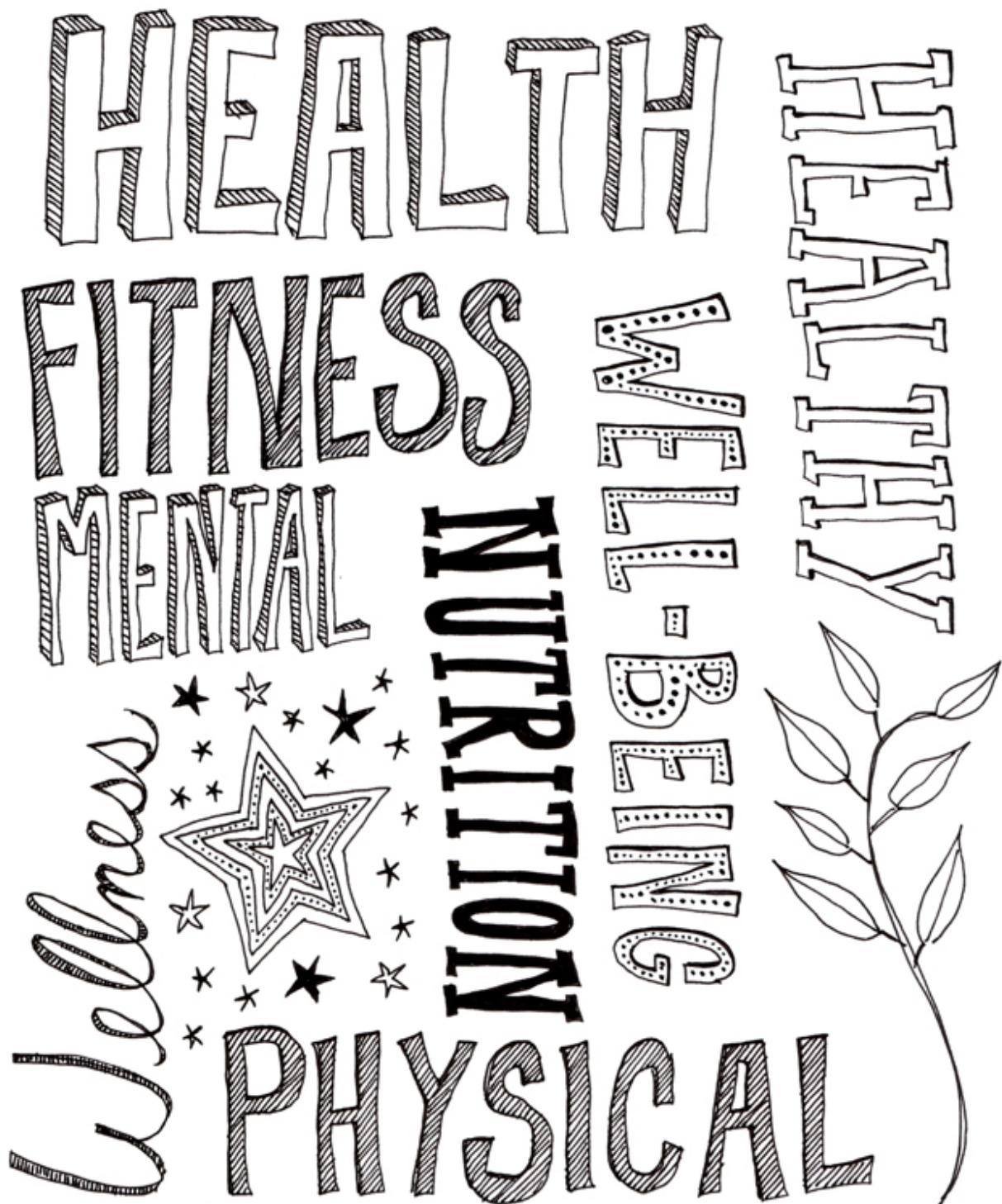


"HEALTHY YOU" INTERDISCIPLINARY UNIT



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Introduction

-Healthy minds build healthy bodies, and healthy bodies build healthy minds.-

When students are educated about what it means to be healthy, students can make informed, responsible decisions about their own health. With the growing epidemic of obesity in America, we decided to create an interdisciplinary unit that focuses on the unity between healthy minds and healthy bodies. Through interactive activities in Math, Science, English, and Social Studies, students will define what it means to be healthy while exploring trends and controversies in contemporary conversations on health. Students will construct their own knowledge on healthiness while becoming educated consumers and citizens through analyzing attitudes towards health over time. Students will view health on a local, national, and global level in order to broaden their conception of "healthiness." This unit has been designed for high school upperclassmen in order to strengthen student's relationships with their health so they will have the knowledge, skills, and tools to live a healthy lifestyle throughout their lives post-graduation. Health is an interdisciplinary concept and this unit explores the multifaceted role of health in society through interdisciplinary implementation.

Essential Questions

What role does food play in the world around us?

What does it mean to be healthy?

What control does an individual have on their health?

How have attitudes towards health changed over time?

Interdisciplinary Strands

Students will be exploring the role that food plays in the world around us in English classes by reading excerpts from literature that focus on food quality and writing persuasive essays on the use of processed food in student lunches. In science, students will investigate the farm to table movement with an inquiry learning activity and see how organic and sustainable agriculture can benefit their health and the environment. Students will draw upon prior knowledge and make real life connections to summarize statistics of the current obesity epidemic in America.

Students will explore the meaning of being healthy in social studies with a think-pair-share exercise and in English with a discussion using quote cards. Students will investigate obesity in America by gathering data and analyzing statistics in math class. In a science lab, students will learn about healthy foods when constructing a soda can calorimeter to measure the amount of energy in various snack foods.

Students will learn about the ways an individual can control their own health by interpreting data, predicting trends and developing conclusions from medical records in math class. Students will compare real life out of pocket and opportunity costs for conventional, organic and sustainably grown foods in a science based inquiry learning activity, ultimately deciding what their choice would be as a consumer. In social studies, students will discover what working conditions were like in the early 1900s, focusing on how ones health was affected.

Students will discuss what the role of health is today and how that role changed during the progressive era in social studies class. In science, students will work in small groups to complete a webquest, learning how biotechnology has changed the food industry. Students will take a position supporting or resisting genetically modified foods through a group presentation. In English, students will work with peers to develop persuasive essays on how junk food has affected the health of our society and whether we need a food revolution in America.

Objectives

Science Students will be able to:

- compare and contrast organic/sustainable food products to conventional food products.
- identify the "opportunity costs" involved in purchasing organic/sustainable food products as opposed to conventional food products.
- define and articulate how environmental stewardship, common good, responsibility, and social action are involved in purchasing organic/sustainable food products.
- explain how genetically modified food can affect our health and our environment.
- interpret GMO information on the web written with different perspectives.
- describe the benefits and risks associated with genetically modified food production.
- measure temperature change to calculate the amount of energy in multiple snack food products.
- analyze and interpret data from an experiment comparing the amount of energy in multiple food products.

Social Studies students will be able to:

- Demonstrate their knowledge of the progressive era by answering questions related to the topic
- Analyze a passage and construct an original piece
- Complete a role definition chart
- Connect vocabulary words accurately in a sentence
- Construct original statements using vocabulary words

Math Students will be able to:

- Collect relevant data.
- Analyze and interpret data.
- Summarize the data using tables and graphs.
- Make inferences based upon survey or observational data.
- Justify conclusions based upon the data.

English Students will be able to:

- identify techniques of persuasion by completing a quotation discussion guide.
- analyze and evaluate opposing arguments by facilitating discussion using quotation cards.
- construct and defend a persuasive argument by participating in small group discussion.
- organize an argument and cite supporting reasons by completing a persuasive framework outline.
- revise and edit persuasive essays by integrating comments from a peer revision checklist into their rough drafts.
- advise and evaluate peer essays by consulting and critiquing in a peer revision workshop.

Student Activities

Science:

Day One:

Students will investigate the "Farm to Table" movement by comparing and contrasting organic/sustainable food products to conventional food products. The class will use prior knowledge to define the terms "organic" and "sustainable". Using a structured investigative activity and laptops, small groups of students will use inquiry learning to conduct research and make calculations. Through this activity, they will identify how environmental stewardship, common good, responsibility, and social action are involved in purchasing organic/sustainable food products as opposed to conventional food products. For homework, students will write an individual persuasive essay to convince their community to support local agriculture.

Day Two:

Students will continue with inquiry learning by completing a GMOfoodsquest activity in which they interpret information on the web written with different perspectives. They will begin by using prior knowledge to answer the question "What are genetically modified foods?" In small groups, students will explore the webquest activity and answer the included questions. The webquest is designed to get students thinking about how science and technology influences our lives and, more specifically, how genetically modified food can affect our health and our environment. They will then use their answers and opinions to create a presentation describing the risks and benefits associated with genetically modified food production.

Day Three:

Students will measure the amount of energy in different snack food products in a laboratory setting. They will begin by formulating a hypothesis about which snack food contains more energy. In small groups, students will conduct the experiment where a soda can filled with water will act as the surroundings under investigation and a piece of food will be the system in an exothermic reaction. The students will measure the change in temperature of the water in the soda can and use this information to calculate the amount of energy per gram contained in the snack food. The students will then analyze and interpret data from an experiment by individually writing formal lab reports for homework.

Social Studies:

Day One:

To begin the first day of this unit, the students will be asked to ponder the question, "what does being healthy mean to you?" To answer this question, students will engage in a think, pair, share exercise and we will discuss what they come up with. Following this activity, I will let

the students know that prior to 1906; health was not a very important aspect of people's lives. With that we will enter into our discussions about the whole of the Progressive Era. Students will be given questions that will correspond to aspects that we will discuss. As we progress through the discussion, we will pause as a class and answer the questions to check comprehension. After we answer all the questions and discuss all the material, the teacher will explain that this is just a sample of what is to come. Class will end with a closing video of future lessons.

Day Two:

Today, the students will have a chance to walk in the shoes (figuratively) of the people that had to work day in and day out in the horrible working conditions of the early 1900's. To begin, the teacher will explain that a RAFT is a writing exercise meant to give the students a greater insight into how the people that we are studying lived. The teacher will explain that RAFT is an acronym and will explain what each letter stands for. Students will be given roles at random. Since the roles are random, some students may have no idea what to write about. Students with the same roles will work in groups to complete the role definition chart. This will help them flesh out their ideas better. After students know what their roles are and the other parts of the assignment, the teacher will assign the completion of the writing assignment to be done for homework.

Day Three:

Today in class, the students will take their final steps toward the completion of the unit and of the large assessment. Today will be the connect 2 lesson. To begin, the teacher will present the students with a list of vocabulary words aligned into two columns. The words will be vocabulary words that the students may or may not be acquainted with. The students will be required to choose two words, one from each column, and connect these two words in a way they think the author would use them. After the students have created a few sentences in this fashion, the teacher will introduce the paper from where the vocabulary words were taken and where they are in context. After seeing how the author used the words, the students will now be able to choose a single word and construct a new statement using that word in their own words, making it their own. We will discuss some of the responses as a class and the teacher will collect the responses to check for correct usage. Now that the students have a firm grasp of the vocabulary words, they will be able to complete the final assignment.

Math:

Day One:

Students will explore their prior knowledge on obesity, its effects, and familiar statistics. Students will investigate the statistics of obesity in America by reviewing an article entitled "U.S. obesity rate levels off, but still an epidemic". Reviewing the article for statistics, students will collect data on obesity rates. Students will complete structured activity to assist their comprehension for gathering data from a source. Through this activity, students will learn to

collect and analyze about statistics. For homework, students will find an article on obesity with statistics, and write a 75 word abstract on the statistics in the article.

Day Two:

Students will expand upon their understanding and ability to collect and analyze data. Students will review the article entitled "Obesity Rates and Related Trends Overview: F as in Fat", and explore the statistics it contains. Using the article as their source of information, students will work in groups to complete a structured activity. Through this activity, students will draw upon prior knowledge, real life connections, identify statistical information, and summarize information through graphical methods and identifying key statistics. Students will then consider future statistics by using existing data to predict future trends. Students will be asked to justify their conclusions based upon the data.

Day Three:

Students will continue to summarize and interpret data based on diet and exercise. Using character information, students will work in groups to complete the worksheet. Students will provide a graphical interpretation of the information. Students will then interpret the data to develop conclusions based upon the data. Through this activity, students will interpret data, predict trends, and justify the conclusions. For a statistics project, students will review provided medical information. Students will then research the topic for a standard comparison, create graphs of the information, interpret the data, calculate the future height and weight, and provide supporting information for their conclusions.

English:**Day One:**

Students will be facilitating discussion by reading for persuasion and argument. Students will be exploring "What is healthy food?" through persuasive readings. Students will read opposing viewpoints about the current debate on the state of eating healthy in the nation. Students will come in to class having read excerpts from Eric Schlosser's nonfiction book *Fast Food Nation: The Dark Side of the All-American Meal* and excerpts from David H. Freeman's article from *The Atlantic*, "How Junk Food Can End Obesity." Students will analyze the readings for persuasion, argument, and bias using techniques of persuasion handout. To engage students in critical reading, students will be assigned a quote to construct a quote card with, prompting them to create an essential question and discussion points surrounding their quote. During class, students will take turns facilitating discussion, using their quote and quote card to generate meaningful discussion about the readings and the concept of "healthy food." Each student will have time to be the lead facilitator of the discussion. The discussion will focus on citing specific evidence to examine persuasion, argument, and bias.

After the discussion, the teacher will introduce the unit long persuasive essay assignment. Throughout the unit, students will be engaged in process writing, focusing on collaboration by creating a community of writers. Students will be writing a persuasive essay in response to the critical prompt:

Do we need a food revolution? Using your readings and discussions, create your own definition of "healthy food" in order to construct a persuasive argument for or against the use of processed foods in student lunches. Considering the need to lower rates of obesity, argue either for or against the inclusion of processed foods (for example: junk foods, fast foods, and processed meat products) in student lunches on middle school, high school, or college campuses.

After introducing students to the prompt, the teacher will give students their extension homework. For homework, students will create a rough draft of their thesis.

Day Two:

Students will engage in pre-writing and drafting while creating and constructing argument. Students will make the transition from reading persuasive pieces to becoming persuasive writers. First, students will share their rough draft theses in small groups while having an informal debate about opposing points of the prompt. Students will have the opportunity to discuss their opinions and reasoning while engaging in meaningful peer interactions. Students will then work on pre-writing and drafting their persuasive essay by completing a persuasive essay frame in collaborative small group workstations. The persuasive essay frame will help students construct their arguments while incorporating cited readings, research persuasive techniques, and individual writing style. For homework, students will use their persuasive framework to write a rough draft of their persuasive essay.

Day Three:

Students will become a part of a community of writers throughout a peer revision workshop. Students will work in a peer revision workshop in order to collaborate on their persuasive essay rough drafts. In pairs, students will take turns being consultant and author while reviewing and advising their partner. Students will read their partner's essay twice, following a guideline for consultation in order to advise on multiple areas of writing. Students will complete a peer-revision checklist and a reflection activity upon completion of the workshop. The peer-revision workshop will aid students in revising their drafts while also reinforcing process writing and specific writing techniques. For homework, students will create their final copy of their persuasive essay assignment.

Standards

Science:

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Environment and Ecology

Standard Area: 4.4: Agriculture and Society

Grade Level: 12

Standard:

4.4.12. E: Examine the status of existing theories. Evaluate experimental information for relevance and adherence to science processes. Judge that conclusions are consistent and logical with experimental conditions. Interpret results of experimental research to predict new information, propose additional investigable questions, or advance a solution. Communicate and defend a scientific argument.

Standard:

4.4.12. A: Research and analyze the social, political, economic, and environmental factors that affect agricultural systems.

Standard:

4.4.12. D: Describe how policies, regulations, and laws affect the technologies adopted in agriculture.

Social Studies:

PA- Pennsylvania Common Core Standards (Draft) (2013)

Subject: Reading in History and Social Studies

Grade: GRADE 11-12

Content Area: 8.5 Reading Informational Text Students read, understand, and respond to informational text – with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.

Domain: Key Ideas and Details

Standard: CC.8.5.11-12.B. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

Standard: CC.8.5.11-12.C. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

Subject: Writing in History and Social Studies

Grade: GRADES 11 - 12

Content Area: 8.6 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.

Domain: Text Types and Purposes

Standard: CC.8.6.11-12.B.* Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

Indicator:

- Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

Indicator:

- Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

Indicator:

- Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

Indicator:

- Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

Domain: Research to Build and Present Knowledge

Standard: CC.8.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: History

Standard Area: 8.3: United States History

Grade Level: 12

Standard: 8.3.12.A: Evaluate the role groups and individuals from the U.S. played in the social, political, cultural, and economic development of the world.

Standard: 8.3.12.C: Evaluate how continuity and change in U.S. history are interrelated with the world. Belief systems and religions Commerce and industry Technology Politics and government Physical and human geography Social organizations

Standard: 8.3.12.D: Evaluate how conflict and cooperation among groups and organizations in the U.S. have influenced the growth and development of the world. Ethnicity and race Working conditions Immigration Military conflict Economic stability

Math:

PA Pennsylvania

Common Core Standards (Draft) (2013)

Subject: Mathematics

Grade: HS High School

Domain: (B) Statistics and Probability

Cluster: CC.2.4.HS.B.1 Summarize, represent, and interpret data on a single count or measurement variable.

Cluster: CC.2.4.HS.B.5 Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.

English:

PA- Pennsylvania Common Core Standards (Draft) (2013)

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

Domain: Craft and Structure Point of View

Standard: CC.1.2.11–12.D Evaluate how an author’s point of view or purpose shapes the content and style of a text.

Domain: Craft and Structure Vocabulary

Standard: CC.1.2.11–12.F Evaluate how words and phrases shape meaning and tone in texts.

Domain: Integration of Knowledge and Ideas Evaluating Arguments

Standard: CC.1.2.11–12.H Analyze seminal texts based upon reasoning, premises, purposes, and arguments.

Content Area: 1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.

Domain: Comprehension and Collaboration Collaborative Discussion

Standard: CC.1.5.11–12.A Initiate and participate effectively in a range of collaborative discussions on grade-level topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

Domain: Integration of Knowledge and Ideas Diverse Media

Standard: CC.1.2.11–12.G Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Content Area: 1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well defined perspective and appropriate content.

Domain: Opinion/Argumentative

Standard: CC.1.4.11–12.G Write arguments to support claims in an analysis of substantive topics.

Domain: Opinion/Argumentative Content

Standard: CC.1.4.11–12.I Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.

Domain: Opinion/Argumentative Organization

Standard: CC.1.4.11–12.J Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; use words, phrases, and clauses as well as varied syntax to link the major sections of the text to create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented.

Domain: Conducting Research

Standard: CC.1.4.11–12.V Conduct short as well as more sustained research projects to answer a question (including a self generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a well defined perspective and appropriate content.

Domain: Opinion/Argumentative Conventions of Language

Standard: CC.1.4.11–12.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

Domain: Production and Distribution of Writing Process

Standard: CC.1.4.11–12.T Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Domain: Technology and Publication

Standard: CC.1.4.11–12.U Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

Domain: Range of Writing

Standard: CC.1.4.11–12.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.2: Reading, Analyzing, and Interpreting Text

Grade Level: 12

Standard: 1.2.12.B: Distinguish among facts and opinions, evidence, and inference across a variety of texts by using complete and accurate information, coherent arguments and points of view.

Standard: 1.2.12.C: Examine the author's explicit and implicit bias and assumptions, beliefs about a subject, use of fact and/or opinion, and/or the author's argument or defense of a claim as related to essential and non-essential information.

Standard Area: 1.6: Speaking and Listening

Grade Level: 12

Standard: 1.6.12.A: Listen critically and respond to others in small and large group situations. Respond with grade level appropriate questions, ideas, information or opinions.

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.4: Types of Writing

Grade Level: 12

Standard: 1.4.12.C: Write persuasive pieces. Use rhetorical strategies (e.g., exposition, narration, description, argumentation, or some combination thereof) to support the main argument or position. Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.

Standard Area: 1.8: Research

Grade Level: 12

Standard: 1.8.12.A: Formulate a clear research question and design a methodology for gathering and evaluating information on the chosen topic.

Standard: 1.8.12.C: Analyze, synthesize, and integrate data, creating a reasoned product that supports and appropriately illustrates inference and conclusions drawn from research.

Subject Area: Reading, Writing, Speaking, and Listening

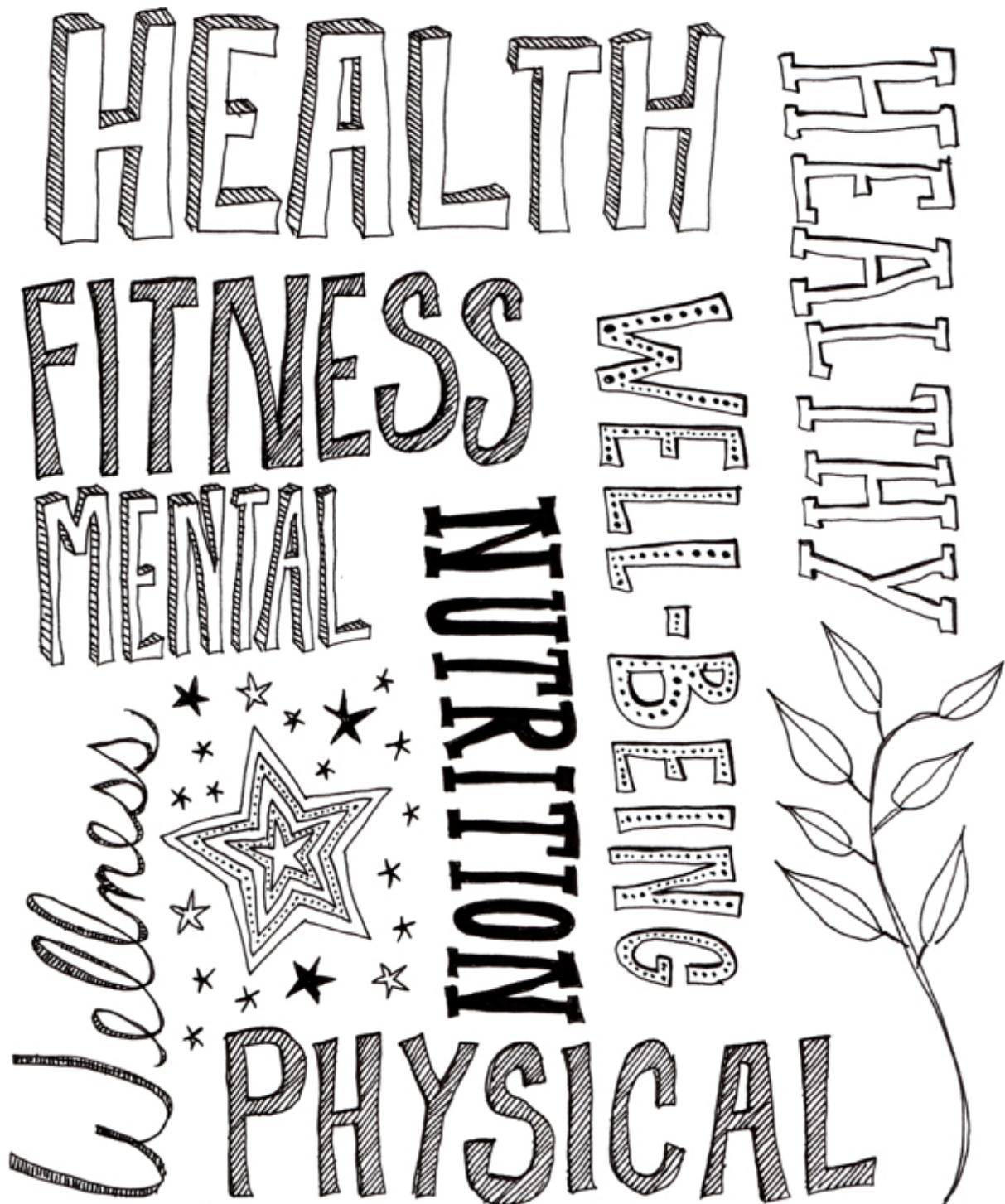
Standard Area: 1.5: Quality of Writing

Grade Level: 12

Standard: 1.5.12.E: Revise writing to improve style, word choice, sentence variety, and subtlety of meaning after rethinking how questions of purpose, audience, and genre have addressed.

Standard: 1.5.12.F: Use grade appropriate conventions of language writing and editing. Spell all words correctly. Use capital letters correctly. Punctuate correctly correct grammar and sentence formation.

ENGLISH LESSON PLAN MATERIALS



BY: HILLARY MILES

Writing for Health: Constructing Argument to Define "Healthy" in an Era of Food Revolution

created with  taskstream

Author: Hillary Miles

Date created: 04/08/2014 1:24 PM EDT ; Date modified: 04/12/2014 4:00 PM EDT

VITAL INFORMATION

| | |
|---------------|---|
| Subject(s) | Information Literacy, Language Arts (English), Reading |
| Grade/Level | Grade 12 |
| Time Required | A minimum of 3 50 minute class periods. This lesson can be spread out among a full week if students read passages in class and more extensively work through process writing. |
| Objective(s) | <p>Day 1: FACILITATING DISCUSSION: READING FOR PERSUASION & ARGUMENT</p> <p>Objectives:</p> <ol style="list-style-type: none">1. Students will be able to identify techniques of persuasion by completing a quotation discussion guide.2. Students will be able to analyze and evaluate opposing arguments by facilitating discussion using quotation cards. <p>Day 2: PRE-WRITING & DRAFTING: CREATING AND CONSTRUCTING ARGUMENT</p> <p>Objectives:</p> <ol style="list-style-type: none">1. Students will be able to construct and defend a persuasive argument by participating in small group discussion.2. Students will be able to organize an argument and cite supporting reasons by completing a persuasive framework outline. <p>Day 3: COMMUNITY OF WRITERS: PEER REVISION WORKSHOP</p> <p>Objectives:</p> <ol style="list-style-type: none">1. Students will be able to revise and edit persuasive essays by integrating comments from a peer revision checklist into their rough drafts.2. Students will be able to advise and evaluate peer essays by consulting and critiquing in a peer revision workshop. |

Summary

IMPLEMENTATION

Learning Activities

1. Day 1: Facilitating Discussion: Reading for Persuasion & Argument

Day #1: Students will be facilitating discussion by reading for persuasion and argument. Students will be exploring "What is healthy food?" through persuasive readings. Students will read opposing viewpoints about the current debate on the state of eating healthy in the nation. Students will come in to class having read excerpts from Eric Schlosser's nonfiction book *Fast Food Nation: The Dark Side of the All-American Meal* and excerpts from David H. Freeman's article from *The Atlantic*, "How Junk Food Can End Obesity." Students will analyze the readings for persuasion, argument, and bias using techniques of persuasion handout. To engage students in critical reading, students will be assigned a quote to construct a quote card with, prompting them to create an essential question and discussion points surrounding their quote. During class, students will take turns facilitating discussion, using their quote and quote card to generate meaningful discussion about the readings and the concept of "healthy food." Each student will have time to be the lead facilitator of the discussion. The discussion will focus on citing specific evidence to examine persuasion, argument, and bias. After the discussion, the teacher will introduce the unit long persuasive essay assignment. Throughout the unit, students will be engaged in process writing, focusing on collaboration by creating a community of writers. Students will be writing a persuasive essay in response to a critical prompt. After introducing students to the prompt, the teacher will give students their extension homework. For homework, students will create a rough draft of their thesis.
2. Day 2: Pre-Writing & Drafting: Creating and Constructing Argument

Students will engage in pre-writing and drafting while creating and constructing argument. Students will make the transition from reading persuasive pieces to becoming persuasive writers. First, students will share their rough draft theses in small groups while having an informal debate about opposing points of the prompt. Students will have the opportunity to discuss their opinions and reasoning while engaging in meaningful peer interactions. Students will then work on pre-writing and drafting their persuasive essay by completing a persuasive essay frame in collaborative small group workstations. The persuasive essay frame will help students construct their arguments while incorporating cited readings, research persuasive techniques, and individual writing style. For homework, students will use their persuasive framework to write a rough draft of their persuasive essay.
3. Day 3: Community of Writers: Peer Revision Workshop

Students will become a part of a community of writers throughout a peer revision workshop. Students will work in a peer revision workshop in order to collaborate on their persuasive essay rough drafts. In pairs, students will take turns being consultant and author while reviewing and advising their partner. Students will read their partner's essay twice, following a guideline for consultation in order to advise on multiple areas of writing. Students will complete a peer-revision checklist and a reflection activity upon completion of the workshop. The peer-revision workshop will aid students in revising their drafts while also reinforcing process writing and specific writing techniques. For homework, students will create their final copy of their persuasive essay assignment.

Resources and Unit Handouts

ASSESSMENT & STANDARDS

Standards

Standards compiled from learning activities

* To edit these standards, go to the activity these standards are attached to

PA- Pennsylvania Common Core Standards (Draft) (2013)

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

Domain:

Craft and Structure Point of View

Standard:

CC.1.2.11–12.D Evaluate how an author's point of view or purpose shapes the content and style of a text.

Domain:

Craft and Structure Vocabulary

Standard:

CC.1.2.11–12.F Evaluate how words and phrases shape meaning and tone in texts.

Domain:

Integration of Knowledge and Ideas Evaluating Arguments

Standard:

CC.1.2.11–12.H Analyze seminal texts based upon reasoning, premises, purposes, and arguments.

Domain:

Integration of Knowledge and Ideas Diverse Media

Standard:

CC.1.2.11–12.G Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Content Area: 1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.

Domain:

Comprehension and Collaboration Collaborative Discussion

Standard:

CC.1.5.11–12.A Initiate and participate effectively in a range of collaborative discussions on grade-level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Content Area: 1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a welldefined perspective and appropriate content.

Domain:

Opinion/Argumentative

Standard:

CC.1.4.11–12.G Write arguments to support claims in an analysis of substantive topics.

Domain:

Opinion/Argumentative Content

Standard:

CC.1.4.11–12.I Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.

Domain:

Opinion/Argumentative Organization

Standard:

CC.1.4.11–12.J Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; use words, phrases, and clauses as well as varied syntax to link the major sections of the text to create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented.

Domain:

Conducting Research

Standard:

CC.1.4.11–12.V Conduct short as well as more sustained research projects to answer a question (including a selfgenerated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Domain:

Opinion/Argumentative Conventions of Language

Standard:

CC.1.4.11–12.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

Domain:

Production and Distribution of Writing Writing Process

Standard:

CC.1.4.11–12.T Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Domain:

Technology and Publication

Standard:

CC.1.4.11–12.U Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

Domain:

Range of Writing

Standard:

CC.1.4.11–12.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.2: Reading, Analyzing, and Interpreting Text

Grade Level: 12

Standard:

1.2.12.B: Distinguish among facts and opinions, evidence, and inference across a variety of texts by using complete and accurate information, coherent arguments and points of view.

Standard:

1.2.12.C: Examine the author's explicit and implicit bias and assumptions, beliefs about a subject, use of fact and/or opinion, and/or the author's argument or defense of a claim as related to essential and non-essential information.

Standard Area: 1.6: Speaking and Listening

Grade Level: 12

Standard:

1.6.12.A: Listen critically and respond to others in small and large group situations. Respond with grade level appropriate questions, ideas, information or opinions.

Standard Area: 1.4: Types of Writing

Grade Level: 12

Standard:

1.4.12.C: Write persuasive pieces. Use rhetorical strategies (e.g., exposition, narration, description, argumentation, or some combination thereof) to support the main argument or position. Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.

Standard Area: 1.8: Research

Grade Level: 12

Standard:

1.8.12.A: Formulate a clear research question and design a methodology for gathering and evaluating information on the chosen topic.

Standard:

1.8.12.C: Analyze, synthesize, and integrate data, creating a reasoned product that supports and appropriately illustrates inference and conclusions drawn from research.

Standard Area: 1.5: Quality of Writing

Grade Level: 12

Standard:

1.5.12.E: Revise writing to improve style, word choice, sentence variety, and subtlety of meaning after rethinking how questions of purpose, audience, and genre have addressed.

Standard:

1.5.12.F: Use grade appropriate conventions of language when writing and editing. Spell all words correctly. Use capital letters correctly. Punctuate correctly. Use correct grammar and sentence formation.

Assessment/Rubrics

Day 1: Facilitating Discussion: Reading for Persuasion & Argument

Author: Hillary Miles

Date created: 04/08/2014 1:29 PM EDT ; Date modified: 04/12/2014 2:54 PM EDT

created with  taskstream

Basic Information

| | |
|--------------------|--|
| Subject | Information Literacy, Language Arts (English), Reading |
| Grade Level/Course | Grade 12 |
| Title | Facilitating Discussion: Reading for Persuasion & Argument |

| | |
|-----------|--|
| Standards | PA- Pennsylvania Common Core Standards (Draft) (2013) |
|-----------|--|

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

Domain:
Craft and Structure Point of View

Standard:
CC.1.2.11–12.D Evaluate how an author's point of view or purpose shapes the content and style of a text.

Domain:
Craft and Structure Vocabulary

Standard:
CC.1.2.11–12.F Evaluate how words and phrases shape meaning and tone in texts.

Domain:
Integration of Knowledge and Ideas Evaluating Arguments

Standard:
CC.1.2.11–12.H Analyze seminal texts based upon reasoning, premises, purposes, and arguments.

Content Area: 1.5 Speaking and Listening Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.

Domain:
Comprehension and Collaboration Collaborative Discussion

Standard:
CC.1.5.11–12.A Initiate and participate effectively in a range of collaborative discussions on grade-level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.2: Reading, Analyzing, and Interpreting Text

Grade Level: 12

Standard:
1.2.12.B: Distinguish among facts and opinions, evidence, and inference across a variety of texts by using complete and accurate information, coherent arguments and points of view.

Standard:
1.2.12.C: Examine the author's explicit and implicit bias and assumptions, beliefs about a subject, use of fact and/or opinion, and/or the author's argument or defense of a claim as related to essential and non-essential information.

Standard Area: 1.6: Speaking and Listening

Grade Level: 12

Standard:
1.6.12.A: Listen critically and respond to others in small and large group situations. Respond with grade level appropriate questions, ideas, information or opinions.

Objective(s)

1. Students will be able to identify techniques of persuasion by completing a quotation discussion guide.
2. Students will be able to analyze and evaluate opposing arguments by facilitating discussion using quotation cards.

Duration

1 50 minute class period. This lesson could be broken up into two lessons if students do in-class reading and create their quotes cards during class.

Vocabulary

Obsogenetic, juxtaposition, rebuttal, dubious, manifesto, arbitrary, vehemently, impugned, deregulation, curtail, uncanny

Materials

Attachments:

1. **Facilitating Discussion Guide.pdf**In-class discussion guide to be filled out by students
2. **Homework Extension Day 1.pdf**The homework extension assignment for students after Day #1

3. **Quote Cards-Facilitating Discussion.pdf** Quote Cards assignment sheet for students to be completed before class
4. **Reading Passage #1: Fast Food Nation excerpt.pdf** Reading Passage #1
5. **Reading Passage #2: How Junk Food Can End Obesity.pdf** Reading Passage #2
6. **Teacher: Quotes for Index Cards.pdf** Quotes to be used by the teacher for the quote card assignment. The teacher should give each student one quote.
7. **Techniques of Persuasion.pdf** A handout for referencing techniques of persuasion

Instructional Strategies and Procedures

Pre Class (Either homework done the previous night before, or done in a previous class):

- Students will read *Reading Passage #1 Fast Food Nation: The Dark Side of the All-American Meal* and *Reading Passage #2 How Junk Food Can End Obesity* independently while following the reading guide on each packet's title page.
- Students will read the *Techniques of Persuasion Handout*
- Students will be given a quote from the teacher and complete the *Quote Cards* assignment. (See *Quote Cards: Facilitating Discussion Assignment* for directions). Students will bring their completed *Quote Card* to class on Day #1.

ANTICIPATORY:

- Teacher will engage students by posing a thought provoking question (WHAT IS HEALTHY FOOD?). The question will be written on the board and the teacher will create a word mural with the student's responses. The teacher will write down student's answers verbatim around the question and label each student's answer to create a meaningful experience.
- Teacher will explain that different schools of thought exist currently in the health food movement, and that the authors of the reading passages the students read each have a different point of view on the answer to the essential question "What is healthy food?" The teacher will connect this essential question and the opposing points of views, to the way that authors can construct argument through persuasive writing. Teacher will turn discussion then to the *Techniques of Writing* handout.
- Teacher will review *Techniques of Writing* handout and alert students to reference the handout throughout discussion.

PROCEDURES:

- Teacher will inform students to take out their *Quote Card*, and their *Techniques of Writing* handout. Teacher will pass out the *Discussion Guide* handout to students.
- Teacher will explain that today the students will be facilitating class discussion using their *Quote Card* in order to evaluate the use of persuasion by authors and in order to choose a side of the argument to support.
- Teacher will explain that each student will get a set amount of time to introduce their quote, pose their essential question, and facilitate discussion using their *Quote Card*.
- Teacher will model how to facilitate discussion by using the example *Quote Card*. (See *Quote Card: Facilitating Discussion Assignment* sheet and the *Discussion Guide* directions)
- Teacher will explain that while the lead student is facilitating discussion, the rest of the class should be writing down notes and their personal opinions.
- Teacher will monitor the discussion and intervene or restructure when needed, but the discussion will be facilitated by the student with the quote. Each student will have time to facilitate discussion around their quote.

CLOSURE:

- The teacher will take over discussion at the end of class to connect students back to their *Techniques of Persuasion* handout and their *Discussion Guide*.
- The teacher will ask students to reflect on the discussion. Teacher will encourage students to discuss which author's point of view they agree with more.
- Teacher will introduce the summative assessment of writing a persuasive essay. Teacher will hand out the *Persuasive Essay Assignment Directions*, go over it with students, and read the prompt. The teacher will explain that students will use their readings and *Discussion Guide* to choose a side for the essay prompt. (See *Persuasive Essay assignment guide*). Teacher will explain that students will be using techniques of persuasion to form and argue in the same manner as their readings.
- Teacher will hand out the homework extension for night #1. Teacher will explain the extension. Students will be creating a rough draft of a thesis for their persuasive essay.

Assessment

Formative Assessment: The teacher will check for understanding by monitoring and circulating during student discussions. Students will be formatively assessed by their individual *Quote Cards* and oral presentation facilitation of discussion. Teacher will use oral questioning at the completion of the lesson to check for understanding before handing out the extension.

Summative Assessment: Students will be summatively assessed through a summative test and summative persuasive essay at the completion of the unit.

Assignments

- Reading Passages
- Quote Cards
- Discussion Guide
- Extension Homework: Thesis rough draft

Self-Reflection

Day 2: Pre-Writing & Drafting: Creating and Constructing Argument

created with  taskstream

Author: Hillary Miles

Date created: 04/08/2014 1:46 PM EDT ; Date modified: 04/12/2014 2:55 PM EDT

Basic Information

| | |
|--------------------|---|
| Subject | Language Arts (English), Reading |
| Grade Level/Course | Grade 12 |
| Title | Day 2: Pre-Writing & Drafting: Creating and Constructing Argument |

| | |
|-----------|--|
| Standards | PA- Pennsylvania Common Core Standards (Draft) (2013) |
|-----------|--|

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.2 Reading Informational Text Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.

Domain:
Integration of Knowledge and Ideas Diverse Media

Standard:
CC.1.2.11–12.G Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Content Area: 1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a welldefined perspective and appropriate content.

Domain:
Opinion/Argumentative

Standard:
CC.1.4.11–12.G Write arguments to support claims in an analysis of substantive topics.

Domain:
Opinion/Argumentative Content

Standard:
CC.1.4.11–12.I Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.

Domain:
Opinion/Argumentative Organization

Standard:
CC.1.4.11–12.J Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; use words, phrases, and clauses as well as varied syntax to link the major sections of the text to create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented.

Domain:
Conducting Research

Standard:
CC.1.4.11–12.V Conduct short as well as more sustained research projects to answer a question (including a selfgenerated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.4: Types of Writing

Grade Level: 12

Standard:
1.4.12.C: Write persuasive pieces. Use rhetorical strategies (e.g., exposition, narration, description, argumentation, or some combination thereof) to support the main argument or position. Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.

Standard Area: 1.8: Research

Grade Level: 12

Standard:
1.8.12.A: Formulate a clear research question and design a methodology for gathering and evaluating information on the chosen topic.

Standard:
1.8.12.C: Analyze, synthesize, and integrate data, creating a reasoned product that supports and appropriately illustrates inference and conclusions drawn from research.

Objective(s)

1. Students will be able to construct and defend a persuasive argument by participating in small group discussion.
2. Students will be able to organize an argument and cite supporting reasons by completing a persuasive framework outline.

| | |
|--|---|
| Duration | 1 50 minute lesson. |
| Vocabulary | Obsogenic, juxtaposition, rebuttal, dubious, manifesto, arbitrary, vehemently, impugned, deregulation, curtail, uncanny |
| Materials | <p>Attachments:</p> <div style="border: 1px solid black; padding: 5px;"> <ol style="list-style-type: none"> 1. Persuasive Essay Assignment Direction.pdfThe student assignment sheet for the summative assessment of writing a persuasive essay. 2. Persuasive Essay Frame.pdfPersuasive Essay Framework outline to be completed by students. 3. Persuasive Writing Poster.pdfA Persuasive Writing poster tip sheet for student reference. </div> |
| Instructional Strategies and Procedures | <p>ANTICIPATORY:</p> <ul style="list-style-type: none"> • Students will come in to class and take out their extension homework from Day #1. • Teacher will split the class in two by argument; students FOR the argument will go to one side of the class and students AGAINST the argument will go to the other side of the class. • Students will share their argument, point of view, and thesis in small groups within their FOR/AGAINST sides • Teacher will bring students back to a whole group discussion to share with the class why they are FOR/AGAINST the prompt. Teacher will give students a few moments to informally debate in a teacher led discussion. <p>PROCEDURES:</p> <ul style="list-style-type: none"> • Teacher will hand out the Persuasive Essay Frame Work. Teacher will direct students back to their Persuasive Essay Assignment Sheet, and tell students to take out their Thesis rough drafts, techniques of persuasion handout, and their discussion guide. Teacher will explain today's activities. Teacher will explain that today students will be constructing a framework of their persuasive essay, using their readings and previous materials. • The teacher will split students up into small workstations (heterogeneous by FOR/AGAINST). • In small workstations, students will use their readings, thesis rough draft, and discussion guide, as well as laptops/outside resources (books or articles already provided at stations by the teacher) in order to complete their Persuasive Essay framework (an outline of their essay). • Students will complete their Persuasive Essay Frame throughout class. • While students are working on their Persuasive Essay Frame in the small workstations, the teacher will circulate the room to check for understanding and intervene when necessary. The teacher will remind students to refer to their techniques of persuasion handout and discussion guide. The teacher will use oral questioning for formative assessment throughout the class period. Teacher will have mini conferences with individual students as time allows. <p>CLOSURE:</p> <ul style="list-style-type: none"> • Teacher directs small workstations back to whole group discussion. Teacher will use questioning to focus student's reflection on their writing process. Teacher will specifically ask students about how working in their workstations with other writers aided or altered their writing. Teacher will explain that this class is a "community of writers" and explain tomorrow's connecting activities • Teacher will explain Day #2 Extension/Homework • For homework, students will use their persuasive essay frame to construct a rough draft of their essay. Their rough draft must be typed. |
| Assessment | <p>Formative Assessment: The teacher will check for understanding by monitoring and circulating during student workstation activities. Students will be formatively assessed by their Persuasive Essay Frame graphic organizer. The teacher will also participate in short individual conferences with students throughout the class period. Teacher will use oral questioning at the completion of the lesson to check for understanding before connecting to the extension.</p> <p>Summative Assessment: Students will be summatively assessed through a summative test and summative persuasive essay at the completion of the unit.</p> |
| Assignments | Persuasive Essay Framework Outline Activity |
| Self-Reflection | |

Day 3: Community of Writers: Peer Revision Workshop

Author: Hillary Miles

Date created: 04/08/2014 1:54 PM EDT ; Date modified: 04/12/2014 2:55 PM EDT

created with  taskstream

Basic Information

| | |
|--------------------|---|
| Subject | Language Arts (English), Reading |
| Grade Level/Course | Grade 12 |
| Title | Day 3: Community of Writers: Peer Revision Workshop |

| | |
|-----------|--|
| Standards | PA- Pennsylvania Common Core Standards (Draft) (2013) |
|-----------|--|

Subject: English Language Arts Grade 6–12

Grade: Grades 11–12

Content Area: 1.4 Writing Students write for different purposes and audiences. Students write clear and focused text to convey a welldefined perspective and appropriate content.

Domain:
Opinion/Argumentative Conventions of Language

Standard:
CC.1.4.11–12.L Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

Domain:
Production and Distribution of Writing Writing Process

Standard:
CC.1.4.11–12.T Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Domain:
Technology and Publication

Standard:
CC.1.4.11–12.U Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

Domain:
Range of Writing

Standard:
CC.1.4.11–12.X Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

PA- Pennsylvania DOE Standards Aligned System - Clear Standards (2010)

Subject Area: Reading, Writing, Speaking, and Listening

Standard Area: 1.5: Quality of Writing

Grade Level: 12

Standard:
1.5.12.E: Revise writing to improve style, word choice, sentence variety, and subtlety of meaning after rethinking how questions of purpose, audience, and genre have addressed.

Standard:
1.5.12.F: Use grade appropriate conventions of language when writing and editing. Spell all words correctly. Use capital letters correctly. Punctuate correctly Use correct grammar and sentence formation.

Objective(s)

1. Students will be able to revise and edit persuasive essays by integrating comments from a peer revision checklist into their rough drafts.
2. Students will be able to advise and evaluate peer essays by consulting and critiquing in a peer revision workshop.

Duration

1 50 minute lesson.

Vocabulary

Obsogenetic, juxtaposition, rebuttal, dubious, manifesto, arbitrary, vehemently, impugned, deregulation, curtail, uncanny

Materials

Attachments:

1. [Peer Revision Workshop.pdf](#)Student peer revision workshop assignment directions and checklist.

Instructional Strategies and Procedures

ANTICIPATORY:

- Teacher explains how the class functions as a “community of writers” Teacher will provide own example of how good writing is an ongoing and collaborative process (teacher tell story of how writing a book or famous show

- takes a whole community of writers to produce).
- Teacher will explain the day's activities.
 - Students will take out all of their handouts from this unit, as well as their typed up rough draft.

PROCEDURES:

- Teacher will hand out Peer Revision Workshop handout. Teacher will explain how a Peer Revision Workshop works. Teacher will thoroughly go over the workshop directions (see Peer Revision Workshop handout) and model how to complete the Peer Revision Checklist.
- Teacher will break up students into assigned pairs. In pairs, students will complete the step-by-step workshop directions.
- While students work on their peer-revision workshop, the teacher will circulate and monitor the room to check for understanding and intervene when necessary.
- Once all pairs are complete the workshop, students may begin altering their rough drafts in response to their Peer-Revision Checklist.

CLOSURE:

- The teacher will lead students in a reflection activity about their peer-revision workshop. The teacher will have students complete an exit slip, writing about what was most and least useful about the peer-revision workshop and how they plan to use the workshop for their final essay.
- The teacher will redirect students to the Persuasive Essay Assignment Directions, and remind students to follow the directions while constructing their final persuasive essay. The teacher will hand out the Persuasive Essay Rubric to students to guide their writing process.
- For homework, students write and publish their final draft of their 5-paragraph essay. Students will turn in their quote card, their discussion guide, their thesis rough draft, their persuasive essay framework, their peer revision workshop paper, and their final draft all stapled together. The persuasive essay will be graded using an analytical rubric; the entire writing portfolio will be graded using a holistic rubric.

Assessment

Formative Assessment: The teacher will check for understanding by monitoring and circulating during the peer revision workshop. Students will be formatively assessed by their Peer Revision Checklist. The Teacher will use oral questioning at the completion of the lesson to check for understanding. The teacher will use the reflection activity and exit slips to inform continual instruction.

Summative Assessment: Students will be summatively assessed through a summative test and summative persuasive essay at the completion of the unit.

Assignments

Peer Revision Workshop activity

Self-Reflection

TITLE: Fast Food Nation: The Dark Side of the All-American Meal

AUTHOR: Eric Schlosser

PUBLISHING DATE: 2001

BACKGROUND:

Investigative journalist Eric Schlosser examines the local and global influences of the fast food industry in this controversial book. He argues to unveil the dark corruptions and shocking health implications of processed and fast foods. Schlosser advocates against eating processed/fast foods.

HOW TO READ THIS TEXT:

You will be reading excerpts from two chapters: Chapter 5: Why the fries taste good, and Chapter 9: What's in the Meat. Both chapters look at a staple meal item and investigates the political, economical, environmental, and cultural influences within the popular fast food hamburger and fries.



5 / why the fries taste good

the mistake of standing alone

THE PRODUCTION OF frozen french fries has become an intensely competitive business. Idaho's potato output surpassed Maine's in the late 1950s, owing to the rise of the french fry industry and the productivity gains made by Idaho farmers. Since 1980, the tonnage of potatoes grown in Idaho has almost doubled, while the average yield per acre has risen by nearly 30 percent. But the extraordinary profits being made from the sale of french fries have barely trickled down to the farmers. Paul Patterson, an extension professor of agricultural economics at the University of Idaho, describes the current market for potatoes as an "oligopoly" — a market in which a small number of buyers exert power over a large number of sellers. The giant processing companies do their best to drive down the prices offered to potato farmers. The increased productivity of Idaho farmers has lowered prices even further, shifting more of the profits to the processors and the fast food chains. Out of every \$1.50 spent on a large order of fries at a fast food restaurant, perhaps 2 cents goes to the farmer who grew the potatoes.

Idaho's potato farmers now face enormous pressure to get bigger — or get out of the business. Adding more acreage increases total revenues and allows more capital investment; but the risks get bigger, too. The latest potato harvesting equipment — bright red, beautiful machines manufactured in Idaho by a company called Spudnik — can set a farmer back hundreds of thousands of dollars. It costs about \$1,500 an acre to grow potatoes in Bingham County. The average potato farmer there, who plants about four hundred acres, is more than half a million dollars in the hole before selling a single potato.

Over the past twenty-five years, Idaho has lost about half of its potato farmers. During the same period, the amount of land devoted to potatoes has increased. Family farms are giving way to corporate farms that stretch for thousands of acres. These immense corporate farms are divided into smaller holdings for administrative purposes, and farmers who've been driven off the land are often hired to manage them. The patterns of land ownership in the American West more and more resemble those of rural England. "We've come full circle," says Paul Patterson. "You increasingly find two classes of people in rural Idaho: the people who run the farms and the people who own them." . . .

Since the end of World War II, farmers in the United States have been persuaded to adopt one new technology after another, hoping to improve their yields, reduce their costs, and outsell their neighbors. By embracing this industrial model of agriculture — one that focuses narrowly on the level of inputs and outputs, that encourages specialization in just one crop, that relies heavily on chemical fertilizers, pesticides, fungicides, herbicides, advanced harvesting and irrigation equipment — American farmers have become the most productive farmers on earth. Every increase in productivity, however, has driven more American farmers off the land. And it has left those who remain beholden to the companies that supply the inputs and the processors that buy the outputs. William Heffernan, a professor of rural sociology at the University of Missouri, says that America's agricultural economy now resembles an hourglass. At the top there are about 2 million ranchers and farmers; at the bottom there are 275 million consumers; and at the narrow portion in the middle, there are a dozen or so multinational corporations earning a profit from every transaction.

food product design

THE TASTE OF McDonald's french fries has long been praised by customers, competitors, and even food critics. James Beard loved McDonald's fries. Their distinctive taste does not stem from the type of potatoes that McDonald's buys, the technology that processes them, or the restaurant equipment that fries them. Other chains buy their french fries from the same large processing companies, use Russet Burbanks, and have similar fryers in their restaurant kitchens. The taste of a fast food fry is largely determined by the cooking oil. For decades, McDonald's cooked its french fries in a mixture of about 7 percent cottonseed oil and 93 percent beef tallow. The mix gave the fries their unique flavor — and more saturated beef fat per ounce than a McDonald's hamburger.

Amid a barrage of criticism over the amount of cholesterol in their fries, McDonald's switched to pure vegetable oil in 1990. The switch presented the company with an enormous challenge: how to make fries that subtly taste like beef without cooking them in tallow. A look at the ingredients now used in the preparation of McDonald's french fries suggests how the problem was solved. Toward the end of the list is a seemingly innocuous, yet oddly mysterious phrase: "natural flavor". That ingredient helps to explain not only why the fries taste so good, but also why most fast food — indeed, most of the food Americans eat today — tastes the way it does.

Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You'll find "natural flavor" or "artificial flavor" in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste. The initial purchase of a food item may be driven by its packaging or appearance, but subsequent purchases are determined mainly by its taste. About 90 percent of the money that Americans spend on food is used to buy processed food. But the canning, freezing, and dehydrating techniques used to process food destroy most of its flavor. Since the end of World War II, a vast industry has arisen in the United States to make processed food palatable. Without this flavor industry, today's fast food industry could not exist. The names of the leading American fast food chains and the bestselling menu items have become famous worldwide, embedded in our popular culture. Few people, however, can name the companies that manufacture fast food's taste.

The flavor industry is highly secretive. Its leading companies will not divulge the precise formulas of flavor compounds or the identities of clients. The secrecy is deemed essential for protecting the reputation of beloved brands. The fast food chains, understandably, would like the public to believe that the flavors of their food somehow originate in their restaurant kitchens, not in distant factories run by other firms.

The New Jersey Turnpike runs through the heart of the flavor industry, an industrial corridor dotted with refineries and chemical plants. International Flavors & Fragrances (IFF), the world's largest flavor company, has a manufacturing facility off Exit 8A in Dayton, New Jersey; Givaudan, the world's second-largest flavor company, has a plant in East Hanover. Haarmann & Reimer, the largest German flavor company, has a plant in Teterboro, as does Takasago, the largest Japanese flavor company. Flavor Dynamics has a plant in South Plainfield; Frutarom is in North Bergen; Elan Chemical is in Newark. Dozens of companies manufacture flavors in the corridor between Teaneck and South Brunswick. Indeed, the area produces about two-thirds of the flavor additives sold in the United States.

The IFF plant in Dayton is a huge pale blue building with a modern office complex attached to the front. It sits in an industrial park, not far from a BASF plastics factory, a Jolly French Toast factory, and a plant that manufactures Liz Claiborne cosmetics. Dozens of tractor-trailers were parked at the IFF loading dock the afternoon I visited, and a thin cloud of steam floated from the chimney. Before entering the plant, I signed a nondisclosure form, promising not to reveal the brand names of products that contain IFF flavors. The place reminded me of Willy Wonka's chocolate factory. Wonderful smells drifted through the hallways, men

and women in neat white lab coats cheerfully went about their work, and hundreds of little glass bottles sat on laboratory tables and shelves. The bottles contained powerful but fragile flavor chemicals, shielded from light by the brown glass and the round plastic caps shut tight. The long chemical names on the little white labels were as mystifying to me as medieval Latin. They were the odd-sounding names of things that would be mixed and poured and turned into new substances, like magic potions.

I was not invited to see the manufacturing areas of the IFF plant, where it was thought I might discover trade secrets. Instead, I toured various laboratories and pilot kitchens, where the flavors of well-established brands are tested or adjusted, and where whole new flavors are created. IFF's snack and savory lab is responsible for the flavor of potato chips, corn chips, breads, crackers, breakfast cereals, and pet food. The confectionery lab devises the flavor for ice cream, cookies, candies, toothpastes, mouthwashes, and antacids. Everywhere I looked, I saw famous, widely advertised products sitting on laboratory desks and tables. The beverage lab is full of brightly colored liquids in clear bottles. It comes up with the flavor for popular soft drinks, sport drinks, bottled teas, and wine coolers, for all-natural juice drinks, organic soy drinks, beers, and malt liquors. In one pilot kitchen I saw a dapper food technologist, a middle-aged man with an elegant tie beneath his lab coat, carefully preparing a batch of cookies with white frosting and pink-and-white sprinkles. In another pilot kitchen I saw a pizza oven, a grill, a milkshake machine, and a french fryer identical to those I'd seen behind the counter at countless fast food restaurants.

In addition to being the world's largest flavor company, IFF manufactures the smell of six of the ten best-selling fine perfumes in the United States, including Estée Lauder's Beautiful, Clinique's Happy, Lancôme's Tresor, and Calvin Klein's Eternity. It also makes the smell of household products such as deodorant, dishwashing detergent, bath soap, shampoo, furniture polish, and floor wax. All of these aromas are made through the same basic process: the manipulation of volatile chemicals to create a particular smell. The basic science behind the scent of your shaving cream is the same as that governing the flavor of your TV dinner. . . .

The human craving for flavor has been a largely unacknowledged and unexamined force in history. Royal empires have been built, unexplored lands have been traversed, great religions and philosophies have been forever changed by the spice trade. In 1492 Christopher Columbus set sail to find seasoning. Today the influence of flavor in the world marketplace is no less decisive. The rise and fall of corporate empires — of soft drink companies, snack food companies, and fast food chains — is frequently determined by how their products taste.

The flavor industry emerged in the mid-nineteenth century, as processed foods began to be manufactured on a large scale. Recognizing the need for flavor additives, the early food processors turned to perfume companies that had years of experience working with essential oils and volatile aromas. The great perfume houses of England, France, and the Netherlands produced many of the first flavor compounds. In the early part of the twentieth century, Germany's powerful chemical industry assumed the technological lead in flavor production. Legend has it that a German scientist discovered methyl anthranilate, one of the first artificial flavors, by accident while mixing chemicals in his laboratory. Suddenly the lab was filled with the sweet smell of grapes. Methyl anthranilate later became the chief flavoring compound of grape Kool-Aid. After World War II, much of the perfume industry shifted from Europe to the United States, settling in New York City near the garment district and the fashion houses. The flavor industry came with it; subsequently moving to New Jersey to gain more plant capacity. Man-made flavor additives were used mainly in baked goods, candies, and sodas until the 1950s, when sales of processed food began to soar. The invention of gas chromatographs and mass spectrometers — machines capable of detecting volatile gases at low

levels — vastly increased the number of flavors that could be synthesized. By the mid-1960s the American flavor industry was churning out compounds to supply the taste of Pop Tarts, Bac-Os, Tab, Tang, Filet-O-Fish sandwiches, and literally thousands of other new foods.

The American flavor industry now has annual revenues of about \$1.4 billion. Approximately ten thousand new processed food products are introduced every year in the United States. Almost all of them require flavor additives. And about nine out of every ten of these new food products fail. The latest flavor innovations and corporate realignments are heralded in publications such as Food Chemical News, Food Engineering, Chemical Market Reporter, and Food Product Design. The growth of IFF has mirrored that of the flavor industry as a whole. IFF was formed in 1958, through the merger of two small companies. Its annual revenues have grown almost fifteenfold since the early 1970s, and it now has manufacturing facilities in twenty countries. . . .

The Food and Drug Administration does not require flavor companies to disclose the ingredients of their additives, so long as all the chemicals are considered by the agency to be GRAS (Generally Regarded As Safe). This lack of public disclosure enables the companies to maintain the secrecy of their formulas. It also hides the fact that flavor compounds sometimes contain more ingredients than the foods being given their taste. The ubiquitous phrase "artificial strawberry flavor" gives little hint of the chemical wizardry and manufacturing skill that can make a highly processed food taste like a strawberry.

A typical artificial strawberry flavor, like the kind found in a Burger King strawberry milk shake, contains the following ingredients: amyl acetate, amyl butyrate, amylyl valerate, anethol, anisyl formate, benzyl acetate, benzyl isobutyrate, butyric acid, cinnamyl isobutyrate, cinnamyl valerate, cognac essential oil, diacetyl, dipropyl ketone, ethyl acetate, ethyl amylyl ketone, ethyl butyrate, ethyl cinnamate, ethyl heptanoate, ethyl heptylate, ethyl lactate, ethyl methylphenyl-glycidate, ethyl nitrate, ethyl propionate, ethyl valerate, heliotropin, hydroxypheophenyl-2-butane (10 percent solution in alcohol), α -ionone, isobutyl anthranilate, isobutyl butyrate, lemon essential oil, malto, 4-methylacetophenone, methyl anthranilate, methyl benzoate, methyl cinnamate, methyl heptine carbonate, methyl napthyl ketone, methyl salicylate, mint essential oil, neroli essential oil, nerolin, neryl isobutyrate, orris butter, phenetyl alcohol, rose, rum ether, γ -undecalactone, vanillin, and solvent, vanillin, and solvent.

Although flavors usually arise from a mixture of many different volatile chemicals, a single compound often supplies the dominant aroma. Smelled alone, that chemical provides an unmistakable sense of the food. Ethyl-2-methyl butyrate, for example, smells just like an apple. Today's highly processed foods offer a blank palette: whatever chemicals you add to them will give them specific tastes. Adding methyl-2-peridylketone makes something taste like popcorn. Adding ethyl-3-hydroxybutanoate makes it taste like marshmallow. The possibilities are now almost limitless. Without affecting the appearance or nutritional value, processed foods could even be made with aroma chemicals such as hexanal (the smell of freshly cut grass) or 3-methyl butanoic acid (the smell of body odor).

The 1960s were the heyday of artificial flavors. The synthetic versions of flavor compounds were not subtle, but they did not need to be, given the nature of most processed food. For the past twenty years food processors have tried hard to use only "natural flavors" in their products. According to the FDA, these must be derived entirely from natural sources — from herbs, spices, fruits, vegetables, beef, chicken, yeast, bark, roots, etc. Consumers prefer to see natural flavors on a label, out of a belief that they are healthier. The distinction between artificial and natural flavors can be somewhat arbitrary and absurd, based more on how the flavor has been made than on what it actually contains. "A natural flavor," says Terry Acree, a professor of food science at Cornell University, "is a flavor that's been derived with an out-of-date technology." Natural flavors and artificial flavors sometimes contain exactly the same chemicals, produced

through different methods. Amyl acetate, for example, provides the dominant note of banana flavor. When you distill it from bananas with a solvent, amyl acetate is a natural flavor. When you produce it by mixing vinegar with amyl alcohol, adding sulfuric acid as a catalyst, amyl acetate is an artificial flavor. Either way it smells and tastes the same. The phrase "natural flavor" is now listed among the ingredients of everything from Stonyfield Farm Organic Strawberry Yogurt to Taco Bell Hot Taco Sauce.

A natural flavor is not necessarily healthier or purer than an artificial one. When almond flavor (benzaldehyde) is derived from natural sources, such as peach and apricot pits, it contains traces of hydrogen cyanide, a deadly poison. Benzaldehyde derived through a different process — by mixing oil of clove and the banana flavor, amyl acetate — does not contain any cyanide. Nevertheless, it is legally considered an artificial flavor and sells at a much lower price. Natural and artificial flavors are now manufactured at the same chemical plants, places that few people would associate with Mother Nature. Calling any of these flavors "natural" requires a flexible attitude toward the English language and a fair amount of irony . . .

Some of the most important advances in flavor manufacturing are now occurring in the field of biotechnology. Complex flavors are being made through fermentation, enzyme reactions, fungal cultures, and tissue cultures. All of the flavors being created through these methods — including the ones being synthesized by fungi — are considered natural flavors by the FDA. The new enzyme-based processes are responsible for extremely lifelike dairy flavors. One company now offers not just butter flavor, but also fresh creamy butter, cheesy butter, milky butter, savory melted butter, and super-concentrated butter flavor, in liquid or powder form. The development of new fermentation techniques, as well as new techniques for heating mixtures of sugar and amino acids, have led to the creation of much more realistic meat flavors. The McDonald's Corporation will not reveal the exact origin of the natural flavor added to its french fries. In response to inquiries from *Vegetarian Journal*, however, McDonald's did acknowledge that its fries derive some of their characteristic flavor from "animal products."

In a meeting room at IFF, Brian Grainger let me sample some of the company's flavors. It was an unusual taste test; there wasn't any food to taste. Grainger is a senior flavorist at IFF, a soft-spoken chemist with graying hair, an English accent, and a fondness for understatement. He could easily be mistaken for a British diplomat or the owner of a West End brasserie with two Michelin stars. Like many in the flavor industry, he has an Old World, old-fashioned sensibility which seems out of step with our brand-conscious, egocentric age. When I suggested that IFF should put its own logo on the products that contain its flavors — instead of allowing other brands to enjoy the consumer loyalty and affection inspired by those flavors — Grainger politely disagreed, assuring me such a thing would never be done. In the absence of public credit or acclaim, the small and secretive fraternity of flavor chemists praises one another's work. Grainger can often tell, by analyzing the flavor formula of a product, which of his counterparts at a rival firm devised it. And he enjoys walking down supermarket aisles, looking at the many products that contain his flavors, even if no one else knows it.

Grainger had brought a dozen small glass bottles from the lab. After he opened each bottle, I dipped a fragrance testing filter into it. The filters were long white strips of paper designed to absorb aroma chemicals without producing off-notes. Before placing the strips of paper filters were long white strips of paper designed to absorb aroma chemicals without producing off-notes. Before placing the strips of paper before my nose, I closed my eyes. Then I inhaled deeply and one food after another was conjured from the glass bottles. I smelled fresh cherries, black olives, sauteed onions, and shrimp. Grainger's most remarkable creation took me by surprise. After closing my eyes, I suddenly smelled a grilled hamburger. The aroma was uncanny, almost miraculous. It smelled like someone in the

room was flipping burgers on a hot grill. But when I opened my eyes, there was just a narrow strip of white paper and a smiling flavorist.

millions and millions of fries

AT THE HEIGHT OF the potato harvest, I visited the Lamb Weston plant in American Falls, Idaho. It's one of the biggest fry factories in the world and makes french fries for McDonald's. It has a production capacity more than three times larger than that of the Simplot plant in Aberdeen.

It is a state-of-the-art processing facility where raw commodities and man-made additives are combined to make America's most popular food.

Bud Mandeville, the plant manager, led me up a narrow, wooden staircase inside one of the plant's storage buildings. On the top floor, the staircase led to a catwalk, and beneath my feet I saw a mound of potatoes that was twenty feet deep and a hundred feet wide and almost as long as two football fields. The building was cool and dark, kept year-round at a steady 46 degrees. In the dim light the potatoes looked like grains of sand on a beach. This was one of seven storage buildings on the property.

Outside, tractor-trailers arrived from the fields, carrying potatoes that had just been harvested. The trucks dumped their loads onto spinning rods that brought the larger potatoes into the building and let the small potatoes, dirt, and rocks fall to the ground. The rods led to a rock trap, a tank of water, in which the potatoes floated and the rocks sank to the bottom. The plant used water systems to float potatoes gently this way and that way, guiding different sizes out of different holding bays, then flushing them into a three-foot-deep stream that ran beneath the cement floor. The interior of the processing plant was gray, massive, and well-lit, with huge pipes running along the walls, steel catwalks, workers in hardhats, and plenty of loud machinery. If there weren't potatoes bobbling and floating past, you might think the place was an oil refinery.

Conveyer belts took the wet, clean potatoes into a machine that blasted them with steam for twelve seconds, boiled the water under their skins, and exploded their skins off. Then the potatoes were pumped into a preheat tank and shot through a Lamb Water Gun Knife. They emerged as shoestring fries. Four video cameras scrutinized them from different angles, looking for flaws. When a french fry with a blemish was detected, an optical sorting machine time-sequenced a single burst of compressed air that knocked the bad fry off the production line and onto a separate conveyer belt, which carried it to a machine with tiny automated knives that precisely removed the blemish. And then the fry was returned to the main production line.

Sprays of hot water blanched the fries, gusts of hot air dried them, and 25,000 pounds of boiling oil fried them to a slight crisp. Air cooled by compressed ammonia gas quickly froze them, a computerized sorter divided them into six-pound batches, and a device that spun like an out-of-control lazy Susan used centrifugal force to align the french fries so that they all pointed in the same direction. The fries were sealed in brown bags, then the bags were loaded by robots into cardboard boxes, and the boxes were stacked by robots onto wooden pallets. Forklifts driven by human beings took the pallets to a freezer for storage. Inside that freezer I saw 20 million pounds of french fries, most of them destined for McDonald's, the boxes of fries stacked thirty feet high, the stacks extending for roughly forty yards. And the freezer was half empty. Every day about a dozen railroad cars and about two dozen tractor-trailers pulled up to the freezer, loaded up with french fries, and departed for McDonald's restaurants in Boise, Pocatello, Phoenix, Salt Lake City, Denver, Colorado Springs, and points in between.

Near the freezer was a laboratory where women in white coats analyzed french fries day and night, measuring their sugar content, their starch content, their color. During the fall, Lamb Weston added sugar to the fries; in the spring it leached sugar out of them; the goal was to maintain a uniform taste and

appearance throughout the year. Every half hour, a new batch of fries was cooked in fryers identical to those used in fast food kitchens. A middle-aged woman in a lab coat handed me a paper plate full of premium extra longs—the type of french fries sold at McDonald's, and a salt shaker, and some ketchup. The fries on the plate looked wildly out of place in this laboratory setting; this surreal food factory with its computer screens, digital readouts, shiny steel platforms, and evacuation plans in case of ammonia gas leaks. The french fries were delicious — crisp and golden brown, made from potatoes that had been in the ground that morning. I finished them and asked for more.

9/what's in the meat

ON JULY 11, 1997, Lee Harding ordered soft chicken tacos at a Mexican restaurant in Pueblo, Colorado. Harding was twenty-two years old, a manager at Safeway. His wife Stacey was a manager at Wendy's. They were out to dinner on a Friday night. When the chicken tacos arrived, Harding thought there was something wrong with them. The meat seemed to have gone bad. The tacos tasted slimy and gross. An hour or so after leaving the restaurant, Harding began to experience severe abdominal cramps. It felt like something was eating away at his stomach. He was fit and healthy, stood six-foot-one, weighed two hundred pounds. He'd never felt pain this intense. The cramps got worse, and Harding lay in bed through the night, tightly curled into a ball. He developed bad diarrhea, then bloody diarrhea. He felt like he was dying, but was afraid to go to the hospital. If I'm going to die, he thought, I want to die at home.

His stool sample had tested positive for *Escherichia coli* 0157:H7, a virulent and potentially lethal foodborne pathogen. The next morning Harding called Sandra Gallegos, a nurse with the Pueblo Health Department. She asked him to try and remember what foods he'd eaten during the previous five days.

Harding mentioned the dinner at the Mexican restaurant and the foul taste of the chicken tacos. He was sure that was where he had gotten food poisoning. Gallegos disagreed. *E. coli* 0157:H7 was rarely found in chicken. She asked if Harding had consumed any ground beef lately. Harding recalled having eaten a hamburger a couple of days before visiting the Mexican restaurant. But he doubted that the hamburger could have made him ill. Both his wife and his wife's sister had eaten the same burgers, during a backyard barbecue, and neither had become sick. He and his wife had also eaten burgers from the same box the week before the barbecue without getting sick. They were frozen hamburgers he'd bought at Safeway. He remembered because it was the first time he'd ever bought frozen hamburgers. Gallegos asked if there were any left. Harding said there just might be, checked the freezer, and found the package. It was a red, white, and blue box that said "Hudson Beef Patties."

A Pueblo health official went to Harding's house, took the remaining hamburgers, and sent one to a USDA laboratory for analysis. State health officials had noticed a spike in the number of people suffering from *E. coli* 0157:H7 infections. At the time Colorado was one of only six states with the capability to perform DNA tests on samples of *E. coli* 0157:H7. The DNA tests showed that at least ten people had been sickened by the same strain of the bug. Investigators were searching for a common link between scattered cases reported in Pueblo, Brighton, Loveland, Grand Junction, and Colorado Springs. On July 28, the USDA lab notified Gallegos that Lee Harding's hamburger was contaminated with the same strain of *E. coli* 0157:H7. Here was the common link.

The lot number on Harding's package said that the frozen patties had been manufactured on June 5 at the Hudson Foods plant in Columbus, Nebraska. The plant seemed an unlikely source for an outbreak of food poisoning. Only two years old, it had been built primarily to supply hamburgers for the Burger King chain. It

used state-of-the-art equipment and appeared to be spotlessly clean. But something had gone wrong. A modern factory designed for the mass production of food had instead become a vector for the spread of a deadly disease. The package of hamburger patties in Lee Harding's freezer and astute investigative work by Colorado health officials soon led to the largest recall of food in the nation's history. Roughly 35 million pounds of ground beef produced at the Columbus plant were voluntarily recalled by Hudson Foods in August of 1997. Although public health officials did a fine job of tracing the outbreak to its source, the recall proved less successful. By the time it was announced, about 25 million pounds of the ground beef had already been eaten.

an ideal system for new pathogens

EVERY DAY IN THE United States, roughly 200,000 people are sickened by a foodborne disease, 900 are hospitalized, and fourteen die. According to the Centers for Disease Control and Prevention (CDC), more than a quarter of the American population suffers a bout of food poisoning each year. Most of these cases are never reported to authorities or properly diagnosed. The widespread outbreaks that are detected and identified represent a small fraction of the number that actually occurs. And there is strong evidence not only that the incidence of food-related illness has risen in the past few decades, but also that the lasting health consequences of such illnesses are far more serious than was previously believed. Recent studies have found that many foodborne pathogens can precipitate long-term ailments, such as heart disease, inflammatory bowel disease, neurological problems, autoimmune disorders, and kidney damage.

Although the rise in foodborne illnesses has been caused by many complex factors, much of the increase can be attributed to recent changes in how American food is produced. Robert V. Tauxe, head of the Foodborne and Diarrheal Diseases Branch at the CDC, believes that entirely new kinds of outbreaks are now occurring. A generation ago, the typical outbreak of food poisoning involved a church supper, a family picnic, a wedding reception. Improper food handling or storage would cause a small group of people in one local area to get sick. Such traditional outbreaks still take place. But the nation's industrialized and centralized system of food processing has created a whole new sort of outbreak, one that can potentially sicken millions of people. Today a cluster of illnesses in one small town may stem from bad potato salad at a school barbecue — or it may be the first sign of an outbreak that extends statewide, nationwide, or even overseas.

Much like the human immunodeficiency virus (HIV), responsible for causing AIDS, the *E. coli* 0157:H7 bacterium is a newly emerged pathogen whose spread has been facilitated by recent social and technological changes. *E. coli* 0157:H7 was first isolated in 1982; HIV was discovered the following year. People who are infected with HIV can appear healthy for years, while cattle infected with *E. coli* 0157:H7 show few signs of illness. Although cases of AIDS date back at least to the late 1950s, the disease did not reach epidemic proportions in the United States until increased air travel and sexual promiscuity helped transmit the virus far and wide. *E. coli* 0157:H7 was most likely responsible for some human illnesses thirty or forty years ago. But the rise of huge feedlots, slaughterhouses, and hamburger grinders seems to have provided the means for this pathogen to become widely dispersed in the nation's food supply. American meat production has never before been so centralized: thirteen large packinghouses now slaughter most of the beef consumed in the United States. The meatpacking system that arose to supply the nation's fast food chains — an industry molded to serve their needs, to provide massive amounts of uniform ground beef so that all of McDonald's hamburgers would taste the same — has proved to be an extremely efficient system for spreading disease.

While medical researchers have gained important insights into the links between modern food processing and the spread of dangerous diseases, the nation's leading agribusiness firms have resolutely opposed any further regulation of their food safety practices. For years the large meatpacking companies have managed to avoid the sort of liability routinely imposed on the manufacturers of most consumer products. Today the U.S. government can demand the nationwide recall of defective softball bats, sneakers, stuffed animals, and foam-rubber toy cows. But it cannot order a meatpacking company to remove contaminated, potentially lethal ground beef from fast food kitchens and supermarket shelves. The unusual power of the large meatpacking firms has been sustained by their close ties and sizable donations to Republican members of Congress. It has also been made possible by a widespread lack of awareness about how many Americans suffer from food poisoning every year and how these illnesses actually spread.

The newly recognized foodborne pathogens tend to be carried and shed by apparently healthy animals. Food tainted by these organisms has most likely come in contact with an infected animal's stomach contents or manure, during slaughter or subsequent processing. A nationwide study published by the USDA in 1996 found that 7.5 percent of the ground beef samples taken at processing plants were contaminated with Salmonella, 11.7 percent were contaminated with *Listeria monocytogenes*, 30 percent were contaminated with *Staphylococcus aureus*, and 53.3 percent were contaminated with *Clostridium perfringens*. All of these pathogens can make people sick; food poisoning caused by *Listeria* generally requires hospitalization and proves fatal in about one out of every five cases. In the USDA study 78.6 percent of the ground beef contained microbes that are spread primarily by fecal material. The medical literature on the causes of food poisoning is full of euphemisms and dry scientific terms: coliform levels, aerobic plate counts, sorbitol, MacConkey agar, and so on. Behind them lies a simple explanation for why eating a hamburger can now make you seriously ill: There is shit in the meat.

the national dish

IN THE EARLY YEARS of the twentieth century, hamburgers had a bad reputation. According to the historian David Gerard Hogan, the hamburger was considered "a food for the poor," tainted and unsafe to eat. Restaurants rarely served hamburgers; they were sold at lunch carts parked near factories, at circuses, carnivals, and state fairs. Ground beef, it was widely believed, was made from old, pitrid meat heavily laced with chemical preservatives. "The hamburger habit is just about as safe," one food critic warned, "as getting your meat out of a garbage can." White Castle, the nation's first hamburger chain, worked hard in the 1920s to dispel the hamburger's tawdry image. As Hogan notes in his history of the chain, *Selling 'Em by the Sack* (1997), the founders of White Castle placed their grills in direct view of customers, claimed that fresh ground beef was delivered twice a day, chose a name with connotations of purity, and even sponsored an experiment at the University of Minnesota in which a medical student lived for thirteen weeks on "nothing but White Castle Hamburgers and water."

The success of White Castle in the East and the Midwest helped to popularize hamburgers and to remove much of their social stigma. The chain did not attract a broad range of people, however. Most of White Castle's customers were urban, working class, and male. During the 1950s, the rise of drive-ins and fast food restaurants in southern California helped turn the once lowly hamburger into America's national dish. Ray Kroc's decision to promote McDonald's as a restaurant chain for families had profound impact on the nation's eating habits. Hamburgers seemed an ideal food for small children — convenient, inexpensive, hand-held, and easy to chew.

Before World War II, pork had been the most popular meat in the United States. Rising incomes, falling cattle prices, the growth of the fast food industry, and the mass appeal of the hamburger later pushed

American consumption of beef higher than that of pork. By the early 1990s, beef production was responsible for almost half of the employment in American agriculture, and the annual revenues generated by beef were higher than those of any other agricultural commodity in the United States. The average American ate three hamburgers a week. More than two-thirds of those hamburgers were bought at fast food restaurants. And children between the ages of seven and thirteen ate more

More than two-thirds of those hamburgers were bought at fast food restaurants. And children between the ages of seven and thirteen ate more hamburgers than anyone else. In the eight years since the Jack in the Box outbreak, approximately half a million Americans, the majority of them children, have been made ill by E. coli 0157:H7. Thousands have been hospitalized, and hundreds have died.

a bug that kills children

Food transmission has been responsible for a significant proportion of E. coli 0157:H7 person-to-person transmission is most likely to occur among family members, at day care centers, and at senior citizen homes. On average, an infected person remains contagious for about two weeks, though in some cases E. coli 0157:H7 has been found in stool samples two to four months after an initial illness.

Some herds of American cattle may have been infected with E. coli 0157:H7 decades ago. But the recent changes in how cattle are raised, slaughtered, and processed have created an ideal means for the pathogen to spread. The problem begins in today's vast feedlots. A government health official, who prefers not to be named, compared the sanitary conditions in a modern feedlot to those in a crowded European city during the Middle Ages, when people dumped their chamber pots out the window, raw sewage ran in the streets, and epidemics raged. The cattle now packed into feedlots get little exercise and live amid pools of manure. "You shouldn't eat dirty food and dirty water," the official told me. "But we still think we can give animals dirty food and dirty water." Feedlots have become an extremely efficient mechanism for "recirculating the manure," which is unfortunate, since E. coli 0157:H7 can replicate in cattle troughs and survive in manure for up to ninety days.

Far from their natural habitat, the cattle in feedlots become more prone to all sorts of illnesses. And what they are being fed often contributes to the spread of disease. The rise in grain prices has encouraged the feeding of less expensive materials to cattle, especially substances with a high protein content that accelerate growth. About 75 percent of the cattle in the United States were routinely fed livestock wastes — the rendered remains of dead sheep and dead cattle — until August of 1997. They were also fed millions of dead cats and dead dogs every year, purchased from animal shelters. The FDA banned such practices after evidence from Great Britain suggested that they were responsible for a widespread outbreak of bovine spongiform encephalopathy (BSE), also known as "mad cow disease." Nevertheless, current FDA regulations allow dead pigs and dead horses to be rendered into cattle feed, along with dead poultry. The regulations not only allow cattle to be fed dead poultry, they allow poultry to be fed dead cattle. Americans who spent more than six months in the United Kingdom during the 1980s are now forbidden to donate blood, in order to prevent the spread of BSE's human variant, Creutzfeldt-Jakob disease. But cattle blood is still put into the feed given to American cattle. Steven P. Bjerkle, a former editor of the trade journal Meat & Poultry, is appalled by what goes into cattle feed these days. "Goddamn it, these cattle are ruminants," Bjerkle says. "They're designed to eat grass and, maybe, grain. I mean, they have four stomachs for a reason — to eat products that have a high cellulose content. They are not designed to eat other animals."

The waste products from poultry plants, including the sawdust and old newspapers used as litter, are also being fed to cattle. A study published a few years ago in Preventive Medicine notes that in Arkansas alone, about 3 million pounds of chicken manure were fed to cattle in 1994. According to Dr. Neal D. Bernard, who heads the Physicians Committee for Responsible Medicine, chicken manure may contain dangerous bacteria such as Salmonella and Campylobacter, parasites such as tapeworms and Giardia lamblia, antibiotic residues, arsenic, and heavy metals.

all we care to pay

"THIS IS NO FAIRY STORY and no joke," Upton Sinclair wrote in 1906; "the meat would be shoveled into carts, and the man who did the shoveling would not trouble to lift out a rat even when he saw one — there were things that went into the sausage in comparison with which a poisoned rat was a tidbit." Sinclair described a long list of practices in the meatpacking industry that threatened the health of consumers: the routine slaughter of diseased animals, the use of chemicals such as borax and glycerine to disguise the smell of spoiled beef, the deliberate mislabeling of canned meat, the tendency of workers to urinate and defecate on the kill floor. After reading *The Jungle* President Theodore Roosevelt ordered an independent investigation of Sinclair's charges. When it confirmed the accuracy of the book, Roosevelt called for legislation requiring mandatory federal inspection of all meat sold through interstate commerce, accurate labeling and dating of canned meat products, and a fee-based regulatory system that made meatpackers pay the cost of cleaning up their own industry.

The powerful magnates of the Beef Trust responded by vilifying Roosevelt and Upton Sinclair, dismissing

their accusations, and launching

The meatpacking industry's response to The Jungle established a pattern that would be repeated throughout the twentieth century, whenever health concerns were raised about the nation's beef. The industry has repeatedly denied that problems exist, impugned the motives of its critics, fought vehemently against federal oversight, sought to avoid any responsibility for outbreaks of food poisoning, and worked hard to shift the costs of food safety efforts onto the general public. The industry's strategy has been driven by a profound antipathy to any government regulation that might lower profits. "There is no limit to the expense that might be put upon us," the Beef Trust's Wilson said in 1906, arguing against a federal inspection plan that would have cost meatpackers less than a dime per head of cattle. "[Our] contention is that in all reasonableness and fairness we are paying all we care to pay."

During the 1980s, as the risks of widespread contamination increased, the meatpacking industry blocked the use of microbial testing in the federal meat inspection program. A panel appointed by the National Academy of Sciences warned in 1985 that the nation's meat inspection program was hopelessly outdated, still relying on visual and olfactory clues to find disease while dangerous pathogens slipped past undetected. Three years later, another National Academy of Sciences panel warned that the nation's public health infrastructure was in serious disarray, limiting its ability to track or prevent the spread of newly emerging pathogens. Without additional funding for public health measures, outbreaks and epidemics of new diseases were virtually inevitable. "Who knows what crisis will be next?" said the chairman of the panel. Nevertheless, the Reagan and Bush administrations cut spending on public health measures and staffed the U.S. Department of Agriculture with officials far more interested in government deregulation than in food safety. The USDA became largely indistinguishable from the industries it was meant to police. President Reagan's first secretary of agriculture was in the hog business. His second was the president of the American Meat Institute (formerly known as the American Meat Packers Association). And his choice to run the USDA's Food Marketing and Inspection Service was a vice president of the National Cattlemen's

Association. President Bush later appointed the president of the National Cattlemen's Association to the job.

a lack of recall

THE CLINTON ADMINISTRATION'S EFFORTS to implement a tough, science-based food inspection system received an enormous setback when the Republican Party gained control of Congress in November of 1994. Both the meatpacking industry and the fast food industry have been major financial supporters of the Republican Party's right wing. Speaker of the House Newt Gingrich's Contract With America, stressing government deregulation and opposition to an increased minimum wage, fit perfectly with the legislative agenda of the large meatpackers and fast food chains. A study of campaign contributions between 1987 and 1996, conducted by the Center for Public Integrity, found that Gingrich received more money from the restaurant industry than any other congressman. Among the top twenty-five House recipients of restaurant industry funds, only four were Democrats. The meatpacking industry also directed most of its campaign contributions to conservative Republicans, providing strong support in the Senate to Mitch McConnell of Kentucky, Jesse Helms of North Carolina, and Orrin Hatch of Utah. Between 1987 and 1996, Phil Gramm, a Republican from Texas, received more money from the meatpacking industry than any other U.S. senator. Gramm is a member of the Senate Agriculture Committee, and his wife, Wendy Lee, sits on the board of IBP.

The meatpacking industry's allies in Congress worked hard in the 1990s to thwart modernization of the nation's meat inspection system. A great deal of effort was spent denying the federal government any authority to recall contaminated meat or impose civil fines on firms that knowingly ship contaminated products. Under current law, the USDA cannot demand a recall. It can only consult with a company that has shipped bad meat and suggest that it withdraw the meat from interstate commerce. In extreme cases, the USDA can remove its inspectors from a slaughterhouse or processing plant, for all intents and purposes shutting down the facility. That step is rarely taken, however — and can be challenged by a meatpacker in federal court. In most cases, the USDA conducts negotiations with a meatpacking company over the timing and the scale of a proposed recall. The company has a strong economic interest in withdrawing as little meat as possible from the market (especially if the meat is difficult to trace) and in limiting publicity about the recall. And every day the USDA and the company spend discussing the subject is one more day in which Americans risk eating contaminated meat...

our friend the atom

...Instead of focusing on the primary causes of meat contamination — the feed being given to cattle, the overcrowding at feedlots, the poor sanitation at slaughterhouses, excessive line speeds, poorly trained workers, the lack of stringent government oversight — the meatpacking industry and the USDA are now advocating an exotic technological solution to the problem of foodborne pathogens. They want to irradiate the nation's meat. Irradiation is a form of bacterial birth control, pioneered in the 1960s by the U.S. Army and by NASA. When microorganisms are zapped with low levels of gamma rays or x-rays, they are not killed, but their DNA is disrupted, and they cannot reproduce. Irradiation has been used for years on some imported spices and domestic poultry. Most irradiating facilities have concrete walls that are six feet thick, employing cobalt 60 or cesium 137 (a waste product from nuclear weapons plants and nuclear power plants) to create highly charged, radioactive beams. A new technique, developed by the Titan Corporation, uses conventional electricity and an electronic accelerator instead of radioactive isotopes. Titan devised its SureBeam irradiation technology during the 1980s, while conducting research for the Star Wars antimissile program.

The American Medical Association and the World Health Organization have declared that irradiated foods are safe to eat. Widespread introduction of the process has thus far been impeded, however, by a reluctance among consumers to eat things that have been exposed to radiation. According to current USDA regulations, irradiated meat must be identified with a special label and with a radura (the internationally recognized symbol of radiation). The Beef Industry Food Safety Council — whose members include the meatpacking and fast food giants — has asked the USDA to change its rules and make the labeling of irradiated meat completely voluntary. The meatpacking industry is also working hard to get rid of the word “irradiation,” much preferring the phrase “cold pasteurization.”

One slaughterhouse engineer that I interviewed — who has helped to invent some of the most sophisticated food safety equipment now being used — told me that from a purely scientific point of view, irradiation may be safe and effective. But he is concerned about the introduction of highly complex electromagnetic and nuclear technology into slaughterhouses with a largely illiterate, non-English-speaking workforce. “These are not the type of people you want working on that level of equipment,” he says. He also worries that the widespread use of irradiation might encourage meatpackers “to speed up the kill floor and spray shit everywhere.” Steven Bjerkle, the former editor of Meat & Poultry, opposes irradiation on similar grounds. He thinks it will reduce pressure on the meatpacking industry to make fundamental Meat & Poultry, opposes irradiation on similar grounds. He thinks it will reduce pressure on the meatpacking industry to make fundamental changes in their production methods, allowing unsanitary practices to continue. “I don’t want to be served irradiated feces along with my meat,” Bjerkle says.

what kids eat

FOR YEARS SOME OF the most questionable ground beef in the United States was purchased by the USDA — and then distributed to school cafeterias throughout the country. Throughout the 1980s and 1990s, the USDA chose meat suppliers for its National School Lunch Program on the basis of the lowest price, without imposing additional food safety requirements. The cheapest ground beef was not only the most likely to be contaminated with pathogens, but also the most likely to contain pieces of spinal cord, bone, and gristle left behind by Automated Meat Recovery Systems (contraptions that squeeze the last shreds of meat off bones). A 1983 investigation by NBC News said that the Cattle King Packing Company — at the time, the USDA’s largest supplier of ground beef for school lunches and a supplier to Wendy’s — routinely processed cattle that were already dead before arriving at its plant, hid diseased cattle from inspectors, and mixed rotten meat that had been returned by customers into packages of hamburger meat. Cattle King’s facilities were infested with rats and cockroaches. Rudy “Butch” Stanko, the owner of the company, was later tried and convicted for selling tainted meat to the federal government. He had been convicted just two years earlier on similar charges. That earlier felony conviction had not prevented him from supplying one-quarter of the ground beef served in the USDA school lunch program.

More recently, an eleven-year-old boy became seriously ill in April of 1998 after eating a hamburger at his elementary school in Danielsville, Georgia. Tests of the ground beef, which had been processed by the Bauer Meat Company, confirmed the presence of E. coli 0157:H7. Bauer Meat’s processing plant in Ocala, Florida, was so filthy that on August 12, 1998, the USDA withdrew its inspectors, a highly unusual move. Frank Bauer, the company’s owner, committed suicide the next day. The USDA later declared Bauer’s meat products “unfit for human consumption,” ordering that roughly 6 million pounds be detained. Nearly a third of the meat had already been shipped to school districts in North Carolina and Georgia, U.S. military bases, and prisons. Around the same time, a dozen children in Finley, Washington, were sickened by E. coli 0157:H7. Eleven of them had eaten undercooked beef tacos at their school cafeteria; the twelfth, a two-

year-old, was most likely infected by one of the other children. The company that had supplied the USDA with the taco meat — Northern States Beef, a subsidiary of ConAgra — had in the previous eighteen months been cited for 171 “critical” food safety violations at its facilities. A critical violation is one likely to cause serious contamination and to harm consumers. Northern States Beef was also linked to a 1994 outbreak of E. coli 0157:H7 in Nebraska that sickened eighteen people. Nevertheless, the USDA continued to do business with the ConAgra subsidiary, buying about 20 million pounds of its meat for use in American schools.

In the summer and fall of 1999, a ground beef plant in Dallas, Texas, owned by Supreme Beef Processors failed a series of USDA tests for Salmonella. The tests showed that as much as 47 percent of the company’s ground beef contained Salmonella — a proportion five times higher than what USDA regulations allow. Every year in the United States food tainted with Salmonella causes about 1.4 million illnesses and 500 deaths. Moreover, high levels of Salmonella in ground beef indicate high levels of fecal contamination. Despite the alarming test results, the USDA continued to purchase thousands of tons of meat from Supreme Beef for distribution in schools. Indeed, Supreme Beef Processors was one of the nation’s largest suppliers to the school meals program, annually providing as much as 45 percent of its ground beef. On November 30, 1999, the USDA finally took action, suspending purchases from Supreme Beef and removing inspectors from the company’s plant, effectively shutting it down.

Supreme Beef responded the next day by suing the USDA in federal court, claiming that Salmonella was a natural organism, not an adulterant. With backing from the National Meat Association, Supreme Beef challenged the legality of the USDA’s science-based testing system and contended that the government had no right to remove inspectors from the plant. A. Joe Fish, a federal judge in Texas, heard Supreme Beef’s arguments and immediately ordered USDA inspectors back into the plant, pending final resolution of the lawsuit. The plant shutdown — the first ever attempted under the USDA’s new science-based system — lasted less than one day. A few weeks later, USDA inspectors detected E. coli 0157:H7 in a sample of meat from the Supreme Beef plant, and the company voluntarily recalled 180,000 pounds of ground beef that had been shipped to eight states. Nevertheless, just six weeks after that recall, the USDA resumed its purchases from Supreme Beef, once again allowing the company to supply ground beef for the nation’s schools.

On May 25, 2000, Judge Fish issued a decision in the Supreme Beef case, ruling that the presence of high levels of Salmonella in the plant’s ground beef was not proof that conditions there were “unsanitary.” Fish endorsed one of Supreme Beef’s central arguments: a ground beef processor should not be held responsible for the bacterial levels of meat that could easily have been tainted with Salmonella at a slaughterhouse. The ruling cast doubt on the USDA’s ability to withdraw inspectors from a plant where tests revealed excessive levels of fecal contamination. Although Supreme Beef portrayed itself in the case as an innocent victim of forces beyond its control, much of the beef used at the plant had come from its own slaughterhouse in Ladonia, Texas. That slaughterhouse had repeatedly failed USDA tests for Salmonella.

Not long after the ruling, Supreme Beef failed another Salmonella test. The USDA moved to terminate its contract with the company and announced tough new rules for processors hoping to supply ground beef to the school lunch program. The rules sought to impose the same sort of food safety requirements that fast food chains demand from their suppliers. Beginning with the 2000–2001 school year, ground beef intended for distribution to schools would be tested for pathogens; meat that failed the tests would be rejected; and “owners” — cattle too old or too sick to walk into a slaughterhouse — could no longer be processed into the ground beef that the USDA buys for children. The meatpacking industry immediately opposed the new rules.

your kitchen sink

DURING THE 1990s, the federal government (which is supposed to ensure food safety) applied standards to the meat it purchased for schools that were much less stringent than the standards applied by the fast food industry (which is responsible for much of the current threat to food safety). Having played a central role in the creation of a meatpacking system that can spread bacterial contamination far and wide, the fast food chains are now able to avoid many of the worst consequences. Much like Jack in the Box, the leading chains have in recent years forced their suppliers to conduct frequent tests for E. coli O157:H7 and other pathogens. More importantly, the enormous buying power of the fast food giants has given them access to some of the cleanest ground beef. The meatpacking industry is now willing to perform the sort of rigorous testing for fast food chains that it refuses to do for the general public.

Anyone who brings raw ground beef into his or her kitchen today must regard it as a potential biohazard, one that may carry an extremely dangerous microbe, infectious at an extremely low dose. The current high levels of ground beef contamination, combined with the even higher levels of poultry contamination, have led to some bizarre findings. A series of tests conducted by Charles Gerba, a microbiologist at the University of Arizona, discovered far more fecal bacteria in the average American kitchen sink than on the average American toilet seat. According to Gerba, "You'd be better off eating a carrot stick that fell in your toilet than one that fell in your sink."

Although the fast food chains have belatedly made food safety a priority, their production and distribution systems remain vulnerable to newly emerging foodborne pathogens. A virus that carries the gene to produce Shiga toxins is now infecting previously harmless strains of E. coli. Dr. David Acheson, an associate professor of medicine at Tufts University Medical School, believes the spread of that virus is being encouraged by the indiscriminate use of antibiotics in cattle feed. In addition to E. coli O157:H7, approximately sixty to one hundred other mutant E. coli organisms now produce Shiga toxins. Perhaps a third of them cause illnesses in human beings. Among the most dangerous are E. coli O103, O111, O26, O121, and O145. The standard tests being used to find E. coli O157:H7 do not detect the presence of these other bugs. The CDC now estimates that roughly 37,000 Americans suffer food poisoning each year from non-O157 strains of E. coli, about 1,000 people are hospitalized, and about 25 die.

No matter how well executed the HACCP plan, no matter how highly automated the grills, no matter how many bursts of gamma radiation are fired at the meat, the safety of the food at any restaurant ultimately depends upon the workers in its kitchen. Dr. Patricia Griffin, one of the CDC's leading experts on E. coli O157:H7, believes that food safety classes should be mandatory for fast food workers. "We place our lives in their hands," she says, "in the same way we entrust our lives to the training of airline pilots." Griffin worries that a low-paid, unskilled workforce composed of teenagers and recent immigrants may not always be familiar with proper food handling procedures.

Dr. Griffin has good reason to worry. A 1997 undercover investigation by KCBS-TV in Los Angeles videotaped local restaurant workers sneezing into their hands while preparing food, licking salad dressing off their fingers, picking their noses, and flicking their cigarettes into meals about to be served. In May of 2000, three teenage employees at a Burger King in Scottsville, New York, were arrested for putting spit, urine, and cleaning products such as Easy-Off Oven Cleaner and Comet with Bleach into the food. They had allegedly tampered with the Burger King food for eight months, and it was served to thousands of customers, until a fellow employee informed the management.

The teenage fast food workers I met in Colorado Springs, Colorado, told me other horror stories. The safety of the food seemed to be determined more by the personality of the manager on duty than by the written policies of the chain. Many workers would not eat anything at their restaurant unless they'd made it themselves. A Taco Bell employee said that food dropped on the floor was often picked up and served. An Arby's employee told me that one kitchen worker never washed his hands at work after doing engine repairs on his car. And several employees at the same McDonald's restaurant in Colorado Springs independently provided details about a cockroach infestation in the milk-shake machine and about armies of mice that urinated and defecated on hamburger rolls left out to thaw in the kitchen every night.

TITLE: How Junk Food Can End Obesity

AUTHOR: David H. Freeman

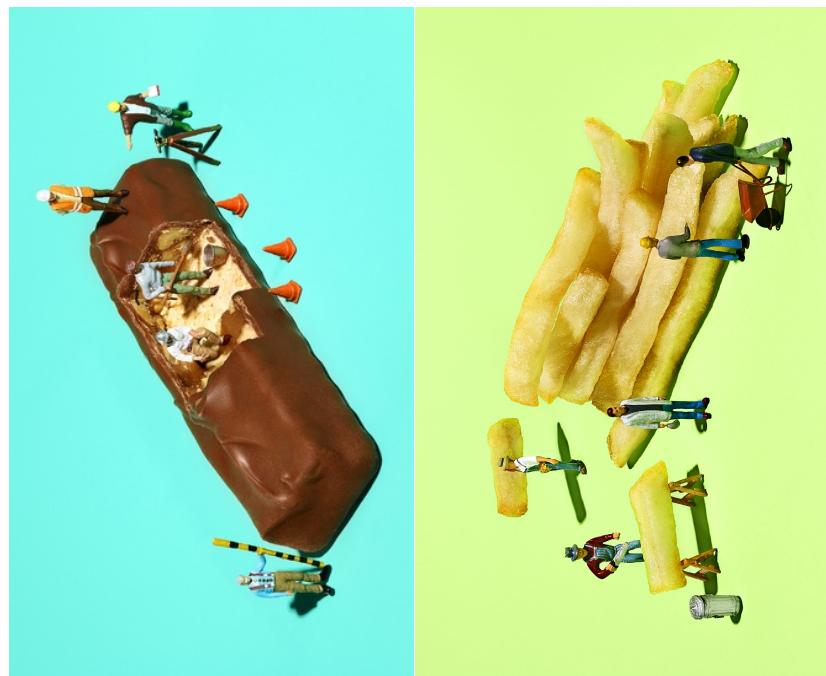
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BACKGROUND:

David Freeman writes this newspaper article in response to Michael Pollan's books supporting a "whole-food movement". Freeman argues against the current health movement, which idealizes wholesome and unprocessed foods. Freeman seeks to answer the cure of obesity by focusing on what he believes are realistic health goals. Freeman argues for processed and fast foods.

HOW TO READ THIS TEXT:

You will be reading excerpts from this newspaper article. This article focuses on the economical and cultural influences of obesity and processed/fast foods.



JULY/AUGUST 2013

How Junk Food Can End Obesity

Demonizing processed food may be dooming many to obesity and disease.
Could embracing the drive-thru make us all healthier?

DAVID H. FREEDMAN
JUN 19 2013, 10:05 PM ET

Late last year, in a small health-food eatery called Cafe Sprouts in Oberlin, Ohio, I had what may well have been the most wholesome beverage of my life. The friendly server patiently guided me to an apple-blueberry-kale-carrot smoothie juice combination, which she spent the next several minutes preparing, mostly by shepherding farm-fresh produce into machinery. The result was tasty, but at 300 calories (by my rough calculation) in a 16-ounce cup, it was more than my diet could regularly absorb without consequences, nor was I about to make a habit of \$9 shakes, healthy or not.

Inspired by the experience nonetheless, I tried again two months later at L.A.'s Real Food Daily, a popular vegan restaurant near Hollywood. I was initially wary of a low-calorie juice made almost entirely from green vegetables, but the server assured me it was a popular treat. I like to brag that I can eat anything, and I scarf down all sorts of raw vegetables like candy, but I could stomach only about a third of this oddly foamy, bitter concoction. It smelled like lawn clippings and tasted like liquid celery. It goes for \$7.95, and I waited 10 minutes for it.

I finally hit the sweet spot just a few weeks later, in Chicago, with a delicious blueberry-pomegranate smoothie that rang in at a relatively modest 220 calories. It cost \$3 and took only seconds to make. Best of all, I'll be able to get this concoction just about anywhere. Thanks, McDonald's!

If only the McDonald's smoothie weren't, unlike the first two, so fattening and unhealthy. Or at least that's what the most-prominent voices in our food culture today would have you believe.

An enormous amount of media space has been dedicated to promoting the notion that all processed food, and only processed food, is making us sickly and overweight. In this narrative, the food-industrial complex—particularly the fast-food industry—has turned all the powers of food-processing science loose on engineering its offerings to addict us to fat, sugar, and salt, causing or at least heavily contributing to the obesity crisis. The wares of these pimps and pushers, we are told, are to be universally shunned....

"The food they're cooking is making people sick," Pollan has said of big food companies. "It is one of the reasons that we have the obesity and diabetes epidemics that we do . . . If you're going to let industries decide how much salt, sugar and fat is in your food, they're going to put [in] as much as they possibly can . . . They will push those buttons until we scream or die. The solution, in his view, is to replace Big Food's engineered, edible evil—through public education and regulation—with fresh, unprocessed, local, seasonal, *real* food . . .

Foodlike substances, the derisive term Pollan uses to describe processed foods, is now a solid part of the elite vernacular. Thousands of restaurants and grocery stores, most notably the Whole Foods chain, have thrived by answering the call to reject industrialized foods in favor of a return to natural, simple, nonindustrialized—let's call them "wholesome"—foods. The two newest restaurants in my smallish Massachusetts town both prominently tout wholesome ingredients; one of them is called the Farmhouse, and it's usually packed....

In virtually every realm of human existence, we turn to technology to help us solve our problems. But even in Silicon Valley, when it comes to food and obesity, technology—or at least food-processing technology—is widely treated as if it *is* the problem. The solution, from this viewpoint, necessarily involves turning our back on it.

If the most-influential voices in our food culture today get their way, we will achieve a genuine food revolution. Too bad it would be one tailored to the dubious health fantasies of a small, elite minority. And too bad it would largely exclude the obese masses, who would continue to sicken and die early. Despite the best efforts of a small army of wholesome-food heroes, there is no reasonable scenario under which these foods could become cheap and plentiful enough to serve as the core diet for most of the obese population—even in the unlikely case that your typical junk-food eater would be willing and able to break lifelong habits to embrace kale and yellow beets. And many of the dishes glorified by the wholesome-food movement are, in any case, as caloric and obesogenic as anything served in a Burger King.

Through its growing sway over health-conscious consumers and policy makers, the wholesome-food movement is impeding the progress of the one segment of the food world that is actually positioned to take effective, near-term steps to reverse the obesity trend: the processed-food industry. Popular food producers, fast-food chains among them, are already applying various tricks and technologies to create less caloric and more satiating versions of their junky fare that nonetheless retain much of the appeal of the originals, and could be induced to go much further. In fact, these roundly demonized companies could do far more for the public's health in five years than the wholesome-food movement is likely to accomplish in the next 50. But will the wholesome-food advocates let them?

I. Michael Pollan Has No Clothes

Let's go shopping. We can start at Whole Foods Market, a critical link in the wholesome-eating food chain. There are three Whole Foods stores within 15 minutes of my house—we're big on real food in the suburbs west of Boston. Here at the largest of the three, I can choose from more than 21 types of tofu, 62 bins of organic grains and legumes, and 42 different salad greens.

Much of the food isn't all that different from what I can get in any other supermarket, but sprinkled throughout are items that scream "wholesome." One that catches my eye today, sitting prominently on an impulse-buy rack near the checkout counter, is Vegan Cheesy Salad Booster, from Living Intentions, whose package emphasizes the fact that the food is enhanced with spirulina, chlorella, and sea vegetables. The label also proudly lets me know that the contents are raw—no processing!—and that they don't contain any genetically modified ingredients. What the stuff does contain, though, is more than three times the fat content per ounce as the beef patty in a Big Mac (more than two-thirds of the calories come from fat), and four times the sodium....

Because they are energy-intense foods, fat and sugar and other problem carbs trip the pleasure and reward meters placed in our brains by evolution over the millions of years during which starvation was an ever-present threat. We're born enjoying the stimulating sensations these ingredients provide, and exposure strengthens the associations, ensuring that we come to crave them and, all too often, eat more of them than we should. Processed food is not an essential part of this story: recent examinations of ancient human remains in Egypt, Peru, and elsewhere have repeatedly revealed hardened arteries, suggesting that pre-industrial diets, at least of the affluent, may not have been the epitome of healthy eating that the Pollanites make them out to be. People who want to lose weight and keep it off are almost always advised by those who run successful long-term weight-loss programs to transition to a diet high in lean protein, complex carbs such as whole grains and legumes, and the sort of fiber vegetables are loaded with.

Because these ingredients provide us with the calories we need without the big, fast bursts of energy, they can be satiating without pushing the primitive reward buttons that nudge us to eat too much.

To be sure, many of Big Food's most popular products are loaded with appalling amounts of fat and sugar and other problem carbs (as well as salt), and the plenitude of these ingredients, exacerbated by large portion sizes, has clearly helped foment the obesity crisis. It's hard to find anyone anywhere who disagrees. Junk food is bad for you because it's full of fat and problem carbs. But will switching to wholesome foods free us from this scourge? It could in theory, but in practice, it's hard to see how. Even putting aside for a moment the serious questions about whether wholesome foods could be made accessible to the obese public, and whether the obese would be willing to eat them, we have a more immediate stumbling block: many of the foods served up and even glorified by the wholesome-food movement are themselves shock full of fat and problem carbs.

Corporate wellness programs, one of the most promising avenues for getting the population to adopt healthy behaviors, are falling prey to this way of thinking as well. Last November, I attended a stress-management seminar for employees of a giant consulting company, and listened to a high-powered professional wellness coach tell the crowded room that it's okay to eat anything as long as its plant or animal origins aren't obscured by processing. Thus, she explained, potato chips are perfectly healthy, because they plainly come from potatoes, but Cheetos will make you sick and fat, because what plant or animal is a Cheeto? (For the record, typical potato chips and Cheetos have about equally nightmarish amounts of fat calories per ounce; Cheetos have fewer carbs, though more salt.)

The Pollanites seem confused about exactly what benefits their way of eating provides. All the railing about the fat, sugar, and salt engineered into industrial junk food might lead one to infer that wholesome food, having not been engineered, contains substantially less of them. But clearly you can take in obscene quantities of fat and problem carbs while eating wholesomely, and to judge by what's sold at wholesome stores and restaurants, many people do. Indeed, the more converts and customers the wholesome-food movement's purveyors seek, the stronger their incentive to emphasize foods that light up precisely the same pleasure centers as a 3 Musketeers bar. That just makes wholesome food stealthily obesogenic.

Hold on, you may be thinking. Leaving fat, sugar, and salt aside, what about all the nasty things that wholesome foods do not, by definition, contain and processed foods do? A central claim of the wholesome-food movement is that wholesome is healthier because it doesn't have the artificial flavors, preservatives, other additives, or genetically modified ingredients found in industrialized food; because it isn't subjected to the physical transformations that processed foods go through; and because it doesn't sit around for days, weeks, or months, as industrialized food sometimes does. (This is the complaint against the McDonald's smoothie, which contains artificial flavors and texture additives, and which is pre-mixed.)

The health concerns raised about processing itself—rather than the amount of fat and problem carbs in any given dish—are not, by and large, related to weight gain or obesity. That's important to keep in mind, because obesity is, by an enormous margin, the largest health problem created by what we eat. But even putting that aside, concerns about processed food have been magnified out of all proportion....

The fact is, there is simply no clear, credible evidence that any aspect of food processing or storage makes a food uniquely unhealthy. The U.S. population does not suffer from a critical lack of any nutrient because we eat so much processed food. (Sure, health experts urge Americans to get more calcium, potassium, magnesium, fiber, and vitamins A, E, and C, and eating more produce and dairy is a great way to get them, but these ingredients are also available in processed foods, not to mention supplements.) Pollan's

"foodlike substances" are regulated by the U.S. Food and Drug Administration (with some exceptions, which are regulated by other agencies), and their effects on health are further raked over by countless scientists who would get a nice career boost from turning up the hidden dangers in some common food-industry ingredient or technique, in part because any number of advocacy groups and journalists are ready to pounce on the slightest hint of risk....

In many respects, the wholesome-food movement veers awfully close to religion. To repeat: there is no hard evidence to back any health-risk claims about processed food—evidence, say, of the caliber of several studies by the Centers for Disease Control and Prevention that have traced food poisoning to raw milk, a product championed by some circles of the wholesome-food movement. "Until I hear evidence to the contrary, I think it's reasonable to include processed food in your diet," says Robert Kushner, a physician and nutritionist and a professor at Northwestern University's medical school, where he is the clinical director of the Comprehensive Center on Obesity.

There may be other reasons to prefer wholesome food to the industrialized version. Often stirred into the vague stew of benefits attributed to wholesome food is the "sustainability" of its production—that is, its long-term impact on the planet. Small farms that don't rely much on chemicals and heavy industrial equipment may be better for the environment than giant industrial farms—although that argument quickly becomes complicated by a variety of factors. For the purposes of this article, let's simply stipulate that wholesome foods are environmentally superior. But let's also agree that when it comes to prioritizing among food-related public-policy goals, we are likely to save and improve many more lives by focusing on cutting obesity—through any available means—than by trying to convert all of industrial agriculture into a vast constellation of small organic farms.

The impact of obesity on the chances of our living long, productive, and enjoyable lives has been so well documented at this point that I hate to drag anyone through the grim statistics again. But let me just toss out one recent dispatch from the world of obesity-havoc science: a study published in February in the journal *Obesity* found that obese young adults and middle-agers in the U.S. are likely to lose almost a decade of life on average, as compared with their non-obese counterparts. Given our obesity rates, that means Americans who are alive today can collectively expect to sacrifice 1 billion years to obesity. The study adds to a river of evidence suggesting that for the first time in modern history—and in spite of many health-related improvements in our environment, our health care, and our nondietary habits—our health prospects are worsening, mostly because of excess weight.

By all means, let's protect the environment. But let's not rule out any food—merely because we are pleased by images of pastoral family farms. Let's first pick the foods that can most plausibly make us healthier, all things considered, and then figure out how to make them environmentally friendly.

II. Let Them Eat Kale

Where the Pollanites get into real trouble—where their philosophy becomes so glib and wrongheaded that it is actually immoral—is in the claim that their style of food shopping and eating is the answer to the country's weight problem.

I am, in short, not much like the average obese person in America, and neither are the Pollanites. That person is relatively poor, does not read *The Times* or cookbook manifestos, is surrounded by people who eat junk food and are themselves obese, and stands a good chance of living in a food desert—an area where produce tends to be hard to find, of poor quality, or expensive.

The wholesome foodies don't argue that obesity and class are unrelated, but they frequently argue that the obesity gap between the classes has been created by the processed-food industry, which, in the past few decades, has preyed mostly on the less affluent masses. Yet Leonard Lesser, a physician and an obesity researcher at the Palo Alto Medical Foundation Research Institute, says that can't be so, because the obesity gap predates the fast-food industry and the dietary dominance of processed food. "The difference in obesity rates in low- and high-income groups was evident as far back as we have data, at least back through the 1960s," he told me. One reason, some researchers have argued, is that after having had to worry over countless generations, about getting enough food, poorer segments of society had little cultural bias against overindulging in food, or putting on excess pounds, as industrialization raised incomes and made rich food cheaply available.

The most obvious problem with the "let them eat kale" philosophy of affluent wholesome-food advocates involves the price and availability of wholesome food...

A slew of start-ups are trying to find ways of producing fresh, local, unprocessed meals quickly and at lower cost. But could this food eventually be sold as cheaply, conveniently, and ubiquitously as today's junky fast food? Not even according to Bittman, who explored the question in a recent *New York Times Magazine* article. Even if wholesome food caught on with the public at large, including the obese population, and even if poor and working-class people were willing to pay a premium for it, how long would it take to scale up from a handful of shops to the tens of thousands required to begin making a dent in the obesity crisis? How long would it take to create the thousands of local farms we'd need in order to provide these shops with fresh, unprocessed ingredients, even in cities...?

Let's assume for a moment that somehow America, food deserts and all, becomes absolutely lousy with highly affordable outlets for wholesome, locally sourced dishes that are high in vegetables, fruits, legumes, poultry, fish, and whole grains, and low in fat and problem carbs. What percentage of the junk-food-eating obese do we want to predict will be ready to drop their Big Macs, fries, and Cokes for grilled salmon on chard? We can all agree that many obese people find the former foods extremely enjoyable, and seem unable to control their consumption of them. Is greater availability of healthier food that pushes none of the same thrill buttons going to solve the problem?...

But experts who actually work with the obese see a more difficult transition, especially when busy schedules are thrown into the equation. "They won't eat broccoli instead of french fries," says Kelli Drenner, an obesity researcher at Stephen F. Austin State University in Nacogdoches, Texas, which has about four fast-food restaurants per block along most of its main drag. "You try to make even a small change to school lunches, and parents and kids revolt." ...

III. The Food Revolution We Need

That brings us to the crucial question: Just how much healthier could fast-food joints and processed-food companies make their best-selling products without turning off customers? I put that question to a team of McDonald's executives, scientists, and chefs who are involved in shaping the company's future menus, during a February visit to McDonald's surprisingly bucolic campus west of Chicago. By way of a partial answer, the team served me up a preview tasting of two major new menu items that had been under development in their test kitchens and high-tech sensory-testing labs for the past year, and which were rolled out to the public in April. The first was the Egg White Delight McMuffin (\$2.65), a lower-calorie, less fatty version of the Egg McMuffin, with some of the refined flour in the original recipe replaced by whole-grain flour. The other was one of three new Premium McWraps (\$3.99), crammed with grilled chicken and spring mix, and given a light coating of ranch dressing amped up with rice vinegar. Both items tasted pretty

good (as do the versions in stores, I've since confirmed, though some outlets go to heavy on the dressing). And they were both lower in fat, sugar, and calories than not only many McDonald's staples, but also much of the food served in wholesome restaurants or touted in wholesome cookbooks.

In fact, McDonald's has quietly been making healthy changes for years, shrinking portion sizes, reducing some fats, trimming average salt content by more than 10 percent in the past couple of years alone, and adding fruits, vegetables, low-fat dairy, and oatmeal to its menu. In May, the chain dropped its Angus third-pounders and announced a new line of quarter-pound burgers, to be served on buns containing whole grains. Outside the core fast-food customer base, Americans are becoming more health-conscious. Public backlash against fast food could lead to regulatory efforts, and in any case, the fast-food industry has every incentive to maintain broad appeal. "We think a lot about how we can bring nutritionally balanced meals that include enough protein, along with the tastes and satisfaction that have an appetite-tiding effect," said Barbara Booth, the company's director of sensory science.

Such steps are enormously promising, says Amy Ard, an epidemiology and preventive-medicine researcher at Wake Forest Baptist Medical Center in Winston-Salem, North Carolina, and a co-director of the Weight Management Center there. "Processed food is a key part of our environment, and it needs to be part of the equation," he explains. "If you can reduce fat and calories by only a small amount in a Big Mac, it still won't be a health food, but it wouldn't be as bad, and that could have a huge impact on us." Ard, who has been working for more than a decade with the obese poor, has little patience with the wholesome-food movement's call to eliminate fast food in favor of farm-fresh goods. "It's really naive," he says. "Fast food became popular because it's tasty and convenient and cheap. It makes a lot more sense to look for small, beneficial changes in that food than it does to hold out for big changes in what people eat that have no realistic chance of happening."

According to a recent study, Americans get 11 percent of their calories, on average, from fast food—a number that's almost certainly much higher among the less affluent overweight. As a result, the fast-food industry may be uniquely positioned to improve our diets. Research suggests that calorie counts in a meal can be trimmed by as much as 30 percent without eaters noticing—by, for example, reducing portion sizes and swapping in ingredients that contain more fiber and water. Over time, that could be much more than enough to literally tip the scales for many obese people. "The difference between losing weight and not losing weight," says Robert Kushner, the obesity scientist and clinical director at Northwestern, "is a few hundred calories a day."

Which raises a question: If McDonald's is taking these sorts of steps, albeit in a slow and limited way, why isn't it more loudly saying so to deflect criticism? While the company has heavily plugged the debut of its new egg-white sandwich and chicken wraps, the ads have left out even a mention of health, the reduced calories and fat, or the inclusion of whole grains. McDonald's has practically kept secret the fact that it has also begun substituting whole-grain flour for some of the less healthy refined flour in its best-selling Egg McMuffin....

If the food industry is to quietly sell healthier products to its mainstream, mostly non-health-conscious customers, it must find ways to deliver the eating experience that fat and problem carbs provide in foods that have fewer of those ingredients. There is no way to do that with farm-fresh produce and wholesome meat, other than reducing portion size. But processing technology gives the food industry a potent tool for trimming unwanted ingredients while preserving the sensations they deliver.

I visited Fona International, a flavor-engineering company also outside Chicago, and learned that there are

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I visited Fona International, a flavor-engineering company also outside Chicago, and learned that there are

a battery of tricks for fooling and appeasing taste buds, which are prone to notice a lack of fat or sugar, or the presence of any of the various bitter, metallic, or otherwise unpleasant flavors that vegetables, fiber, complex carbs, and fat or sugar substitutes can impart to a food intended to appeal to junk-food eaters. Some 5,000 FDA-approved chemical compounds—which represent the base components of all known flavors—line the shelves that run alongside Fona's huge labs. Armed with these ingredients and an array of state-of-the-art chemical-analysis and testing tools, Fona's scientists and engineers can precisely control flavor perception. "When you reduce the sugar, fat, and salt in foods, you change the personality of the product," said Robert Sobel, a chemist, who heads up research at the company. "We can restore it." ... Researchers are also tinkering with food ingredients to boost satiety. Cargill has developed a starch derived from tapioca that gives dishes a refined-carb taste and mouthfeel, but acts more like fiber in the body—a feature that could keep the appetite from spiking later. "People usually think that processing leads to foods that digest too quickly, but we've been able to use processing to slow the digestion rate," says Bruce McGoogan, who heads R&D for Cargill's North American food-ingredient business. The company has also developed ways to reduce fat in beef patties, and to make baked goods using half the usual sugar and oil, all without heavily compromising taste and texture.

Other companies and research labs are trying to turn out healthier, more appealing foods by enlisting ultra-high pressure, nanotechnology, vacuums, and edible coatings. At the University of Massachusetts at Amherst's Center for Foods for Health and Wellness, Fergus Clydesdale, the director of the school's Food Science Policy Alliance—as well as a spry 70-something who's happy to tick off all the processed food in his diet—showed me labs where researchers are looking into possibilities that would not only attack obesity but also improve health in other significant ways, for example by isolating ingredients that might lower the risk of cancer and concentrating them in foods. "When you understand foods at the molecular level," he says, "there's a lot you can do with food and health that we're not doing now."

IV. The Implacable Enemies of Healthier Processed Food

What's not to like about these developments? Plenty, if you've bought into the notion that processing itself is the source of the unhealthfulness of our foods. The wholesome-food movement is not only talking up dietary strategies that are unlikely to help most obese Americans; it is, in various ways, getting in the way of strategies that could work better.

The Pollanites didn't invent resistance to healthier popular foods, as the fates of the McLean Deluxe and Olestra demonstrate, but they've greatly intensified it. Fast food and junk food have their core customer base, and the wholesome-food gurus have theirs. In between sit many millions of Americans—the more the idea that processed food should be shunned no matter what takes hold in this group, the less incentive fast-food joints will have to continue edging away from the fat- and problem-carb-laden fare beloved by their most loyal customers to try to broaden their appeal.

Pollan has popularized contempt for "nutritionism," the idea behind packing healthier ingredients into processed foods. In his view, the quest to add healthier ingredients to food isn't a potential solution, it's part of the problem. Food is healthy not when it contains healthy ingredients, he argues, but when it can be traced simply and directly to (preferably local) farms

In this way, wholesome-food advocates have managed to pre-damn the very steps we need the food industry to take, placing the industry in a no-win situation: If it maintains the status quo, then we need to stay away because its food is loaded with fat and sugar. But if it tries to moderate these ingredients, then it is deceiving us with nutritionism. Pollan explicitly counsels avoiding foods containing more than five

ingredients, or any hard-to-pronounce or unfamiliar ingredients. This rule eliminates almost anything the industry could do to produce healthier foods that retain mass appeal—most of us wouldn't get past xanthan gum—and that's perfectly in keeping with his intention.

By placing wholesome eating directly at odds with healthier processed foods, the Pollanites threaten to derail the reformation of fast food just as it's starting to gain traction. At McDonald's, "Chef Dan"—that is, Dan Coudreaut, the executive chef and director of culinary innovation—told me of the dilemma the movement has caused him as he has tried to make the menu healthier. "Some want us to have healthier food, but others want us to have minimally processed ingredients, which can mean more fat," he explained. "It's becoming a balancing act for us." That the chef with arguably the most influence in the world over the diet of the obese would even consider adding fat to his menu to placate wholesome foodies is a pretty good sign that something has gone terribly wrong with our approach to the obesity crisis...

Bitman is hardly alone in his reflexive dismissals. No sooner had McDonald's and Burger King rolled out their egg-white sandwich and turkey burger, respectively, than a spate of articles popped up hooting that the new dishes weren't healthier because they trimmed a mere 50 and 100 calories from their standard counterparts, the Egg McMuffin and the Whopper. Apparently these writers didn't understand, or chose to ignore, the fact that a reduction of 50 or 100 calories in a single dish places an eater exactly on track to eliminate a few hundred calories a day from his or her diet—the critical threshold needed for long-term weight loss. Any bigger reduction would risk leaving someone too hungry to stick to a diet program. It's just the sort of small step in the right direction we should be aiming for, because the obese are much more likely to take it than they are to make a big leap to wholesome or very-low-calorie foods.

Many wholesome foodies insist that the food industry won't make serious progress toward healthier fare unless forced to by regulation. I, for one, believe regulation aimed at speeding the replacement of obesogenic foods with appealing healthier foods would be a great idea. But what a lot of foodies really want is to ban the food industry from selling junk food altogether. And that is just a fantasy. The government never managed to keep the tobacco companies from selling cigarettes, and banning booze (the third-most-deadly consumable killer after cigarettes and food) didn't turn out so well. The two most health-enlightened, regulation-friendly major cities in America, New York and San Francisco, tried to halt sales of two of the most horrific fast-food assaults on health—giant servings of sugared beverages and kids' fast-food meals accompanied by toys, respectively—and neither had much luck. Michelle Obama is excoriated by conservatives for asking schools to throw more fruits and vegetables into the lunches they serve. Realistically, the most we can hope for is a tax on some obesogenic foods. The research of Lisa Powell, the University of Illinois professor, suggests that a 20 percent tax on sugary beverages would reduce consumption by about 25 percent. (As for fatty foods, no serious tax proposal has yet been made in the U.S., and if one comes along, the wholesome foodies might well join the food industry and most consumers in opposing it. Denmark did manage to enact a fatty-food tax, but it was deemed a failure when consumers went next door into Germany and Sweden to stock up on their beloved treats.)

Continuing to call out Big Food on its unhealthy offerings, and loudly, is one of the best levers we have for pushing it toward healthier products—but let's call it out intelligently, not reflexively. Executives of giant food companies may be many things, but they are not stupid. Absent action, they risk a growing public-relations disaster, the loss of their more affluent and increasingly health-conscious customers, and the threat of regulation, which will be costly to fight, even if the new rules don't stick. Those fears are surely what's driving much of the push toward moderately healthier fare within the industry today. But if the Pollanites convince policy makers and the health-conscious public that these foods are dangerous by virtue of not being farm-fresh, that will push Big Food in a different direction (in part by limiting the profit

potential it sees in lower-fat, lower-problem-carb foods), and cause it to spend its resources in other ways.

Significant regulation of junk food may not go far, but we have other tools at our disposal to prod Big Food to intensify and speed up its efforts to cut fat and problem carbs in its offerings, particularly if we're smart about it. Lenard Lesser points out that government and advocacy groups could start singling out particular restaurants and food products for praise or shaming—a more official version of “eat this, not that”—rather than sticking to a steady drumbeat of “processed food must go away.” Academia could do a much better job of producing and highlighting solid research into less obesogenic, high-mass-appeal foods, and could curtail its evidence-light anti-food-processing bias, so that the next generation of social and policy entrepreneurs might work to narrow the gap between the poor obese and the well-resourced healthy instead of inadvertently widening it. We can keep pushing our health-care system to provide more incentives and support to the obese for losing weight by making small, painless, but helpful changes in their behavior, such as switching from Whoppers to turkey burgers, from Egg McMuffins to Egg White Delights, or from blueberry crisp to fruit-and-yogurt parfaits.

And we can ask the wholesome-food advocates, and those who give them voice, to make it clearer that the advice they sling is relevant mostly to the privileged healthy—and to start getting behind realistic solutions to the obesity crisis.

Techniques of Persuasion

Persuasive writers use a variety of specific writing techniques in order to convince their audience to support their opinion on a particular issue.

Keep these techniques in mind while reading persuasive texts—analyze how the author is trying to “convince” you.

As a writer, you can use these techniques to better convince your own audience.

Be aware—persuasive techniques can be used to strengthen arguments, but also to negatively obscure the truth!

Do not lie to your readers! You will be an unreliable author!

| Technique | Explanation |
|---------------------------------|---|
| Thought-provoking question | Author provides the reader with a “Big picture” essential question to activate the readers participation |
| Humor: Irony & Wit | Author uses jokes, play on words, or pictures |
| Snob Appeal | Author uses “high class” wordings and examples |
| Repetition | Author uses repetition in order to highlight an important idea |
| Negative Comparisons | Author uses competitors name or image in negative comparisons in order to put down or “expose” their opponent. |
| Exaggeration | Author exaggerates concepts in order to highlight their importance or impact |
| Personal pronouns | Author uses “we”, “you”, “us”, or “our” in order to show a shared responsibility or create a relationship between author and reader. |
| Statistics, Figures, and Charts | Authors uses numbers, figures, or statistical/scientific jargon |
| Common Man | Author appeals to the common man/reader to make author seem more relatable, authentic, or realistic. |
| Sex Appeal | Authors uses sexy wording, imagining or subtle suggestions |
| Something for nothing | Author promises items or guarantees at no expense to the user/reader |
| Bandwagon | Author suggests that “everyone” is doing it so the reader should too |
| Celebrity endorsement | Author has a celebrity claim/testimonial for a product to appeal |
| Fear tactics/insecurities | Author uses threats, fears, and draws on the readers own insecurities to scare them into compliance |
| Loaded Language | Author specifically chooses strong emotionally charged descriptions of idea/concepts |
| Generalities | Author makes broad unsupported generalizations/statements using words like all/every/always/never |
| Anecdotal stories/vignette | Author uses specific stories to demonstrate a larger point (i.e., the story of one man applies to all) |
| Appeal to emotions | Author specifically plays upon the readers emotions, attempts to cause an emotional response within the reader |
| Call to action | Author urges the reader to take action on an issue, sets up a “now or never” feeling |
| Quotations—GOOD! | Author uses extensive sources to support/justify their claims |
| Quotations—BAD! | Author uses quotations our of context, misinterprets the actual quote, or doesn’t cite their sources in order to deceive or more strongly support their point |
| Startling facts | Author uses obscure or surprising facts to capture the audience |
| Counter argument/rebuttal | Author presents an opposing viewpoint to their argument, and refutes it through a rebuttal |
| Hypothetical | Author immerses their reader in a hypothetical situation in order to back their point |

Quote Cards: Facilitating Discussion

Directions: As you read Reading Passage #1 FAST FOOD NATION and Reading Passage #2 HOW JUNK FOOD CAN END OBESITY, search for your assigned quote. Once you have come across your quote, write down the quote information (text it is from, author, chapter & page #) on the front side of your index card. On the back of your index card, create an ESSENTIAL QUESTION from your quote. This essential question should not be a literal-level question, but a thought provoking open-ended question. After creating your ESSENTIAL QUESTION, list multiple DISCUSSION POINTS about relevant & critical information from your quote. Your DISCUSSION POINTS should connect your quote to the larger context of the two readings. Finally, use your TECHNIQUES OF PERSUASION handout to analyze the passage for persuasive techniques used by the author in your quote. In class discussion, you will be presenting your quote, using your essential question, discussion points, and persuasive technique to facilitate provoking discussion with your peers.

Index Card example:

Front of Index card:

| |
|--|
| Quote: |
| "A middle-aged woman in a lab coat handed me a paper plate full of premium extra longs, the type of french fries sold at McDonald's, and a salt shaker, and some ketchup. The fries on the plate looked wildly out of place in this laboratory setting, this surreal food factory with its computer screens, digital readouts, shiny steel platforms, and evacuation plans in case of ammonia gas leaks. The french fries were delicious — crisp and golden brown, made from potatoes that had been in the ground that morning. I finished them and asked for more." |
| Quote Information: |
| Text: <i>Fast Food Nation</i> |
| Author: Eric Schlosser |
| Chapter/Page #: Chapter 5, page 4 |

Back of Index card:

| |
|---|
| Facilitator Name: Hillary |
| Essential Question: How has industrialization and technology changed the way in which food is processed? Are these changes for the better, or for the worse? |
| Discussion Points: |
| -use of juxtaposition & metaphor [simple fries vs. surreal lab] |
| -can processing be overlooked because of great taste? |
| Persuasive Techniques Used: |
| Irony, Anecdotal story |
| Understatement [casual, possible ammonia leaks] |

Quotes for Index Cards
(Teacher gives each student one quote to cut out and glue onto index card)

"Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You'll find "natural flavor" or "artificial flavor" in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste... The flavor industry is highly secretive. Its leading companies will not divulge the precise formulas of flavor compounds or the identities of clients. The secrecy is deemed essential for protecting the reputation of beloved brands. The fast food chains, understandably, would like the public to believe that the flavors of their food somehow originate in their restaurant kitchens, not in distant factories run by other firms."

"The place reminded me of Willy Wonka's chocolate factory. Wonderful smells drifted through the hallways, men and women in neat white lab coats cheerfully went about their work, and hundreds of little glass bottles sat on laboratory tables and shelves. The bottles contained powerful but fragile flavor chemicals, shielded from light by the brown glass and the round plastic caps shut tight. The long chemical names on the little white labels were as mystifying to me as medieval Latin. They were the odd-sounding names of things that would be mixed and poured and turned into new substances, like magic potions."

"In addition to being the world's largest flavor company, IFF manufactures the smell of six of the ten best-selling fine perfumes in the United States, including Estee Lauder's Beautiful, Clinique's Happy, Lancôme's Tresor, and Calvin Klein's Eternity. It also makes the smell of household products such as deodorant, dishwashing detergent, bath soap, shampoo, furniture polish, and floor wax. All of these aromas are made through the same basic process: the manipulation of volatile chemicals to create a particular smell. The basic science behind the scent of your shaving cream is the same as that governing the flavor of your TV dinner!"

"The meatpacking system that arose to supply the nation's fast food chains — an industry molded to serve their needs; to provide massive amounts of uniform ground beef so that all of McDonald's hamburgers would taste the same — has proved to be an extremely efficient system for spreading disease!"

"Throughout the 1980s and 1990s, the USDA chose meat suppliers for its National School Lunch Program on the basis of the lowest price, without imposing additional food safety requirements. The cheapest ground beef was not only the most likely to be contaminated with pathogens, but also the most likely to contain pieces of spinal cord, bone, and gristle left behind by Automated Meat Recovery Systems (contraptions that squeeze the last shreds of meat off bones)"

"If the most-influential voices in our food culture today get their way, we will achieve a genuine food revolution. Too bad it would be one tailored to the dubious health fantasies of a small, elite minority. And too bad it would largely exclude the obese masses, who would continue to sicken and die early. Despite the best efforts of a small army of wholesome-food heroes, there is no reasonable scenario under which these foods could become cheap and plentiful enough to serve as the core diet for most of the obese population—even in the unlikely case that your typical junk-food eater would be willing and able to break lifelong habits to embrace kale and yellow beets. And many of the dishes glorified by the wholesome-food movement are, in any case, as calorific and obesogenic as anything served in a Burger King"

"Open your freezer, your refrigerator, your kitchen cupboards, and look at the labels on your food. You'll find "natural flavor" or "artificial flavor" in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste... The flavor industry is highly secretive. Its leading companies will not divulge the precise formulas of flavor compounds or the identities of clients. The secrecy is deemed essential for protecting the reputation of beloved brands. The fast food chains, understandably, would like the public to believe that the flavors of their food somehow originate in their restaurant kitchens, not in distant factories run by other firms."

"For the purposes of this article, let's simply stipulate that wholesome foods are environmentally superior. But let's also agree that when it comes to prioritizing among food-related public-policy goals, we are likely to save and improve many more lives by focusing on cutting obesity—through any available means—than by trying to convert all of industrial agriculture into a vast constellation of small organic farms"

"I am, in short, not much like the average obese person in America, and neither are the Pollanites. That person is relatively poor, does not read *The Times* or cookbook manifestos, is surrounded by people who eat junk food and are themselves obese, and stands a good chance of living in a food desert—an area where produce tends to be hard to find, of poor quality, or expensive... The wholesome foodies don't argue that obesity and class are unrelated, but they frequently argue that the obesity gap between the classes has been created by the processed-food industry, which, in the past few decades, has preyed mostly on the less affluent masses"

"No sooner had McDonald's and Burger King rolled out their egg-white sandwich and turkey burger, respectively, than a spate of articles popped up hooting that the new dishes weren't healthier because they trimmed a mere 50 and 100 calories from their standard counterparts, the Egg McMuffin and the Whopper. Apparently these writers didn't understand, or chose to ignore, the fact that a reduction of 50 or 100 calories in a single dish places an eater exactly on track to eliminate a few hundred calories a day from his or her diet—the critical threshold needed for long-term weight loss. Any bigger reduction would risk leaving someone too hungry to stick to a diet program. It's just the sort of small step in the right direction we should be aiming for, because the obese are much more likely to take it than they are to make a big leap to wholesome or very-low-calorie foods"

Name: _____

Date: _____

Discussion Guide

Directions: As we discuss quotes from FAST FOOD NATION and HOW JUNK FOOD CAN END OBESITY in class, take notes paying specific attention to persuasion, argument, and techniques used by the author to convince. As we discuss, start thinking about which point of view you support.

| Quotation | Discussion Notes |
|--|---------------------------------|
| <p><i>FAST FOOD NATION:</i></p> <p>1. Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You'll find "natural flavor" or "artificial flavor" in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste... The flavor industry is highly secretive. Its leading companies will not divulge the precise formulas of flavor compounds or the identities of clients. The secrecy is deemed essential for protecting the reputation of beloved brands. The fast food chains, understandably, would like the public to believe that the flavors of their food somehow originate in their restaurant kitchens, not in distant factories run by other firms." (1).</p> <p>2. "The place reminded me of Willy Wonka's chocolate factory. Wonderful smells drifted through the hallways, men and women in neat white lab coats cheerfully went about their work, and hundreds of little glass bottles sat on laboratory tables and shelves. The bottles contained powerful but fragile flavor chemicals, shielded from light by the brown glass and the round plastic caps shut tight. The long chemical names on the little white labels were as mystifying to me as medieval Latin. They were the odd-sounding names of things that would be mixed and poured and turned into new substances, like magic potions" (1-2).</p> <p>3. In addition to being the world's largest flavor company, IFF manufactures the smell of six of the ten best-selling fine perfumes in the United States, including Estee Lauder's Beautiful, Clinique's Happy, Lancôme's Trésor, and Calvin Klein's Eternity. It also makes the smell of household products such as deodorant, dishwashing detergent, bath soap, shampoo, furniture polish, and floor wax. All of these aromas are made through the same basic process: the manipulation of volatile chemicals to create a particular smell. The basic science behind the scent of your shaving cream is the same as that governing the flavor of your TV dinner" (2).</p> <p>4. "The meatpacking system that arose to supply the nation's fast food chains — an industry molded to serve their needs, to provide massive amounts of uniform ground beef so that all of McDonald's hamburgers would taste the same — has proved to be an extremely efficient system for spreading disease" (4).</p> <p>5. "Throughout the 1980s and 1990s, the USDA chose meat suppliers for its National School Lunch Program on the basis of the lowest price, without imposing additional food safety requirements. The cheapest ground beef was not only the most likely to be contaminated with pathogens, but also the most likely to contain pieces of spinal cord, bone, and gristle left behind by Automated Meat Recovery Systems (contraptions that squeeze the last shreds of meat off bones)" (7).</p> | <p><i>FAST FOOD NATION:</i></p> |

HOW JUNK FOOD CAN END OBESITY:

1. "If the most-influential voices in our food culture today get their way, we will achieve a genuine food revolution. Too bad it would be one tailored to the dubious health fantasies of a small, elite minority. And too bad it would largely exclude the obese masses, who would continue to sicken and die early. Despite the best efforts of a small army of wholesome-food heroes, there is no reasonable scenario under which these foods could become cheap and plentiful enough to serve as the core diet for most of the obese population—even in the unlikely case that your typical junk-food eater would be willing and able to break lifelong habits to embrace kale and yellow beets. And many of the dishes glorified by the wholesome-food movement are, in any case, as caloric and obesogenic as anything served in a Burger King" (1).

2. "Processed food is not an essential part of this story: recent examinations of ancient human remains in Egypt, Peru, and elsewhere have repeatedly revealed hardened arteries, suggesting that pre-industrial diets, at least of the affluent, may not have been the epitome of healthy eating that the Pollanites make them out to be" (1).

3." For the purposes of this article, let's simply stipulate that wholesome foods are environmentally superior. But let's also agree that when it comes to prioritizing among food-related public-policy goals, we are likely to save and improve many more lives by focusing on cutting obesity—through any available means—than by trying to convert all of industrial agriculture into a vast constellation of small organic farms" (2).

4. I am, in short, not much like the average obese person in America, and neither are the Pollanites. That person is relatively poor, does not read *The Times* or cookbook manifestos, is surrounded by people who eat junk food and are themselves obese, and stands a good chance of living in a food desert—an area where produce tends to be hard to find, of poor quality, or expensive... The wholesome foodies don't argue that obesity and class are unrelated, but they frequently argue that the obesity gap between the classes has been created by the processed-food industry, which, in the past few decades, has preyed mostly on the less affluent masses" (2-3).

5. "No sooner had McDonald's and Burger King rolled out their egg-white sandwich and turkey burger, respectively, than a spate of articles popped up hooting that the new dishes weren't healthier because they trimmed a mere 50 and 100 calories from their standard counterparts, the Egg McMuffin and the Whopper. Apparently these writers didn't understand, or chose to ignore, the fact that a reduction of 50 or 100 calories in a single dish places an eater exactly on track to eliminate a few hundred calories a day from his or her diet—the critical threshold needed for long-term weight loss. Any bigger reduction would risk leaving someone too hungry to stick to a diet program. It's just the sort of small step in the right direction we should be aiming for, because the obese are much more likely to take it than they are to make a big leap to wholesome or very-low-calorie foods" (4).

HOW JUNK FOOD CAN END OBESITY:

Persuasive Essay

Assignment Directions

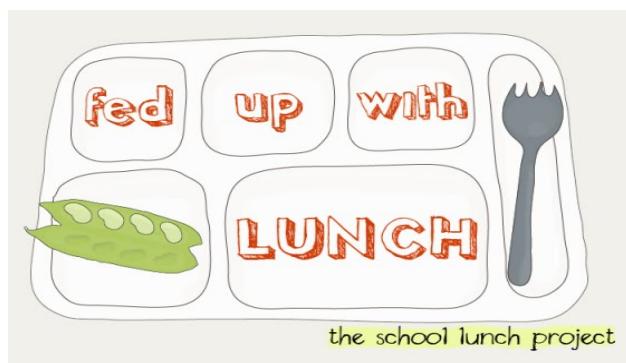
Background: By reading different point of view articles, facilitating and participating in Socratic discussion, and analyzing techniques of persuasion, you have the tools to form your own educated opinion about “Defining Healthy” through writing a persuasive argument essay. This 5-paragraph essay is a summative assessment of your achievement as a persuasive reader and writer.

Essay Prompt:

*Do we need a food revolution? Using your readings and discussions, create your own definition of “healthy food” in order to **construct a persuasive argument for or against the use of processed foods in student lunches**. Considering the need to lower rates of obesity, argue either for or against the inclusion of processed foods (for example: junk foods, fast foods, and processed meat products) in student lunches on middle school, high school, or college campuses.*

Directions:

- Read the essay prompt and choose a side. You may only choose one side: either FOR or AGAINST.
- Use your thesis rough draft and persuasive essay framework outline to write your essay.
- Your essay must be a well-constructed 5-paragraph essay. It should include: 1) a captivating introduction 2) a solid thesis 3) at least 3 strong supporting arguments 4) 1 strong counter argument with rebuttal 4) well-integrated evidence from your readings 5) a powerful convincing conclusion.
- Use MLA format to cite evidence from your readings. You should have at least one quote per supporting argument and at least one quote for your counter argument.
- You must use at least 4 different techniques of persuasion (from the handout) in your essay.
- Use your peer revision workshop checklist to revise and edit your essay.
- Write in clear, concise, and formal language. Be persuasive and confident.
- Your essay must be typed and double spaced in 12pt times new roman font
- Your final draft should be free of mechanical errors and ready to be published.



persuasive Essay Rubric

| | Exemplary 20-18 | Superior 18-15 | Satisfactory 15-10 | Unsatisfactory |
|---|---|---|--|--|
| Points Possible | | | | 10-0 |
| Thesis -Strong main argument and direction | Thesis is strong and clear. Thesis is substantial, supportable, precise, arguable, and relevant. Thesis is thoroughly supported throughout the paper. | Thesis is clear and mostly substantial, supportable, precise, arguable, and relevant. Thesis is supported throughout the paper. | Thesis is loosely clear and present. Thesis is somewhat substantial, supportable, precise, arguable or relevant. Thesis is somewhat supported throughout the paper. | Thesis is unclear or non-existent. Thesis is not substantial, supportable, precise, arguable, or relevant. Thesis is not supported throughout the paper. |
| Organization & Structure -Intro, supporting arguments, counter argument, conclusion | Topic development is clear, logical, and effective. Transitions between subtopics are strong and logical. Introduction, supporting arguments, counter argument, and conclusion are present, strong, and captivating. Paper flows effectively. | Topic development is clear and effective. Transitions between subtopics are somewhat logical. Introduction, supporting arguments, counter argument, and conclusion are present and relevant. Paper flows effectively. | Topic development is somewhat clear. Transitions lack coherence. Introduction, supporting argument, counter argument, and conclusion are present but not strong or relevant. | Essay lacks any clear or logical organization or structure. Essay lacks transitions. Topic is not developed. |
| Strength of argument -Supporting arguments -Techniques of persuasion | Main argument is persuasive. Supporting arguments are strong, relevant, clear, and effective. At least 3 supporting arguments are present. At least 4 techniques of persuasion are used. Counter argument and rebuttal are strongly persuasive. | Main argument is somewhat convincing. Supporting arguments are relevant, clear, and effective. At least 2 supporting arguments are present. At least 3 techniques of persuasion are used. Counter argument and rebuttal are persuasive. | Main argument is somewhat convincing. Supporting arguments are relevant. At least 2 supporting arguments are present. At least 3 techniques of persuasion are used. Counter argument and rebuttal are present. | Essay is lacking a main argument, counter argument or rebuttal. Essay has less than 2 supporting arguments. Essay has less than 3 persuasive techniques. Argument is not convincing. |
| Source Management -Integration of sources to support argument | Sources are integrated into the paper in a logical, effective, and justified manner. Sources are strongly relevant to the essay. Sources are elaborated on in unique manner. | Sources are integrated into the paper in a logical, effective, and justified manner. Sources are strongly relevant to the essay. Sources are elaborated on. | Sources are somewhat integrated into the paper effectively. Sources are somewhat relevant to the essay. Sources are partially elaborated on. | Sources are not integrated into the paper effectively, or no sources are present. Sources are irrelevant to the paper or not justified or elaborated on. |
| Mechanics of Writing -Correct citations -Free of grammar errors -Clear, concise formal language | Essay is free of grammar, spelling, punctuation, citation, and other mechanical errors. Essay is written with strong, clear, concise, formal language. Paper is formatted correctly. | Essay has 1-3 grammatical, spelling, punctuation, citation, or other mechanical error. Essay is written with clear and concise formal language. Paper is formatted correctly. | Essay has 3-5 grammatical, spelling, punctuation, citation, or other mechanical errors. Paper is written with somewhat clear language. Paper is formatted correctly. | Essay has many errors. Paper is not written with clear, concise, formal language. Paper is formatted incorrectly. |

Homework Extension: Constructing an Argument

Directions: In preparation for creating a persuasive essay, complete the below assignments. Be prepared to outline your persuasive essay in class on Day #2

1. Choose which side of the Persuasive Writing prompt you want to argue for.
2. Re-read Reading Passage #1 and Reading Passage #2. Highlight, underline, and note quotations that you can use to support your argument in your persuasive writing essay. Bring your highlighted and noted readings back to class.
3. Write a rough draft of your thesis for your persuasive essay paper. Your thesis rough draft should be typed. You may consult the below thesis tips when constructing your rough argument.

Thesis Tips

An effective thesis statement fulfills the following criteria.

Your thesis should be:

Substantial - Your thesis should be a claim for which it is easy to answer every reader's question: "So what?"

Supportable - A thesis must be a claim that you can prove with the evidence at hand (e.g., evidence from your texts or from your research). Your claim should not be outlandish, nor should it be mere personal opinion or preference (e.g., "Frederick Douglass is my favorite historical figure. ")

Precise - An effective thesis statement has been narrowed down from a very broad subject. Your claim should not be too broad.

Arguable - A thesis statement should not be a statement of fact or an assertion with which every reader is likely to immediately agree. (Otherwise, why try to convince your readers with an argument?)

Relevant – Your thesis should answer the question or assignment posed. Stay on topic.

Example: High school graduates should be required to take a year off to pursue community service projects before entering college in order to increase their maturity and global awareness.

(These Tips are adapted from the PURDUE OWL,
an online resource you should be using as a writer!)

Persuasive Essay Frame

Directions: Use your texts, notes, and research to fill out the Persuasive Essay Framework. You do not have to use complete sentences (except for your thesis sentence and topic sentences). This framework will be used to construct your Persuasive Essay.

| Introduction | |
|--------------------------------------|--|
| Hook (get readers attention): | |
| Background information: | |
| Thesis/Strong Main Argument: | |
| First argument | |
| Topic Sentence of Issue: | |
| Point 1 for your argument #1: | |
| Evidence from text/research: | |
| Point 2 for your argument #1: | |
| Evidence from text/research: | |
| Connection back to thesis: | |
| Second Argument | |
| Topic Sentence of Issue: | |
| Point 1 for your argument #2: | |

| | |
|--|--|
| Evidence from text/research: | |
| Point 2 for your argument #2: | |
| Evidence from text/research: | |
| Connection back to thesis: | |
| Third Argument | |
| Topic Sentence of Issue: | |
| Point 1 for your argument #3: | |
| Evidence from text/research: | |
| Point 2 for your argument #3: | |
| Evidence from text/research: | |
| Connection back to thesis: | |
| Opposing Viewpoint (Counter Argument) | |
| Topic Sentence of opposing point to your argument: | |
| Your rebuttal to the opposing viewpoint: | |
| Evidence from text/research: | |
| Connection back to thesis: | |

Conclusion

Restate thesis in different way:

So What?/Real world connection:

Solution:

Final Impact statement:

Additional Notes:

PEER REVISION WORKSHOP

PEER REVISION CHECKLIST

Writing is an ongoing process; good writers consult with other writers to improve their writing. In this Peer Revision Workshop, you will take on the role of both AUTHOR & CONSULTANT in order to create a community of writers. A Consultant is not a blind editing service: you should advise and CONSULT your author, not correct them without explanation.

Workshop Directions:

1. Meet with your assigned partner & swap papers.
2. Read your partner's paper through two times.
 - a. During the 1st reading:
 - Write notes and questions in the margins of the paper
 - Highlight what you believe is the author's thesis and main supporting arguments
 - Circle words that are misspelled, used incorrectly, or should be swapped for a new term (do not simply correct)
 - Underline sentences that sound awkward, are structured incorrectly, or should be rewritten.
 - Star punctuation errors (do not simply correct)
 - b. During the 2nd reading:
 - Fill out AREA 1 & AREA 2 of the Peer Revision Checklist
 - After you and your partner have each completed #1 & #2, meet back up for a consultation conference.
 - a. Swap back your papers; each consultant should give the author their filled out Peer Revision Checklist.
 - b. Review paper 1, the consultant should advise the author on their notes and notations from their first reading of the paper, and on their peer revision checklist from their second reading of the paper. The consultant and author should discuss the written advice and recommendations.
 - c. Next, the consultant and author should switch roles to review paper 2 in the same manner as above.
 - 4. Once all steps of peer revision are complete, go back to your individual writing stations. The author should now fill out AREA 3 on the Peer Revision Checklist from their consultant.
 - 5. With any time leftover, the author should start to revise and edit their paper using recommendations from their Peer Revision Checklist.

Author Name: _____ Consultant Name: _____

Title of Work: _____

AREA 1-CONSULTANT: WRITING CONTENT CONCERNs

| Questions for Consultant | Consultant Answers | Comments & Advice to Author |
|--|--------------------|-----------------------------|
| What is the thesis or main argument of the essay? | | |
| What are the sub-points, or supporting arguments for the thesis of the essay? Are they clearly organized? | | |
| Who is the main audience for this essay? Does the author capture the reader/audience attention and interest? | | |
| Does the author convince you to take their side of the argument? How persuasive is the author? | | |
| What is your favorite part of the essay? Which part is most well written? | | |

AREA 2-CONSULTANT: WRITING MECHANICS CONCERNs

| Y/N | Area of Writing | Comments to Author |
|-----|---|--------------------|
| | Grammar: Punctuation, sentence structure, spelling, and capitalization are correct. | |
| | Format: The author adhered to the correct assignment formatting. | |
| | Word Choice: The author uses words appropriately to contribute to text meaning. | |

AREA 3: TO BE ANSWERED BY THE AUTHOR

How I plan to use my consultant's advice in my final draft:

•THE PEER REVISION CHECKLIST SHOULD BE GIVEN TO THE AUTHOR UPON COMPLETION. WHEN THE AUTHOR HANDS IN THEIR FINAL DRAFT, THEY MUST ATTACH THEIR THESIS ROUGH DRAFT, PERSUASIVE ESSAY FRAME, ESSAY ROUGH DRAFT, & PEER REVISION CHECKLIST TO THE BACK OF THEIR FINAL DRAFT..

English Composition & Techniques of Writing

Citing Sources, Creating Argument, & Persuasive Writing Unit Test

Test Directions: Complete all 4 parts of this test (multiple choice, fill in the blank, short answer, and essay). Circle or write your answers on this test booklet. When you are complete, hand in all test papers (including scrap paper) to the teacher.

Student Name: _____

Class Period: _____

Date: _____

Student Grade:

Teacher Comments:

PART 1: MULTIPLE-CHOICE:

Directions: Read the question thoroughly. Choose the best answer provided.

CITING SOURCES:

1. Using the given information below, select the correct in-text citation:

Citation Style: **MLA**
Resource Type: Book
Author: Eric Schlosser
Title: Fast Food Nation
Publication Year: 2001
Page Number: 29

- A. Commonly, substances used to make perfume are also used in artificial flavoring. (Schlosser, 29)
- B. Commonly, substances used to make perfume are also used in artificial flavoring (Schlosser 29).
- C. Commonly, substances used to make perfume are also used in artificial flavoring (Schlosser 2001).
- D. Commonly, substances used to make perfume are also used in artificial flavoring (Fast Food Nation, 29).

2. Using the given information below, select the correct in-text citation:

Citation Style: **APA**
Resource Type: Book
Author: Eric Schlosser
Title: Fast Food Nation
Publication Year: 2001
Page Number: 29

- A. Commonly, substances used to make perfume are also used in artificial flavoring (Schlosser, 2001).
- B. Commonly, substances used to make perfume are also used in artificial flavoring (Schlosser 29).
- C. Commonly, substances used to make perfume are also used in artificial flavoring. (Schlosser 2001)
- D. Commonly, substances used to make perfume are also used in artificial flavoring (Fast Food Nation, 2001).

3. Using the given information below, select the correct citation:

Citation Style: **APA**
Resource Type: Book
Author: Eric Schlosser
Title: Fast Food Nation
Publication Year: 2001
Publisher: Houghton Mifflin
Publisher location: New York, NY

- A. Schlosser, Eric. Fast Food Nation. New York: Houghton Mifflin, 2001. Print.
- B. Schlosser, E. (2001). *Fast Food Nation*. New York, NY: Houghton Mifflin
- C. Eric Schlosser. Fast Food Nation. 2001. NY. Houghton Mifflin
- D. Eric Schlosser. "Fast Food Nation." 2001. Houghton Mifflin. New York, NY

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- C. Schlosser, Eric. Fast Food Nation. New York: Houghton Mifflin, 2001. Print.
- D. Schlosser, E. (2001). *Fast Food Nation*. New York, NY: Houghton Mifflin

5. In **MLA** style format, how should your Works Cited list be arranged?

- A. Alphabetically, by author's first name
- B. Chronologically, by how you use them in the paper
- C. Chronologically, by publication year
- D. Alphabetically, by author's last name.

TECHNIQUES OF PERSUASIVE WRITING:

6. Identify what technique of persuasion is used in the passage below:

“According to a recent study, Americans get 11 percent of their calories, on average, from fast food”

- A. Call to action
- B. Appeal to emotions
- C. Sex appeal
- D. Statistics, figures, or charts

7. Identify what technique of persuasion is used in the passage below:

“For the purposes of this article, let's simply stipulate that wholesome foods are environmentally superior. But let's also agree that when it comes to prioritizing among food-related public-policy goals, we are likely to save and improve many more lives by focusing on cutting obesity—through any available means—than by trying to convert all of industrial agriculture into a vast constellation of small organic farm”

- A. Sex appeal
- B. Fear tactics/insecurities
- C. Personal pronouns
- D. Repetition

8. Identify what technique of persuasion is used in the passage below:

“Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You'll find “natural flavor” or “artificial flavor” in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste.”

- A. Hypothetical for the reader
- B. Celebrity endorsement
- C. Snob appeal
- D. Bandwagon

9. Identify what technique of persuasion is used in the passage below:

“In addition to being the world's largest flavor company, IFF manufactures the smell of six of the ten best-selling fine perfumes in the United States, including Estée Lauder's Beautiful, Clinique's Happy, Lancôme's Trésor, and Calvin Klein's Eternity. It also makes the smell of household products such as deodorant, dishwashing detergent, bath soap, shampoo, furniture polish, and floor wax. All of these aromas are made through the same basic process: the manipulation of volatile chemicals to create a particular smell. The basic science behind the scent of your shaving cream is the same as that governing the flavor of your TV dinner”

- A. Snob appeal
- B. Negative comparison
- C. Something for nothing
- D. Counter argument-rebuttal

ANALYZING TEXT FOR ARGUMENT:

10. Identify Eric Schlosser's main argument from *Fast Food Nation*. Choose the best answer.
- Eric Schlosser exposes the corruption and health implications of processed and fast foods. He argues against eating processed and fast foods, using the uncleanliness of meat, the artificiality of ingredients, and the industrial corruption of fast food industries to support his argument.
 - Eric Schlosser exposes the corruption and health implications of whole foods. He argues against eating whole foods, using the high rate of obesity, the high price of whole foods, and the safety and innovation of artificial flavoring to support his argument.
 - Eric Schlosser argues against the inclusion of fast food in school lunches. He supports his argument by citing the corrupt profit increase of fast food companies, the health issues with fast food meats, and the high rates of childhood obesity.
 - Eric Schlosser argues for the inclusion of fast food in school lunches. He supports his argument by citing the convenience of fast food, the low cost of supplying fast food for school districts, and the health benefits of fast food options.
11. Identify David H. Freeman's main argument from "How Junk Food Can End Obesity." Choose the best answer.
- David H. Freeman exposes the corruption and health implications of processed foods. He argues against eating processed foods, using the uncleanliness of meat, the artificiality of ingredients, and the industrial corruption of processed food industries to support his argument.
 - David H. Freeman argues against the whole-food movement. He argues that processed foods and healthy fast food options can help end the problem of obesity in America through realistic, and obtainable means. He supports his argument by citing the economical and cultural benefits of processed foods in curing obesity.
 - David H. Freeman argues against the processed foods movement. He argues that eating whole-foods and avoiding processed foods can help end the problem of obesity in America. He supports his argument by citing the medical and environmental benefits of whole-foods on obesity rates and the planet.
 - David H. Freeman argues against the inclusion of fast food in school lunches. He supports his argument by citing the corrupt profit increase of fast food companies, the health issues with fast food meats, and the high rates of childhood obesity.

PART 2: FILL IN THE BLANK

Directions: Read the sentence or description carefully. Write in the answer. There is only one possible answer for each blank.

CITATION STYLE:

12. In MLA style format, the page that contains a list of your sources is called: _____
13. In APA style format, the page that contains a list of your sources is called: _____

TECHNIQUES OF PERSUASION:

14. When an author presents an opposing viewpoint to their argument (counter argument), the author refutes the counter argument through a: _____
15. The main argument of the persuasive writing piece, which should be substantial, supportable, precise, arguable, and relevant, is called the: _____
16. When a persuasive writer specifically chooses to use strong, emotionally charged descriptions of ideas and concepts, he is using: _____

VOCABULARY FROM THE UNIT:

17. A statement that describes the opinions or goals of a certain person or group: _____
18. Unsure, uncertain, or likely to be wrong: _____
19. The showing of strong, often angry feelings and emotions: _____
20. To criticize a person's character or opinion by suggesting that they are not honest and not trustworthy: _____
21. Strange or unusual in way that is surprising or difficult to understand: _____
22. Literary technique in which two or more ideas or concepts are placed side by side in order to highlight comparisons and contrasts: _____
23. Based on random choice or personal whim, rather than any reason or system: _____
24. Reduce in quality or extent, or impose a restriction on: _____
25. Promoting or causing excessive weight gain: _____

PART 3: SHORT ANSWERS

Directions: Answer the follow questions or prompts in complete sentences.

CONSTRUCTING & EVALUATING ARGUMENT:

26. Using the provided information below, construct a well-written thesis, adhering to the 5 thesis guidelines from class. You should make up your own supporting arguments.

Topic: Students should not be allowed to carry smartphones in school

Argument: Argue AGAINST the topic (Students SHOULD be allowed)

27. Using the provided information below, construct a well-written thesis, adhering to the 5 thesis guidelines from class. You should make up your own supporting arguments.

Topic: Students should be allowed to leave the school campus for lunch.

Argument: Argue FOR the topics (Students SHOULD be allowed)

28. According to David H. Freeman's persuasive article, "How Junk Food Can End Obesity," what are the pros and cons of using whole-foods to lower obesity rates? List at least 2 pros and 4 cons in bullet format.

29. Compare and contrast Eric Schlosser's use of persuasion in *Fast Food Nation* with David H. Freeman's use of persuasion in "How Junk Food Can End Obesity." In a 3-5 sentence complete paragraph, do not just compare and contrast the content of their texts, but how they convince their reader to support their argument (persuasive techniques).

30. Based upon your readings from Eric Schlosser and David H. Freeman, how do you believe Americans can lower rates of obesity? In a complete 3-5 sentence paragraph, propose a possible solution to the obesity epidemic in America. Be sure to include a strong thesis argument in your paragraph.

APPLYING PERSUASIVE EVALUATION:

Directions: Use the image below to answer the following 2 short answer questions.



Image text: REAL FOOD DOESN'T HAVE A LABEL

31. Evaluate the above picture. What message is the picture trying to convey? How does it convince its reader? Answer in a 3-5 sentence paragraph
32. Evaluate the above picture. Using arguments and concepts from Eric Schlosser and David H. Freeman, write a short paragraph (3-5 sentences) either agreeing or disagreeing with the pictured quote.

PART 4: ESSAY*Essay Directions:*

Write a persuasive 4-paragraph essay in response to the following prompt. Your essay should have a strong thesis sentence, clearly outlining your argument and sub arguments. You should have at least 2 supporting arguments for your main argument. You must have a short introduction, counter argument and rebuttal, and conclusion within your essay. Be sure to use techniques of persuasion. It is recommended that you pull ideas and concepts from “How Junk Food Can End Obesity” and *Fast Food Nation*, but you may also cite other sources you have read. You will be evaluated based on the persuasive quality of your essay.

Essay Prompt:

Should vending machines be banned in schools?

Argue either FOR or AGAINST the banning of vending machines in schools.

ESSAY: Please write below on paper provided.

ADDITIONAL SPACE FOR YOUR ESSAY:

-----ANSWER KEY-----

English Composition & Techniques of Writing
Citing Sources, Creating Argument, & Persuasive Writing Unit Test

Test Directions: Complete all 4 parts of this test (multiple choice, fill in the blank, short answer, and essay). Circle or write your answers on this test booklet. When you are complete, hand in all test papers (including scrap paper) to the teacher.

Student Name: _____

Class Period: _____

Date: _____

Student Grade: **ANSWER KEY**

Teacher Comments:

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“According to a recent study, Americans get 11 percent of their calories, on average, from fast food”

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8. Identify what technique of persuasion is used in the passage below:

“Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You’ll find “natural flavor” or “artificial flavor” in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste.”

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PART 2: FILL IN THE BLANK

Directions: Read the sentence or description carefully. Write in the answer. There is only one possible answer for each blank.

CITATION STYLE:

12. In MLA style format, the page that contains a list of your sources is called: Works Cited Page
13. In APA style format, the page that contains a list of your sources is called: References, or references page

TECHNIQUES OF PERSUASION:

14. When an author presents an opposing viewpoint to their argument (counter argument), the author refutes the counter argument through a: rebuttal
15. The main argument of the persuasive writing piece, which should be substantial, supportable, precise, arguable, and relevant, is called the: thesis
16. When a persuasive writer specifically chooses to use strong, emotionally charged descriptions of ideas and concepts, he is using: loaded language

VOCABULARY FROM THE UNIT:

17. A statement that describes the opinions or goals of a certain person or group: **Manifesto**
18. Unsure, uncertain, or likely to be wrong: **dubious**
19. The showing of strong, often angry feelings and emotions: **vehement**
20. To criticize a person's character or opinion by suggesting that they are not honest and not trustworthy: **impugn**
21. Strange or unusual in way that is surprising or difficult to understand: **uncanny**
22. Literary technique in which two or more ideas or concepts are placed side by side in order to highlight comparisons and contrasts: **juxtaposition**
23. Based on random choice or personal whim, rather than any reason or system: **arbitrary**
24. Reduce in quality or extent, or impose a restriction on: **curtail**
25. Promoting or causing excessive weight gain: **obesogenic**

PART 3: SHORT ANSWERS

Directions: Answer the follow questions or prompts in complete sentences.

CONSTRUCTING & EVALUATING ARGUMENT:

26. Using the provided information below, construct a well-written thesis, adhering to the 5 thesis guidelines from class. You should make up your own supporting arguments.

Topic: Students should not be allowed to carry smartphones in school
 Argument: Argue AGAINST the topic (Students SHOULD be allowed)

Thesis will vary in structure, but the thesis should be: substantial, supportable, precise, arguable, and relevant.

Example thesis: The use of smartphones in school can allow students to integrate their education with technology. Students should be allowed to use smartphones during school because cellphone use allows students to communicate with teachers, to collaborate with peers, and to engage with educational apps

27. Using the provided information below, construct a well-written thesis, adhering to the 5 thesis guidelines from class. You should make up your own supporting arguments.

Topic: Students should be allowed to leave the school campus for lunch.

Argument: Argue FOR the topics (Students SHOULD be allowed)

Thesis will vary in structure, but the thesis should be: substantial, supportable, precise, arguable, and relevant.

Example thesis: Students should be allowed to leave school for lunch because it allows students to take a healthy break from the school, enables students time to go home to see family or get supplies, and promotes student independence and responsibility.

28. According to David H. Freeman's persuasive article, "How Junk Food Can End Obesity," what are the pros and cons of using whole-foods to lower obesity rates? List at least 2 pros and 4 cons in bullet format.

Possible discussion points for answers:

Pros:

- promotes weight loss when eaten exclusively
- good for the environment
- less chemicals, fats, and salts

Cons:

- very inexpensive, marketed toward the wealthy
- higher calories, example of the 500 cal green juice and 150 cal McDelight
- inaccessible in diverse and low SES neighborhoods, "food deserts"
- people who are already obese are unlikely to switch exclusively to whole foods
- bandwagon fad, not all foods labeled "wholesome" are "whole"

29. Compare and contrast Eric Schlosser's use of persuasion in *Fast Food Nation* with David H. Freeman's use of persuasion in "How Junk Food Can End Obesity." In a 3-5 sentence complete paragraph, do not just compare and contrast the content of their texts, but how they convince their reader to support their argument (persuasive techniques).

Possible discussion points for answers:

- Schlosser mainly uses startling facts, loaded language, fear tactics/insecurities, snob appeal, and anecdotal stories and vignettes in order to "scare" and "educate" the reader into the controversy, uncleanliness, and "truth" behind processed foods and meats
- Similar to Schlosser, Freeman also uses many anecdotal stories and vignettes, in contrast to Schlosser, Freeman commonly uses an appeal to the common man, thought provoking questions, personal pronouns, and call to action in order to present a "realistic" proposal for solving the issues of obesity, arguing for processed and fast foods. Freeman also deconstructs the "snob appeal" that schlosser and other whole food movement writers use

30. Based upon your readings from Eric Schlosser and David H. Freeman, how do you believe Americans can lower rates of obesity? In a complete 3-5 sentence paragraph, propose a possible solution to the obesity epidemic in America. Be sure to include a strong thesis argument in your paragraph.

Responses will greatly vary. Students should include a strong thesis that is substantial, supportable, precise, arguable, and relevant. Student's responses should be creative, yet realistic.

APPLYING PERSUASIVE EVALUATION:

Directions: Use the image below to answer the following 2 short answer questions.



Image text: REAL FOOD DOESN'T HAVE A LABEL

31. Evaluate the above picture. What message is the picture trying to convey? How does it convince its reader? Answer in a 3-5 sentence paragraph

Possible Discussion point answers:

- suggesting that only foods without labels are “real”
- suggests only fruits and vegetables can be considered real foods
- suggests that farmers markets, whole foods markets, or local markets which commonly don’t use marketing or labels are more “real” than big grocery store products
- attack the business and corporation of big food companies
- uses a variety of food colors to make the message appealing and “cool”

32. Evaluate the above picture. Using arguments and concepts from Eric Schlosser and David H. Freeman, write a short paragraph (3-5 sentences) either agreeing or disagreeing with the pictured quote.

Response varies depending on which side the student takes. Schlosser would agree with this picture because it suggests eating “natural” foods and not fast foods or big corporation foods which have labels. Freeman would disagree with this picture, because it claims that processed foods, foods with labels, and even “healthy” foods with labels aren’t “real” foods. Students should cite specific examples from either of the articles

PART 4: ESSAY***Essay Directions:***

Write a persuasive 4-paragraph essay in response to the following prompt. Your essay should have a strong thesis sentence, clearly outlining your argument and sub arguments. You should have at least 2 supporting arguments for your main argument. You must have a short introduction, counter argument and rebuttal, and conclusion within your essay. Be sure to use techniques of persuasion. It is recommended that you pull ideas and concepts from “How Junk Food Can End Obesity” and *Fast Food Nation*, but you may also cite other sources you have read. You will be evaluated based on the persuasive quality of your essay.

Essay Prompt:

Should vending machines be banned in schools?

Argue either FOR or AGAINST the banning of vending machines in schools.

ESSAY: Please write below on paper provided.

Student responses will vary depending on which side they choose, and which supporting arguments they choose.

Student should have a strong thesis that is substantial, supportable, precise, arguable, and relevant.

Students should include techniques of persuasion (from the techniques of persuasion handout)

Students should pull supporting ideas from the articles they have read

Students supporting arguments should be persuasive and realistic:

EX: SHOULD BE BANNED because: unhealthy/promotes obesity/cost money/class differences of who can buy/education distraction/litter in school. And many more....

EX: SHOULD NOT BE BANNED because: can allow students to stay fueled throughout the day, can help busy students who don't have time or a family to pack them snacks or lunch, allows students to get snacks or food to eat after school and before after school activities, can help the school raise money, and many more.....

Students essay should be structured similar to this format:

Paragraph 1:Introduction:

HOOK

Background

Strong Thesis

Paragraph 2:

Topic sentence

Supporting arguments

Techniques of persuasion within this paragraph

Paragraph 3:

Topic sentence

Counter argument

Rebuttal

Techniques of persuasion within this paragraph

Paragraph 4: Conclusion

Restatement of thesis argument with supporting arguments

Call or action or technique of persuasion

SO WHAT? Or relation to future

Strong concluding sentence

ADDITIONAL SPACE FOR YOUR ESSAY: