

Food Safety – Government or Personal Responsibility?

Teaching American History Co-hort

Jennifer Rasmussen

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Extended Controversial Issue Discussion Lesson Plan Template

Lesson Title: Food Safety – Personal or Governmental Responsibility

Author Name: Jennifer Rasmussen

Contact Information: jrasmussen@washoeschools.net

Appropriate for Grade Level(s): Eighth grade (through Twelfth grade)

US History Standard(s)/Applicable CCSS(s):

H2.[6-8].22 Describe the effects of industrialization and new technologies on the development of the United States.

E11.[6-8].6 Identify the role of government in a market economy regarding: Public goods

C15.[6-8].6 Provide examples of contemporary public issues that may require public solutions.

CCSS: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Discussion Question(s): What should the government consider adulterated or misbranded or poisonous or deleterious food? Should the FDA be more vigilant in its policing of food or should we?

Engagement Strategy: “You Be The Judge” – *modified from the Free Exercise Clause using the Sherbert Test.*

Student Readings (list): Pure Food and Drug Act 1906

Selections from The Jungle by Upton Sinclair

Selections from Fast Food Nation by Eric Schlosser

Pink Slime and Other Weird Food Additives You Don't Know You're Eating by International Business Times

Description of Gelatin

Excerpts about Extenders and Binders from Food and Agriculture Organization of the United Nations

Excerpts from Defect Level Handbook from the Food and Drug Administration

Food Ingredients and Packaging from the Food and Drug Administration (optional)

How a Food Safety Myth Became a Legend by Lawrence Reed (optional)

Total Time Needed: Three class days (50 minute periods)

Lesson Objectives:

Students will be able to read and apply The Pure Food and Drug Act of 1906 to modern food examples.

Students will be able to discuss and debate a side for against the federal government controlling our food supply.

Lesson Outline:

(Optional) Before the first class, you'll need to buy/make cupcakes. Buy realistic plastic bugs. Insert the bugs inside the cupcakes and frost the cupcakes. (You could also insert uncooked beans.)

Day 1 - The idea is to begin the lesson with students seeing food that they don't know if it is adulterated or not. Tell the students to be careful, pay attention and eat slowly. Record their reactions on the white board as the students eat. As they discover what is in their cupcakes, discuss why not knowing what is in your food could be dangerous and who should take care of keeping our food safe.

Once you are done with the cupcake activity, transition to reading The Pure Food and Drug Act of 1906 and excerpt from Upton Sinclair's The Jungle that inspired it. As they read silently, or as you read it together, have the students complete the questions. Class should end with the completion of the readings.

Day 2 - You are going to have them do a Case Study Discussion. This type of discussion is usually done with the Sherbert or Lemon Tests for the First Amendment, but it has been modified to be used here. You can start class using the enclosed sponge. Using their readings and questions from day 1, students will be given readings and will have to identify if the Pure Food Act is being followed or not.

Directions (can be given written or oral) for the Case Study Discussion. Divide the students into groups of three or four students. Each student should silently read and write the answers for five minutes. Then each student should present their answers to their group for two minutes. All comments from others in the groups are held until the end. The students should be encouraged to write additional information from their group members on their own papers. Once each student has had a chance to present their ideas, the group comes to a consensus to share with the class in five minutes.

What the students don't know is that two groups will have the same reading and they will be looking for support on the opposing sides of The Pure Food Act of 1906. One will have questions and ask for evidence that the Act is being followed while the other group will have questions and ask for evidence that the Act is being ignored.

It will be the teacher's choice how many Pro and Con groups there are. The whole class could do the same reading or you could have ten different groups doing the five provided readings. If you do multiple readings, instead of orally reporting their consensus, students could create posters about their positions about their articles and the Pure Food and Drug Act of 1906.

End class by telling students to think about their group consensus and how they'll defend their position in a discussion on the following day.

Day 3 – Using their papers from the Case Study Discussion, students will participate in a whole class discussion of how much the federal government should or should not do to protect our food. They will need to use The Pure Food and Drug Act of 1906 as their litmus test.

There are several lessons that can be introduced and connected to this lesson. It will help connect The Pure Food and Drug Act of 1906 to earlier lessons from the Civil War and toward food in WWI and WWII. There are several articles discussing the food and food shortages during the Civil War. There are also similar articles about the food for troops in WWI and WWII. Rationing also come into play when discussing the world wars. This would also be a time to take another look at the act and discuss oleo during WWII.

Time Frame (e.g. 15 minutes)	What is the teacher doing?	What are students doing?
Day 1		
10 minutes	Showing the class a group of cupcakes. Facilitating questions about the look and edibility of the cupcakes. Discuss and record their reactions to the “adulterated” cupcakes.	Brainstorming on what is in front of them. Discussing what they see. The students then eat their cupcakes. React to “bugs” in their cupcakes.
30 minutes	Allowing the students to read and meta mark the selections from the <u>Pure Food and Drug Act of 1906</u> and excerpt from <u>The Jungle</u> .	Reading the <u>Pure Food and Drug Act of 1906</u> and <u>The Jungle</u> excerpt. Using meta-marks and answering text dependent questions.
10 minutes	Answering questions students may have after reading selection. Work to make sure that the following vocabulary is covered: adulterated, misbranded, poisonous, and deleterious. Pick up student question papers.	Using their text and meta-markers to pose questions about the text.
Day 2		
5 minutes	Use sponge to gather thoughts and feelings about eating food with things in it.	Answer the sponge.
30 minutes	Pass each group a separate four pack of Case Study Discussion papers. Monitor class and group. Keep track of time. Announce times for speakers to switch, etc...	Read the reading on their paper. Answer the questions. Join the group. Each person speaks about how they used the Pure Food and Drug Act of 1906 to determine if the food in the reading followed the law.
5 minutes	Teacher gathers students' Case Study Questions	
Day 3		
20 to 30 minutes	Beginning a Socratic discussion about the federal government involvement in our food.	Students will discuss and present their sides in the discussion.
10 to 20 minutes	Provide the students with FDA Defect Action Level Handbook excerpt. Read with the students and discuss how possibly food oversight has progressed or changed.	Read the FDA Defect Action Level Handbook excerpt. Contribute to the conversation using evidence from the reading.

Description of Lesson Assessment:

1. Assess students' answers to the text questions for the initial read of the Pure Food and Drug Act of 1906 and The Jungle excerpt. You should be able to see that the students are taking direct evidence from the readings to answer the questions.
2. Assess students' answers on their Case Study papers for evidence from readings and indications of listening to other students' ideas.
3. Informal assessment of participation in Day 3 discussion.

How will students reflect on the process and their learning? Students will have time to think about their learning while listening to their group members' stance during the Case Study Discussion. They will also think about their stance from the Case Study Discussion to prepare for the debate.

Though a nightmare for the nation, the Civil War had inspired manufacturing and scientific innovation. After the war's end in 1865, America's great thinkers built on those innovations and also applied themselves with new fervor. They produced a flood of inventions that changed American life profoundly and permanently. Those changes both positive and negative not only affected individual Americans in the workplace, at home, on the farm, and in cities but also changed the way industry and agriculture operated. ("Invention")

With the population changing in the United States changing from 72% living in rural areas to 28% in urban areas in the 1880's to 60% rural and 40% urban in 1910 ("1800-1990: Changes in Urban/Rural U.S. Population | ElderWeb"), the availability and production of food changed greatly. It is this time and situation that Upton Sinclair encountered when he began researching his groundbreaking and muckraking novel, The Jungle. Sinclair's revelation of the adulteration of meat coming out of "Packingtown" – Chicago's slaughterhouses - lead those companies and other large food manufacturers facing off against "a mixture of bureaucratic, producer and consumer interests" (Law) for food and drug regulation. Popular consumer interests supported by groups like the Ladies Health Association and other women's clubs demanded sanitary, safe, and regulated food and drug supplies ("Early History of Food Regulation in the United States"). While slaughterhouse owners, drug makers, and other food producers opposed these regulations fearing they'd cut into factory efficiency and business profits.

Theodore Roosevelt and Congress were put on the spot in 1906 to reassure the citizens of the U.S. that their food was safe. Using the guidelines set out in the Pure Food and Drug Act of 1906 and the Meat Inspection Act of 1906, the Food and Drug Administration came into being with the immediate changes in how the government of the United States controlled "the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious food, drugs, medicines, and liquors" ("Pure Food and Drug Act (1906)") for consumption by the people of the United States.

Before the break out of the Civil War, America had begun to feel the effects of the Industrial Revolution in England. Cities began to be places where innovation and technology were being put to the test in a variety of areas. As the pace of the manufacturing grew, so did the demand in cities for large quantities of food for those workers to eat. Up until this time, most people were living rurally and would grow their own food.

During the last three decades of the nineteenth century, several factors contributed to the transformation of the nation's food supply from originating in regionally based economies to being

mass-produced on a national scale. These included the increase in agricultural production, especially in the West; the building of a network of railroads throughout the country; and the rise of an unprecedented consumer market that bought 90 percent of what manufacturers produced (leaving little for export).

The country needed new ways of readying for market the great amounts of food being grown, because older systems could not handle the volume. Large companies that could afford to put money into new technologies for mass production began to dominate the food processing industry. The existence of railroads allowed these businesses to concentrate their efforts on making vast amounts of one product, or several related products, because they had the ability to bring in raw materials from afar and to ship their finished goods all over the country. Certain regions became known for specific production capabilities; for instance, Chicago became the center of the meatpacking industry.

(Manufacturing)

Meatpacking was the industry that “muckraking” journalist, Upton Sinclair set his sights on to expose to the world. “In 1904, Sinclair spent seven weeks in disguise, working undercover in Chicago's meatpacking plants to research his political fiction exposé, The Jungle” (Upton Sinclair). The Jungle goes on to become a catalyst and sustaining legend about the evils of big business.

The Jungle was, first and foremost, a novel. It was intended to be a polemic--a diatribe, if you will--and not a well-researched and dispassionate documentary. Sinclair relied heavily on both his own imagination and on the hearsay of others. He did not even pretend to have actually witnessed the horrendous conditions he ascribed to Chicago packinghouses, nor to have verified them, nor to have derived them from any official records. (Reed)

Two striking images from Sinclair's novel helped cause the public's uproar about the quality and safety of American produced meats. Sinclair's omniscient narrator's description of a fellow working and falling into great cooking vats and being ground into “Durham's Pure Leaf Lard” shocked early 20th century readers (Sinclair 93). The shock and revulsion continued when the narrator again observes what Elzbieta sees during sausage making (Sinclair 128). Sinclair describes the inclusion of “sawdust,” “poisoned rat,” and “spit” into

what will eventually be stuffed into the sausages. He wrote, “I aimed at the public’s heart and by accident I hit it in the stomach” (Reed). Though the things Sinclair wrote of came mostly out of his imagination, the furor they created for the United States Government, in particular, Theodore Roosevelt, was not.

“At the beginning of the twentieth century, the American businessman was at the height of his power. [The American businessman’s] decisions, made free from governmental restraints or with positive governmental aid and encouragement, had revolutionized the economy and with it the society” (Braeman 192). Though, as with much history, these steps forward can be viewed in both positive and negative lights. Upton Sinclair placed himself along the same lines as other Progressive Era reformers like Jane Addams and Julia Lathrop. He wanted to improve both the working conditions and safety of food stuff in and from the Chicago area slaughterhouses. Government inspection and intervention in food production was in place at the time of Sinclair’s writing. “Historian Stewart H. Holbrook writes: "The grunts, the groans, the agonized squeals of animals being butchered, the rivers of blood, the steaming masses of intestines, the various stenches...were displayed along with the corruption of government inspectors," and, of course, the callous greed of the ruthless packers” (Reed). Therefore, Sinclair’s imaginative writing, evidence of failure on the part of government inspectors, and the myriad of voices focused on big business and reform during the Progressive Era, changed had to happen.

The focus of the change landed squarely at President Theodore Roosevelt’s door. He wasn’t happy about having to contend with The Jungle’s aftermath. “President Theodore Roosevelt wrote of Sinclair in a letter to William Allen White in July 1906: ‘I have an utter contempt for him. He is hysterical, unbalanced, and untruthful. Three-fourths of the things he said were absolute falsehoods. For some of the remainder there was only a basis of truth’” (Reed). Needless to say change had to happen. American business interests were being impacted.

[F]oreign purchases of American meat were cut in half and the meatpackers looked for new regulations to give their markets a calming sense of security. The only congressional hearings on what ultimately became the Meat Inspection Act of 1906 were held by Congressman James Wadsworth’s Agriculture Committee

between June 6 and 11. A careful reading of the deliberations of the Wadsworth committee and the subsequent floor debate leads inexorably to one conclusion: Knowing that a new law would allay public fears fanned by The Jungle, bring smaller competitors under regulation, and put a newly laundered government stamp of approval on their products, the major meatpackers strongly endorsed the proposed act and only quibbled over who should pay for it. (Reed) Passed in conjunction with the Meat Inspection Act of 1906 on June 30, 1906, was the Pure Food and Drug Act of 1906 which will eventually become today's Food and Drug Administration (FDA).

The controversy around the Pure Food and Drug Act of 1906 via the rules and regulations of the FDA stills swirls in the minds and media of the 21st Century. Our worries and fears come, like Sinclair's, from the advancement of technology and what that means for our human biology. Eric Schlosser's Fast Food Nation was one of our centuries "Jungle" type books. Schlosser's look at the processing and chemicalization of food moved many to question the effectiveness of the FDA. Particularly eye opening was Schlosser's descriptions of the realm of artificial and natural flavors. Many feel that the FDA's allowance of GARS (Generally Recognized As Safe) substances -- "any substance that is intentionally added to food is a food additive" (Food) or biomodified food should not be happening. Groups of citizens are now becoming worried that government is again over influenced by big business and that individuals should take more control and responsibility for the safety of the food consumed.

The reach and scope of the FDA has steadily increased since the passage of the Pure Food and Drug Act of 1906. Yet, even the FDA agrees that food can't be completely "clean," but still should be safe. They have written and published guidelines for all aspects of contamination and additives. In the debate on whether the government should be more or less involved in our food safety, it is interesting to look at the guidelines and create a personal barometer of what we will deal with in our food. As we become a more global community, religious and allergy considerations bring extra layers of attention and concern toward our food and its safety.

Therefore, looking at the beginnings of this oversight into American food and drug safety and ask the question – how much should the government be responsible for protecting its population from the food they eat, we have much to

read and consider. Was Upton Sinclair wrong for sensationalizing the Chicago slaughterhouses and should Eric Schlosser be held to the same level now for Fast Food Nation? Can we become better advocates for safer and healthier food if we take more control over its safety? These are the questions that still plague us as we muddle through the controversy of pink slime.

1

1 Excerpts from **The Pure Food and Drug Act of 1906**

2 An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines,
3 and liquors, and for regulating traffic therein, and for other purposes.

4 That it shall be unlawful for any person to manufacture within any Territory or the District of Columbia any article of food or drug which is
5 adulterated or misbranded, within the meaning of this Act;

6 SEC. 2. That the introduction into any State or Territory or the Disperse of adulterated or misbranded goods from any other State or Territory or
7 the District of Columbia, or from any foreign country, or shipment to any foreign country of any article of food or drugs which is adulterated or misbranded,
8 within the meaning of this Act, is hereby prohibited;

9 SEC. 3. That the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor shall make uniform rules and
10 regulations for carrying out the provisions of this Act, including the collection and examination of specimens of foods and drugs manufactured or offered for
11 sale in the District of Columbia, or in any Territory of the United States or which shall be offered for sale in unbroken packages in any State other than that in
12 which they shall have been respectively manufactured or produced, or which shall be received from any foreign country....

13 SEC. 6. The term "food," as used herein, shall include all articles used for food, drink, confectionery, or condiment by man or other animals,
14 whether simple, mixed, or compound.

15 SEC. 7. That for the purposes of this Act an article shall be deemed to be adulterated:

16 In the case of food: First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength. Second. If
17 any substance has been substituted wholly or in part for the article. Third. If any valuable constituent of the article has been Wholly or in part abstracted.
18 Fourth. If it be mixed, colored, powdered, coated, or stained in a sealed manner whereby damage or inferiority is concealed. Fifth. If it contain any added
19 poisonous or other added deleterious ingredient which may render such article injurious to health: ... the provisions of this Act shall be construed as applying
20 only when said products are ready for consumption. Sixth. If it consists in whole or in part of a filthy decomposed or putrid animal or vegetable substance, or
21 any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by
22 slaughter.

23 SEC. 8. That the term "misbranded," as used herein, shall apply to all drugs, or articles of food, or articles which enter into the composition of food,
24 the package or label of which shall bear any statement, design, or device regarding such article or the ingredients or substances contained therein which shall
25 be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, Territory, or country in which it is
26 manufactured or produced.

27 In the case of food: First. If it be an imitation of or offered for sale under the distinctive name of another article. Second. If it be labeled or branded
28 so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been
29 removed in whole or in part and other contents shall have been placed in such. Third. If in package formal and the contents are stated in terms of Incorrect
30 weight or measure, they are not plainly and correctly stated on the outside of the package. Fourth. If the package containing it or its label shall bear any state
31 leading in easiment, design, or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or
32 misleading in any particular: Preluded, That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to
33 be adulterated or misbranded in the following cases:

34 First, In the case of mixtures or compounds which may be now or Compounds under from time to time hereafter known, as articles of food, under their own
35 distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or
36 brand with statement of the place where said article has been manufactured or produced. Second. In the case of articles labeled, branded, or tagged so as to
37 plainly indicate that they are compounds, imitations, or blends, and plainly stated the word "compound," "imitation," or "blend," as the case may be, is plainly
38 stated on the package in which it is offered for sale:

39 Provided, That the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients
40 used for the purpose of coloring and flavoring only: And provided, That nothing in this Act shall be construed as require compelling proprietors or
41 manufacturers of proprietary foods which contain no unwholesome added ingredient to disclose their trade formulas, except in so far as the provisions of this
42 Act may require to secure freedom from adulteration or misbranding.

43 SEC. 13. That this Act shall be in force and effect from and after the first day of January, nineteen hundred and seven.

44 Source: Pure Food and Drug Act (1906)." *American History*. ABC-CLIO, 2012. Web. 15 May 2012

1 It was only when the whole ham was spoiled that it came into the department of Elzbieta. Cut up by the two-
2 thousand-revolutions- a-minute flyers, and mixed with half a ton of other meat, no odor that ever was in a ham could
3 make any difference. There was never the least attention paid to what was cut up for sausage; there would come all the
4 way back from Europe old sausage that had been rejected, and that was moldy and white – it would be dosed with
5 borax and glycerine, and dumped into the hoppers, and made over again for home consumption. There would be meat
6 that had tumbled out on the floor, in the dirt and sawdust, where the workers had tramped and spit uncounted billions
7 of consumption germs. There would be meat stored in great piles in rooms; and the water from leaky roofs would drip
8 over it, and thousands of rats would race about on it. It was too dark in these storage places to see well, but a man
9 could run his hand over these piles of meat and sweep off handfuls of the dried dung of rats. These rats were
10 nuisances, and the packers would put poisoned bread out for them; they would die, and then rats, bread, and meat
11 would go into the hoppers together. This is no fairy story and no joke; the meat would be shoveled into carts, and the
12 man who did the shoveling would not trouble to lift out a rat even when he saw one – there were things that went
13 into the sausage in comparison with which a poisoned rat was a tidbit. There was no place for the men to wash their
14 hands before they ate their dinner, and so they made a practice of washing them in the water that was to be ladled into
15 the sausage. There were the butt-ends of smoked meat, and the scraps of corned beef, and all the odds and ends of the
16 waste of the plants, that would be dumped into old barrels in the cellar and left there. Under the system of rigid
17 economy which the packers enforced, there were some jobs that it only paid to do once in a long time, and among
18 these was the cleaning out of the waste barrels. Every spring they did it; and in the barrels would be dirt and rust and
19 old nails and stale water – and cartload after cartload of it would be taken up and dumped into the hoppers with fresh
20 meat, and sent out to the public's breakfast. Some of it they would make into "smoked" sausage – but as the smoking
21 took time, and was therefore expensive, they would call upon their chemistry department, and preserve it with borax
22 and color it with gelatine to make it brown. All of their sausage came out of the same bowl, but when they came to
23 wrap it they would stamp some of it "special," and for this they would charge two cents more a pound.

24 Source: The Jungle, Upton Sinclair, Chapter 14

25

1 A typical artificial strawberry flavor, like the kind found in a Burger King strawberry milk shake, contains the
2 following ingredients: amyl acetate, amyl butyrate, amyl valerate, anethol, anisyl formate, benzyl acetate, benzyl
3 isobutyrate, butyric acid, cinnamyl isobutyrate, cinnamyl valerate, cognac essential oil, diacetyl, dipropyl ketone, ethyl
4 acetate, ethyl amyl ketone, ethyl butyrate, ethyl cinnamate, ethyl heptanoate, ethyl heptylate, ethyl lactate, ethyl
5 methylphenylglycidate, ethyl nitrate, ethyl propionate, ethyl valerate, heliotropin, hydroxyphenyl-2-butanone (10 percent
6 solution in alcohol), α -ionone, isobutyl anthranilate, isobutyl butyrate, lemon essential oil, maltol, 4-
7 methylacetophenone, methyl anthranilate, methyl benzoate, methyl cinnamate, methyl heptine carbonate, methyl
8 naphthyl ketone, methyl salicylate, mint essential oil, neroli essential oil, nerolin, neryl isobutyrate, orris butter,
9 phenethyl alcohol, rose, rum ether, γ -undecalactone, vanillin, solvent.

10 Although flavors usually arise from a mixture of many different volatile chemicals, often a single compound
11 supplies the dominant aroma. Smelled alone, that chemical provides an unmistakable sense of the food. Ethyl-2-
12 methyl butyrate, for example, smells just like an apple. Many of today's highly processed foods offer a blank palette:
13 whatever chemicals are added to them will give them specific tastes. Adding methyl-2pyridyl ketone makes something
14 taste like popcorn. Adding ethyl-3-hydroxy butanoate makes it taste like marshmallow. The possibilities are no almost
15 limitless. Without affecting appearance or nutritional value, processed foods could be made with aroma chemicals
16 such as hexanal (the smell of freshly cut grass) or 3-methyl butanoic acid (the smell of body odor).

17 Source: Fast Food Nation, Eric Schlosser, page 125-126

1 The Vegetarian Legal Action Network recently petitioned the FDA to issue new labeling requirements for foods that
2 contain natural flavors. The group wants food processors to list the basic origins of their flavors on their labels. At the
3 moment vegetarians often have no way of knowing whether a flavor additive contains beef, pork, poultry, or shellfish.
4 One of the most widely used color additives-whose presence is often hidden by the phrase "color added"- violates a
5 number of religious dietary restrictions, may cause allergic reactions in susceptible people, and comes from an unusual
6 source. Cochineal extract (also known as carmine or carminic acid) is made from the desiccated bodies of female
7 *Datylopius coccus Costa*, a small insect harvested mainly in Peru and the Canary Islands. The bug feeds on red cactus
8 berries, and color from the berries accumulates in the females and their unhatched larvae. The insects are collected,
9 dried, and ground into pigment. It takes about seventy thousand of them to produce a pound of carmine, which is
10 used to make processed foods look pink, red, or purple. Dannon strawberry yogurt gets its color from carmine, and so
11 do many frozen fruit bars, candies, and fruit fillings, and Ocean Spray pink-grapefruit juice drink.

12 Source: Fast Food Nation, Eric Schlosser, page 129-130

13

1 Pink slime - a mix of meat trimmings washed in ammonium hydroxide and used in fast food burger patties - churned consumer's
2 stomachs so much, McDonald's banned the slop, according to news reports. Other fast food joints such as Taco Bell and Burger King
3 also distanced themselves and stopped using the meat filler that takes meat offcuts, washes them in the harsh chemical and then blends
4 them into hamburger meat. Though the Daily Mail made a splash Friday with Naked Chef host and food advocate Jamie Oliver
5 claiming victory over the stop, McDonald's hasn't used the pink ick since August.

6 "At the beginning of 2011, we made a decision to discontinue the use of ammonia-treated beef in our hamburgers," Todd
7 Bacon, senior director of quality systems for McDonald's, said in a statement. "This product has been out of our supply chain since
8 August of last year. This decision was a result of our efforts to align our global standards for how we source beef around the world."
9 Foodie Oliver, who advocates against fast food in his television programs, claimed victory, asking the Mail "Why would any sensible
10 human being want to put ammonia-filled meat into their children's mouths?"

11 "The great American public needs to urgently understand what their food industry is doing." McDonald's denies the charge that
12 Oliver's campaign forced the world's largest restaurant chain to change its ways. "We are always reviewing and evolving our standards
13 to ensure we continue to serve safe, high quality food to our customers," Bacon said.

14 Below are some other weird food additives:

15 Ammonia hydroxide: Similar in chemical composition to urea found in human urine - is only one of several food treatments or
16 additives used in the food industry.

17 Ammonium sulfate: Similar in chemical composition to the wash for meat trimmings, this substance is used as a dough enhancer in
18 some commercial bakers. The chemical feeds dough-rising yeast and makes a more consistent bread.

19 Propylene glycol: This chemical is very similar to ethylene glycol - dangerous anti-freeze. This less-toxic iteration prevents products
20 from becoming too solid. Low-free ice cream has the ingredient; otherwise you'd be eating ice.

21 Carmine: Commonly found in red food coloring, this chemical comes from crushed cochineal, small red beetles that burrow into cacti.
22 Husks of the beetle are ground up and forms the basis for red coloring found in foods ranging from cranberry juice to M&Ms.

23 Titanium dioxide: This whitening agent is used in sun screen, but is also added to skim milk that is normally bluish in color. This
24 chemical doesn't have to be listed as an ingredient, so you may not know if you're drinking it or not.

25 Shellac: Yes, this chemical used to finish wood products also gives some candies their shiny sheen. Plus, it comes from the female Lac
26 beetle.

27 L-cysteine: This common dough enhancer comes from hair, feathers, hooves and bristles.

28 Lanolin (gum base): Next time you chew on gum, remember this. The goopiness of gum comes from lanolin, oils from sheep's wool
29 that is also used for vitamin D3 supplements.

30 Silicon dioxide: Nothing weird about eating sand, right? This anti-caking agent is found in many foods including shredded cheese and
31 fast food chili.

32 Source: International Business Times February 1, 2012 <http://www.ibtimes.com/articles/291182/20120201/pink-slime-ammonium-hydroxide-ban-mcdonalds-meat.htm>

1 Gelatin is used in molded desserts and salads and to thicken cold soups. The raw material for gelatin is the naturally
2 occurring protein, collagen, which is commercially obtained from the meat industry (pure protein derived from beef
3 and veal bones, cartilage, tendons, skin and connective tissue). Most commercial gelatin is produced from pig skin. The
4 cleaning and processing of collagen results in a pale yellow dry powder -- an odorless, tasteless thickening agent.

5 Source: Food.com – Food Definitions <http://www.food.com/library/gelatin-431#ixzz1utuFIDbF>

6

1 Meat extenders are non-meat substances with substantial protein content, whereas fillers are high in
2 carbohydrates. Meat extenders and fillers are primarily used with the objective of making meat products lower-cost. In
3 the upmarket sector there was traditionally less demand for highly extended products as their sensory properties could
4 not fully match "full-meat" products. However, much progress has been made in recent years in improving the sensory
5 qualities of extended meat products by using better balanced spice mixtures or other suitable additives of plant origin
6 such as flavouring herbs (parsley, oregano, rosemary, leeks) or bulbs, roots and tubers (onions, garlic, ginger, raddish).
7 These facts make the low-cost market more attractive and may contribute to its further development.

8 Interestingly, in recent years also in the upmarket sector some new developments regarding increased
9 utilization of non-meat additives can be noted. In this case it is not based on price considerations but on health-
10 consciousness of consumers. New additives (coming from dairy, bakery and other food industries) have recently been
11 introduced into the meat sector, with the intention of promoting the production of "healthy" food. Some of these
12 additives are advertised with the potential to increase the fiber content (dietary fiber fortification) of meat products
13 (e.g. wheat, bamboo, cotton seed, red beet, chicory). Also functional properties are attributed to the fiber additives, in
14 particular binding of water and creating a creamy product texture.

15 Source: Food and Agriculture Organization of the United Nations <http://www.fao.org/docrep/010/ai407e/AI407E16.htm>

1 Extenders, fillers and binders suitable for heavily extended meat products:

2 Extenders:

3 Soy concentrate (70% protein) is available as a flour-like product. In coarse granular form it is called TVP (Textured
4 Vegetable Protein). It can be added re-hydrated for meat product manufacture at a re-hydration ratio of 1:3.

5 Fillers:

6 Cereal flours from wheat, rice and corn -- Added dry

7 Starches from potato, corn, wheat, rice -- Added dry

8 Whole grains of rice -- Added cooked

9 Breadcrumbs, rusk -- Added dry, in isolated cases also re-hydrated

10 Cellulose fibers derived from bamboo and other plants -- Added re-hydrated, re-hydration rate 1:9

11 Other fillers (e.g. vegetable) are dealt with in chapter: Non-meat ingredients.

12 Binders:

13 Most binders (e.g. isolated soy protein, milk protein) used in non-extended and extended raw-cooked sausages do not
14 serve for volume increase.

15 The binding substance carrageenan (page 71) can provide significant volume increase as it is highly water absorbent.
16 Its positive role is mainly in the manufacture of coarse products such as burgers or coarse skinless sausage products
17 and in cooked hams. It may also be of use for improved cohesiveness in the case of high extender utilization in raw-
18 cooked products.

19 Source: Food and Agriculture Organization of the United Nations <http://www.fao.org/docrep/010/ai407e/AI407E16.htm>

1 Excerpts from FDA Defect Action Level Handbook

2 Title 21, Code of Federal Regulations¹, Part 110.110 allows the Food and Drug Administration (FDA) to establish maximum levels of natural or unavoidable
3 defects in foods for human use that present no health hazard. These "Food Defect Action Levels" listed in this booklet are set on this premise--that they pose
4 no inherent hazard to health.

5 The FDA set these action levels because it is economically impractical to grow, harvest, or process raw products that are totally free of non-hazardous,
6 naturally occurring, unavoidable defects. Products harmful to consumers are subject to regulatory action whether or not they exceed the action levels.

7 It is incorrect to assume that because the FDA has an established defect action level for a food commodity, the food manufacturer need only stay just below
8 that level. The defect levels do not represent an average of the defects that occur in any of the products--the averages are actually much lower. The levels
9 represent limits at which FDA will regard the food product "adulterated"; and subject to enforcement action under Section 402(a)(3) of the Food, Drug, and
10 Cosmetics Act.

CHOCOLATE AND CHOCOLATE LIQUOR	Insect filth (AOAC 965.38)	Average is 60 or more insect fragments per 100 grams when 6 100-gram subsamples are examined OR Any 1 subsample contains 90 or more insect fragments
	Rodent filth (AOAC 965.38)	Average is 1 or more rodent hairs per 100 grams in 6 100-gram subsamples examined OR Any 1 subsample contains 3 or more rodent hairs
	Shell (AOAC 968.10-970.23)	For chocolate liquor, if the shell is in excess of 2% calculated on the basis of alkali-free nibs

DEFECT SOURCE: *Insect fragments - post harvest and/or processing insect infestation, Rodent hair - post harvest and/or processing contamination with animal hair or excreta, Shell - processing contamination*

SIGNIFICANCE: *Aesthetic*

MACARONI AND NOODLE PRODUCTS	Insect filth (AOAC 969.41)	Average of 225 insect fragments or more per 225 grams in 6 or more subsamples
	Rodent filth (AOAC 969.41)	Average of 4.5 rodent hairs or more per 225 grams in 6 or more subsamples

DEFECT SOURCE: *Insect fragments - preharvest and/or post harvest and/or processing infestation. Rodent hair - post harvest and/or processing contamination with animal hair or excreta*

SIGNIFICANCE: *Aesthetic*

PEANUT BUTTER	Insect filth (AOAC 968.35)	Average of 30 or more insect fragments per 100 grams
	Rodent filth	Average of 1 or more rodent hairs per 100 grams

(AOAC 968.35)

Gritty taste and water insoluble inorganic residue is more than 25 mg per 100 grams

DEFECT SOURCE: *Insect fragments - preharvest and/or post harvest and/or processing insect infestation, Rodent hair - post harvest and/or processing contamination with animal hair or excreta, Grit - harvest contamination*

SIGNIFICANCE: *Aesthetic*

TOMATO PASTE, PIZZA AND OTHER SAUCES Drosophila fly (AOAC 955.46) Average of 30 or more fly eggs per 100 grams OR

15 or more fly eggs and 1 or more maggots per 100 grams
OR
2 or more maggots per 100 grams in a minimum of 12 subsamples

DEFECT SOURCE: *Pre-harvest and/or post harvest and/or processing insect infestation*

SIGNIFICANCE: *Aesthetic*

Source: www.fda.gov

1 **Food Ingredients and Packaging Terms**

2 Biotechnology - refers to techniques used by scientists to modify deoxyribonucleic acid (DNA) or the genetic material of a
3 microorganism, plant, or animal in order to achieve a desired trait. In the case of foods, genetically engineered plant foods are produced from
4 crops whose genetic makeup has been altered through a process called recombinant DNA, or gene splicing, to give the plant desired traits.
5 Genetically engineered foods are also known as biotech, bioengineered, and genetically modified, although "genetically modified" can also
6 refer to foods from plants altered through methods such as conventional breeding. While in a broad sense biotechnology refers to
7 technological applications of biology, common use in the U.S. has narrowed the definition to foods produced using recombinant DNA. For
8 additional information, see the Biotechnology Program on the CFSAN Internet.

9 Color Additive - A color additive is a dye, pigment or other substance, which is capable of imparting color when added or applied
10 to a food, drug, cosmetic, or to the human body. The legal definition can be found in Section 201(t) of the Federal Food, Drug, and
11 Cosmetic Act (FD&C Act) and provides exclusions as well. Color additives for use in food, drugs, and cosmetics require premarket approval.
12 Color additives for use in or on a medical device are subject to premarket approval, if the color additive comes in direct contact with the
13 body for a significant period of time. For additional information, consult the Color Additive Program on the CFSAN Internet.

14 Food Additive - A food additive is defined in Section 201(s) of the FD&C Act as any substance the intended use of which results or
15 may reasonably be expected to result, directly or indirectly, in its becoming a component or otherwise affecting the characteristic of any food
16 (including any substance intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or
17 holding food; and including any source of radiation intended for any such use); if such substance is not GRAS or sanctioned prior to 19581
18 or otherwise excluded from the definition of food additives.

19 GRAS - "GRAS" is an acronym for the phrase Generally Recognized As Safe. Under sections 201(s) and 409 of the FD&C Act, any
20 substance that is intentionally added to food is a food additive, that is subject to premarket review and approval by FDA, unless the
21 substance is generally recognized, among qualified experts, as having been adequately shown to be safe under the conditions of its intended
22 use, or unless the use of the substance is otherwise excluded from the definition of a food additive. GRAS substances are distinguished from
23 food additives by the type of information that supports the GRAS determination, that it is publicly available and generally accepted by the
24 scientific community, but should be the same quantity and quality of information that would support the safety of a food additive. Additional
25 information on GRAS can be found on the GRAS Notification Program page.

26 Source: www.fda.gov

1 **How a Food Safety Myth Became a Legend: On Upton Sinclair's The Jungle** By Lawrence W. Reed

2 Nearly 90 years ago, muckraking novelist Upton Sinclair wrote a book titled The Jungle that wove a tale of greed and abuse that reverberates to this day as a powerful case against laissez-faire
3 capitalism. Sinclair's focus of scorn was the meatpacking industry. The objective of his effort was government regulation. The culmination of his work was the passage in 1906 of the famed
4 Meat Inspection Act, enshrined in most history books as a sacred cow (excuse the pun) of the interventionist state.

5 Were Sinclair's allegations of a corrupt industry foisting unhealthy products on an unsuspecting public true? And if so, should the free market stand forever indicted and convicted as a result?
6 A response is long overdue. Here's a healthy start.

7 The Jungle was, first and foremost, a novel. It was intended to be a polemic--a diatribe, if you will--and not a well-researched and dispassionate documentary. **Sinclair** relied heavily on both
8 his own imagination and on the hearsay of others. He did not even pretend to have actually witnessed the horrendous conditions he ascribed to Chicago packinghouses, nor to have verified
9 them, nor to have derived them from any official records.

10 Sinclair hoped the book would ignite a powerful socialist movement on behalf of America's workers. The public's attention was directed instead to his fewer than a dozen pages of supposed
11 descriptions of unsanitary conditions in the meatpacking plants. "I aimed at the public's heart," he later wrote, "and by accident I hit it in the stomach."

12 Though his novelized and sensational accusations prompted later congressional investigations of the industry, the investigators themselves expressed skepticism of Sinclair's integrity and
13 credibility as a source of information. President Theodore Roosevelt wrote of Sinclair in a letter to William Allen White in July 1906: "I have an utter contempt for him. He is hysterical,
14 unbalanced, and untruthful. Three-fourths of the things he said were absolute falsehoods. For some of the remainder there was only a basis of truth."

15 Sinclair's fellow writer and philosophical intimate, Jack London, wrote this announcement of The Jungle, a promo that was approved by Sinclair himself:

16 The book we have been waiting for these many years! It will open countless ears that have been deaf to Socialism. It will make thousands of converts to our cause. It depicts what our country
17 really is, the home of oppression and injustice, a nightmare of misery, an inferno of suffering, a human hell, a jungle of wild beasts.

18 And take notice and remember, comrades, this book is straight proletarian. It is written by an intellectual proletarian, for the proletarian. It is to be published by a proletarian publishing
19 house. It is to be read by the proletariat. What Uncle Tom's Cabin did for the black slaves The Jungle has a large chance to do for the white slaves of today.

20 The Jungle's fictitious characters tell of men falling into tanks in meatpacking plants and being ground up with animal parts, then made into "Durham's Pure Leaf Lard." Historian Stewart H.
21 Holbrook writes: "The grunts, the groans, the agonized squeals of animals being butchered, the rivers of blood, the steaming masses of intestines, the various stenches...were displayed along
22 with the corruption of government inspectors," and, of course, the callous greed of the ruthless packers.

23 Most Americans would be surprised to know that government meat inspection did not begin in 1906. The inspectors Holbrook refers to as being mentioned in Sinclair's book were among
24 hundreds employed by federal, state, and local governments for more than a decade. Indeed, Congressman E.D. Crumpacker of Indiana noted in testimony before the House Agriculture
25 Committee in June 1906 that not even one of those officials "ever registered any complaint or [gave] any public information with respect to the manner of the slaughtering or preparation of
26 meat or food products."

27 To Crumpacker and other contemporary skeptics, "either the government officials in Chicago [were] woefully derelict in their duty, or the situation over there [had been] outrageously
28 overstated to the country." If the packing plants were as bad as alleged in The Jungle, surely the government inspectors who never said so must be judged as guilty of neglect as the packers
29 were of abuse.

30 Some two million visitors came to tour the stockyards and packinghouses of Chicago every year. Thousands of people worked in both. Why is it that it took a novel written by an anti-
31 capitalist ideologue who spent but a few weeks there to unveil the real conditions to the American public?

32 All of the big Chicago packers combined accounted for less than 50% of the meat products produced in the United States; few if any charges were ever made against the sanitary conditions of
33 the packinghouses of other cities. If the Chicago packers were guilty of anything like the terribly unsanitary conditions suggested by Sinclair, wouldn't they be foolishly exposing themselves
34 to devastating losses of market share?

35 Historians with an ideological axe to grind against the market usually ignore an authoritative 1906 report of the Department of Agriculture's Bureau of Animal Husbandry. Its investigators
36 provided a point-by-point refutation of the worst of Sinclair's allegations, some of which they labeled as "willful and deliberate misrepresentations of fact," "atrocious exaggeration," and "not
37 at all characteristic."

1 Instead, some of these same historians dwell on the Neill-Reynolds Report of the same year because it at least tentatively supported Sinclair. It turns out that neither Neill nor Reynolds had
2 any experience in the meatpacking business and spent a grand total of two and one-half weeks in the spring of 1906 investigating and preparing what turned out to be a carelessly-written
3 report with preconceived conclusions. Gabriel Kolko, a socialist but nonetheless an historian with a respect for facts, dismisses Sinclair as a propagandist and assails Neill and Reynolds as
4 "two inexperienced Washington bureaucrats who freely admitted they knew nothing" of the meatpacking process. Their own subsequent testimony revealed that they had gone to Chicago
5 with the intention of finding fault with industry practices so as to get a new inspection law passed.

6 As popular myth would have it, there were no government inspectors before Congress acted in response to The Jungle and the greedy meatpackers fought federal inspection all the way. The
7 truth is that not only did government inspection exist, but meatpackers themselves supported it and were in the forefront of the effort to extend it!

8 When the sensational accusations of The Jungle became worldwide news, foreign purchases of American meat were cut in half and the meatpackers looked for new regulations to give their
9 markets a calming sense of security. The only congressional hearings on what ultimately became the Meat Inspection Act of 1906 were held by Congressman James Wadsworth's Agriculture
10 Committee between June 6 and 11. A careful reading of the deliberations of the Wadsworth committee and the subsequent floor debate leads inexorably to one conclusion: Knowing that a
11 new law would allay public fears fanned by The Jungle, bring smaller competitors under regulation, and put a newly laundered government stamp of approval on their products, the major
12 meatpackers strongly endorsed the proposed act and only quibbled over who should pay for it.

13 In the end, Americans got a new federal meat inspection law. The big packers got the taxpayers to pick up the entire \$3 million price tag for its implementation as well as new regulations on
14 their smaller competitors, and another myth entered the annals of anti-market dogma.

15 To his credit, Upton Sinclair actually opposed the law because he saw it for what it really was—a boon for the big meatpackers. Sinclair ended up being used by the very industry he hated.

16 FROM THE RECORD...

17 The following, taken from the House Committee on Agriculture Hearings on the so-called "Beveridge Amendment" of June 1906, presents a sampling of passages from The Jungle rebutted
18 by USDA Bureau of Animal Husbandry investigators.—Ed.

19 ● 57. Then this party went across the street where they were killing the beef—where every hour they turned four or five hundred cattle into meat. (P. 44.) And the boss would
20 start up a conversation with the Government inspector and the two men would stroll away. So in a trice the carcass of the cow would be cleaned out and the entrails would
21 have vanished. It was Jurgis's task to slide them into the trap, calves and all, and on the floor below they took out these slunk calves and butchered them for meat and even
22 used the skins of them. (P. 74.)

23 ● 57. In the larger abattoirs [slaughterhouses] in Chicago there are from 16 to 28 beds, or divisions, of the killing floor. A force of workmen in one of these abattoirs may kill
24 and dress about seven runs of cattle in an hour, which means an average of from 110 to 200 beef carcasses per hour, but never from 400 to 500 such carcasses. The person
25 alleged to have been the Federal inspector engaged in conversation with the "boss," who strolled away with him, may have been a man in uniform, while the inspector, who
26 cannot be easily distinguished from the workmen, was attending to his duties along with the gutter who removes the viscera from the carcasses.

27 It is not unusual for unborn calves to be placed in a chute and thus carried to the floor below, where their skins are removed. Such skins are used for leather. The carcasses of such calves are
28 tanked for offal.

29 ● 58. It was late, almost dark, and the Government inspectors had all gone, and there was only a dozen or two men on the floor. That day they had killed about 4,000 cattle,
30 and these cattle had come in freight trains from far states, and some of them had got hurt. There were some with broken legs and some with gored sides. There were some
31 that had died from what causes no one could say, and they were all to be disposed of here in darkness and silence. "Downers," the men called them, and the packing house
32 had a special elevator upon which they were raised to the killing beds, where the gang proceeded to handle them with an air of businesslike nonchalance which said plainer
33 than any words that it was a pure matter of everyday routine. It took a couple of hours to get them out of the way, and in the end Jurgis saw them going to the chilling
34 rooms with the rest of the meat, being carefully scattered here and there, so that they could not be identified. (P. 74.)

35 ● 58. When necessary, on account of injuries or other extraordinary causes, to kill animals during the night or at times other than the established hours for slaughter, the
36 regulations provide that such animals may be slaughtered, provided the carcasses (with thoracic viscera attached and all other viscera identifiable) are held for inspection and
37 are duly identified to the inspector by an employee of the abattoir; it is further provided that an official of the abattoir company shall furnish promptly to the inspector a
38 signed statement showing the whole number of each kind of animal so slaughtered.

- 62.in some of which there were open vats near the level of the floor, their peculiar trouble was that they (men) fell into the vats; and when they were fished out there was never enough of them left to be worth exhibiting; sometimes they would be overlooked for days, till all but the bones of them had gone out to the world ...leaf lard. (P. 117.)
instance, a man had fallen into one of the rendering tanks, and had been made into pure leaf lard and peerless fertilizer, there was no use in letting the fact out and making his appy. (P. 143.)
 - 62. As has been previously stated by the committee, after careful inquiry, only one instance was reported of a man falling into a vat with fatal results. This happened several years ago, and the body was recovered and buried. In view of the fact that the committee could discover but one occurrence of this kind, the atrocious exaggeration of the author's statement is apparent.
 - 63.for there was never any washing of the walls and rafters and pillars, and they were caked with the filth of a lifetime. (P. 120.)
 - 63. The committee did not find any evidence that the walls and rafters had been washed recently, but in many of the establishments the walls were clean and freshly painted, and the pillars or posts in the various rooms were in many cases clean and whitewashed. To some of the killing rooms the description of the author may be applied without exaggeration. It is apparent that in his anxiety to be as sensational and "yellow" as possible the author has not only in this statement, but through his book, selected the worst possible condition which could be found in any establishment as typical of the general conditions existing in the Chicago abattoirs, and has willfully closed his eyes to establishments where excellent conditions prevail.
 - 66. There would be meat stored in great piles in rooms, and the water from leaky roofs would drip over it, and thousands of rats would race about on it. It was too dark in these storage places to see well, but a man could run his hand over these piles of meat and sweep off handfuls of the dried dung of rats. These rats were nuisances, and the packers would put poisoned bread out for them. They would die, and then rats, bread, and meat would go into the hoppers together. This is no fairy story and no joke. 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 tid-bit. (Pp. 161-162.)
 - 66. The committee observed meat piled upon the floor in many places, and in some cases a small amount of water, due to condensation, was dripping upon it. The committee visited each and every room in 21 establishments which have federal inspection, and two establishments which have city inspection only. In all of the rooms in which meat was stored the committee made it a point to observe carefully to see if any rat dung could be detected. The committee was unable to find any rat dung on meat. It is difficult to perceive how dried rat dung could be found on piles of meat on which water was dripping from leaky roofs. In many of the abattoirs traps were set and cats were kept to reduce the number of rats, but in no case did the committee find that poisoned bread or other poisonous substance was used to kill rats. The committee agrees with the author that the statements contained in the above paragraph are "no fairy story and no joke," and believe them to be willful and deliberate misrepresentations of fact.

In considering the charges made in the publications herein noticed, the committee has confined itself to charges affecting the integrity and efficiency of the meat inspection service at Chicago and the sanitary conditions of the abattoirs. No attention has been paid to charges regarding the sociological conditions of the employees of the various abattoirs.

Source: Reed, Lawrence W. "How A Food Safety Myth Became A Legend." Consumers' Research Magazine 78.2 (1995): 23. MAS Ultra - School Edition. Web. 17 May 2012.

Food Sponge

Name _____

Date _____

What parts of the Pure Food and Drug Act of 1906 would prevent people from adding insects and other things to America's food supply?

What parts of the Pure Food and Drug Act of 1906 would allow people to add insects and other things to America's food supply?

Food Sponge

Name _____

Date _____

What parts of the Pure Food and Drug Act of 1906 would prevent people from adding insects and other things to America's food supply?

What parts of the Pure Food and Drug Act of 1906 would allow people to add insects and other things to America's food supply?

Food Sponge

Name _____

Date _____

What parts of the Pure Food and Drug Act of 1906 would prevent people from adding insects and other things to America's food supply?

What parts of the Pure Food and Drug Act of 1906 would allow people to add insects and other things to America's food supply?

Controversy Close Reading Questions

Name _____

Date _____

Period _____

Directions: Read The Pure Food and Drug Act of 1906 and the excerpt from Upton Sinclair's *The Jungle*. Answer the following questions using evidence from both readings.

1. In lines SEC. 7, how is “adulterated” defined.
 2. In line SEC. 8, how is “misbranded” defined.
 3. How did the act define food?
 4. In lines 34 to 42, what are the exceptions to foods being defined as adulterated and misbranded?
 5. List the specific items that made the sausage being created in the novel, The Jungle, adulterated.

For the reading, use the Pure Food and Drug Act of 1906 to determine if the food described violates its definitions.

Your Answers

Group Answers

1. Has the food been adulterated? Explain.



2. Should the government step in to cease it being made according to the act? Explain



3. Has the food been misbranded? Explain.



4. Should the government step in to cease it being made according to the act? Explain



5. Could the food be considered poisoned or deleterious? Explain.



6. Should the government step in to cease it being made according to the act? Explain



Case Study Worksheet

Name _____

Date _____

Period _____

For the reading, use the Pure Food and Drug Act of 1906 to determine if the food described violates its definitions.

Your Answer

Group Answers

1. How does the food fit the exemption to adulteration? Explain.



2. How has the act left this type of exemption to the discretion of the consumer for consumption? Explain.



3. How does the food fit the exemption to misbranded items? Explain.



4. How has the act left this type of exemption to the discretion of the consumer for consumption? Explain.



5. How does the food avoid being labeled poisonous or deleterious? Explain.



6. How has the act left this type of exemption to the discretion of the consumer? Explain.



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