https://www.stlouisfed.org/education/sweet-potato-pie>
- *The Little Red Hen* <https://www.econedlink.org/resources/the-little-red-hen/>

### Quick Assessment Activities

- Have students research entrepreneurs. Identify the risks and rewards associated with their business.
- Challenge students to think of a business they would like to own. Create a sign for their business. Write about their plan of how they would be successful.
- Bring in several different types and brands of toothpaste. Have students evaluate them based on criteria the class establishes.

### Chapter 22: Rufus Retires

Rufus announces his retirement in this chapter. For him, it is not all about the profit. He loves the challenge of figuring out problems. We see in this chapter that Rufus is still frugal even though he is a millionaire. We are left to imagine what business he might start next.

### Concepts

Business, entrepreneur, incentives, risk, reward

### Standards

- Review all standards.

### Quick Assessment Activities

- Have students write about what their favorite part of the book was and explain why.
- Challenge students to reflect on what they have learned from Rufus, Kate or Hector.
- Draw a picture of what you think Rufus' next business will be.
- Play a fun review game. Find examples in the LiveBinder at <https://www.livebinders.com/b/2533717>.