



**From Mabel to the Table:  
'Muffin'  
could be easier:**

*a curriculum about  
economics, entrepreneurship, and the  
American story based on the*

**CHELSEA MILLING**

**A**  
**Curriculum**  
**for**  
**The**  
**Chelsea Milling**  
**Company**

**by**  
**Michigan Council on**  
**Economic Education**



# Table of Contents

Table of Contents.....	3
Dear Teachers.....	4
Forward.....	5
About the author.....	8
Michigan Curriculum Standards.....	9
Kahoot Instructions.....	24
Formative/Summative Assessment Link.....	31
Jiffy Bucks.....	32
Lesson #1: Getting a Little Mixed Up.....	33
Lesson #2: Thinking Inside the Box.....	42
Lesson #3: Thinking Outside the Box.....	54
Lesson #4: From Farm to Table Day One.....	63
Lesson #5: From Farm to Table Day Two.....	71
Lesson #6: From Farm to Table Day Three.....	79
Lesson #7: From Farm to Table Day Four.....	89
Lesson #8: From Mabel to the Table.....	97
Lesson #9: Baking with Chemistry and Math Day One.....	110
Lesson #10: Baking with Chemistry and Math Day Two.....	120
MCEE Programming.....	128

Dear Teachers,

The Chelsea Milling Company was established in 1901, as a traditional flour mill. By early 1930 they had expanded into the retail prepared baking mix market with their first “JIFFY” Mix product. Today, “JIFFY” is the market share leader in retail prepared muffin mixes. In addition to their retail products, they produce mixes for the Foodservice and Institutional markets.

At “JIFFY” their mission is to provide their consumers with the best possible value. They define value as providing the highest quality ingredients at the best price. Chelsea Milling Company was established in 1901, as a traditional flour mill. By early 1930 we had expanded into the retail prepared baking mix market with our first “JIFFY” Mix product. Today, “JIFFY” is the market share leader in retail prepared muffin mixes. In addition to our retail products, we produce mixes for the Foodservice and Institutional markets.

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The Michigan Council on Economic Education’s mission is to promote economic literacy by educating and empowering teachers to bring economics to life in kindergarten through twelfth grade classrooms and beyond. Their goal is to create financially literate citizens who save wisely, invest regularly, and consume sensibly. They are a preventive service organization which strives to educate in advance of need. The Michigan Council on Economic Education gives students the knowledge to make better understand and evaluate choices through teaching economics and providing financial literacy tools. What they do is far more than teach about money: they train teachers and students in decision making with real-world applications.

Sincerely,

The Michigan Council on Economic Education



# FOREWARD

Outside the CEO's door at the Chelsea Milling Company is a sign that reads:

*“Never be afraid to try something new.  
Remember, amateurs built the Ark, professionals built the Titanic.”*

Family owned businesses are the backbone of America. The entrepreneurial spirit was evident in the early settlers who took a chance on something better and ventured into the unknown across the ocean. Upon arrival they established towns and systems of trade with the Native Americans centered on goods and services needed at the time. These initial patterns of human migration were people seeking economic prosperity and civil liberties. Change wasn't easy, but they were the first ones to establish businesses within the towns of the thirteen original colonies.

Now more than 400 years later, family owned businesses still account for ninety percent of the economy in the United States. As the country has grown, family owned businesses have remained the solid economic and social foundation. With sixty-four percent of the gross domestic product coming from family owned businesses, there are valuable economic lessons to be learned from the premises on which these companies operate. Life skills such as money handling, negotiation strategies, conflict resolution, and charitable giving are learned by younger generations from senior members in family owned businesses. The longevity of family businesses can be attributed to many factors, including innovation, employee retention, and a long-term focus that centers on the next generation rather than the next quarter. According to the Greater Washington, D.C. Family Business Alliance, “the environment for innovation in family businesses improves when more generations of the owning family are actively involved in the business”<sup>1</sup>. Family businesses cultivate a sense of purpose resulting in their employees feeling valued as extended family members and having

a stronger sense of loyalty to the company. And a long-term focus on generations rather than quarterly segments creates a plan for change and innovation with the times.

The family owned Chelsea Milling Company that started as one of 700 mills in Michigan and remains as one of five. Its solid foundation is built on four generations of innovation, strong company values, and a long-term vision that has reinvented itself with the times. Harmon S. Holmes realized the value of the milling industry and acquired the mill outright after first being a silent partner.

His son, Howard Samuel Holmes, learned the business from his father. It was under Howard's guidance that continuous improvements and additions were made. During World War I, the mill ran day and night to supply the soldiers with wheat. In 1912, Howard married Mabel White who also came from a milling family, and the couple had twin boys, Howard and Dudley, in 1913.

Mabel's innovation played a pivotal role in the Chelsea Milling Company's evolution when she devised the first ready-to-use baking mix in 1930. Her invention was valued in the family business, and her insight into a creative name and eye-catching packaging for marketing the product began the convenience food industry. In a time where women were not out in the workforce, her contributions were valued.

Howard and Dudley continued the family business in 1936 after a family tragedy. Having learned the business young, they knew the ins and outs of working in the mill on both the corporate and manual laborers. They introduced new products, controlled pricing by stamping the boxes with the cost, and because of demand expanded their workforce. While they had inherited ownership, they earned leadership through their actions.

Howdy Holmes' left the world of auto racing to return to Chelsea as the fourth generation in the business. With renowned long term vision, he added packaging lines, increased the warehouse size, and sought out experienced talent to enhance the business. His creation of a team vested employees further in the company creating that indelible sense of family. The attributes of the family owned Chelsea Milling Company make it an ideal model for teaching economics to students. The entrepreneurial spirit, life skills, and innovative ideas that have sustained this company for 114 years are what today's students deserve to learn from a family business that is the backbone of America.

*1 Greater Washington D.C. Family Business Alliance. Family Business Fun Facts. Retrieved November 2012:  
(<http://www.dcfamilybusiness.com/resources/knowledge-base/family-business-fun-facts>)*

## ABOUT THE AUTHOR

Sarah Vannatta is a Pennsylvania native, having grown up in Murrysville. She attended Penn State University where she majored in Elementary and Kindergarten Education. Shortly after graduation, she married her husband who was in the United States Army. The military life had the family moving frequently providing teaching opportunities in public, private, and Department of Defense Schools around the country.

Most recently she taught in Arkansas, spending seven years in the fifth grade classroom. While working in Springdale Public Schools, Sarah earned her Master's Degree in Educational Theory and Practice at Arkansas State University. She was selected to attend the MickelsonExxon Mobil Teachers' Academy in 2010, Honeywell Educator@Space Academy in 2011, and the Arkansas Leadership Academy in 2012. A five-time presenter at the National Council for Economic Education national conference, Sarah has also presented Arkansas Council on Economic Education state conference, Arkansas Reading Association state conference, Arkansas Association of Supervision and Curriculum Development conference, Improving School Performance conference in Pittsburgh, Philadelphia Federation of Teachers' conference, REAL Conference in Little Rock, and Robert Morris University Economic Conference. As well, Sarah works with other state councils to deliver teacher professional development programs and workshops.

Sarah and her husband, Mike, currently reside in the Pittsburgh area with their two children, Emily and Sean.

# Curricular Goals and Objectives: Michigan Academic Standards

## **The Goals of Social Studies**

### *United States Studies*

Using the context of the United States, fourth grade students learn significant social studies concepts within an increasingly complex social environment. They examine fundamental concepts in geography, civics and government, and economics through the lens of Michigan history and the United States. Expectations that particularly lend themselves to being taught through a historic, geographic, civic, or economic lens are denoted.

### *History*

Fourth grade students use examples from Michigan history (from statehood to the present) as a case study for learning about United States geography, economics, and government. Teachers are encouraged to use examples from Michigan history beyond statehood to teach geographic, civic, and economic concepts.

### *Geography*

Students draw upon their knowledge of spatial awareness, regions, human systems, and human-environment interactions to create more sophisticated understandings of these concepts within the context of the United States. By focusing on the work of geographers, students explore the types of questions geographers ask and the tools they use to answer these questions. Students learn that maps can be used to describe elevation and climate, as well as to analyze patterns of population density. In preparation for the study of American history, students concentrate on the geography of the United States. Students expand their knowledge of human systems using case studies and stories to understand push and pull factors of migration and the influence of migration on culture within the United States. Students deepen their understanding of human-environment interactions by assessing positive and negative effects of human activities on the physical environment of the United States. The firm understanding of United States geography established in fourth grade prepares students for the study of American history in fifth grade and world geography in grades six and seven.

## *Economics*

Fourth grade students continue to deepen their understanding of economic principles with a focus on the characteristics of market economies. They move beyond applying the economic concepts of scarcity, choice, and opportunity costs in personal economic decisions and begin to think like an economist, identifying the types of questions economists ask. Economic decision making is examined by applying the concepts of price, competition, and incentives. Students develop an understanding of specialization, division of labor, competition, and interdependence and explore their effects on productivity. Moreover, the circular flow model is introduced in fourth grade, providing a foundation for future studies in economics. Students build upon their knowledge of governmental taxing and spending as they explore why certain public goods are not privately owned. Students also take an increasingly sophisticated look at the global economy as the expectations explore the impact of global competition on the national economy.

### *Public Discourse, Decision Making, and Citizen Involvement*

Students deepen their understanding of public issues and the importance of citizen action in a democratic republic. Using the context of the United States, fourth grade students identify public policy issues facing citizens in the United States, use graphic data and other sources to analyze information about the issue, and evaluate alternative resolutions. By utilizing examples, students expand their understanding of how conflicts among core democratic values often lead people to want different resolutions to a public policy question. Students demonstrate competency in expressing their own opinions relative to a public issue in the United States and justify their opinions with a reasoned argument with increasing complexity. This foundational knowledge is built upon throughout the grades as students use their knowledge of how, when, and where to communicate and become more proficient in communicating positions on sophisticated public issues with a reasoned argument.

## *HISTORY H3 History of Michigan (Beyond Statehood)*

*Use historical thinking to understand the past.*

4 – H3.0.1 Use historical inquiry questions to investigate the development of Michigan’s major economic activities (agriculture, mining, manufacturing, lumbering, tourism, technology, and research) from statehood to present. (C, E) •

What happened?

- When did it happen?
- Who was involved?
- How and why did it happen?
- How does it relate to other events or issues in the past, in the present, or in the future?
- What is its significance?

4 – H3.0.2 Use primary and secondary sources to explain how migration and immigration affected and continue to affect the growth of Michigan. (G)

4 – H3.0.3 Describe how the relationship between the location of natural resources and the location of industries (after 1837) affected and continues to affect the location and growth of Michigan cities. (G, E)

4 – H3.0.4 Draw upon stories, photos, artifacts, and other primary sources to compare the life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 1837 to the present (e.g., 1837-1900, 1900-1950, 1950-2000). (G)

4 – H3.0.5 Use visual data and informational text or primary accounts to compare a major Michigan economic activity today with that same or a related activity in the past. (E)

4 – H3.0.9 Create timelines (using decades after 1930) to sequence and describe important events in Michigan history; annotate with connections to the past and impact on the future.

## **Geography**

### *G1 The World in Spatial Terms*

*Use geographic representations to acquire, process, and report information from a spatial perspective.*

4 – G1.0.1 Identify questions geographers ask in examining the United States (e.g., Where it is? What is it like there? How is it connected to other places?).

4 – G1.0.2 Use cardinal and intermediate directions to describe the relative location of significant places in the United States.

4 – G1.0.3 Identify and describe the characteristics and purposes (e.g., measure distance, determine relative location, classify a region) of a variety of geographic tools and technologies (e.g., globe, map, satellite image).

4 – G1.0.4 Use geographic tools and technologies, stories, songs, and pictures to answer geographic questions about the United States.

4 – G1.0.5 Use maps to describe elevation, climate, and patterns of population density in the United States.

### *G2 Places and Regions*

*Understand how regions are created from common physical and human characteristics.*

4 – G2.0.1 Describe ways in which the United States can be divided into different regions (e.g., political regions, economic regions, landform regions, vegetation regions).

4 – G2.0.2 Compare human and physical characteristics of a region to which Michigan belongs (e.g., Great Lakes, Midwest) with those of another region in the United States.

### *G4 Human Systems*

*Understand how human activities help shape the Earth's surface.*

4 – G4.0.1 Use a case study or story about migration within or to the United States to identify push and pull factors (why they left, why they came) that influenced the migration. (H)

4 – G4.0.2 Describe the impact of immigration to the United States on the cultural development of different places or regions of the United States (e.g., forms of shelter, language, food). (H)

### *G5 Environment and Society*

*Understand the effects of human-environment interactions.*

4 – G5.0.1 Assess the positive and negative effects of human activities on the physical environment of the United States.

## Economics

### *E1 Market Economy*

*Use fundamental principles and concepts of economics to understand economic activity in a market economy.*

4 – E1.0.1 Identify questions economists ask in examining the United States (e.g., What is produced? How is it produced? How much is produced? Who gets what is produced? What role does the government play in the economy?).

4 – E1.0.2 Describe some characteristics of a market economy (e.g., private property rights, voluntary exchange, competition, consumer sovereignty, incentives, specialization).

4 – E1.0.3 Describe how positive and negative incentives influence behavior in a market economy.

4 – E1.0.4 Explain how price affects decisions about purchasing goods and services (substitute goods).

4 – E1.0.5 Explain how specialization and division of labor increase productivity (e.g., assembly line). (H)

4 – E1.0.6 Explain how competition among buyers results in higher prices and competition among sellers results in lower prices (e.g., supply, demand).

4 – E1.0.7 Demonstrate the circular flow model by engaging in a market simulation, which includes households and businesses and depicts the interactions among them.

4 – E1.0.8 Explain why public goods (e.g., libraries, roads, parks, the Mackinac Bridge) are not privately owned. (H)

### *E2 National Economy*

*Use fundamental principles and concepts of economics to understand economic activity in the United States.*

4 – E2.0.1 Explain how changes in the United States economy impact levels of employment and unemployment (e.g., changing demand for natural resources, changes in technology, changes in competition). (H)

### *E3 International Economy*

*Use fundamental principles and concepts of economics to understand economic activity in the global economy.*

4 – E3.0.1 Describe how global competition affects the national economy (e.g., outsourcing of jobs, increased supply of goods, opening new markets, quality controls).

## **Science Standards**

**S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.**

*S.IP.04.11 Make purposeful observation of the natural world using the appropriate senses.*

*S.IP.04.12 Generate questions based on observations.*

*S.IP.04.13 Plan and conduct simple and fair investigations.*

*S.IP.04.14 Manipulate simple tools that aid observation and data collection (for example: hand lens, balance, ruler, meter stick, measuring cup, thermometer, spring scale, stop watch/timer, graduated cylinder/beaker).*

*S.IP.04.15 Make accurate measurements with appropriate units (millimeters centimeters, meters, milliliters, liters, Celsius, grams, seconds, minutes) for the measurement tool.*

*S.IP.04.16 Construct simple charts and graphs from data and observations.*

### *Inquiry Analysis and Communication*

**K-7 Standard S.IA:** *Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.*

**S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.**

*S.IA.04.11 Summarize information from charts and graphs to answer scientific questions.*

*S.IA.04.12 Share ideas about science through purposeful conversation in collaborative groups.*

*S.IA.04.13 Communicate and present findings of observations and investigations.*

*S.IA.04.14 Develop research strategies and skills for information gathering and problem solving.*

*S.IA.04.15 Compare and contrast sets of data from multiple trials of a science investigation to explain reasons for differences.*

## *Reflection and Social Implications*

**K-7 Standard S.RS:** *Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.*

**S.RS.E.1 Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.**

**S.RS.04.11** Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.

**S.RS.04.14** Use data/samples as evidence to separate fact from opinion.

**S.RS.04.15** Use evidence when communicating scientific ideas.

**S.RS.04.16** Identify technology used in everyday life.

**S.RS.04.17** Identify current problems that may be solved through the use of technology.

**S.RS.04.18** Describe the effect humans and other organisms have on the balance of the natural world.

**S.RS.04.19** Describe how people have contributed to science throughout history and across cultures.

## *Energy*

**K-7 Standard P.EN:** *Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.*

**P.EN.E.1 Forms of Energy- Heat, electricity, light, and sound are forms of energy.**

**P.EN.04.12** Identify heat and electricity as forms of energy.

**P.EN.E.4 Energy and Temperature- Increasing the temperature of any substance requires the addition of energy.**

**P.EN.04.41** Demonstrate how temperature can be increased in a substance by adding energy.

**P.EN.04.42** Describe heat as the energy produced when substances burn, certain kinds of materials rub against each other, and when electricity flows through wire.  
**P.EN.04.43** Describe how heat is produced through electricity, rubbing, and burning.

### *Changes in Matter*

**K-7 Standard P.CM:** *Develop an understanding of changes in the state of matter in terms of heating and cooling, and in terms of arrangement and relative motion of atoms and molecules. Understand the differences between physical and chemical changes. Develop an understanding of the conservation of mass. Develop an understanding of products and reactants in a chemical change.*

**P.CM.E.1 Changes in State-** Matter can be changed from one state (liquid, solid, gas) to another and then back again. Heating and cooling may cause changes in state.

**P.CM.04.11** Explain how matter can change from one state (liquid, solid, gas) to another by heating and cooling.

### MATH STANDARDS NUMBER AND Understand and use number notation and place value

**OPERATIONS N.ME.04.01** Read and write numbers to 1,000,000; relate them to the quantities they represent; compare and order.

**N.ME.04.02** Compose and decompose numbers using place value to 1,000,000's, e.g., 25,068 is 2 ten thousands, 5 thousands, 0 hundreds, 6 tens, and 8 ones.

**N.ME.04.03** Understand the magnitude of numbers up to 1,000,000; recognize the place values of numbers and the relationship of each place value to the place to its right, e.g., 1,000 is 10 hundreds.

### *Use factors and multiples*

**N.ME.04.04** Find all factors of any whole number through 50, list factor pairs, and determine if a one-digit number is a factor of a given whole number.\*

**N.ME.04.05** List the first ten multiples of a given one-digit whole number; determine if a whole number is a multiple of a given one-digit whole number.\*

**N.MR.04.06** Know that some numbers including 2, 3, 5, 7, and 11 have exactly two factors (1 and the number itself) and are called prime numbers.

**N.MR.04.07** Use factors and multiples to compose and decompose whole numbers.\*

## Add and subtract whole numbers

**N.FL.04.08** Add and subtract whole numbers fluently.

### *Multiply and divide whole numbers*

**N.ME.04.09** Multiply two-digit numbers by 2, 3, 4, and 5 using the distributive property, e.g.,  $21 \times 3 = (1 + 20) \times 3 = (1 \times 3) + (20 \times 3) = 3 + 60 = 63$ .

**N.FL.04.10** Multiply fluently any whole number by a one-digit number and a threedigit number by a two-digit number; for a two-digit by one-digit multiplication use distributive property to develop meaning for the algorithm.

**N.FL.04.11** Divide numbers up to four-digits by one-digit numbers and by 10.

**N.FL.04.12** Find the value of the unknowns in equations such as  $a \div 10 = 25$ ;  $125 \div b = 25$ .\*

**N.MR.04.13** Use the relationship between multiplication and division to simplify computations and check results.

**N.MR.04.14** Solve contextual problems involving whole number multiplication and division.\*

### *Read, interpret and compare decimal fractions*

**N.ME.04.15** Read and interpret decimals up to two decimal places; relate to money and place value decomposition.

**N.ME.04.16** Know that terminating decimals represents fractions whose denominators are 10,  $10 \times 10$ ,  $10 \times 10 \times 10$ , etc., e.g., powers of 10. **N.ME.04.17** Locate tenths and hundredths on a number line.

**N.ME.04.18** Read, write, interpret, and compare decimals up to two decimal places.

**N.MR.04.19** Write tenths and hundredths in decimal and fraction forms, and know the decimal equivalents for halves and fourths.

### *Understand fractions*

**N.ME.04.20** Understand fractions as parts of a set of objects.

**N.MR.04.21** Explain why equivalent fractions are equal, using models such as fraction strips or the number line for fractions with denominators of 12 or less, or equal to 100.

**N.MR.04.22** Locate fractions with denominators of 12 or less on the number line; include mixed numbers.\*

**N.MR.04.23** Understand the relationships among halves, fourths, and eighths and among thirds, sixths, and twelfths.

**N.ME.04.24** Know that fractions of the form  $\frac{m}{n}$  where  $m$  is greater than  $n$ , are greater than 1 and are called improper fractions; locate improper fractions on the number line.\*

**N.MR.04.25** Write improper fractions as mixed numbers, and understand that a mixed number represents the number of “wholes” and the part of a whole remaining, e.g.,  $\frac{11}{2} = 5\frac{1}{2}$ .

**N.MR.04.26** Compare and order up to three fractions with denominators 2, 4, and 8, and 3, 6, and 12, including improper fractions and mixed numbers.

### *Add and subtract fractions*

**N.MR.04.27** Add and subtract fractions less than 1 with denominators through 12 and/or 100, in cases where the denominators are equal or when one denominator is a multiple of the other,

e.g.,  $\frac{1}{12} + \frac{5}{12} = \frac{6}{12}$ ;  $\frac{16}{512} = \frac{7}{12}$ ;  $\frac{3}{10} - \frac{23}{100} = \frac{7}{100}$ . \*

**N.MR.04.28** Solve contextual problems involving sums and differences for fractions where one denominator is a multiple of the other (denominators 2 through 12, and 100).\*

**N.MR.04.29** Find the value of an unknown in equations such as  $\frac{1}{2}x = \frac{1}{3}$  or  $\frac{1}{2}y = \frac{1}{3}$ .

### *Multiply fractions by whole numbers*

**N.MR.04.30** Multiply fractions by whole numbers, using repeated addition and area or array models.

### *Add and subtract decimal fractions*

**N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.\*

**N.FL.04.32** Add and subtract decimals through hundredths.\*

### *Multiply and divide decimal fractions*

**N.FL.04.33** Multiply and divide decimals up to two decimal places by a one-digit whole number where the result is a terminating decimal, e.g.,  $0.42 \div 3 = 0.14$ , but not  $5 \div 3 = 1.6$ .

### *Estimate*

**N.FL.04.34** Estimate the answers to calculations involving addition, subtraction, or multiplication.

**N.FL.04.35** Know when approximation is appropriate and use it to check the reasonableness of answers; be familiar with common place-value errors in calculations.

**N.FL.04.36** Make appropriate estimations and calculations fluently with whole numbers using mental math strategies.

*Measure using common tools and appropriate units*

**M.UN.04.01** Measure using common tools and select appropriate units of measure.

**M.PS.04.02** Give answers to a reasonable degree of precision in the context of a given problem.

**M.UN.04.03** Measure and compare integer temperatures in degrees.

**M.TE.04.04** Measure surface area of cubes and rectangular prisms by covering and counting area of the faces.

*Convert measurement units*

**M.TE.04.05** Carry out the following conversions from one unit of measure to a larger or smaller unit of measure: meters to centimeters, kilograms to grams, liters to milliliters, hours to minutes, minutes to seconds, years to months, weeks to days, feet to inches, ounces to pounds (using numbers that involve only simple calculations).

**Understand right angles**

**M.TE.04.10** Identify right angles and compare angles to right angles.

**Problem-solving**

**M.PS.04.11** Solve contextual problems about surface area.

*GEOMETRY Understand perpendicular, parallel, and intersecting lines*

**G.GS.04.01** Identify and draw perpendicular, parallel, and intersecting lines using a ruler and a tool or object with a square (90°) corner.

**Identify basic geometric shapes and their components, and solve problems**

**G.GS.04.02** Identify basic geometric shapes including isosceles, equilateral, and right triangles, and use their properties to solve problems.

**G.SR.04.03** Identify and count the faces, edges, and vertices of basic three-dimensional geometric solids.

### *Represent and solve problems for given data*

**D.RE.04.01** Construct tables and bar graphs from given data.

**D.RE.04.02** Order a given set of data, find the median, and specify the range of values.

**D.RE.04.03** Solve problems using data presented in tables and bar graphs, e.g., compare data represented in two bar graphs and read bar graphs showing two data sets.

## **READING Word Recognition and Word Study**

### *Fluency Students will...*

**R.WS.04.06** fluently read beginning grade-level text and increasingly demanding text as the year proceeds.

### *Vocabulary Students will...*

**R.WS.04.07** in context, determine the meaning of words and phrases including similes, metaphors, content vocabulary, and literary terms using strategies and resources including context clues, semantic feature analysis, and a thesaurus.

### *Narrative Text Students will...*

**R.NT.04.01** describe the shared human experience depicted in classic, multicultural, and contemporary literature recognized for quality and literary merit.

### *Informational Text Students will...*

**R.IT.04.01** identify and describe the structure, elements, features, and purpose of a variety of informational genre including autobiography/biography, personal essay, almanac, and newspaper.

**R.IT.04.02** identify and describe informational text patterns including compare/contrast, cause/effect, and problem/solution.

**R.IT.04.03** explain how authors use text features including appendices, headings, subheadings, marginal notes, keys and legends, figures, and bibliographies to enhance the understanding of key and supporting ideas.

### *Comprehension Students will...*

**R.CM.04.01** connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.

**R.CM.04.02** retell through concise summarization grade-level narrative and informational text.

**R.CM.04.03** explain relationships among themes, ideas, and characters within and across texts to create a deeper understanding by categorizing and classifying, comparing and contrasting, or drawing parallels across time and culture.

**R.CM.04.04** apply significant knowledge from grade-level science, social studies, and mathematics texts.

*Critical Standards Students will...*

**R.CS.04.01** develop, discuss, and apply individual and shared standards using student/class created rubrics and begin to assess the quality, accuracy, and relevance of their own writing and the writing of others.

**W R I T I N G** Writing Genre

**W.GN.04.03** write an informational comparative piece that demonstrates understanding of central and supporting ideas using an effective organizational pattern (e.g., compare/contrast) and informational text features.

**W.GN.04.04** use the writing process to produce and present a research project using a teacher-approved topic; find and narrow research questions; use a variety of resources; take notes; and organize relevant information to draw conclusions.

*Writing Process Students will...*

**W.PR.04.01** set a purpose, consider audience, and replicate authors' styles and patterns when writing a narrative or informational piece.

**W.PR.04.02** apply a variety of pre-writing strategies for both narrative and informational writing (e.g., graphic organizers such as maps, webs, Venn diagrams) in order to generate, sequence, and structure ideas (e.g., plot, setting, conflicts/resolutions, definition/description, or chronological sequence).

**W.PR.04.03** draft focused ideas using a variety of drafting techniques composing coherent and mechanically sound paragraphs when writing compositions.

**W.PR.04.04** revise drafts based on constructive and specific oral and written responses to writing by identifying sections of the piece to improve sequence and flow of ideas (e.g., arranging paragraphs, connecting main and supporting ideas, transitions). **W.PR.04.05** proofread and edit writing using appropriate resources (e.g., dictionary, spell check, grammar check, grammar references, writing references) and grade-level checklists both individually and in groups.

### *Personal Style Students will...*

**W.PS.04.01** exhibit personal style and voice to enhance the written message (e.g., in narrative text: strong verbs, figurative language, sensory images; in informational text: precision, established importance, transitions).

### *Grammar and Usage Students will...*

**W.GR.04.01** in the context of writing, correctly use simple and compound sentences; direct and indirect objects; prepositional phrases; adjectives; common and proper nouns as subjects and objects; pronouns as antecedents; regular and irregular verbs; hyphens between syllables; apostrophes in contractions; and commas in salutations to set off words; phrases and dialogue; quotation marks or italics to identify titles or names.

### *Spelling Students will...*

**W.SP.04.01** in the context of writing, correctly spell frequently encountered words (e.g., roots, inflections, prefixes, suffixes, multi-syllabic); for less frequently encountered words, use structural cues (e.g., letter/sound, rimes, morphemic) and environmental sources (e.g., word walls, word lists, dictionaries, spell checkers).

### **Handwriting Students will...**

**W.HW.04.01** write neat and legible compositions.

### **S P E A K I N G Conventions Students will...**

**S.CN.04.01** use common grammatical structures correctly when speaking including appositives, participial phrases, adjectives, adverbs, and prepositional phrases to express ideas in more complex sentences.

**S.CN.04.02** adjust their use of language to communicate effectively with a variety of audiences and for different purposes including community-building, appreciation, invitations, and cross-curricular discussions.

**S.CN.04.03** speak effectively using facial expressions, hand gestures, and body language in narrative and informational presentations.

**S.CN.04.04** present in standard American English if it is their first language. (Students whose first language is not English will present in their developing version of standard American English.)

**S.CN.04.05** understand, providing examples of how language differs from region to region of the United States as a function of linguistic and cultural group membership.

## *Discourse*

**S.DS.04.03** respond to multiple text types by reflecting, making connections, taking a position, and/or showing deep understanding.

**S.DS.04.04** plan and deliver presentations focusing on a key question using an informational organizational pattern (e.g., descriptive, problem/solution, cause/effect); supportive facts and details reflecting and emphasizing facial expressions, hand gestures, and body language.

## **L I S T E N I N G Conventions & V I E W I N G Students will...**

**L.CN.04.01** ask substantive questions of the speaker that will provide additional elaboration and details.

**L.CN.04.02** listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.

**L.CN.04.03** distinguish between and explain how verbal and non-verbal strategies enhance understanding of spoken messages and promote effective listening behaviors. **L.CN.04.04** recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, flatter, explain, dare) in focusing attention on events and in shaping opinions.

## *Response Students will...*

**L.RP.04.01** listen to or view knowledgeably and discuss a variety of genre and compare their responses to those of their peers.

**L.RP.04.02** select, listen to or view knowledgeably, and respond thoughtfully to both classic and contemporary texts recognized for quality and literary merit.

**L.RP.04.03** respond to multiple text types listened to or viewed knowledgeably, by discussing, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding.

**L.RP.04.04** combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then giving an opinion orally).

**L.RP.04.05** respond to and summarize the major ideas and evidence presented in spoken messages and formal presentations.



# with Kahoot!

## Formative/Summative Assessment

### *Getting Started*

**New to Kahoot!?** You'll be making and playing awesome learning games in no time - just follow the step-by-step instructions in this guide.

You'll learn how to discover and play games created by others, duplicate and edit public games, and even create your own kahoots.

Once you're feeling comfortable with the basics, turn to the [Kahoot! Guide to Making and Playing Learning Games](#), where you'll learn the most powerful ways to play.

# First, what is Kahoot!?

**Kahoot! is a free game-based learning platform used by millions of people around the world every day to discover, create, play and share learning games.**

Kahoot! can be used for any subject, any age, and with any device - and players don't even need to register for an account.

Our platform is designed to make learning fun – but it's not just for the classroom.

There are over 25 million people using Kahoot! every month in hundreds of different settings, from meetings to charity fundraisers, awards ceremonies and events. We've even seen Kahoot! played at a wedding!



One of the things that makes Kahoot! so unique is that it's a platform where you decide the content, the imagery and how the game is played. There are over 25 million people using Kahoot! every month in hundreds of different settings, from meetings to charity fundraisers, awards ceremonies and events. We've even seen Kahoot! played at a wedding!

That's right, Kahoot! is all about coming together and making learning awesome. Whether you come together to learn about quadratic equations, digital strategy or about each other is up to you.

## How to play your first kahoot

**Kahoots are best played in a group setting, like a classroom or a conference room – or even with family in the living room.**

Games are displayed on a shared screen – for example a smart TV, a laptop or an interactive whiteboard. You can also use screen sharing tools like Appear.In, Skype or Google Hangouts to include players from other classes or other parts of the world.

Players join in using their own device – whether that is a smartphone, iPad, Kano, laptop, or desktop doesn't matter, as long as they have a browser and good internet connection.

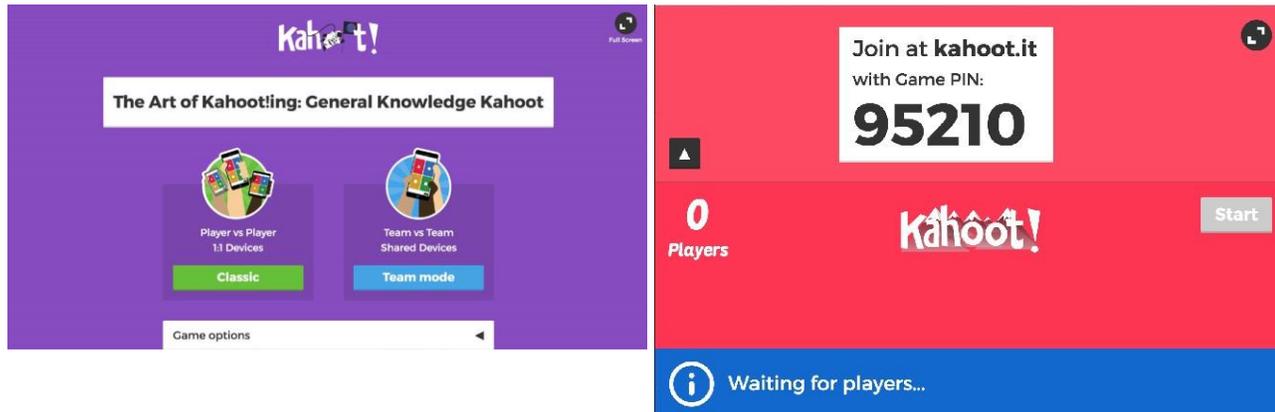
**Step 1. Find a game to play**

Either choose one of the millions of publicly available kahoots, or one that's been shared with you, or one you created yourself. Click “ **Play** ”.



## Step 2. Launch the game so players can join

Change the **Game Options** if you like, and then click **Classic** to play with one device per person, or **Team Mode** to play with one device per team.



A unique Game PIN will be displayed at the top of the screen. Players go to [kahoot.it](https://kahoot.it) and enter the Game PIN, then enter their nickname. ▶ **Step 3. Play the kahoot**

Click “**Start**” once you can see all the players’ nicknames on the “lobby” or waiting screen. During gameplay you can use the space bar or your mouse to go to the next question.

At the end of the game, click **Feedback and Results**, and then **Final Results** to save and download the scores, favorite, play again, or play in Ghost Mode.

## How to make your first kahoot

### Which of the following is an example of a homogeneous mixture?

12

Matter

- Pure substance
  - Element
  - Compound
- Mixture
  - Homogeneous mixture
  - Heterogeneous mixture

Skip

0 Answers

▲ air

◆ chocolate milk

● smog

■ mud

**Step 1. Log in and click Quiz, Discussion or Survey**

Log in to [create.kahoot.it](https://create.kahoot.it) and click Quiz, Discussion or Survey to create a fun learning game in minutes, made from a series of multiple choice questions.

## Create a new Kahoot!



### Quiz

Introduce, review, evaluate, reward and more with a quiz



### Discussion

Facilitate discussion or initiate debate with just 1 quick question

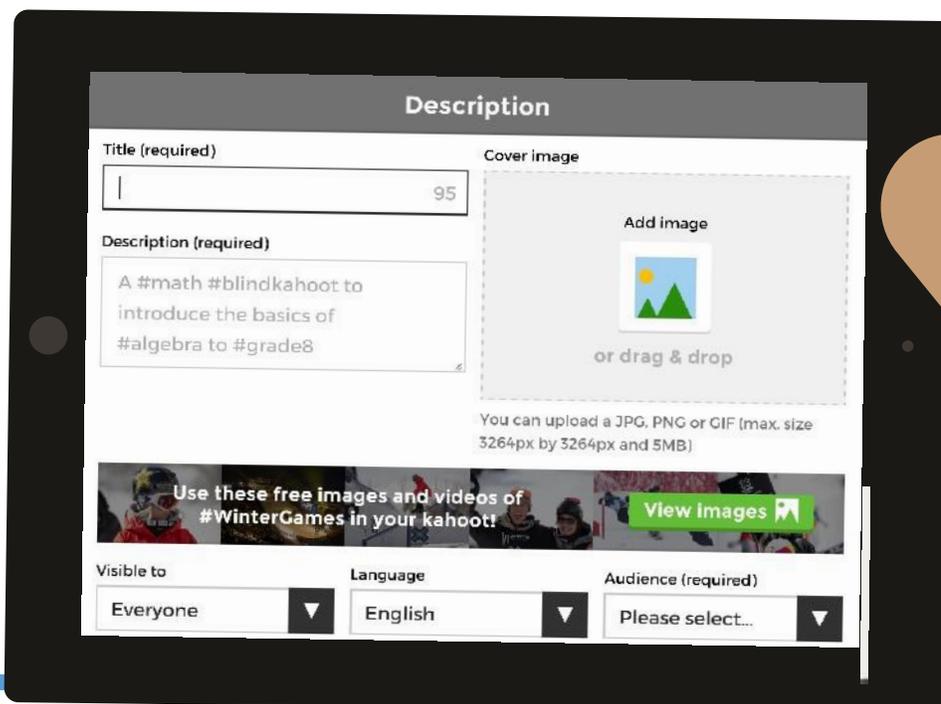


### Survey

Gather opinions and insights to facilitate discussion and debate

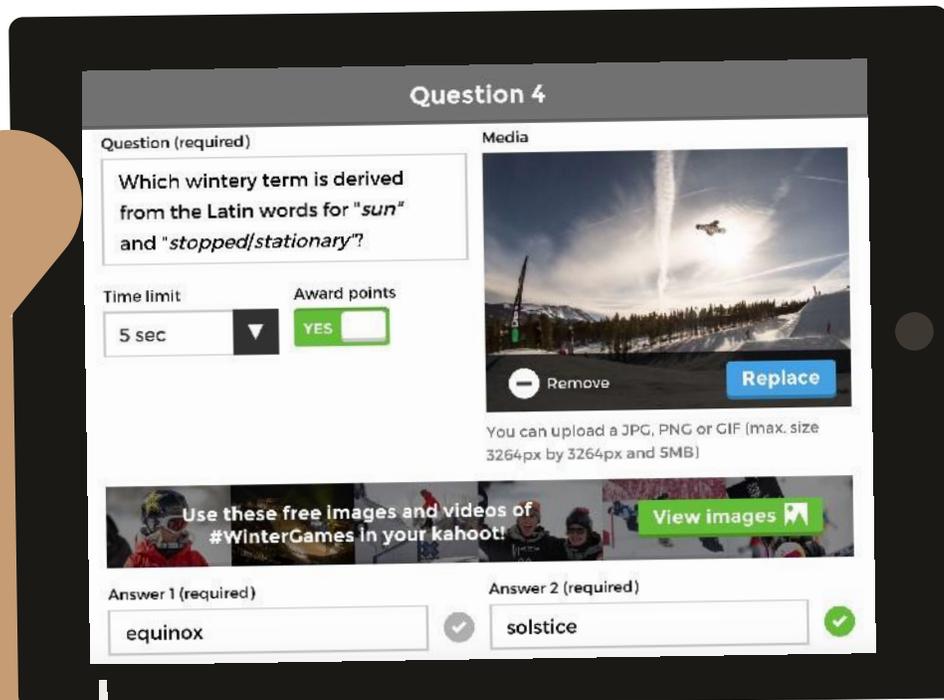
**Step 2. Add a description, tags and cover image**

Adding a good description helps you define learning objectives for the game and keep it focused. Using descriptive **#tags** will ensure other people can find it easily. A great cover image helps the kahoot stand out and attract more players.



**Step 3.** Create the learning game by adding questions, answers and imagery

Follow the instructions on-screen to add questions, answers, images and video clips. You can also fine-tune the kahoot using different timer and points settings or setting multiple correct answers.



## More about creating your own kahoots:

[How to use the Kahoot Creator](#)

[5 ways to make a kahoot awesome](#)

[Made an awesome kahoot? Here's how to attract players](#)

# Need a hand?

Get in touch any time - whether you need a hand, have stories or resources to share, want to challenge the K!rew to a game you've created or just want to say hello.



[@GetKahootinstagram.com/GetKahoot](https://www.instagram.com/GetKahoot)



[facebook.com/GetKahoot](https://facebook.com/GetKahoot) [youtube.com/user/GetKahoot](https://youtube.com/user/GetKahoot) [hello@GetKahoot.com](mailto:hello@GetKahoot.com) [pinterest.com/GetKahoot](https://pinterest.com/GetKahoot)

## Support and FAQ:

[FAQ \(currently being updated\)](#)

[Kahoot! Support, Knowledgebase and Suggestions](#)



[@KahootSupport](https://twitter.com/KahootSupport)



[Facebook Community \(quick help from other Kahoot!'ers\)](#)

## Ready for more?

Once you've got the basics, it's time to truly master the art of Kahoot!'ing.

We'll take you through powerful ways to play, like Ghost Mode, Connected Kahoot!'ing, Learners to Leaders and using Kahoot! to introduce brand new subjects.

**Kahoot code for formative and summative assessment:**

**<https://play.kahoot.it/#/k/0900c0fe-2a35-4dbb-b586-9420b7bb8148>**



\$1 Jiffy Buck



\$1 Jiffy Buck



\$1 Jiffy Buck



\$1 Jiffy Buck



\$1 Jiffy Buck



\$1 Jiffy Buck

**Lesson #1:**  
**Getting a Little Mixed Up**  
A Recipe Lesson

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will be able to create a recipe for a dry drink mix.

**Goals:**

- ❖ To continue with key vocabulary words: entrepreneur, profit, product, incentive, market, market survey, product reference sheet, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.
- ❖ Understand the role taste tests and product need have in the market today.

**Objectives:**

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

1. Explain what an entrepreneur is.
2. Differentiate between supply and demand.
3. Understand what a market economy is.
4. Explain how a product is created, tested, and brought to market.

**Background:**

*“Great ideas can sometimes come from the most unexpected places.”*

~Cynthia Furlong Reynolds,  
“Jiffy: A Family Tradition”

Detroit Free Press  
February 26, 1967

*She Felt Sorry  
For 2 Little Boys  
And the Sandwiches  
Daddy Made—So...*

## She discovered how to help homemakers in a “JIFFY”

By Clara Strange  
Free Press Special Writer



Mabel White Holmes

Chelsea — she is diminutive, feminine, attractive...and she started a new world-wide industry because she felt sorry for two little motherless boys whose father made such frightful looking sandwiches they took to school in their lunches.

They came home one day in 1930 with her two boys, and she found excuses for them to lay aside their lunches and eat with her twin sons. Their father must be nice enough, she reasoned, to have such nice sons, but those biscuits!

Mabel White Holmes and her husband, Howard S. Holmes, representing seventh and sixth generations, respectively, in the flour milling businesses, had the kind of close association which shared business as well as family interests.

\* \* \*

**HOWARD** had been telling his wife that his father, Harmon S. Holmes, a banker as well as a miller, had shown great astuteness in buying this Chelsea milling site in 1908. Now, he said, they would have to turn their study toward better methods of handling the product, since they were approaching the highest quality you could attain in flour.

**Mabel Holmes remembered the boys and their atrocious sandwiches. Possibly, she reasoned aloud, they should print recipes on the flour bags and packages, so carefully worded that even a father could make good breadstuffs for sandwiches.**

“But, no,” she said, “that wouldn’t be enough. Somehow we’ll have to have packages with everything in them but the liquid, and so perfectly

mixed that even the father of a motherless brood would be able to make good biscuits.”

Her husband thought it was a great idea. He said motherless brood or no, every housewife would appreciate the saving in time and fuss. Not one in ten cooks could make fluffy, delicious, baking-powder biscuits.

\* \* \*

**WASN'T IT** T. S. Eliot who said: “Between the idea and the reality — between the motion and the act — falls the shadow?”

Well, there was plenty of shadow between the idea and the reality. First, what should go into the recipe? Which type of baking powder would best stand up under the wait between the mixing and the suing? How much should go into each package? What method of blending would insure the perfect mixing?

**As to the size of each package, Mrs. Holmes said they should scout around and find out how many biscuits an average family used for one meal. She said the greatest bane of most culinary existences was the amassing of opened packages. Most of**

**their contents became stale before being used.**

What about a name? It would have to be catchy, descriptive, just right. They considered many, but none seemed just the right one.

Then, one night when they were driving home to Chelsea from Chicago in a heavy rainstorm, Mrs. Holmes was at the wheel. She was thinking of the problem of a name. And she remembered how her father loved hot biscuits — and the dawning came!

**She could almost hear their cook, Guila, back in Ohio, saying when her father was coming home to lunch and announcing he was in a hurry: “Now, Miss Mabel, you tell your father them good hot, biscuits will be ready in a jiffy!”**

“Jiffy.”

“That was it!”

She nearly wrecked the car. Her husband was instantly convinced that “JIFFY” was the name that would sell.

As for a package, they came up with the same one used today, the white-faced box with black and blue lettering and it holds just enough for the average family for one meal.



Howard Holmes Sr.



Howard Holmes Jr.



Dudley Holmes

\*\*\*

**THIS WAS** the beginning, not only of a long line of "Jiffy" mixes – but a whole new industry of cooking short-cuts that now began to appear on the market. Every good idea is quickly pounced upon.

The idea was so new that the Chelsea Milling Co. had to do some demonstrating to get across the new plan. The first large chain store group to take more than a few cases was the C.F. Smith Stores in Detroit.

**Then another plum fell into their lap, in the persona of Dr Royal S. Copeland, who had been born in Dexter. He later was Mayor of Ann Arbor, then dean of Flower Hospital in New York City, the health commissioner of New York City. He wrote a syndicated column on health for several hundred newspapers, and ran a Health Consulting Laboratory for foods.**

He asked to test the "Jiffy" product, and he gave it is unconditional approval.

Dr. Copeland then became Senator Copeland from New York, and "Jiffy" sales soared.

One problem facing Chelsea Milling Company now was more space. Nestled beneath a battery of tall white grain storage tanks was a house that looked every year its age. In the yard were buildings once housing skilled craftsmen long since abandoned to disuse and decay.

**Holmes approached the owner, who steadfastly refused to sell. The house and the other moldering buildings were all she had left of the work of her husband. Finally, Holmes convinced her she should sell, provided she could live there the rest of her life.**

The company even installed modern plumbing for her and kept the lawn cut. The little tenant was comfortable – until the workmen came to tear down the old woodshed that barely stood against the elements. She tearfully sought out Holmes, and even the woodshed remnants remained.

**In 1933 or 1934, a widely-known artist, Jonathan Taylor, was driving down M-52 (then M-96). He was so impressed with the huge white storage tanks silhouetted against the bright blue sky, and the moldering house and sheds nested in front of them, that he**

**sketched what he saw and called it "An American Cathedral."**

The Smithsonian Institution Washington was impressed with it and chose it to be one of 27 etchings depicting American Scenes to be hung there. It still hangs there, but a copy of it is in the "Jiffy" offices.

The little woman felt vindicated. Her husband's work would be preserved, even if the house and buildings should give way after her death.

\*\*\*

**IN 1936**, tragedy struck the Chelsea Milling Co. and its family. Holmes was in one of the towering grain tanks when the elevator malfunctioned and fell. He was instantly killed.

Mabel Holmes became the president of the firm and her twin sons worked closely with her.

By 1940, Mabel White Holmes felt that her sons were ready to handle everything, so she could step down to a less active role. Howard became president in 1940, and Dudley became secretary-treasurer.

They planned and built an entirely new mill, described as the "newest most modern mill in the United States!"

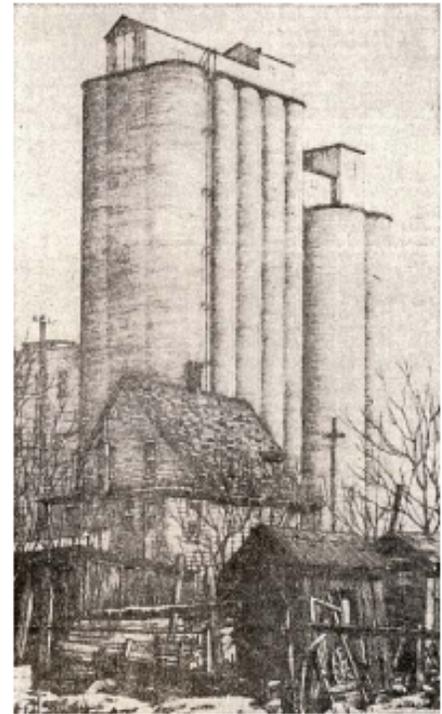
\*\*\*

**WHEN THE CORRECT** blending has been achieved, the mixes flow into bins to be distributed into more than one million packages a day. This process is entirely automated. The flat, blue boxes with the white front are picked up mechanically, lined, and the bottom flap glued by one machine.

They process along a chain belt line to filling machines, receiving half a package of mix, going on until it settles slightly, then receiving the second half.

**The packages continue on conveyors that weigh each down to grams. This weighing continues through three check points, which immediately side track any package that is under or overweight. The same automated process either puts amounts in or takes some out, and the package is again weighted.**

The top of each liner within the box is folded and the flap of the container is glued.



*"An American Cathedral"  
Sketch by Jonathan Taylor of the Chelsea Milling Co. storage tanks towering behind a little lady's old house and sheds is now hanging in the Smithsonian Institute in Washington.*

All-in-all, there are more than two miles of conveyers.

But amid the automated machinery there is room at the Chelsea Milling Co. for the nostalgic memory of the beginnings of the business.

In one spot is an old desk dating back to 1890, with its cash drawer where both money; and records were kept of farmers buying flour or bringing in their wheat in exchange for wheat and flour.

And surely, Mabel White Holmes may look about her with great pride for having started a worldwide industry from suggestions for a housewife's short-cuts in getting meals for her family.

## Materials/Preparation:

- Several different dry drink mixes such as lemonade, raspberry, watermelon, etc.
- Sugar
- Artificial sweetener
- Measuring cups
- Measuring spoons
- Small drinking cups (3 ounces)
- Plastic spoons or popsicle sticks to stir
- Recipe calculation sheet
- Bottled water
- Plastic bag
- Permanent markers
- Journals

## Preparation Hint:

Put the drink mixes into separate containers with new names like:

- Raspberry: Razzle-dazzle
- Lemon: Citrus Splash
- Blueberry: VeryBerry

## Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

**Essential question: *How is a food product designed and tested?***

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out (for further details see ESL/special education learning strategies section). Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. Talk about the lesson from yesterday where the students examined the Jiffy Mix box and did the scavenger hunt.
6. Ask them how products are created. Tell the students that they are going to create a recipe for a dry drink mixture using water and ingredients provided. They will need to accurately measure and record each time they create a mixture on their lab sheet. They should create three mixtures from the ingredients provided.
7. Show the students the video from KidSnippets on YouTube.

<https://www.youtube.com/watch?v=WuIQTOfnBw>

(These videos are two kids whose dads record them and use the audio to create a new video of what the kids do.) Go over the ingredients with the students. (If you can give them creative names that they can use instead of 'lemonade mix'.)

8. When the students have created three recipes, they should choose the one they liked the best. They will need to keep the bag with

their name on it for the good product for the next lesson to box it up.

9. Have the students complete the attached sheets for correct measurements to upsize their drink mix to take to market for assessment. They should also record the data for their final mixture in their journals.

Name \_\_\_\_\_

Trial #1:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Ingredient:	Amount for one drink:	Column B times 6: (answer goes in column D)	Amount for six drinks:
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	

In three sentences describe how this one tasted to you:

---

---

---

Rank: \_\_\_\_\_

Trial #2:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Ingredient:	Amount for one drink:	Column B times 6: (answer goes in column D)	Amount for six drinks:
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	

In three sentences describe how this one tasted to you:

---

---

---

Rank: \_\_\_\_\_

Trial #3:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Ingredient:	Amount for one drink:	Column B times 6: (answer goes in column D)	Amount for six drinks:
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	
		_____ X 6 = _____	

In three sentences describe how this one tasted to you:

---

---

---

Rank: \_\_\_\_\_

**Lesson #2:**  
**Thinking Outside the Box**  
(of Entrepreneurship)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will examine a product to understand market strategies.

**Goals:**

- ❖ To introduce students to key vocabulary words: entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

1. Explain what an entrepreneur is.
2. Differentiate between supply and demand.
3. Understand what a market economy is.

**Background:**

“At first they will ask you *why* you are doing it.  
Later they will ask you *how* you did it.”

-Foundr

American Profile December 2006



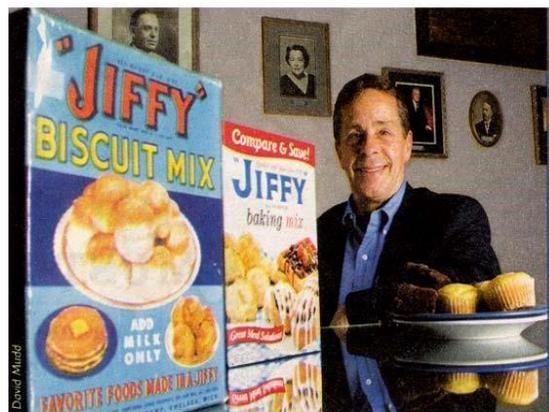
# Making Baking a Jiffy

by MARTI ATTOUND *Contributing Editor*

When Mabel White Holmes saw the hard-as-rock biscuits that a single father had baked for his sons in 1928, she set about finding a fix. For two years she experimented in her kitchen in Chelsea, Mich., until she had combined the perfect proportions of flour, shortening, sugar, salt and baking soda into America’s first prepared baking mix. For the first time, a homemaker could simply add milk to a packaged mix, and with little fuss or chance of failure, bake a batch of delicious, fluffy biscuits.



Seventy-eight years later, Holmes’ grandson and his 350 employees continue to churn out more than a million boxes of Jiffy baking mixes daily at the Chelsea Milling Co. in Chelsea (pop. 4,398). “Grandma thought, ‘Wouldn’t it be neat to invent a product that would taste great and be so easy that a man could make it?’” says Howdy S. Holmes, 58, company president.



“The whole idea was to provide a service to homemakers.” Initially, Mabel puzzled over what to call her new product. Inspiration struck while she was behind the wheel of a car on a trip with her husband, Howard. She nearly wrecked in her excitement, Howdy says. “My grandma remembered that when she was a small child, the lady helping in the kitchen would say, ‘Mabel, you run and tell your daddy that those biscuits will be ready in a jiffy.’” The first boxes of 40-ounce Jiffy all-purpose baking mix cost 28 cents – and sold like the hotcakes they made. Homemakers spread the word about the timesaving mix and to this day, the company relies on word-of-mouth promotion. The savings in advertising is reflected in the \$1.49 price on the 40-ounce box and American Profile December 2006 Howdy S. Holmes is proud of his family’s flour-milling tradition in Chelsea, Mich. the smaller 8.5-ounce boxes, which sometimes sell for three for a dollar. Loyal customer Harriet Humphrey has stocked her cupboards with Jiffy mixes for 49 years. “The cornbread is an old standby,” says Humphrey, 71, of Pittsford, VT (pop. 3,140). “I couldn’t keep house without it.” The Holmes family has been selling baking ingredients to homemakers for nine generations. The family began milling flour in 1802, bought the Chelsea flour mill in 1887 and introduced its popular Jiffy mix in 1930. Mabel White Holmes, Jiffy’s mastermind Six years after launching America’s baking mix industry, Mabel assumed the role of company president when her husband died in a grain silo accident. The couple’s 23- yearold twin sons, Howard and Dudley Sr., ran the company and the Jiffy line continued to grow with a pie crust mix in 1940 and a corn muffin mix in 1950. Today, Chelsea Milling Co. fills 1.6 million Jiffy boxes daily with biscuit, cake, frosting, fudge brownie, muffin, pizza crust and pancake mixes. Fro the start, the company has been a do-it-all manufacturer – from milling its own flour to making its own cheery, blue boxes. With its gleaming white silos, the Chelsea plant – nicknamed Jiffyville – is a downtown landmark and favorite destination for tour groups. Visitors end tours with free samples of hot fluffy biscuits or muffins. While today’s boxes look nearly identical to the originals and carry the slogan, “Quality and Value since 1930,”Chelsea Milling Co. has endured by changing with the times. When Howdy retired as a racecar driver and returned to the family business in 1988, he modernized the plant, built a \$4.5 million warehouse in 1996 and introduced commercial-sized mixes to cater to restaurants and hospitals. Still, he admires the perseverance of his flour-milling forefathers and cherishes the ingenuity of his grandmother. “Grandma had a simple idea and followed through,” Howdy says. “She wanted to save people time and money in the kitchen.” Those basic ingredients are still valued by America’s homemakers.

## Materials/Preparation:

- Children’s book: Caps for Sale by Esphyr Slobodkina and the video from the website: <https://www.youtube.com/watch?v=INptSCKqdfg>
- large poster paper to survey the students about their favorite cap in the pictures
- paper
- pencils
- journals/notebooks
- Caps for Sale Video Questions
- Box of Jiffy Mix (one box for every student)
- Jiffy Mix Box Scavenger Hunt worksheet
- Jiffy Bucks

## Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: *What is an entrepreneur?*

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group’s theory.
3. Have the large group share out Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.

4. Show students the following picture on the Smartboard and poll the students as to which is their favorite. Write the number on the blank so the students can see the results.



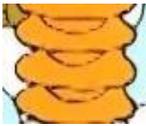
# Which is your favorite?



(red) = \_\_\_\_\_



(grey) = \_\_\_\_\_



(yellow) = \_\_\_\_\_



(dapple) = \_\_\_\_\_



(tweed) = \_\_\_\_\_

5. After taking the poll with the students, tell them they have just participated in a market survey. Ask them why this information is important (now they know the class favorite).
6. Pass out the video questions. The questions are in the sequence of the video. Show the students the video and have them answer the questions.
7. After the video is over, discuss the questions with the students. Discuss what a *peddler* is and what he does for a living. Explain that this person is an *entrepreneur* in that they are selling a product for money.
8. Show the students the results from the survey again. Talk about which hat would be best to sell to *this* class and why. (The students should determine which hat was the most popular among the students and say they would want to sell that hat to the class.)
9. Show the students the picture of the peddler with all his caps on his head. Discuss *how* this helped him to sell his caps.
10. Show the students the box of Jiffy Mix. Ask them questions such as:
  - What is the product name? How do you know?
  - What about this product makes you like the box?
  - What is included on the box?
  - Why are these things important?
11. Share details of the box design with the students. Ask the students how the box design is similar to the peddler selling his caps. (marketing)
12. Each student will get \$10 in “Jiffy Bucks” as a start to spend for turning in their video questions. Ask students why you would give them “money” for turning something in? (incentive)

13. Tell the students they are going to go on a scavenger hunt. They will be studying the Jiffy Mix box to find the answers to the questions on the sheet. Students should earn \$1 Jiffy Buck for completing the worksheet, good classroom behavior, etc.
14. The scavenger hunt sheet is due at the end of the class.
15. The Jiffy Bucks will be used at the end of the unit in a product market where they can “buy” products created by their classmates. Students should also have to “pay” for missed assignments.

Name \_\_\_\_\_

### Caps for Sale Video Questions

1. What does the man do to earn money? \_\_\_\_\_
2. Where does he work? \_\_\_\_\_
3. What does he do to sell his product? \_\_\_\_\_
4. On the day they aren't selling, what does he do? \_\_\_\_\_
5. How many hats does he have on his head? \_\_\_\_\_
6. What does he do when he wakes up? \_\_\_\_\_
7. Where does he find his merchandise? \_\_\_\_\_
8. How did they get there? \_\_\_\_\_
9. What is the man called as he looks up the tree? \_\_\_\_\_
10. Does he get them back right away? \_\_\_\_\_
11. How did he feel? \_\_\_\_\_
12. What does he do with his cap? \_\_\_\_\_
13. What happens after he does this? \_\_\_\_\_
14. Why was he angry that he didn't have his product? \_\_\_\_\_  
\_\_\_\_\_.
15. Where does he go after he gets it back? \_\_\_\_\_
16. What's he going to do? \_\_\_\_\_

Name \_\_\_\_\_

### Caps for Sale Video Questions (Answers)

1. What does the man do to earn money? he sold caps
2. Where does he work? on the streets
3. What does he do to sell his product? says caps for sale, wears them on his head
4. On the day they aren't selling, what does he do? goes for a walk
5. How many hats does he have on his head? 17
6. What does he do when he wakes up? feels for his caps
7. Where does he find his merchandise? in the tree
8. How did they get there? monkeys took them
9. What is the man called as he looks up the tree? a peddler
10. Does he get them back right away? no
11. How did he feel? angry
12. What does he do with his cap? throws it
13. What happens after he does this? the monkeys throw their caps
14. Why was he angry that he didn't have his product? he couldn't sell them
15. Where does he go after he gets it back? back to town
16. What's he going to do? sell his caps

Name \_\_\_\_\_

### Jiffy Box Scavenger Hunt

1. When was Jiffy Mix started? \_\_\_\_\_
2. What do you have to add to Jiffy Mix? \_\_\_\_\_  
\_\_\_\_\_
3. How many ounces in a box? \_\_\_\_\_
4. Who is the president of Chelsea Milling? \_\_\_\_\_
5. Name ten items Chelsea Milling makes?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. How many servings per container? \_\_\_\_\_
7. At what temperature does it bake? \_\_\_\_\_
8. How long do you bake the mix? \_\_\_\_\_
9. What state is Chelsea located? \_\_\_\_\_
10. Where can you find more recipes? \_\_\_\_\_

Name \_\_\_\_\_

### Jiffy Box Scavenger Hunt

(Answers)

1. When was Jiffy Mix started? **1930**
2. What do you have to add to Jiffy Mix?  
**Egg**  
**Milk**
3. How many ounces in a box? **8.5**
4. Who is the president of Chelsea Milling? **Howdy Holmes**
5. Name ten items Chelsea Milling makes?  
**Cakes** **Brownies**  
**Muffins** **Pizza crust**  
**Biscuits** **Baking mix**  
**Frostings** **Pancakes**  
**Pie crust** **Waffle mix**
6. How many servings per container? **About 6**
7. At what temperature does it bake? **400 degrees**
8. How long do you bake the mix? **15 – 20 minutes**
9. What state is Chelsea located? **Michigan**
10. Where can you find more recipes? **Jiffymix.com**

**Lesson #3:**  
**Thinking Outside the Box**  
**(of Entrepreneurship)**

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will be able to create a box out of a sheet of paper.
- ❖ Students will design a package for their drink mix they created in the previous lesson.

**Goals:**

- ❖ To continue with key vocabulary words: entrepreneur, profit, product, incentive, market, market survey, product reference sheet, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.
- ❖ Understand the role packaging plays in the marketing of a product.

**Objectives:**

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

10. Explain what an entrepreneur is.
11. Differentiate between supply and demand.
12. Understand what a market economy is.
13. Explain how a product is marketed using packaging.

Background:

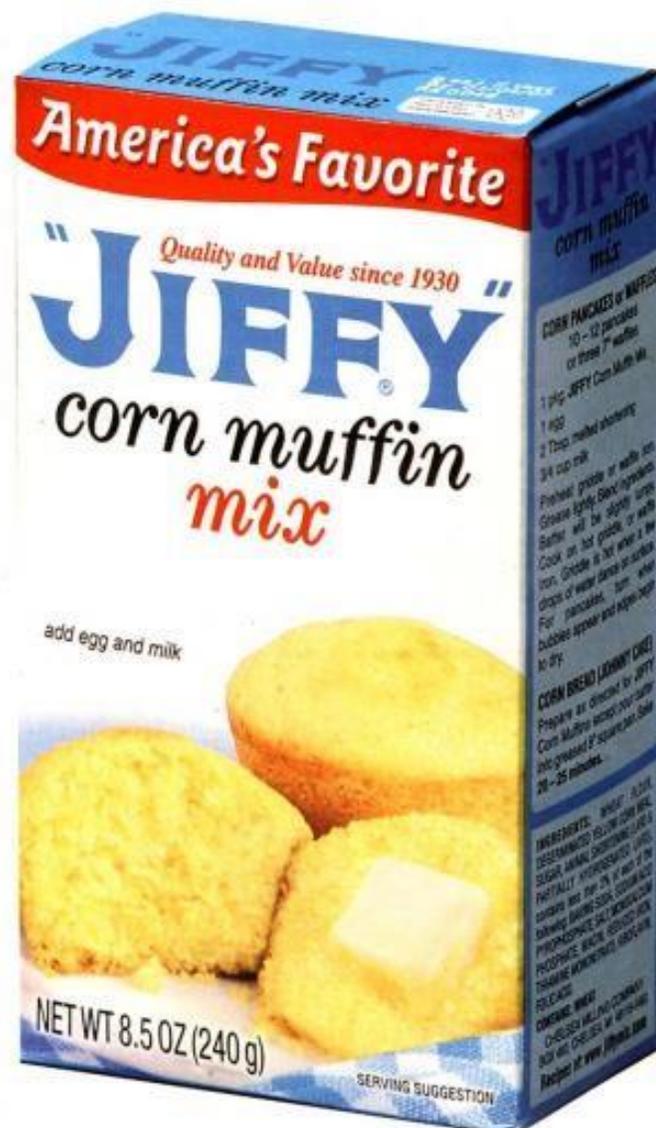
*“Packaging can be theater.  
It can create a story.”  
-Steve Jobs*

# Color Management in a “Jiffy”

**B**rand recognition and integrity depend on packaging. The need for faster makeready, on-time delivery, and reductions in cost and waste place a premium on predictable results and comparable quality independent of location, substrate, or printing process. The primary goal of color management, therefore, is to reproduce predictable, repeatable, consistent color across a range of devices and media from the time a file enters the workflow until it is reproduced on press. Because proof, plate, and print must deliver identical results, color management touches every part of the print or packaging workflow. As such, it relies on a range of tools including calibrations devices, prepress software, on-press color monitoring, and other methods for controlling color.

C&S Carton in Marshall, Mich., the printing division of Chelsea Milling Company, a vertically integrated, fourth-generation food manufacturer, recently invested in one such tool—a digital color control system by EPG (Essex Products Group) that enables user-friendly

*The iconic Jiffy brand line of baking mixes was refreshed with updated, color-rich packaging.*



## PREPRESS



Don Whitney, second pressman, C&S Carton, uses X-Rite inspection equipment to check ink color densities produced by the KeyColor ink control system.

ink key adjustments from a central brand product line, which now ink desk to control color, speed included 24 different prepared ~~mixes~~, and reduce waste. ~~mixes~~, C&S prints the shells for Chelsea Milling ~~Company~~, every one of them.

Chelsea, Mich., has been selling Jiffy prepared baking mixes since 1930. It has never advertised to consumers, relying instead on its core principles of providing quality and value to its customers, as well as brand awareness of the "little blue boxes" that hold the Jiffy mixes. When the time came to revamp the graphics on the blue box, the company replaced an aging 5-color press with a 6-color 77" Harris, equipped with the EPG ~~KeyColor~~ system.

"We were running a 5-color 77" Harris from 1970 until about two years ago," says Don Stephan plant manager, C&S Carton. "It had cloth dampeners and was badly in need of major repair. When we went to proof the new graphics on our shells, the owner realized we couldn't reach the color quality (the brightness of the red on the flag) that he wanted to achieve. So we replaced the older press with another 77" Harris—a 6color this time—and upgraded it with the EPG system and Dahlgren Dampeners."

Chelsea Milling Company stores wheat, mills it into flour, and uses it exclusively for its own prepared mixes. The company created C&S Carton in 1970 to help control the quality and cost of the cardboard

C&S's purchase of the 6-color Harris with EPG system was a direct result of management's decision to revamp the graphics on the Jiffy box. The team was looking for a fresher, more modern and livelier look, without abandoning the lineage of the Jiffy brand franchise.

"Since we don't advertise, that package is the franchise," explains Jack Kennedy, vice president of operations. "Why bother going to the effort of refreshing the graphical look of our packages if we couldn't reproduce colors from package to package on a consistent basis? We needed to have that repeatability and quality to make our other efforts pay off." C&S runs six colors to produce the Jiffy blue box. Three are process colors and three are spot colors—the dark blue, background blue, and a red—specially formulated for Jiffy. Six EPG

keys by hand," Kennedy explains. Not all 59 ink keys had to be adjusted on each unit every time, but a majority of them had to be changed. "If we still had control color by hand, it would defeat the purpose of all these other improvements."

Although it is a captive printing operation, C&C Carton faces challenges that are similar to those faced by most converters, such as the demands for higher quality and faster turnarounds, all while keeping costs down. The absence of product advertising makes the visual appeal of the "little blue box" even more critical and raises the stakes on the company's ability to control quality efficiently and cost effectively. On an average day, C&S Carton's 14 employees produce 1.5 million packages, 42-up on a sheet, in one 10-hour shift. The division prints 300 million shells annually. Prepress work is handled outside; C&S prints onto recycled clay-coated boxboard, then strips and cuts the

board, sending the shells to Chelsea of taking 2,000 sheets to get up to color, Milling in a flat configuration. it now takes 200."

EPG's digital KeyColor ink control system incorporates Smart Fountain technology for computerized control of the fountain ink keys. Smart Fountain is designed to allow press operators to adjust ink key settings easily and quickly on all ink fountains from a central console, helping assure color repeatability throughout an entire press run, while speeding makeready and reducing waste. The Dahlgren continuous dampening system helps maintain consistent press performance and reduce scrap, Stephan says.

Now, except for some normal variation during a press run, the color holds. Comments Stephan, "On our old press, we were lucky to run 28,000 sheets a shift. Because of the newer press and the EPG system, we are now able to run anywhere from 38,000 to 40,000 sheets. Startup time has been reduced from 45 minutes to 15 minutes, and instead

Smart Fountains, one for each of the six units on the press, control the ink keys. Each Smart Fountain controls 59 ink keys. C&S also uses a densitometer, running color by the numbers instead of the press operator's best guestimate. Prior to the EPG install, "in order to accommodate normal variation during a press run, the operator had to manually adjust hundreds of ink

of taking 2,000 sheets to get up to color, it now takes 200."

Gary Hoag, C&S Carton production supervisor, adds, "It has also reduced overtime, because we are running much more efficiently. C&S develops a history for each product shell it prints, which gets stored in the KeyColor console. Some shells, like those for the bestselling corn muffin mix, are produced constantly, while others—holiday or seasonal varieties, for instance—are produced intermittently. The stored data ensures that the color is consistent regardless of the timeframe between the shell runs for a particular product.

"When we proof a job, Howdy will come over for a press check," says Stephan. "When he OKs it, we save the data, so the next time we put that job on press, we can go back into the computer, bring it back up, and automatically start adjusting the keys for color."

As part of its own improvement process, C&S's prepress house, Panoplate Lithographic in Kalamazoo, Mich. provided C&S with a profile, or fingerprint, of the new 6-color press soon after installation. Performing fingerprinting prior to production ensures full color management. Color profiles and gamma curves are adjusted accordingly so that the digital proof matches the final production print.

"Profiling, or fingerprinting, gave us the characteristics of our press—dot gain and all the other attributes of how one press differs from another," Kennedy explains. "Panoplate applies that profile and makes adjustments at the plate level rather than us having to make adjustments on press." Training press operators to use the system went very well, says Stephan. "The EPG system is so much easier to work with," he says. "The press operators fell in love with it. It made their job so much easier and saves them so much time. It saves us a lot of legwork. It is like night and day from the way we used to do it."

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## Materials/Preparation:

- Three sheets of blank printer paper for each student
- Two sheets of card stock for each student
- Scissors (one per student)
- Clear tape
- Drink mix in a Ziploc bag from previous lesson
- Journals/notebooks
- Markers, crayons, colored pencils
- Engineering printout
- Jiffy Bucks

## Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

**Essential question: *How is a product packaged? What should be considered when packaging a product?***

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.

5. Talk about the lesson from yesterday where the students examined the Jiffy Mix box. Ask guiding questions like what was on the scavenger hunt for the students.

6. Ask them how boxes are made. Tell the students that they are going to create a box out of a sheet of paper. Pass out the three sheets to each student. They can cut the paper and fold as needed, but they only get three sheets. If they want to buy more, each sheet is a Jiffy Buck and they can purchase a maximum of two more. Their final product should be made from the card stock for a sturdier box.

7. Give the students about 10 minutes to cut and fold to create a box *with a lid or way to close the box*. They can work with other students, use pencils to create lines, etc. After ten minutes, they need to stop and talk about what designs worked and which didn't.

8. The students will design and write the product description for the drink mix they made. Their drink mix should be in the closed bag and must fit in to their box. They can color, write on, fold, and include the necessary information on their boxes to market. Encourage the students to look at the Jiffy Box for what should be included on their box and for design appeal. Display the boxes for the students to see. Finished boxes earn \$1 Jiffy Buck. Complete the engineering design questions for assessment.

Name \_\_\_\_\_

In the boxes below, sketch each design you made and briefly write what worked/didn't work in the box.


E. What is the engineering process?

---

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Information to include on your box:

- Product name
- Where it was made
- Company background information (three sentences)
- Ingredients
- Mixing instructions
- Contact information

**Lesson #4:**  
**From Farm to Table**  
(day one of four)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will learn about agriculture in Michigan.

**Goals:**

- ❖ To continue with key vocabulary words: ingredients, farm, supply chain, crop, entrepreneur, profit, product, incentive, market, market survey, product reference sheet, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.
- ❖ Create a map of the food supply chain.

**Objectives:**

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

1. Explain what an ingredient is.
2. Show on a map where the crops are grown in Michigan.

**Background:**

*“I’d rather be on my farm than emperor of the world.”*  
*-George Washington*

# Facts about Michigan agriculture

Boost your intelligence and impress your family, friends and colleagues with your knowledge of Michigan's often overlooked but truly impressive agriculture industry.




## MICHIGAN AG FACTS

**52,194**  
Number of farms in Michigan

**58 YEARS**  
Average age of a Michigan farmer

**300**  
Number of agricultural commodities produced in Michigan

**SECOND**  
Michigan's ranking for the state with the most diverse agriculture industry in the nation.

**9.9 MILLION ACRES**  
Land in Michigan farms

**FIRST**  
Michigan's ranking for the state that produces the most low-fat ice cream mix and grows the most cucumbers for pickles, blueberries and tart cherries.

**191 ACRES**  
Average size of a Michigan farm

**98%**  
Percentage of U.S. farms individually or family-owned



## Agricultural Diversity

- Michigan produces more than 300 commodities, making us the state with the second most diverse agriculture industry in the nation just behind California.
- Michigan has a diverse commodity mix that is made up of about 60 percent crops and 40 percent livestock.

## Farms & Farmland

- In 2014, the number of farms in Michigan totaled 51,600.
- Michigan farmland in 2014 totaled 9.95 million acres.
- The average size farm in Michigan was 193 acres in 2014.

## Farm Structure

- 95 percent of Michigan farms are single-family operated and/or family partnerships.
- Of the few Michigan farms structured as corporations, 99 percent of those are family-owned and involve multiple generations and family members.
- The average age of a Michigan farmer is 56 years old.

## Economics

- The food and agriculture industry contributes \$101.2 billion annually to the state's economy.
- Michigan is home to approximately 2,000 licensed food processors, employing more than 130,000 residents.
- The state's food processors generate nearly \$25 billion in economic activity, making Michigan 19th in the nation for food processing.

## Employment

- Agriculture, food processors, and related businesses employ 923,000 Michiganders — 22 percent of the state's workforce.
- 24,795 Michiganders operate farms as their primary occupation. An additional 52,719 work part-time on farms, while maintaining off-farm jobs.
- Michigan is home to the nation's pioneer land-grant university, Michigan State University, where the College of Agriculture and Natural Resources offers many agriculture-related majors.

## Specialty Sectors

- Michigan ranks third in the nation for number of farmers markets.
- The state is home to 119 wineries.
- Michigan boasts more than 200 micro-breweries.

## Exports

- Michigan exports about one-third of its agricultural commodities each year, generating nearly \$3.2 billion.
- Almost 60 percent of all Michigan's agricultural exports go directly to Canada, our No. 1 export market.
- Rounding out the top countries eager for Michigan-grown products are Mexico, Japan, China, and South Korea.

## Tops in National Agricultural Production

- Our state ranks No. 1 nationally in the production of:
  - Dry Black and Cranberry Beans
  - Begonias ○ Blueberries
    - Tart Cherries ○ Pickling Cucumbers
  - Easter Lilies ○ Geraniums ○ Low Fat Ice Cream Mix ○ Impatiens ○ Petunias ○ Squash

## Major Commodity Sectors (based on cash receipts)

- Milk
- Floriculture
- Corn
- Soybeans
- Vegetables
- Fruit
- Cattle
- Hogs
- Poultry
- Sugar beets

## Sources and additional resources

- Michigan Department of Agriculture and Rural Development, [Michiganders: Let's Celebrate Food and Ag Month, March 2016 News Release](#)

- USDA NASS Great Lakes Region, [Michigan Farm Numbers, Feb. 2015 News Release](#)
- USDA NASS Great Lakes Region, [2012 Census Profiles Michigan Farmers & Agriculture, News Release](#)
- MSU Product Center, Strategic Research Papers, [Economic Impact of Michigan's Food & Agriculture Sector](#)

Follow this link for more background information:

<https://www.youtube.com/watch?v=joUggaD6Mr0>

### **Materials/Preparation:**

- Map of Michigan
- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Markers, crayons, colored pencils
- Jiffy Bucks
- Computers for research
- Cups
- Dirt
- Sunflower seeds
- Water
- Shovels

### **Procedure:**

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: *Where do the ingredients in Jiffy Mix come from?*

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow

students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.

3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. Have the students get their boxes of Jiffy Mix. Tell them to list the first five ingredients on the chart.
6. The students will then research what each item is using the computer. They should write two interesting facts about each one in the second column.
7. The students should also find out where in Michigan they would get these ingredients.
8. The students should then locate the cities, bodies of water, and farms on the map where they would find the ingredients in Jiffy Corn Muffin Mix as well as the Chelsea Milling Company in Chelsea. The bodies of water should be colored blue, the land green, and designation clear for the location of the items listed above.

Name \_\_\_\_\_

### First Five Ingredients in Jiffy Corn Muffin Mix

Ingredient:	Interesting Facts:	Where does it come from in Michigan?

Name \_\_\_\_\_



Cities:

- Detroit
- Grand Rapids
- Warren
- Lansing
- Sterling Heights
- Flint
- Ann Arbor
- Chelsea

Bodies of Water: (blue)

- Lake Michigan
- Lake Erie
- Lake Superior
- Lake Huron

Where would you find the farms for the ingredients in Jiffy Corn Muffin Mix?

**Lesson #5:**  
**From Farm to Table**  
(day two of four)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will learn about agriculture in Michigan.

**Goals:**

- ❖ To continue with key vocabulary words: ingredients, farm, supply chain, crop, entrepreneur, profit, product, incentive, market, market survey, product reference sheet, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.
- ❖ Create a map of the food supply chain.

**Objectives:**

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

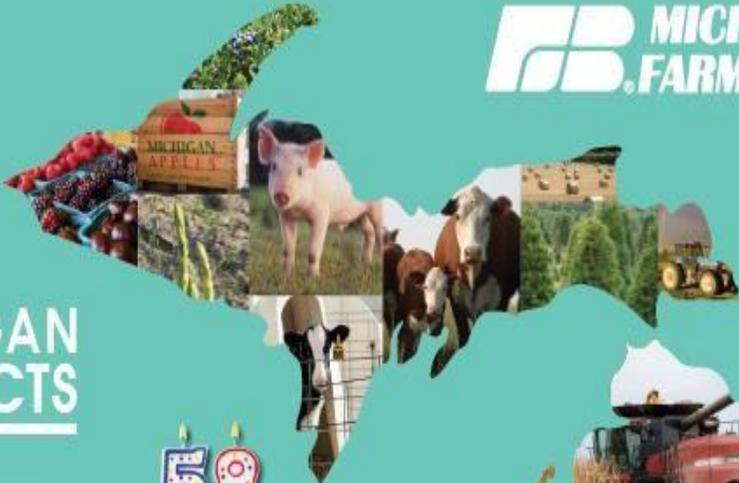
1. Show on a map where the crops are grown in Michigan.
2. Talk about the transportation of crops to a mill for processing.

**Background:**

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- USDA NASS Great Lakes Region, [Michigan Farm Numbers, Feb. 2015 News Release](#)
- USDA NASS Great Lakes Region, [2012 Census Profiles Michigan Farmers & Agriculture, News Release](#)
- MSU Product Center, Strategic Research Papers, [Economic Impact of Michigan's Food & Agriculture Sector](#)

Follow this link for more background information:

<https://www.youtube.com/watch?v=joUggaD6Mr0>

### Materials/Preparation:

- Map of Michigan from the previous lesson
- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Jiffy Bucks
- Five stations with an item at each (see below) to coordinate shipping in a relay
- Hard boiled eggs (one per student)

### Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: *How do the ingredients in Jiffy Mix get from the farm to Chelsea?*

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share

- their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
  4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
  5. Have the students get their boxes of Jiffy Mix. Ask them what the first five ingredients are in the mix.
  6. Ask students to consult their maps of Michigan from the day before.
  7. Tell the students that they are going to analyze how to get materials from one place to another in the classroom at the least expensive yet most efficient rate.
  8. At each station, place the following items: wheat, corn, sugar packets, Crisco (for animal shortening), and baking soda.
  9. Students are to start at their starting point (they may choose where), and then gather the items from each station while taking the least amount of steps. They must count each step they take in gathering the items. No student may carry more than one item at a time back to where they started. They must also keep track of how long it took them to gather the items. And, all the while the student must carry the egg (don't tell the it is hard boiled) and keep it from dropping.
  10. Tell the students to record their steps after each station.
  11. Ask them how they could make this more efficient? (The students will say that they could carry more than one item at a time.)

12. Do the circuit again and this time let them pick two items *that aren't next to each other* to take back to their starting point. Again the student must carry the egg as well.
13. After this round have them note the time and steps it took to gather the items. What difference do they see?
14. Have them do another round and this time they may gather five items in one trip. Have them note the time and steps again. They may not drop any of the items.
15. For the last round, give the students a paper bag (simulating trucking and freight) and have them carry as much as they can in as few steps as possible. Note time and steps. What were the differences between the first and last trips?

Name \_\_\_\_\_

Trip:	Steps:	Time:

What made your steps and your time go down and your process improve?

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**Lesson #6:**  
**From Farm to Table**  
(Day three of four)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will research a state and create a poster about that state's demographic information to do a gallery walk with their peers.

**Goals:**

- ❖ To introduce students to key vocabulary words: transportation, logistics, entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

1. Explain what distribution is.
2. Differentiate between supply and demand.
3. Tell five important facts about another state.

**Background:**

“Without geography, you’re nowhere.”

## Background:

# Jiffy mix set to move into food service firm may also become global player

*Ann Arbor Business Review — February 2006*

By Janet Miller

[news@mbizreview.com](mailto:news@mbizreview.com)

Compared to its first 100 years, the privately held Chelsea Milling Co., makers of Jiffy Mix, is moving faster than you can whip up a batch of corn muffins.

It took 10 years to introduce a second product after Jiffy Mix all-purpose baking mix made its debut in 1930. And after the pie crust mix was introduced in 1940, it took another decade to introduce the company's third product, corn muffin.

"We don't fit the business school mold in terms of frequency of introducing new product," Howdy Holmes, CEO and great grandson of the company's founder quipped. "We'd do one a decade."

So it seems like Jiffy Mix is now on the fast track, Holmes said. Consider this: Three new mixes - lemon cake, lemon frosting and oatmeal muffins - were introduced last year, along with a new 40-oz size of the all-purpose baking mix. The company revamped the design of its iconic blue box for a fresher look last year. Jiffy Mix sits on the verge of entering the food service market. The company's first industrial-sized packages of corn muffin mix are in warehouses a waiting distribution. And, Jiffy Mix is moving toward becoming an international player.

"We launched four new products last year, when we used to launch a new product every 10 years," Homes said. "It speaks to how the marketplace has changed. People are not baking as much as they used to."

The home baking mix industry has been flat to declining since 1991, Holmes said, with in industrywide volume drop of 26 percent in that time. While the privately owned, family run company doesn't release sales data, "Jiffy Mix hasn't been hit as hard as the rest of the industry, Holmes said. "We've outperformed the competition."

While the industry is struggling, Jiffy Mix's market share has risen. It owns 59 percent of the overall market, and can produce up to 1.6 million boxes of mix a day. Its numbers for the value market - where a box mix costs \$1 or less - are even more impressive. Jiffy owns 67 percent of that market. The value market is credited with 87 percent of sales, while the premium market (a box costs \$1 or more) accounts for a 13 percent share.

Still, Jiffy Mix needs to respond to the decline in home baking, Holmes said. "While it's never going to go away, I don't see a turnaround in home baking," Holmes said, "As a result of the volume drop, Jiffy Mix has decided to explore other channels of distribution." That included various channels of food service along with exports.

While food behemoths such as General mills, Pillsbury and Continental Mills are multi-layered and can turn to other divisions such as frozen and refrigerated food lines, Jiffy has always been strictly

dried mixes. It holds a place in history as the first retail prepared baking mix ever. Jiffy Mix needs to look beyond the baking aisle for places to do business, Holmes said.

Jiffy Mix has been courting change for a decade, Holmes said. "We've had to arrange ourselves facilities-wise, systems-wise and people-wise. To change an organization, you just can't do that overnight. We've had the luxury to prepare."

For instance, the company has increased production capacity 33 percent since 1990 and personnel by 30 percent. It's also increased storage capacity. "We've gone from a day-at-a-time inventory to four, five or six days," Holmes said.

After a decade of preparation, the changes have begun. The company's top seller - corn muffin mix (Jiffy owns 92 percent of the corn muffin mix sales nationally) - will lead the way. One of the top four national food service distributors - Holmes doesn't want to name the company - has five-point packages (two 2 1/2 pound boxes banded together) of Jiffy corn muffin mix warehoused and ready for distribution in less than a month, Holmes said. Holmes hopes Jiffy Mix will find its way into restaurants, senior citizen homes, schools, and prisons.

There are other channels within the food service industry where Jiffy Mix will look, Holmes said. The company could look to supply ingredients for the frozen or partially-baked market, or even compete in these niches directly, Holmes said. "We have so many options. But we have to understand them first. We need to start from the ground up. That's what we're doing with food service. We don't have a 75 year history in food service or export."

While Jiffy Mix is moving into food service, it is also exploring exports. Research is under way. There are language and labeling issues (Jiffy mix had prototype boxes in two languages other than English) for exports along with the issue of import and export duties. There are also cultural taste differences to be explored. "What is popular here may or may not be popular in Mexico or Canada or San Juan," Holmes said, "We have to understand the different cultures."

While Jiffy Mix is at least a couple of years away from entering exporting, it is looking at possible markets, from Canada to Mexico and around the globe to New Zealand and Australia, Holmes said.

It's a long process. It would mean manufacturing Jiffy Mix at places around the globe, which would be a huge departure from its current operation. Jiffy Mix has always been made at the single plant in Chelsea. To export, Jiffy Mix could establish a strategic alliance with a local manufacturer or could establish an operation of its own, Holmes said. What couldn't happen he said, would be to manufacture the mixes in Chelsea and ship them around the world. "We couldn't do that because of the freight issues," he said.

The Jiffy Mix business model has always set it apart from its competition. The company doesn't advertise. They are vertically integrated, milling their own flour, doing their own packaging, even making their blue boxes at a plant in Marshall.

"We don't grow our own wheat and we don't make our own shipping cases. But that's about it," Holmes said. And he is not ready to dismiss the possibility of seeing Jiffy Mix someday grow its own wheat through contract growers. Holmes said the company is more than 90 percent vertically integrated. "Most of our competitors are very different than that," he said.

But as Jiffy Mix looks for new distribution methods and venues, it will stay true to its founding philosophy, Holmes said.

We wouldn't go into the global market unless we have established ourselves as the value player. You won't see us served alongside escargot. You'll never see us come out with a lime, banana kiwi muffin mix. We're the staple supplier."

### **Materials/Preparation:**

- Map of Michigan from the previous lesson
- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Jiffy Bucks
- List of the top seven states that Jiffy sends product to for distribution.
- Posterboard cut in half
- Yarn
- Sticky notes
- Glue
- Scissors
- Computers for research

### **Procedure:**

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: What states consume the most Jiffy Corn Muffin Mix?

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow

students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.

3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. Have the students get their boxes of Jiffy Mix.
6. Tell the students that today they are going to research a state that Jiffy sends product to for people to eat.
7. The students are going to work in teams of four to create a poster for a gallery walk tomorrow.
8. The students will get a state assignment after they are in their groups.
9. The students will work together to create two posters: one with an outline map of the United States made from string and glue, and the other with information about the state they are studying.
10. Give the students the guide of what goes on the posters, and go over it with them. They should have the full time for research this day, and 30 minutes of the time tomorrow to work on their posters.
11. Posters will be hung tomorrow for a gallery walk where each student has five sticky notes to leave one kind word about the posters they see.
12. Each student gets a shoe and must find their shoe partners in one minute. Once they get in their groups they will get their state assignment. They should collaborate and plan as a team

13. Students will be held accountable through a peer evaluation at the end. Read through that with them so they understand they will be getting a score from the other student(s) in their group.

Poster #1:

Outline map of the United States with your state on it.

State name listed.

Compass rose.

Distance from Chelsea, Michigan listed on the map.

What method of transportation gets the product from Chelsea to the state?

Poster #2:

State name.

Population.

Number of boxes of Jiffy Corn Muffin Mix consumed.

Distance from Chelsea.

Poster #1:

Outline map of the United States with your state on it.

State name listed.

Compass rose.

Distance from Chelsea, Michigan listed on the map.

What method of transportation gets the product from Chelsea to the state?

Poster #2:

State name.

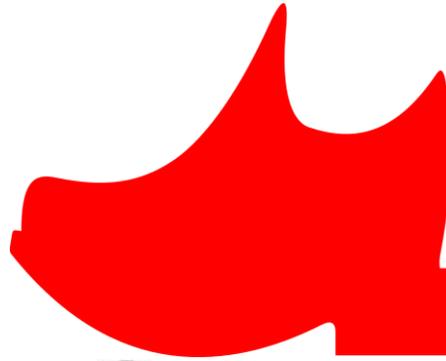
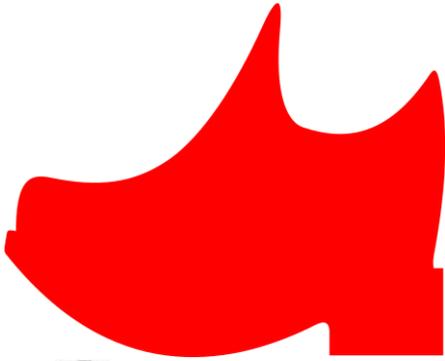
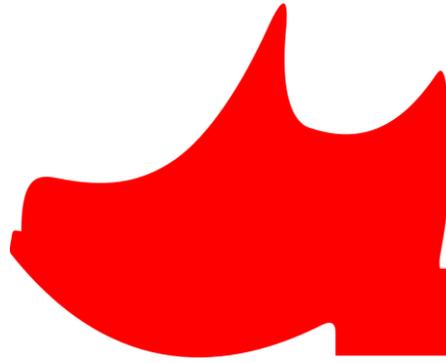
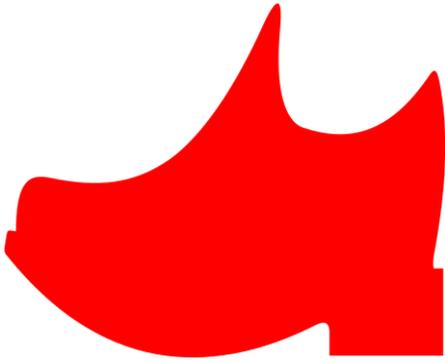
Population.

Number of boxes of Jiffy Corn Muffin Mix consumed.

Distance from Chelsea.







**Lesson #7:**  
**From Farm to Table:**  
**The State of the Muffin**  
(Day four of four with the Gallery Walk)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will research a state and create a poster about that state's demographic information to do a gallery walk with their peers.

**Goals:**

- ❖ To introduce students to key vocabulary words: transportation, logistics, entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

4. Explain what distribution is.
5. Differentiate between supply and demand.
6. Tell five important facts about another state.

**Background:**

“Without geography, you're nowhere.”

# Jiffy mix set to move into food service Firm may also become global player

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By Janet Miller

[news@mbizreview.com](mailto:news@mbizreview.com)

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### **Materials/Preparation:**

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- Journals/notebooks
- Pencils
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- List of the top seven states that Jiffy sends product to for distribution.
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Essential question: What states consume the most Jiffy Corn Muffin Mix?

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walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.

3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. Have the students get their boxes of Jiffy Mix.
6. Students can finish their posters today – they have 25 minutes.
7. The students should have created two posters: one with an outline map of the United States made from string and glue, and the other with information about the state they are studying.
8. Review with the students the guide of what goes on the posters, and go over it with them.
9. Posters will be hung for a gallery walk where each student has five sticky notes to leave one kind word about the posters they see.
10. Each student gets a shoe and must find their shoe partners in one minute. Once they get in their groups they will get their state assignment. They should collaborate and plan as a team
11. Students will be held accountable through a peer evaluation at the end. Read through that with them so they understand they will be getting a score from the other student(s) in their group.

Poster #1:

Outline map of the United States with your state on it.

State name listed.

Compass rose.

Distance from Chelsea, Michigan listed on the map.

What method of transportation gets the product from Chelsea to the state?

Poster #2:

State name.

Population.

Number of boxes of Jiffy Corn Muffin Mix consumed.

Distance from Chelsea.

Poster #1:

Outline map of the United States with your state on it.

State name listed.

Compass rose.

Distance from Chelsea, Michigan listed on the map.

What method of transportation gets the product from Chelsea to the state?

Poster #2:

State name.

Population.

Number of boxes of Jiffy Corn Muffin Mix consumed.

Distance from Chelsea.

## Peer Review

Evaluate each member of your group with a score from 1 (the lowest) to (the highest). Print your name at the bottom. This will be a part of their final grade.

4 = strongly agree

3 = agree

2 = somewhat agree

1 = somewhat disagree

0 = no evidence

Name of other group member:	4	3	2	1	0	Total
This person helped to plan the group project by focusing on the rubric.						
This person completed their portion of the group project on time.						
This person worked with our group and was not distracted by or for other groups.						
This person brought ideas to our group.						
<b>Total for this group member:</b>						

Name of other group member:	4	3	2	1	0	Total
This person helped to plan the group project by focusing on the rubric.						
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<b>Total for this group member:</b>						

Name of other group member:	4	3	2	1	0	Total
This person helped to plan the group project by focusing on the rubric.						
This person completed their portion of the group project on time.						
This person worked with our group and was not distracted by or for other groups.						
This person brought ideas to our group.						
<b>Total for this group member:</b>						

Name of other group member:	4	3	2	1	0	Total
This person helped to plan the group project by focusing on the rubric.						
This person completed their portion of the group project on time.						
This person worked with our group and was not distracted by or for other groups.						
This person brought ideas to our group.						
<b>Total for this group member:</b>						

Evaluation completed by: (your name)

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**Lesson #8:**  
**From Mabel to the Table:**  
How one woman changed baking.

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will learn about Mabel Holmes' innovation and how it changed the food industry.

**Goals:**

- ❖ To introduce students to key vocabulary words: innovation, transportation, logistics, entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

- ❖ Tell who Mabel Holmes was.
- ❖ Explain how the ready mix changed the food industry.

**Background:**

“There’s a way to do it better – find it.”

-Thomas Edison

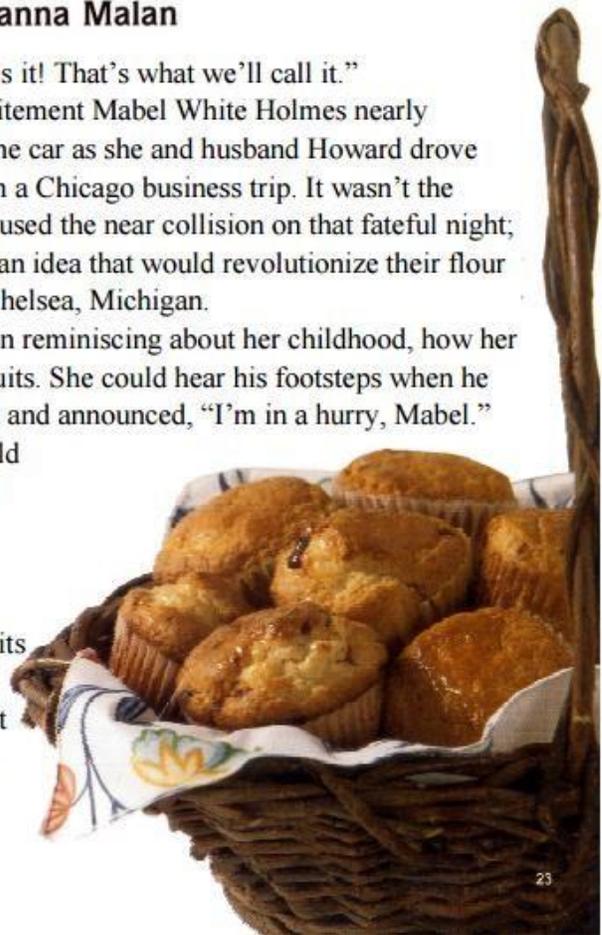
# Mabel's

## MAGIC MIXES

By Allan and Deanna Malan

**J**iffy! That's it! That's what we'll call it." In her excitement Mabel White Holmes nearly wrecked the car as she and husband Howard drove home from a Chicago business trip. It wasn't the heavy rainfall that caused the near collision on that fateful night; it was the genesis of an idea that would revolutionize their flour milling business in Chelsea, Michigan.

Mabel had been reminiscing about her childhood, how her father loved hot biscuits. She could hear his footsteps when he came home for lunch and announced, "I'm in a hurry, Mabel." Gulla, the cook, would chuckle as she called from the kitchen, "Now, Miss Mabel, you tell your father them good, hot biscuits will be ready in a jiffy." America's first prepared baking mix had a name.

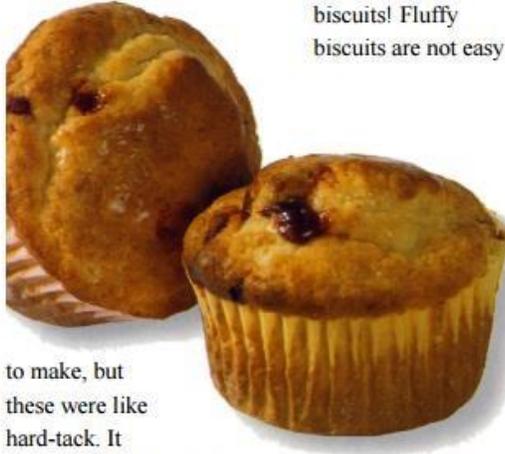


Alan Malan

23

Mabel's magic mixes began in 1930, when her twin sons, Howard and Dudley, came home for lunch with two motherless friends. When the visiting brothers opened their lunches, Mabel shook her head. Those sad, flat

biscuits! Fluffy biscuits are not easy



to make, but these were like hard-tack. It was then Mabel decided to make a ready-mix for biscuits.

Howdy Holmes, Mabel's grandson, reflected on her motivation: "My grandmother Mabel was shocked by the hockey puck biscuits the motherless boys' dad had made. She wanted to save homemakers time in the kitchen and make a mix even a man could prepare."

Mabel and her husband, Howard Samuel Holmes, represented several generations in the flour-milling business. After operating gristmills in Kansas, Illinois and Indiana in the nineteenth century, the Holmeses bought the Chelsea flour mill in 1887. In 1901 it became the Chelsea Milling Company (CMC). It was one of 488 gristmills in Michigan. Today, it is one of five.

The Holmes' mill was located in what became known as a "T town," where the railroad crosses Main Street. Mills usually were built on waterways. The Chelsea location was unusual—with no stream or river nearby, it relied on alternate power.

By 1930 the CMC had earned a reputation for quality flour milling. It was a good time to

introduce a new product. Although the Depression was under way, the "Jiffy" mix caught on because of its quality and low price. The first major retailer to carry a large inventory of the "Jiffy" baking mix was the C. F. Smith chain in Detroit.

In 1936 tragedy struck. Mabel's husband was in a silo elevator when it malfunctioned. He fell ninety feet to his death. The accident propelled Mabel into a role as unconventional as the "Jiffy" prepared mix product: she became the president of the Chelsea Milling Company. Her twin sons, Howard and Dudley, joined her in the company. In 1940 they took over, with Howard as the president and Dudley as secretary-treasurer. The partnership worked well. Howard took care of administrative chores and used his engineering background to oversee maintenance of the equipment. Dudley developed products, secured raw materials and managed the flour mill.

Howard, now eighty-four, remains the chairman of the board. Every day he is at the company, contributing his managerial expertise. He recalls the days when local farmers hauled in the soft winter wheat: "It was quite a sight. The farmers lined up their wagons for miles in both directions. It was a real social event. Sometimes, they would wait for hours until it was their turn to unload. They exchanged their raw wheat for milled flour." Dudley retired in 1984.

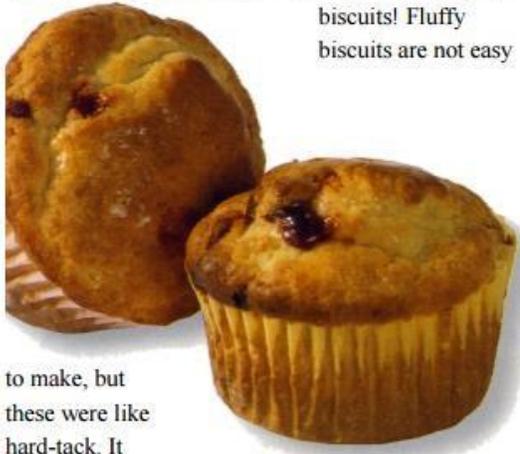
The "Jiffy" company has competed effectively against such industry giants as General Mills, Proctor and Gamble and Pillsbury. In supermarkets the large boxes of Duncan Hines,



Michigan History Magazine

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Howard, now eighty-four, remains the chairman of the board. Every day he is at the company, contributing his managerial expertise. He recalls the days when local farmers hauled in the soft winter wheat: "It was quite a sight. The farmers lined up their wagons for miles in both directions. It was a real social event. Sometimes, they would wait for hours until it was their turn to unload. They exchanged their raw wheat for milled flour." Dudley retired in 1984.

The "Jiffy" company has competed effectively against such industry giants as General Mills, Proctor and Gamble and Pillsbury. In supermarkets the large boxes of Duncan Hines,

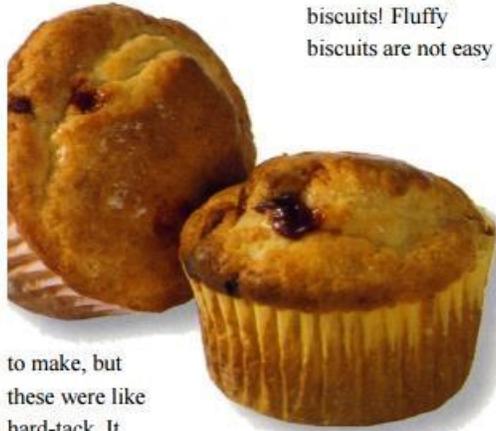


Michigan History Magazine

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**M**abel's magic mixes began in 1930, when her twin sons, Howard and Dudley, came home for lunch with two motherless friends. When the visiting brothers opened their lunches, Mabel shook her head. Those sad, flat

biscuits! Fluffy biscuits are not easy



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Technological changes also came in 1996. The company added a three-hundred-thousand-dollar machine that collates boxes into groups of six, stamps a UPC label on the bottom and wraps the six-pack in clear plastic. In 1996 “Jiffy” expanded its warehouse by 125,000 square feet at a cost of \$5 million, eliminating quality control problems in previously leased spaces.

Earlier, a preventive maintenance program was started, since many of the machines are forty to sixty years old. They now operate at their designed speeds and run efficiently. To meet the problem of demand exceeding supply, new machines are added instead of overusing old equipment. A computer in the test

kitchen analyzes a sample from each batch before it is packaged, ensuring the correct ingredient ratios in each mix.

Today CMC foresees future expansion possibilities. The company is considering exporting to foreign markets, supplying restaurants and providing mixes for institutions. “Jiffy” is not only thriving, it is growing. The decades-old principles and practices and recent modernization of this family business still work. Howdy summarized it best: “I like to think of it this way. I am standing on my father’s shoulders who stood on my grandfather’s shoulders.” ■

Free-lance writers Allan and Deanna Malan retired from teaching to their Jackson County, Michigan, farm. Muffin photos Duaine Brenner.

## “JIFFY” CEO A LONG-TIME WINNER

**H**oward S. “Howdy” Holmes, CEO and president of the Chelsea Milling Company, prepared for his current responsibilities as a race-car driver. The skills needed to become a success in the fast-paced world of car racing parallel those needed to run a successful business. Holmes said, “The top teams in Indy car racing are structured corporate entities with the finest crew members, state-of-the-art equipment, substantial corporate sponsorship and a clearly delineated hierarchy of responsibility.”

During his twenty years of racing, Howdy combined the necessary people and resources for the most productive unit possible. It required a lot of selling, which meant Howdy had to wear many hats, including those for Goodyear Tire and Rubber, B. F. Goodrich, Valvoline, Quaker State of Canada, Champion Spark Plugs, Labatt’s, Domino’s Pizza and Ford Motor of Canada. Howdy’s many accomplishments included Sports Car Club of America Central Division Championship (1972 and 1973), Labatt’s North American Formula Atlantic Champion (1978), Canadian Driving Champion (1978) and Indianapolis 500 Rookie of the Year (1979).

Howdy was also a feature writer for the *New York Times* and *Challenge Magazine*, contributing editor for *Formula Magazine*, *Autoweek Newspaper* and *V.W. Greats* and a columnist for *Race Car Magazine*. In 1981 he won the Book of the Year Award from the American Auto Writers Association for his *Formula Car Technology*.

The skills Howdy developed in his twenty-year racing career prepared him for a successful corporate career. He summarized, “Through on-the-job training, formal education and by trial and error, I developed into a successful business professional with a strong background in sales and communication proficiency, both on and off the track.”



— Allan and Deanna Malan

## Materials/Preparation:

- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Jiffy Bucks
- Reading passage on Mabel Holmes and the Chelsea Milling Company

## Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: What did Mabel Holmes do?

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out (for further details see ESL/special education learning strategies section). Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. The students will be reading in small groups for this lesson and answering short answer questions after each reading passage. Jiffy Bucks should be available for students at the completion of this lesson.

Name \_\_\_\_\_

### From Mabel to the Table: Muffin Could Be Easier

Chelsea Milling Company was established in 1901, as a traditional flour mill. By early 1930 we had expanded into the retail prepared baking mix market with our first “JIFFY” Mix product. Today, “JIFFY” is the market share leader in retail prepared muffin mixes. In addition to our retail products, we produce mixes for the Foodservice and Institutional markets.

1. In what year was the Chelsea Milling Company established? \_\_\_\_\_

2. What was it originally started as? \_\_\_\_\_

3. Name the three markets in which the muffin mixes are found:

\_\_\_\_\_

\_\_\_\_\_



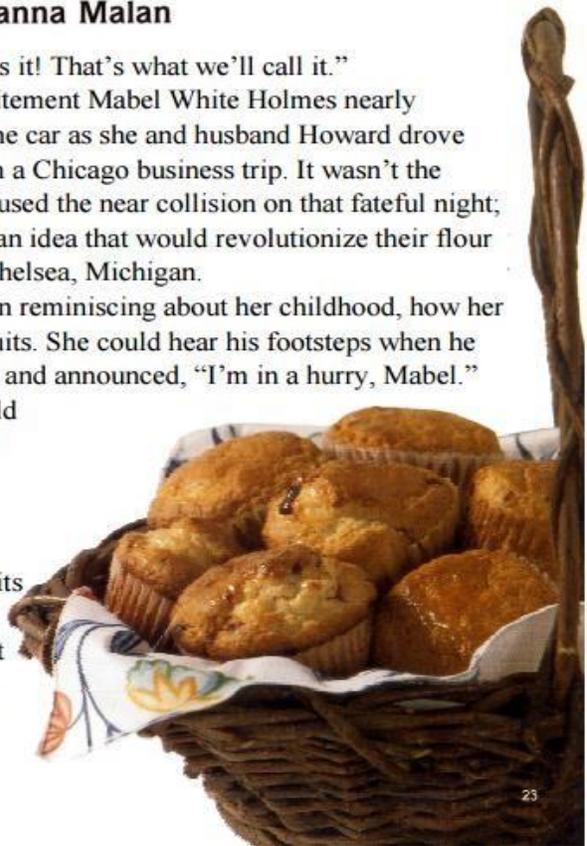
# Mabel's

## MAGIC MIXES

By Allan and Deanna Malan

**J**iffy! That's it! That's what we'll call it." In her excitement Mabel White Holmes nearly wrecked the car as she and husband Howard drove home from a Chicago business trip. It wasn't the heavy rainfall that caused the near collision on that fateful night; it was the genesis of an idea that would revolutionize their flour milling business in Chelsea, Michigan.

Mabel had been reminiscing about her childhood, how her father loved hot biscuits. She could hear his footsteps when he came home for lunch and announced, "I'm in a hurry, Mabel." Gulla, the cook, would chuckle as she called from the kitchen, "Now, Miss Mabel, you tell your father them good, hot biscuits will be ready in a jiffy." America's first prepared baking mix had a name.



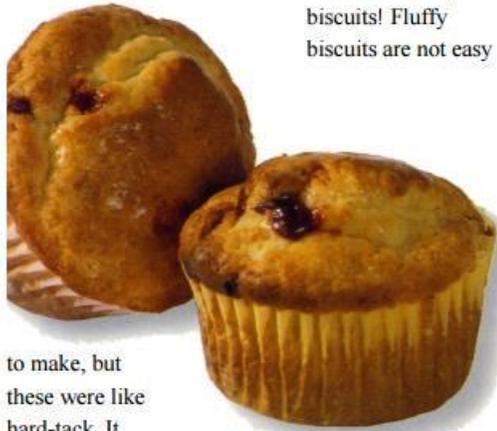
5. Where was Mabel when she came up with the name for Jiffy Mix? \_\_\_\_\_

6. Who gave her the idea for the name? \_\_\_\_\_

M

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The Holmes' mill was located in what became known as a "T town," where the railroad crosses Main Street. Mills usually were built on waterways. The Chelsea location was unusual—with no stream or river nearby, it relied on alternate power.

7. What year did Mabel make her mix? \_\_\_\_\_

8. How did this happen?

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

9. What did she call the biscuit that the young man had? \_\_\_\_\_

10. How many mills were in Michigan in 1901?

\_\_\_\_\_

11. How many are in Michigan today?

\_\_\_\_\_

12. What was unusual about Chelsea?

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

Name \_\_\_\_\_

From Mabel to the Table: Muffin Could Be Easier  
**(Answers)**

Chelsea Milling Company was established in 1901, as a traditional flour mill. By early 1930 we had expanded into the retail prepared baking mix market with our first “JIFFY” Mix product. Today, “JIFFY” is the market share leader in retail prepared muffin mixes. In addition to our retail products, we produce mixes for the Foodservice and Institutional markets.

4. In what year was the Chelsea Milling Company established? **1901**
5. What was it originally started as? **as a traditional flour mill**
6. Name the three markets in which the muffin mixes are found:

**prepared muffin mixes**

**Foodservice**

**Institutional markets**



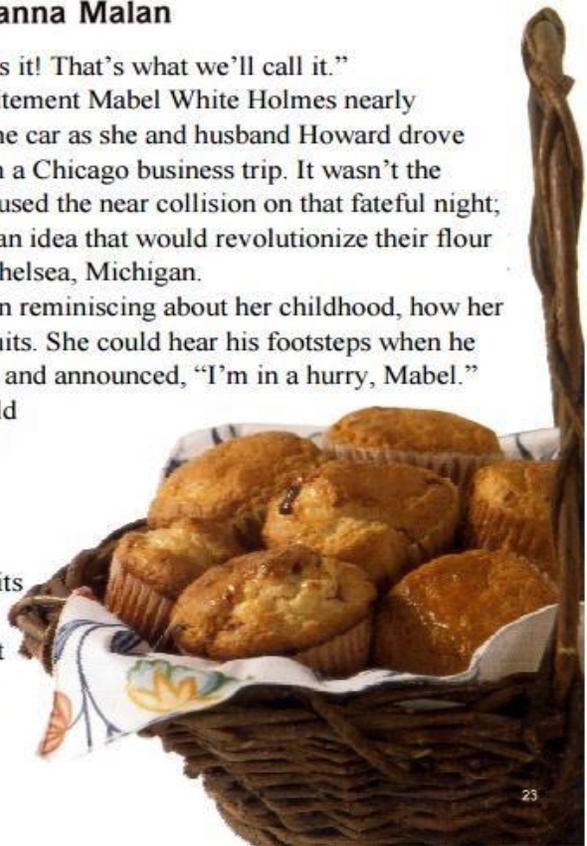
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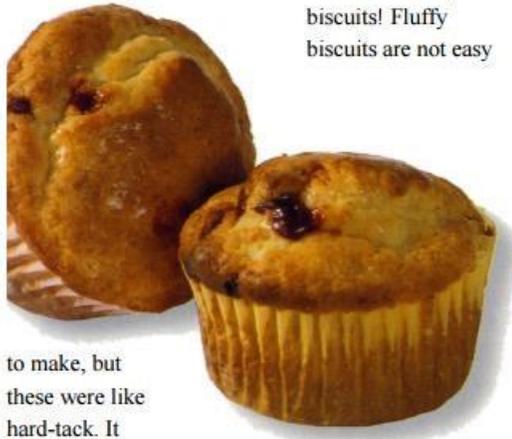


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The Holmes' mill was located in what became known as a "T town," where the railroad crosses Main Street. Mills usually were built on waterways. The Chelsea location was unusual—with no stream or river nearby, it relied on alternate power.

13. What year did Mabel make her mix? **1931**

14. How did this happen?

**Her sons had a friend over who had a sad looking biscuit. Mabel felt sorry for the young man**

15. What did she call the biscuit that the young man had? **hockey puck**

16. How many mills were in Michigan in 1901?

**488**

17. How many are in Michigan today?

**five**

18. What was unusual about Chelsea?

**There is no waterway in Chelsea.**

**Lesson #9:**  
**Baking with Chemistry and Math**  
(Day one of two)

Seven parent volunteers are needed and students must pick a recipe from the Jiffy Recipe book prior to baking day.

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will learn about recipes.
- ❖ Students will do a taste test with the student body to determine the favorite muffin recipe of the grade.

**Goals:**

- ❖ To introduce students to key vocabulary words: physical change, chemical change, innovation, transportation, logistics, entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

- ❖ Explain what a fraction is.
- ❖ Tell the difference between a physical change and a chemical change.
- ❖ Create a sample through baking for the market test.
- ❖ Explain how the ready mix changed the food industry.

## Background:

“The more you know, the more you can create.  
There’s no end to imagination in the kitchen.”

-Julia Child

## Jiffy's Secret Recipe

### ***Fortune Small Business – December 2001***

By Paul Lukas - Photographs by Daniela Stallinger

Chelsea Milling has beaten its competition - the Pillsbury Dough Boy and Betty Crocker never laid a whisk on'em - and plans to stay on top with two parts aw-shucks family business and one part professional management.

You're in the supermarket, with the usual barrage of bells and whistles competing for your attention. New-and-improved this, flavor-blasted that. It's all so assaulting, it becomes a blur. Then you turn your shopping cart into the baking aisle, and there they are - those simple little blue-and-white boxes, so perfectly designed that they resemble totems or trinkets. No screaming typography, no sensory overload. They seem not so much retro or anachronistic as timeless. Even the name feels iconic: Jiffy. Jiffy muffin and biscuit mixes, produced by Chelsea Milling of Chelsea, Mich., have become so familiar, and the product itself is so ordinary, that it's easy to overlook how remarkable the brand's story really is. Data from the market research firm Information Resources show that Jiffy is the leader in the \$230 million muffin-mix category, with 30.6% of the market as measured by revenue and a whopping 55.3% share as measured by unit sales - a performance that's all the more impressive given that Chelsea Milling is a family-run operation competing with such corporate behemoths as General Mills and Pillsbury. Just how has Chelsea Milling beat the big boys at their own game for more than 70 years? Well, it helps if you don't play by the same rules. Jiffy doesn't spend a dime on marketing - but can turn on one - and keeps prices low. It also helps that the current CEO, Howdy S. Holmes, realized a while back that bringing outsiders into the old family operation was the key to building a modern company.

Mabel Holmes wasn't thinking about business models or marketplaces on the day in 1930 when she noticed that one of the neighborhood children, a boy being raised by a single father, was eating a sorry-looking homemade biscuit for lunch. Dry and hard, it was more like a hockey puck. Realizing that finding the time to make biscuits from scratch was a challenge for a single parent - especially for fathers, who rarely cooked in those days - Mabel decided to come up with a ready-to-make mix that would be "so simple, even a man can do it." The result was Jiffy, America's first prepared baking mix.

The Holmes family had been in the wholesale flour business since 1802, so Jiffy was just a side project at first. Mabel's husband, Howard Samuel Holmes, ran the operation until his death in 1936. The business then passed to Howard and Mabel's twin sons, Dudley and Howard Sumner; the latter ultimately asserted control and expanded the brand over the next several decades. A pie-crust mix was added in 1940 and a corn-muffin mix in 1950, but it wasn't until the 1960s that Chelsea Milling

finally abandoned flour wholesaling and devoted itself exclusively to Jiffy. Today the brand line features 17 products, including mixes for pizza crust, brownies, pancakes, biscuits, and frosting.

Chelsea Milling is currently run by Howard Sumner Holmes's son - Mabel's grandson - Howdy S. Holmes, who's acutely aware of how his family and his company intertwine. As he's fond of saying, "I am standing on my father's shoulders, and he is standing on his father's shoulders." But while Chelsea Milling is clearly smaller than its competitors (the privately held firm won't disclose hard data, although Holmes allows that annual sales are "upwards of \$75 million"), he scoffs at the suggestion that he's trying to keep up with the Betty Crockers and the Duncan Hineses of the world. Strictly speaking, he says, "They are trying to keep up with us."

A key reason for that is that Chelsea Milling is privately held, which gives it the freedom to be fast on its feet. If Holmes wants to increase Jiffy's prices, he can just do it. "We're not tied to analysts' expectations on gross profit margins," he says, "so we can make pricing decisions based solely on what makes sense, not on shareholder demands." The firm is also a lean operation that dispenses with corporate bureaucracy in favor of efficiency. "In a larger company," says Holmes, "the decision-making process is considerably more complicated. Here, it's done by three or four people, not three or four departments." Most of Chelsea Milling's 350 employees are in manufacturing. The company mills and stores its own flour, and everything except the printing of the little boxes is done on-site.

But the biggest distinction between Chelsea Milling and its rivals lies in marketing. If you can't recall seeing any Jiffy advertising, it's because there has never been any - not TV commercials, no print ads, not so much as a coupon. The brands' success is based entirely on repeat customers and word of mouth. It's a nearly unthinkable strategy in the modern, media-saturated environment, and Holmes readily admits it probably wouldn't work for a brand being launched today. But Jiffy has built up so many generations' worth of good will in American kitchens that it can get away with it.

"Our approach is to give people the best value, which is a combination of two things," says Holmes, launching into one of his Jiffy mantras. "That's the highest-quality ingredients with the best price. And the only way you can do that is if you take out the 30% to 52% of the end cost that's passed on to consumers by removing advertising, marketing, merchandising, and so forth." Because Jiffy mixes aren't saddled with those costs, they typically sell for a third to a half less, on a per-ounce basis, than their competitors' (all of which, perhaps tellingly, declined repeated requests for comment for this story).

That pricing advantage has given Jiffy a huge boost over the years, creating an enthusiasm for the brand that runs as deep in the retailing community as it does among consumers. "In our stores Jiffy does three times the sales of the next closest item," says Gary Rhodes, a spokesman for Kroger, the nation's top grocer. "And customers, we find, are very loyal to Jiffy - it's very strong in all our divisions. "Perhaps most impressive, Rhodes notes, even Kroger's private-label brands can't compete with Jiffy because "we can't match them on the cost." And while Chelsea Milling, like everyone else, has to pay slotting fees to certain grocers to guarantee shelf space (the brand's small box size makes multiple shelf facings a must), it does so by providing free or discounted product, not by paying cash, a barter that helps preserve the firm's cash flow.

It was Howard Sumner Holmes who made Jiffy a household name, but it's Howdy Holmes who has charted a long-term strategy for the brand. Howdy, now 53, is an interesting case. Unlike so many people who take over their family businesses, he spent most of his adult life working outside the family operation. And the major item on his resume couldn't be more different from the lowprofile, small-town ambiance of Chelsea Milling: He was a racecar driver, and a successful one - his 1979 Indianapolis 500 Rookie of the Year plaque hangs on his office wall. "I always knew at some point I would work here," he says. "But I also realized it was important for me to go out in the world and do some other things." Okay, but isn't the transition from racing to muffins a bit of a stretch? "Actually, when you turn on your TV, you see a race but what you don't see is the preparation and the huge industry behind it. There's marketing things, engineering things, huge organizational things, relationship dynamics - it was perfect training for a manufacturing facility."

By the time Holmes decided to get out of racing and return to Chelsea in 1987, it was clear to him that the company was vulnerable. Much of what he saw was common to family operations: His father had run virtually every aspect of the business for decades, and the company had become too set in its ways. At one point, for example, the firm's devotion to low price points was so singleminded that Jiffy mixes went eight years without a price increase; that risked giving the impression that Jiffy was an austerity brand, suitable only for budget-squeezed college students and the low-income bracket. In addition, manufacturing, quality control, and accounting processes had become outdated, and there was no succession plan. "I felt our business model worked against growth," Holmes recalls. "You basically had one decision-maker at the top doing the job of four or five or six executive, with no delegation."

Holmes stepped in, launching a reorganization that effectively left him in control as his father took a less active role (the elder Holmes has since died), and began transforming Chelsea Milling "from a sole proprietorship into a professionally managed company" - another of his mantras. It was a difficult process, both structurally and emotionally, because family businesses are notoriously intractable and making changes inevitably leads to bruised feelings. Or, as Holmes puts it, "you don't run a business with your heart, and you don't make family decisions with your head. Therein lies the problem, because when the family is the business, their direct thoughts and feelings are in conflict." In Chelsea Milling's case, the most direct result of that conflict was that Howdy's brother, Bill, unhappy with what he considered the company's more corporate directions, left the firm and became an airline pilot, although he remains on the board of directors. (Howdy Holmes declines to discuss the situation, saying, "That's all in the past now." Efforts to contact Bill Holmes for this article were unsuccessful.)

The ruffled feathers were probably unavoidable, because while some of Holmes' moves were just basic updating - adding more muffin flavors, say - his biggest changes, enacted through the early and middle '90s, struck at the heart of Jiffy's family-oriented nature: He began bringing in outsiders. First, nonfamily members were appointed to the company's board. Then Holmes began recruiting managers from other companies, a major departure from his father's autocratic style. The current executive team hails from all over the American business map. CFO Douglas Tomney previously worked for the food-processing firm Curtice-Burns. Human resources director Patricia McGraw jumped over from Unisys. And general manager Jack Kennedy came from Ocean Spray.

Holmes, sensitive to his family's heritage and his father's reign, repeatedly stresses that he still respects the firm's old way of doing things and that he had made changes incrementally, not overnight.

Kennedy, the general manager, says Holmes' patient but persistent approach allowed the newcomers to settle into their roles. "It's natural for a person coming in from an outside company to want to contribute right away, to want to do something heroic. But that is not what this organization wants - they want us to step back and spend our time worrying about relationships and culture and adapting. Then there will be plenty of time for contributions."

For Kennedy, that meant smoothing out a manufacturing schedule that relied too heavily on overtime (at one point plant employees had worked 41 straight days during a period that included Thanksgiving and Christmas). He also developed a preventive maintenance program - incredibly, the company's first - for Chelsea Milling's aging packaging equipment. The changes took place as the physical plant underwent other modernizations: increasing the number of production lines from 13 to 17, upgrading quality-control mechanisms from analog to electronic, and building a new 125,000-square-foot warehouse, capable of storing more than a million cases of finished Jiffy products. The upshot is that production capacity has increased by about 40% since Holmes took over; the facility can now turn out 1.6 million boxes daily. That has not only put an end to the overtime-laden boom-bust production cycles that the company used to endure but has also provided room for further sales growth in the future.

And yet despite the modernizations and the influx of big-company talent, Chelsea Milling still has a small-town, throwback feel. Yes, there are a few hints of corporate-style regimentation, mostly regarding the company's rah-rah motto: "The mission of Team Jiffy is to achieve 100% product integrity, with quality people caring about each other," which is posted on so many of the manufacturing plant's walls that it's almost creepy. (And just in case anyone's missing the point, a pen clip imprinted with QUALITY AND VALUE peeks out from Howdy Holmes' shirt pocket.) But a walk through the factory floor, where scores of little blue boxes make their way like tin soldiers through filling, weighing, sealing, and packing stations, reveals a decidedly chipper workplace, with friendly employees who seem to be genuinely enjoying their jobs. They greet Holmes warmly, he appears to know virtually all of them by name, and none of it feels phony.

Despite all Howdy Holmes has done to modernize his company while retaining its aw-shucks feel, his biggest challenge may be external: The dry-mix game has slowly been contracting for about a decade, as modern life's increasingly busy pace continues to redefine the notion of a "convenience product." What does that portend for Jiffy?

Holmes says one thing not in the offing is selling the brand, although he claims there have been several offers. ("We consider it very flattering, but no, thanks.") With Jiffy sales growing despite the tightening market, and the company carrying no debt, Holmes feels Chelsea Milling is well positioned to make adjustments, several of which he's already considering. "Right now we're just in the retail market, but we are seriously looking at export. We are seriously looking at institutional. We are seriously looking at food service. All these are possibilities."

Whatever direction his team chooses, they'll do it efficiently but methodically, just as they made their changes within the company. "I think people are going to continue to eat," Holmes says with a wink, "so we're not in that big of a rush." A canned answer? Confidence bordering on cockiness? Maybe, but maybe not - after all, you probably have a few boxes of Jiffy muffin mix in your cupboard right now.

## Materials/Preparation:

- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Jiffy Bucks
- Mason Jars (plastic is recommended)
- Sharpie or other permanent markers
- Recipe books for Jiffy Mix
- Measuring cups
- Measuring spoons
- Muffin pans
- Variety of muffin mixes (six)
- Oven or access to oven
- Physical and Chemical Change sheets
- Bowls of beans for each group
- Bowls of rice for each group
- Bowls of sand for each group
- Poster boards, one per group
- Markers
- Glue
- Copies of the Baking Day Instruction Sheet for the students

**NOTE: SEVEN (7) PARENT VOLUNTEERS WILL BE NEEDED DURING THIS LESSON FOR SUPERVISION AND HELP AS THE STUDENTS ARE BAKING.**

## Procedure:

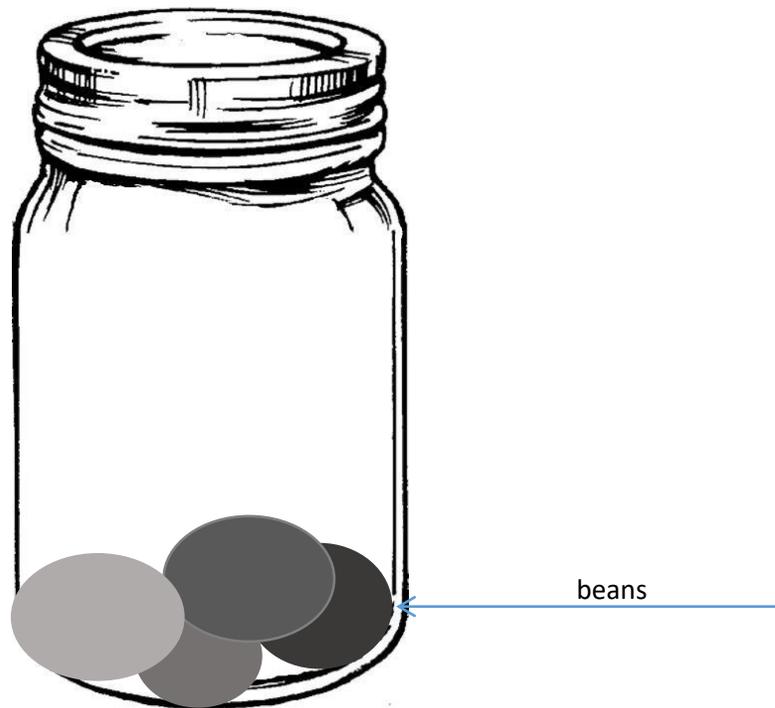
1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: What is a recipe? Why is important to follow a recipe?

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. The students will be reading in small groups for this lesson and answering short answer questions after each reading passage. Jiffy Bucks should be available for students at the completion of this lesson.
6. Write the following question on the board: Which is more – a cup of sand or a cup of beans? Allow the students to copy the question and then answer independently.
7. Have the students copy the diagram below into their notebooks:



8. They should then measure one cup of rice and mark the jar with the marker. Dump out and repeat with the beans and then with the sand.



9. Make sure they label where each level was clearly.
10. What did they notice about each measurement?
11. Was it what they predicted? (some students will think that a cup of sand is less than a cup of beans but they are both a cup.)
12. Tell them the same is true with baking.
13. Pose the following question to them and have them write it in their notebooks: why do we measure ingredients? Give them time to answer and then ask for thoughts. (consistency in recipes)
14. Tell them today that you are going to be baking different varieties of Jiffy Mixes for a market test tomorrow.

15. Each student group needs a recipe book or recipes for their particular mix. As a group they will decide which recipe to make **ahead** so the ingredients can be there the day of baking.
16. Break the students into groups to the seven predetermined groups to bake the Jiffy Muffin mixes. Have the parent volunteer allow the students to do the measuring and following of the recipes.
17. After the students have baked, have them write a step-by-step paragraph about the procedure they did to make the recipe.
18. After they have baked their recipes, the groups need to create a poster to share the information about their muffin for taste test participants tomorrow.

Name \_\_\_\_\_

### Baking Day Instructions

1. Which mix did you use? \_\_\_\_\_

2. Which recipe did you use? \_\_\_\_\_

3. What page was it on? \_\_\_\_\_

4. List the ingredients (including your mix) that you needed for your recipe.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. In the space below, write down the steps you took to bake your recipe.

First we \_\_\_\_\_.

Next we added \_\_\_\_\_

Then \_\_\_\_\_

Last \_\_\_\_\_

After you have completed the above, copy it on to lined paper and turn in for Jiffy Bucks.

Create a poster to advertise your muffin. You must include:

- ingredients
- name of the muffin
- mix used
- recipe used
- and page number
- directions for baking the muffins

**Lesson #10:**  
**Baking with Chemistry and Math**  
(Day two of two)

**Grade Level:** 4

**Time:** 45 minutes

**Purpose:**

- ❖ Students will learn about recipes and why they are important to follow.
- ❖ Students will do a taste test with the student body to determine the favorite muffin recipe of the grade.

**Goals:**

- ❖ To introduce students to key vocabulary words: taste test, recipe, ingredient, measuring, physical change, chemical change, innovation, transportation, logistics, entrepreneur, profit, product, incentive, market, market survey, marketing, peddler, supply, and demand.
- ❖ Learn the history of the Chelsea Milling Company, present day function, and vision of the company.

**Objectives:**

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

- ❖ Explain what a fraction is.
- ❖ Tell the what a recipe is and why it is important to follow one when baking or cooking.
- ❖ Create a sample through baking for the market test.
- ❖ Explain how the ready mix changed the food industry.

**Background:**

“The more you know, the more you can create.  
There’s no end to imagination in the kitchen.”

-Julia Child

## Jiffy's Secret Recipe

### ***Fortune Small Business – December 2001***

By Paul Lukas - Photographs by Daniela Stallinger

Chelsea Milling has beaten its competition - the Pillsbury Dough Boy and Betty Crocker never laid a whisk on'em - and plans to stay on top with two parts aw-shucks family business and one part professional management.

You're in the supermarket, with the usual barrage of bells and whistles competing for your attention. New-and-improved this, flavor-blasted that. It's all so assaulting, it becomes a blur. Then you turn your shopping cart into the baking aisle, and there they are - those simple little blue-and-white boxes, so perfectly designed that they resemble totems or trinkets. No screaming typography, no sensory overload. They seem not so much retro or anachronistic as timeless. Even the name feels iconic: Jiffy. Jiffy muffin and biscuit mixes, produced by Chelsea Milling of Chelsea, Mich., have become so familiar, and the product itself is so ordinary, that it's easy to overlook how remarkable the brand's story really is. Data from the market research firm Information Resources show that Jiffy is the leader in the \$230 million muffin-mix category, with 30.6% of the market as measured by revenue and a whopping 55.3% share as measured by unit sales - a performance that's all the more impressive given that Chelsea Milling is a family-run operation competing with such corporate behemoths as General Mills and Pillsbury. Just how has Chelsea Milling beat the big boys at their own game for more than 70 years? Well, it helps if you don't play by the same rules. Jiffy doesn't spend a dime on marketing - but can turn on one - and keeps prices low. It also helps that the current CEO, Howdy S. Holmes, realized a while back that bringing outsiders into the old family operation was the key to building a modern company.

Mabel Holmes wasn't thinking about business models or marketplaces on the day in 1930 when she noticed that one of the neighborhood children, a boy being raised by a single father, was eating a sorry-looking homemade biscuit for lunch. Dry and hard, it was more like a hockey puck. Realizing that finding the time to make biscuits from scratch was a challenge for a single parent - especially for fathers, who rarely cooked in those days - Mabel decided to come up with a ready-to-make mix that would be "so simple, even a man can do it." The result was Jiffy, America's first prepared baking mix.

The Holmes family had been in the wholesale flour business since 1802, so Jiffy was just a side project at first. Mabel's husband, Howard Samuel Holmes, ran the operation until his death in 1936. The business then passed to Howard and Mabel's twin sons, Dudley and Howard Sumner; the latter ultimately asserted control and expanded the brand over the next several decades. A pie-crust mix was added in 1940 and a corn-muffin mix in 1950, but it wasn't until the 1960s that Chelsea Milling finally abandoned flour wholesaling and devoted itself exclusively to Jiffy. Today the brand line features 17 products, including mixes for pizza crust, brownies, pancakes, biscuits, and frosting.

Chelsea Milling is currently run by Howard Sumner Holmes's son - Mabel's grandson - Howdy S. Holmes, who's acutely aware of how his family and his company intertwine. As he's fond of saying, "I am standing on my father's shoulders, and he is standing on his father's shoulders." But while Chelsea Milling is clearly smaller than its competitors (the privately held firm won't disclose hard data,

although Holmes allows that annual sales are "upwards of \$75 million"), he scoffs at the suggestion that he's trying to keep up with the Betty Crockers and the Duncan Hineses of the world. Strictly speaking, he says, "They are trying to keep up with us."

A key reason for that is that Chelsea Milling is privately held, which gives it the freedom to be fast on its feet. If Holmes wants to increase Jiffy's prices, he can just do it. "We're not tied to analysts' expectations on gross profit margins," he says, "so we can make pricing decisions based solely on what makes sense, not on shareholder demands." The firm is also a lean operation that dispenses with corporate bureaucracy in favor of efficiency. "In a larger company," says Holmes, "the decision-making process is considerably more complicated. Here, it's done by three or four people, not three or four departments." Most of Chelsea Milling's 350 employees are in manufacturing. The company mills and stores its own flour, and everything except the printing of the little boxes is done on-site.

But the biggest distinction between Chelsea Milling and its rivals lies in marketing. If you can't recall seeing any Jiffy advertising, it's because there has never been any - not TV commercials, no print ads, not so much as a coupon. The brands' success is based entirely on repeat customers and word of mouth. It's a nearly unthinkable strategy in the modern, media-saturated environment, and Holmes readily admits it probably wouldn't work for a brand being launched today. But Jiffy has built up so many generations' worth of good will in American kitchens that it can get away with it.

"Our approach is to give people the best value, which is a combination of two things," says Holmes, launching into one of his Jiffy mantras. "That's the highest-quality ingredients with the best price. And the only way you can do that is if you take out the 30% to 52% of the end cost that's passed on to consumers by removing advertising, marketing, merchandising, and so forth." Because Jiffy mixes aren't saddled with those costs, they typically sell for a third to a half less, on a per-ounce basis, than their competitors' (all of which, perhaps tellingly, declined repeated requests for comment for this story).

That pricing advantage has given Jiffy a huge boost over the years, creating an enthusiasm for the brand that runs as deep in the retailing community as it does among consumers. "In our stores Jiffy does three times the sales of the next closest item," says Gary Rhodes, a spokesman for Kroger, the nation's top grocer. "And customers, we find, are very loyal to Jiffy - it's very strong in all our divisions. "Perhaps most impressive, Rhodes notes, even Kroger's private-label brands can't compete with Jiffy because "we can't match them on the cost." And while Chelsea Milling, like everyone else, has to pay slotting fees to certain grocers to guarantee shelf space (the brand's small box size makes multiple shelf facings a must), it does so by providing free or discounted product, not by paying cash, a barter that helps preserve the firm's cash flow.

It was Howard Sumner Holmes who made Jiffy a household name, but it's Howdy Holmes who has charted a long-term strategy for the brand. Howdy, now 53, is an interesting case. Unlike so many people who take over their family businesses, he spent most of his adult life working outside the family operation. And the major item on his resume couldn't be more different from the lowprofile, small-town ambiance of Chelsea Milling: He was a racecar driver, and a successful one - his 1979 Indianapolis 500 Rookie of the Year plaque hangs on his office wall. "I always knew at some point I would work here," he says. "But I also realized it was important for me to go out in the world and do some other things." Okay, but isn't the transition from racing to muffins a bit of a stretch? "Actually,

when you turn on your TV, you see a race but what you don't see is the preparation and the huge industry behind it. There's marketing things, engineering things, huge organizational things, relationship dynamics - it was perfect training for a manufacturing facility."

By the time Holmes decided to get out of racing and return to Chelsea in 1987, it was clear to him that the company was vulnerable. Much of what he saw was common to family operations: His father had run virtually every aspect of the business for decades, and the company had become too set in its ways. At one point, for example, the firm's devotion to low price points was so singleminded that Jiffy mixes went eight years without a price increase; that risked giving the impression that Jiffy was an austerity brand, suitable only for budget-squeezed college students and the low-income bracket. In addition, manufacturing, quality control, and accounting processes had become outdated, and there was no succession plan. "I felt our business model worked against growth," Holmes recalls. "You basically had one decision-maker at the top doing the job of four or five or six executive, with no delegation."

Holmes stepped in, launching a reorganization that effectively left him in control as his father took a less active role (the elder Holmes has since died), and began transforming Chelsea Milling "from a sole proprietorship into a professionally managed company" - another of his mantras. It was a difficult process, both structurally and emotionally, because family businesses are notoriously intractable and making changes inevitably leads to bruised feelings. Or, as Holmes puts it, "you don't run a business with your heart, and you don't make family decisions with your head. Therein lies the problem, because when the family is the business, their direct thoughts and feelings are in conflict." In Chelsea Milling's case, the most direct result of that conflict was that Howdy's brother, Bill, unhappy with what he considered the company's more corporate directions, left the firm and became an airline pilot, although he remains on the board of directors. (Howdy Holmes declines to discuss the situation, saying, "That's all in the past now." Efforts to contact Bill Holmes for this article were unsuccessful.)

The ruffled feathers were probably unavoidable, because while some of Holmes' moves were just basic updating - adding more muffin flavors, say - his biggest changes, enacted through the early and middle '90s, struck at the heart of Jiffy's family-oriented nature: He began bringing in outsiders. First, nonfamily members were appointed to the company's board. Then Holmes began recruiting managers from other companies, a major departure from his father's autocratic style. The current executive team hails from all over the American business map. CFO Douglas Tomney previously worked for the food-processing firm Curtice-Burns. Human resources director Patricia McGraw jumped over from Unisys. And general manager Jack Kennedy came from Ocean Spray.

Holmes, sensitive to his family's heritage and his father's reign, repeatedly stresses that he still respect the firm's old way of doing things and that he had made changes incrementally, not overnight. Kennedy, the general manager, says Holmes' patient but persistent approach allowed the newcomers to settle into their roles. "It's natural for a person coming in from an outside company to want to contribute right away, to want to do something heroic. But that is not what this organization wants - they want us to step back and spend our time worrying about relationships and culture and adapting. Then there will be plenty of time for contributions."

For Kennedy, that meant smoothing out a manufacturing schedule that relied too heavily on overtime (at one point plant employees had worked 41 straight days during a period that included Thanksgiving and Christmas). He also developed a preventive maintenance program - incredibly, the company's

first - for Chelsea Milling's aging packaging equipment. The changes took place as the physical plant underwent other modernizations: increasing the number of production lines from 13 to 17, upgrading quality-control mechanisms from analog to electronic, and building a new 125,000-square-foot warehouse, capable of storing more than a million cases of finished Jiffy products. The upshot is that production capacity has increased by about 40% since Holmes took over; the facility can now turn out 1.6 million boxes daily. That has not only put an end to the overtime-laden boom-bust production cycles that the company used to endure but has also provided room for further sales growth in the future.

And yet despite the modernizations and the influx of big-company talent, Chelsea Milling still has a small-town, throwback feel. Yes, there are a few hints of corporate-style regimentation, mostly regarding the company's rah-rah motto: "The mission of Team Jiffy is to achieve 100% product integrity, with quality people caring about each other," which is posted on so many of the manufacturing plant's walls that it's almost creepy. (And just in case anyone's missing the point, a pen clip imprinted with QUALITY AND VALUE peeks out from Howdy Holmes' shirt pocket.) But a walk through the factory floor, where scores of little blue boxes make their way like tin soldiers through filling, weighing, sealing, and packing stations, reveals a decidedly chipper workplace, with friendly employees who seem to be genuinely enjoying their jobs. They greet Holmes warmly, he appears to know virtually all of them by name, and none of it feels phony.

Despite all Howdy Holmes has done to modernize his company while retaining its aw-shucks feel, his biggest challenge may be external: The dry-mix game has slowly been contracting for about a decade, as modern life's increasingly busy pace continues to redefine the notion of a "convenience product." What does that portend for Jiffy?

Holmes says one thing not in the offing is selling the brand, although he claims there have been several offers. ("We consider it very flattering, but no, thanks.") With Jiffy sales growing despite the tightening market, and the company carrying no debt, Holmes feels Chelsea Milling is well positioned to make adjustments, several of which he's already considering. "Right now we're just in the retail market, but we are seriously looking at export. We are seriously looking at institutional. We are seriously looking at food service. All these are possibilities."

Whatever direction his team chooses, they'll do it efficiently but methodically, just as they made their changes within the company. "I think people are going to continue to eat," Holmes says with a wink, "so we're not in that big of a rush." A canned answer? Confidence bordering on cockiness? Maybe, but maybe not - after all, you probably have a few boxes of Jiffy muffin mix in your cupboard right now.

## Materials/Preparation:

- Journals/notebooks
- Pencils
- Boxes of Jiffy Corn Muffin Mix
- Jiffy Bucks
- Mason Jars (plastic is recommended)
- Sharpie or other permanent markers
- Recipe books for Jiffy Mix
- Measuring cups
- Measuring spoons
- Muffin pans
- Variety of muffin mixes (six)
- Oven or access to oven
- Physical and Chemical Change sheets
- Bowls of beans for each group
- Bowls of rice for each group
- Bowls of sand for each group
- Posterboards, two per group
- Markers
- Glue
- Copies of the Baking Day Instruction Sheet for the students
- Napkins
- Plastic utensils for cutting

**NOTE: SEVEN (7) PARENT VOLUNTEERS WILL BE NEEDED DURING THIS LESSON FOR SUPERVISION AND HELP AS THE STUDENTS ARE BAKING.**

### Procedure:

1. Pose the essential question to the students. Have them copy down in their notebooks and answer independently. Afford students at least 3 minutes to copy and answer in complete sentences.

Essential question: What is a recipe? Why is important to follow a recipe?

2. After the students have had independent time to copy the question and answer in their journals, give them about 2 minutes to share their answers with the tablemates. Monitor the conversation by walking about the room, listen and question as appropriate. Allow students to collaborate on an answer in their table groups to share with the class, with each student documenting the group's theory.
3. Have the large group share out. Allow about 30 seconds per table group for one person at each table to share. Have other students document what they are hearing.
4. Be prepared to pass out Jiffy Bucks to the students so they start "earning" for the product market.
5. The students will be reading in small groups for this lesson and answering short answer questions after each reading passage. Jiffy Bucks should be available for students at the completion of this lesson.
6. Students should set up tables with sample sized bites for other students to try. Students sampling the product should sample *all 7 flavors* and then vote on their favorite.
7. You can begin with a classroom sample or the grade level. It is important that students keep good records.
8. When the taste test is over, each student should make a bar graph analyzing the data collected. The graph should have the X-axis as the flavor of mix and the Y-axis as the number of students. These should be put up in the hallway and earn Jiffy Bucks for the students.
9. Share details of the box design with the students. Ask the students how the box design is similar to the peddler selling his caps. (marketing)
10. Tell the students they are going to have the job of creating a product as a team to "sell" to the other students.

11. Each student will get \$10 in “Jiffy Bucks” to spend for turning in their video questions. Ask students why you would give them “money” for turning something in? (incentive)
12. The students will work as a team of four or in partners to create a product for the product market. Tell them they need to come up with a product to “sell”, figure out a cost for their product, how to market it, and actually create their product for a product market. They will work as a team in the business in either partners or groups of four. However, each person must pay \$2 to have market space on the day of the product market. (Each \$2 gets one student desk-sized space, so the larger the group, the larger the market area share.)
13. Pass out the rules of the Product Market to the students. Read through them and have them sign the contract.
14. Students will be held accountable through a peer evaluation at the end. Read through that with them so they understand they will be getting a score from the other student(s) in their group.
15. Students should have two more class periods to create and come up with a way to market their product.
16. On product market day, have the students set up and use the Jiffy Bucks for buying and selling.



## [MCEE Programming](#)

The Michigan Council on Economic Education consists of nine Centers for Economic Education throughout the state of Michigan. We work closely with our center partners to provide the most relevant and meaningful workshops for our teachers and students. We also partner with the National Council on Economic Education, SIFMA, several state and local government agencies, and community members to maximize the benefits for our teachers and students. The programs and services we offer are as follows:

**Programs for Students:** The Michigan Council on Economic Education offers programs for students in kindergarten through twelfth grade. Each one affords students valuable economics learning experiences with applicable life skills.

**Mini-Society:** The Mini-Society program was created by Marilyn L. Kourilsky, a former UCLA professor. It is supported by the Kauffman Center for Entrepreneurial Leadership and endorsed by the U.S. Department of Education.

Simply, Mini-Society is a self-organizing, experience-based approach to instructing students on entrepreneurship, economics, government, career opportunity, consumer issues, and values. The teacher functions as the facilitator with the students doing most of the discovery, usually by trial and-error, firsthand experience.

**Personal Finance Challenge:** The Michigan Personal Finance Challenge is an opportunity for students to demonstrate their knowledge of personal finance with other students from across the state. Every Michigan school district will have the opportunity to hold a first round of the Challenge

online. Teachers and students from across the state will be able to participate regardless of travel or budgetary constraints. The top teams from Michigan will be invited to take part in a three round state finals competition. The fun does not stop there: the winner of the state title will be invited to the Federal Reserve Bank in Kansas City, Missouri, to represent Michigan in the National Personal Financial Challenge with other students from around the country.

**StockMarketGame:** Michigan SMG is an educational simulation teaching economics, personal finance, saving and investing, stock markets, the American economic system, and the global economy. The SIFMA Foundation delivers and funds The Stock Market Game in Michigan, free of charge to students in grades 5-12. Over 750,000 Michigan students have participated since the beginning of the program in 1980.

**EconChallenge:** Every student and teacher in Michigan is invited to compete in the EconChallenge. Teachers can create as many student teams as they'd like. Students compete in two divisions: David Ricardo for students new to Econ and Adam Smith for the veterans. The top ten teams in each division will be invited to participate in the State Finals and crown EconChallenge State Champions.

**Detroit Economic Club Educational Outreach Program:** This special program was made possible by a generous grant from State Farm Insurance and will be presented by State Farm Insurance and U.S. Bank. Students are invited to take part in this unique educational opportunity, which will be held at the Federal Reserve Detroit Branch. Additionally, students may participate in an optional 15 minute tour of the Federal Reserve immediately after the program.

This half-day session is designed to help students understand basic concepts of banking and credit using adapted portions of FDIC's Money Smart program. Topics covered will include:

- available banking services and how to build a positive relationship with a financial institution
- how credit works
- how to manage money by preparing a personal spending plan and identifying ways to decrease spending and increase income

- understand ways to save money and savings options
- understand credit cards and how to use them responsibly
- a real life budgeting exercise

**Federal Reserve Detroit Economic Development Challenge:** The Detroit Economic Development Challenge (DEDC) is an economic development challenge for high school students modeled after the successful Euro Challenge period. In the DEDC, students present information surrounding a challenge facing the city, how it could be used as an economic development tool for the city, and then provides a recommendation on how to implement the tool. Students present as specific a solution as possible to help address the challenge faced by the city council.

**Teacher Training:** The Michigan Council on Economic Education reaches teachers statewide with free or low cost professional development workshops and webinars. Teachers can receive State Continuing Education Clock Hours (S.C.E.C.H.) for completing a program, along with materials, manuals, and resources. Offering kindergarten through twelfth grade teachers training in a well-structured core curriculum, we can provide our students a solid foundation in economics and decision making skills.

**Curriculum Development and Consultation:** We have the unique opportunity to create and develop new curricula with companies and organizations within Michigan. These are made available to teachers through corporate and individual sponsorships. In addition to curriculum development, we work with school districts, schools, and teachers to help with the integration of new programs into the existing K-12 curriculum.

## *Our Strengths*

Affiliated with the [National Council on Economic Education](#), MCEE is part of a network of state councils and university-based centers promoting economic literacy. The National Council is recognized throughout the U.S. and the world as the premiere source of teacher training, educational materials, and curriculum reform in economic

education. The Michigan Council on Economic Education program help educators bring economic success and understanding to students who must function in a complex, rapidly changing environment.

We are well known for the StockMarketGame both state and nationwide. Our partnership with SIFMA enables us to provide the online game to students free of charge. In Michigan, roughly 750,000 students have participated in the game since 1980. The longevity of the program indicates its continued relevance in this ever-changing global economy.

The Michigan Council recognizes teacher, students, and economic education partners at our annual Champions Dinner. This past May we had over 140 in attendance at the Chicago Federal Reserve-Detroit Branch. Rod Meloni from WDIV-TV and MCEE Board member emceed the exciting evening to celebrate the economic education achievements of Michigan teachers and students who have excelled in MCEE programs the Econ Challenge and Stock Market Game. State Farm and the Federal Reserve's Detroit Branch were honored for their many years of partnerships to expand MCEE programming and economic education efforts throughout the state.