

Would the food regulation laws of the early 20th century have happened without the publication of *The Jungle*?

The Jungle



Supporting Questions

1. What did the Poison Squad experiments reveal?
2. How accurate was Upton Sinclair's *The Jungle*?
3. What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neill-Reynolds Report (Sinclair)?

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Would the food regulation laws of the early 20th century have happened without the publication of *The Jungle*?

Content Standards	MI USHG – 6.3.1 Describe the extent to which industrialization and urbanization between 1895 and 1930 created the need for progressive reform.	MI Civics – 3.2.1 Describe limits the U.S. Constitution places on power of the states and on the federal government’s power over the states.
	MI USHG – 6.3.2 Analyze the social, political, economic, and cultural changes that occurred during the Progressive Era.	MI Civics – 3.3.1 Describe and analyze how groups and individuals influence public policy. MI Civics – 3.3.3 Explain the concept of public opinion, factors that shape it, and contrasting views on the role it should and does play in public policy.
Staging the Question	Students will engage in a matching activity where they match common household products/deadly poisons to the foods they were commonly used to “enhance.”	
Supporting Question 1	Supporting Question 2	Supporting Question 3
What did the Poison Squad experiments reveal?	How accurate was Upton Sinclair’s <i>The Jungle</i> ?	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neill-Reynolds Report (Sinclair)?
Formative Performance Task	Formative Performance Task	Formative Performance Task
Students will complete the supporting question 1 handout.	Students will complete the supporting question 2 handout.	Students highlight or check off the actions taken by the government from their handouts.
Featured Sources	Featured Sources	Featured Sources
Source 1A: The Borax Test video <i>Note: This link takes you to a series landing page. “The Borax Test” is video 3 of 3.</i> Source 1B: Wiley Report (1904)	Source 2A: Excerpts from Upton Sinclair’s <i>The Jungle</i> (1906) Source 2B: Neill-Reynolds Report (1906) Pictures from the Chicago Stock Yards: Source 2C: Longhorn cattle in the sales pen (1920) Source 2D: Hurford Wheel (1890) Source 2E: Boiling vats (1890) Source 2F: View from Union Stock Yard (1890) Source 2G: Postcard from Union Stock Yard (1909) Source 2H: How ‘The Jungle’ Changed American Food video	Source 3A: Wiley’s Law (1906) Source 3B: “What the Food Law Saves Us From” (1907) Source 3C: Federal Meat Inspection Act (1906) Source 3D: Food Safety Timeline OPTIONAL Source 3E: Excerpt from “Progressivism in the White House”
Assessment	Students complete the compelling question handout.	

Extension/Taking Informed Action

ACT: Students research how their favorite junk food is made and write a poem satirizing anything they find that is disgusting or disturbing.

Required Supplies/Materials:

- Hard copies or digital access to listed sources above
- Staging the question handout
- Supporting question 1 handout
- Supporting question 2 handout
- Compelling question handout

Suggested Pacing: Three 60-minute class periods

Lesson Sequence

Period 1

1. Pass out the staging the question handout to students. Give students a few minutes to complete the handout by matching the additive to the food they were commonly used to adulterate. Reveal correct pairings and have students write down three questions they have based on this activity. Have students find a partner and share one question they wrote down. **(15 min)**
2. Introduce the lesson by giving some context for this time. Harvey Washington Wiley and his dedication to food safety led him to conduct a series of human experiments called the Hygienic Table Trials, which were designed to determine what was (and was not) safe to be added to food. Food safety was such a compelling issue that he wasn't the only person to sound the alarm. A muckraking novelist named Upton Sinclair also published a sensational novel called *The Jungle*, which described horrific conditions in the meatpacking industry and further urged Congress to take legislative action. Students will be investigating both Wiley's and Sinclair's work.
3. Pass out the supporting question 1 handout. Explain to students that they will be using the next two sources to identify the food safety issues they notice and some possible governmental solutions. Play the video "The Borax Test" (Source 1A) and give students time with their partners to fill out their handout.
4. Pass out the Wiley Report (Source 1B) to each pair of students and give them time to complete the handout. When students are done identifying food safety issues and corresponding potential solutions, they should answer supporting question 1. Take one or two share-outs to hear student answers. Have students keep this handout for now, as they will need it again at the end of the lesson. **(20 min)**
5. Have each pair join another pair, forming groups of four. Pass out the supporting question 2 handout (one to each group) and explain to students that they will be corroborating, or finding supporting evidence, for the statements and conclusions written about in *The Jungle*. Give students a few minutes to read the excerpts of *The Jungle* (Source 2A) on the handout (*The Jungle* is also provided as a separate source). **(5 min)**
6. Pass out the Neill-Reynolds Report (Source 2B). Have students fill out the corresponding column on their supporting question 2 handout. **(15 min)**



Period 2

1. Have students get back into their groups of 4. Pass out the photographs from the Chicago Stock Yards (Sources 2C-2G) and have students complete the corresponding column on their handout. **(5 min)**
2. As a class, watch “How ‘The Jungle’ Changed American Food” (Source 2H) and have students finish their supporting question 2 handout. **(5 min)**
3. Have students answer supporting question 2. Take one or two share-outs to hear student responses. **(10 min)**
4. Pass out Sources 3A, 3B, and 3C and explain to the class that they are real examples of legislation that were passed because of both the Wiley and the Neill-Reynolds Reports. Note how the legislation was tied to the investigations conducted and facts found by the government.
5. Have groups compare their proposed governmental solutions on their supporting question 1 handout to the actual legislation by highlighting or checking off government actions that match their proposed solutions. **(20 min)**
6. Give students the Food Safety Timeline (Source 3D) and have them review it to answer the exit ticket. **(10 min)**
7. Optional: if you find that your students need more background to answer the compelling question, provide them with an excerpt from “Progressivism in the White House” (Source 3E).

Period 3

1. Give students time to complete the compelling question handout as their summative assessment. Alternatively, students could create an infographic, artwork (drawing, painting, mural plan, etc.), or a poem. If the student chooses one of these options, we recommend it be accompanied by either a short written or oral explanation to fully assess student success at answering the compelling question. **(30 min or homework)**
2. If completing assessment in class, discuss the compelling question and the impact of The Jungle on food regulation. Reflect on the students' proposed solutions and their accuracy. **(15 min)**

Name: _____

Staging the question: When good food goes bad

All the materials on the left were used in the early 1900s to preserve food, add flavor, or enhance color. Can you match the old-timey “special sauce” to the food it was used in?



Pond water •



Formaldehyde •



Arsenic •



Chalk •



Glycerin •



Tincture of opium
(laudanum) •



“Paris Green” paint
by Sherwin Williams •



Lead •



Borax •



“Rough-On-Rats”
rat poison •

- Meat
- (two additives)



- Leafy vegetables



- Cough syrup



- Peas



- Chocolate



- Cheese



- Milk
- (three additives)



Name: _____

Staging the question: When good food goes bad **ANSWER KEY**

All the materials on the left were used in the early 1900s to preserve food, add flavor, or enhance color. Can you match the old: timey “special sauce” to the food it was used in?

- **Pond water: Milk**
 - *Pond water was used to thin out the milk and stretch its volume. Something else would be added later to thicken it back up.*
- **Formaldehyde: Milk**
 - *Formaldehyde (now commonly used to make particle board, highly cancerous) was used as a preservative. Occasionally too much would be added; in one case, this led to the deaths of several children.*
- **Arsenic: Chocolate**
 - *Arsenic was used to give the outer coating shell of chocolate a nice “shine.”*
- **Chalk: Milk**
 - *Chalk was used to thicken milk after it had been thinned with pond water.*
- **Glycerin: Meat**
 - *Glycerin (now commonly used in soaps) was used to make meat shiny.*
- **Tincture of opium/laudanum: Cough syrup**
 - *Laudanum was used as a painkiller and cough suppressant.*
- **“Paris Green” paint by Sherwin Williams: Peas**
 - *Paris green was used to give peas a vibrant green color. While this can was made by Sherwin Williams, the chemical colorant was widely used at the time in everything from food to paintings.*
- **Lead: Cheese**
 - *Red lead was specifically used to give cheese a vibrant yellowish red aged color.*
- **Borax: Leafy vegetables**
 - *Borax (now commonly used as a pesticide) was used to make wilted vegetables crisp back up.*
- **“Rough: On: Rats” rat poison: Meat**
 - *Rat poison occasionally found its way into meat products when used to kill rats in slaughterhouses.*

Supporting question 1	What did the “Poison Squad” experiments reveal?
Source 1A	The Borax Test (video 3 of 3)
Maggio, J., & Denison, T. (2020). <i>The Poison Squad: The American People Had No Idea What They Were Eating</i> . Ark Media. PBS Learning Media. Retrieved from https://detroitpbs.pbslearningmedia.org/resource/amex32ps-soc-harveywiley/dr-harvey-wiley-and-the-crusade-for-food-safety-in-the-progressive-era-the-poison-squad/	

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Resource 3 of 3

The Borax Test | The Poison Squad

Results from the first human trials are made public.

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Transcript

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Supporting question 1	What did the “Poison Squad” experiments reveal?
Source 1B	Excerpts from Dr. Wiley’s Borax Adulteration Report that was submitted to Congress and published by the Bureau of Chemistry.
Wiley, H. W. <i>Influence of Food Preservatives and Artificial Colors on Digestion and Health</i> . 1904.	

BUREAU OF CHEMISTRY-BULLETIN No. 84, PART I.

H. W. WILEY, CHIEF OF BUREAU.

INFLUENCE OF FOOD PRESERVATIVES AND ARTIFICIAL COLORS ON DIGESTION AND HEALTH.

BY H. W. WILEY, M. D., WITH THE COLLABORATION OF W. D. BIGELOW, CHIEF OF THE DIVISION OF FOODS, AND OTHERS.

I. BORIC ACID AND BORAX.

The use of preservatives in food products is as old as civilization [...] However, one of the chief characteristics of the modern chemical preservative is that it is often almost without taste or odor, and for this reason its presence in a food product, unless specifically proclaimed, would not be noticed by the consumer.[...]

Legislation has been enacted concerning the use of preservatives and coloring matters in foods in foreign countries and in the various States of the United States. This legislation is of varying character, prohibiting in some countries what is allowed in others, [...] and, in general, producing a state of affairs which is annoying to the manufacturer of food products and [...] dealers [...] and which, by the diversity of laws [...] does not secure to the consumer the full benefit which was intended. The desirability of some investigation, therefore, is apparent, in order to establish [...] general legislation in a manner tending to secure a greater uniformity and efficiency. It is also evident that if these investigations are conducted under some direction not particularly interested in the construction of any law nor associated in any commercial way with the interests of either manufacturer or consumer, they will have a greater weight.

EFFECT OF BORIC ACID AND BORAX UPON GENERAL HEALTH.

The most interesting of the observations which were made during the progress of the experiments was in the study of the direct effect of boric acid and borax. [...] The administration of boric acid to the amount of 4 or 5 grams per day [...] results in most cases in loss of appetite and inability to perform work of any kind. In many cases the person becomes ill and unfit for duty. Four grams per day may be regarded, then, as the limit of exhibition beyond which the normal man may not go.

[...]

It appears, therefore, that both boric acid and borax, when continuously administered in small doses for a long period or when given in large quantities for a short period, create disturbances of appetite, of digestion, and of health.



Name: _____

Supporting question 1: What did the Poison Squad experiments reveal?

Directions: In the left column, use the sources to list food safety issues that were identified in the food industry through Dr. Wiley’s experiments. In the right column, brainstorm possible actions that the government could take to solve these problems. If the source is a written document, be sure to use an exact quote!

Food safety issues identified by source 1A (The Borax Test)	Possible governmental solutions
Food safety issues identified by source 1B (The Wiley Report)	Possible governmental solutions

What did the “Poison Squad” experiments reveal?

Name: _____

Supporting question 1: What did the Poison Squad experiments reveal? **ANSWER KEY**

Directions: In the left column, use the sources to list food safety issues that were identified in the food industry through Dr. Wiley's experiments. In the right column, brainstorm possible actions that the government could take to solve these problems. If the source is a written document, be sure to use an exact quote!

Food safety issues identified by source 1A (The Borax Test)	Possible governmental solutions
<i>Men began to show signs of serious intestinal illness</i>	<i>Ban borax in food</i>
<i>Exposure over time was causing damage to organs</i>	<i>Require truth-in-packaging</i>
<i>People lose muscle mass, can't concentrate, vomit etc.</i>	<i>Have random testing to ensure that borax is not being used</i>
Food safety issues identified by source 1B (The Wiley Report)	Possible governmental solutions
<i>"The administration of boric acid to the amount of 4 or 5 grams per day [...] results in most cases in loss of appetite and inability to perform work of any kind."</i>	<i>Ban Boric acid in food</i>
<i>"both boric acid and borax, when continuously administered in small doses for a long period or when given in large quantities for a short period, create disturbances of appetite, of digestion, and of health."</i>	<i>Publish recommendations that if people are experiencing these symptoms, they get tested for exposure to boric acid or borax</i>
<i>"one of the chief characteristics of the modern chemical preservative is that it is often almost without taste or odor,"</i>	<i>Require full disclosure of everything that is in a food, especially if it is otherwise tasteless and odorless</i>

What did the Poison Squad experiments reveal?

The Poison Squad experiments revealed that some of the unregulated chemical additives in food (namely Boric acid and Borax) had long-term negative health consequences, and that people were unaware of what was being put into their food.

Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2A	Excerpts from Upton Sinclair's <i>The Jungle</i>
Sinclair, U. (2018). <i>The Jungle: (1906)</i> . Independently Published.	

"There was never the least attention paid to what was cut up for sausage; there would come all the way back from Europe old sausage that had been rejected, and that was moldy and white – it would be dosed with borax and glycerin, and dumped into the hoppers, and made over again for home consumption."

"There would be meat that had tumbled out on the floor, in the dirt and sawdust, where the workers had tramped and spit uncounted billions of consumption germs."

"There was no place for the men to wash their hands before they ate their dinner, and so they made a practice of washing them in the water that was to be ladled into the sausage."

"All of their sausage came out of the same bowl, but when they came to wrap it they would stamp some of it "special," and for this they would charge two cents more a pound."

"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."

"There would be meat stored in great piles in rooms; and the water from leaky roofs would drip over it."

Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2D	Neill-Reynolds Report
Reynolds, J. B. & Neill, C. P. (1906). Report on conditions in the Chicago stock yards. U.S. House of Representatives. https://www.docsteach.org/documents/document/report-on-conditions-in-the-chicago-stock-yards .	

The PRESIDENT:

As directed by you, we investigated the conditions in the principal meatpacking establishments in Chicago. The following is submitted as a partial report of what we found.

I - BUILDINGS.

Lighting. -The buildings have been constructed with little regard to either light or ventilation. Their dark and **dingy** rooms are not kept suitably clean.

Ventilation. -Systematic ventilation of the workrooms is not found in any of the establishments we visited.

Equipment. -The worktables, the floor carts, and the tubs and other receptacles which touch the meat are generally made of wood. The wood is frequently found water soaked, only half cleansed and with meat scraps and grease accumulations adhering to it and collecting dirt.

Sanitary convenience. - One example of the lack of cleanliness are the **privies** for both men and women. They consist of a row of seats, generally without even side partitions. Washing sinks are either not furnished or are small and dirty. Towels, soap, or toilet paper are not provided. Some of the privies are situated at a long distance from the workrooms and men relieve themselves on the killing floors or in a corner of the workrooms.

Dingy: gloomy and drab

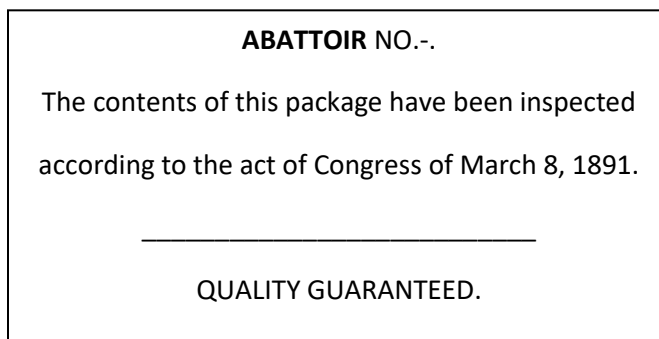
Privies: toilets

Abattoir: slaughterhouse

II - TREATMENT OF MEATS AND PREPARED FOOD PRODUCTS

Uncleanliness in handling products. - An absence of cleanliness was found everywhere. As an extreme example, we saw a hog that had just been killed, cleaned, and washed fall from the sliding rail to a dirty wooden truck and slide part way into a filthy men's privy. It was picked up by two employees, placed upon a truck, carried into the cooling room and hung up with other carcasses.

Treatment of meat after inspection. -The radical defect in the present system of inspection is that it does not go far enough. Canned meat goes through many processes. During all these processes there is no Government inspection. However, these canned products bear labels of which the following is a sample:



The phraseology of these labels is wholly unwarranted. The Government inspectors do not know what may have been placed in the cans in addition to "inspected meat."

Abuse of the labels was noticed. In two different establishments great stocks of old canned goods were being put through a washing process to remove the old labels. Fresh labels, with the Government name on them, were added, and they were to be sent out as a new product. In one of these instances, the superintendent admitted the stock being relabeled was over two years old.

III - GOVERNMENT INSPECTION.

Inspection before slaughter. - Inspection before slaughter appears to have little value in most cases. This is **compulsory** under the present law, indicating a serious defect in the law.

Inspection after slaughter. - Inspection after slaughter appears to be carefully made. On the slightest indication of disease or abnormal conditions, the carcass is tagged and set aside for a more careful examination.

Number of inspectors. - The present number of inspectors is certainly inadequate, as the Secretary of Agriculture has often complained. Some of the smaller companies have no inspectors at all and may sell uninspected meat wherever they please in the United States.

IV - LEGISLATION.

1. Examination before slaughter is of minor importance and should be recommended, not mandatory. Examination after slaughter is of supreme importance and should be mandatory.

2. The examination of all meat products intended for interstate commerce should be consigned to the Bureau of Animal Industry. No mark declaring that Government inspection has been made should be allowed unless the product has been subject to Government inspection at every stage of the process. All labels should contain the date of issuance, and it should be a **misdemeanor** to erase, alter or destroy the labels.

Compulsory: required

Misdemeanor: a crime punishable by fine or light imprisonment

Interstate: across state lines

3. Power should be given to the Secretary of Agriculture to make rules and regulations regarding the sanitation and construction of all buildings used or intended to be used for the care of food products for **interstate** or foreign trade.

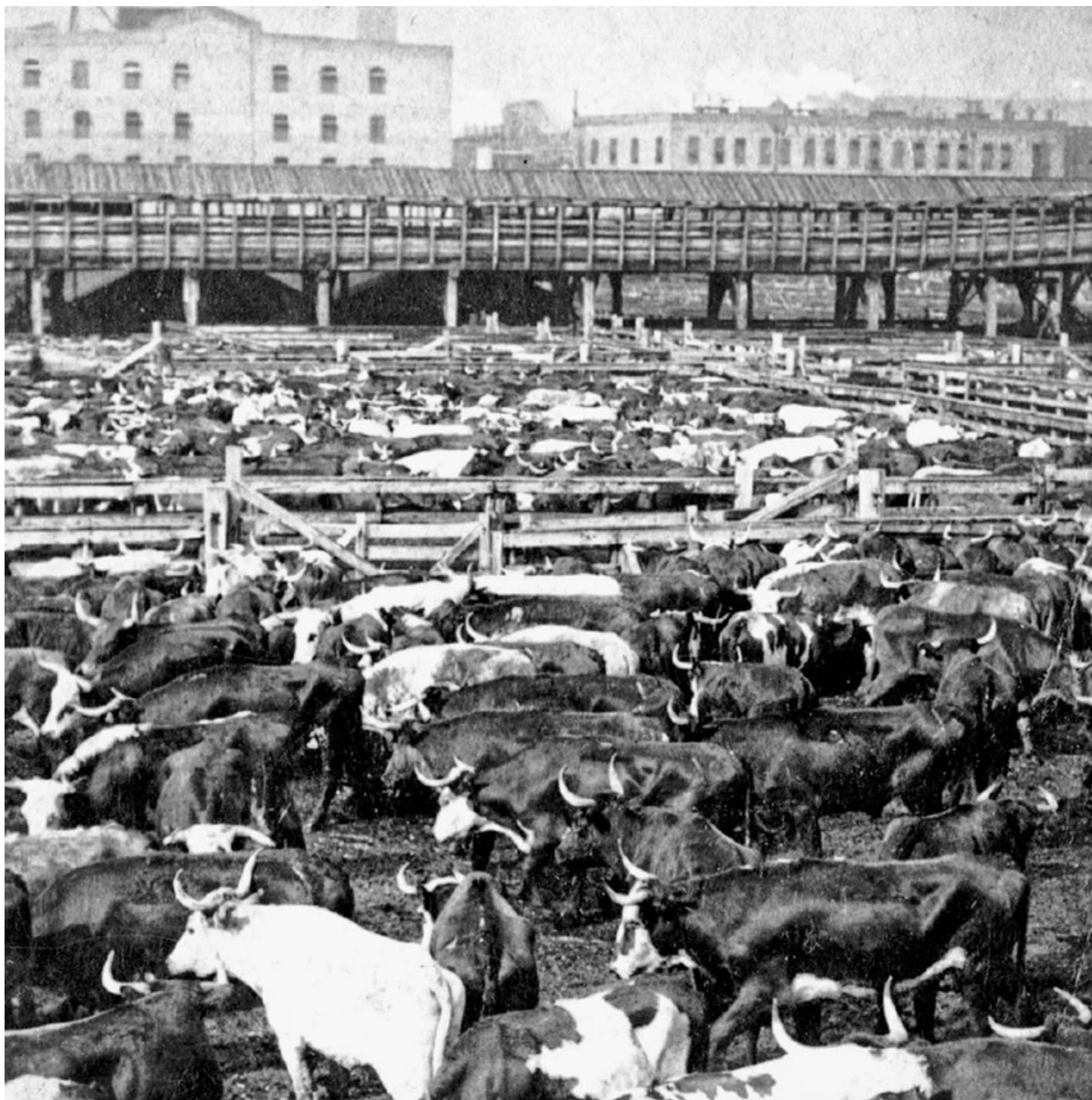
4. It should be forbidden to any person, firm, or corporation to transport or offer transportation from one State to another any meat or meat food products not inspected and labeled.

James Bronson Reynolds.

Chas. P. Neill.

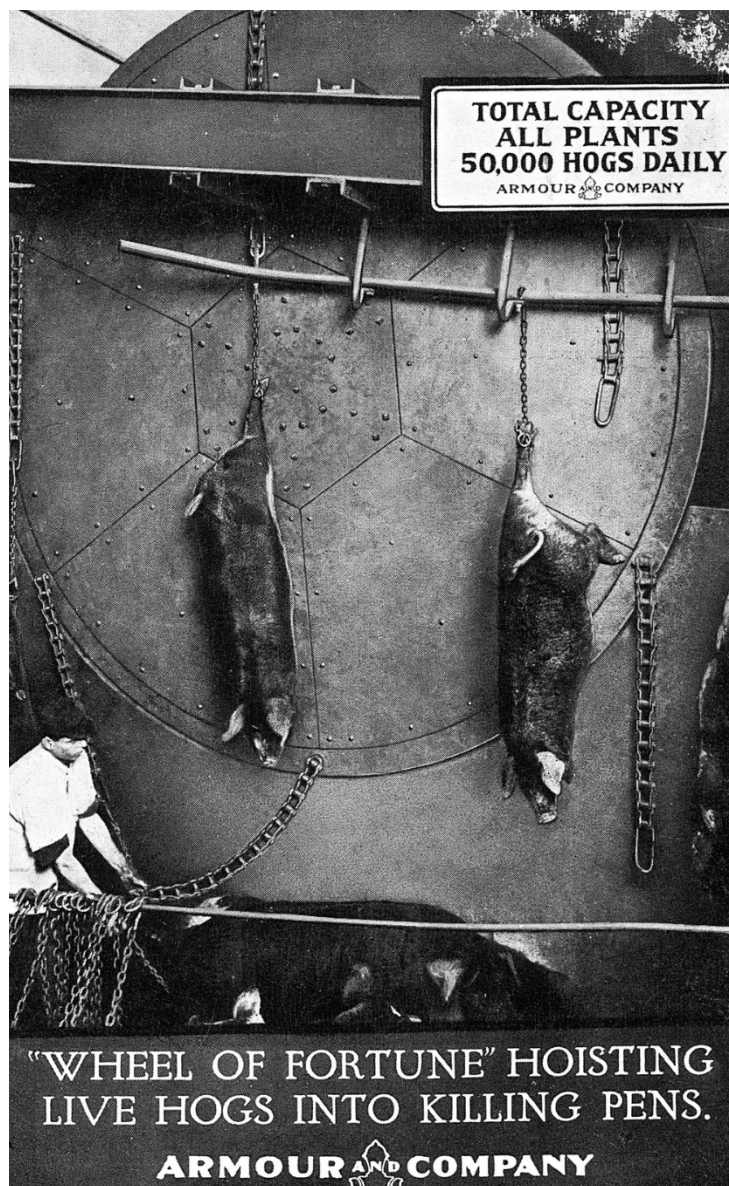
Washington, D.C., June 2, 1906.

Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2C	Longhorn cattle in the sales pen
Unknown. (1920). <i>From the Kansas Plains, Union Stock Yards, Chicago, Ill.</i> photograph, Fort Worth, Texas.	



Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2D	Hurford Wheel
Pacyga, D. A. (2018). <i>Slaughterhouse: Chicago's Union Stock Yard and the World It Made</i> . University of Chicago Press.	

A device known as a Hurford wheel. The hog was chained to the wheel while still alive and hoisted to better prepare them for the slaughter.



Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2E	Boiling vats
Pacyga, D. A. (2018). <i>Slaughterhouse: Chicago's Union Stock Yard and the World It Made</i> . University of Chicago Press.	

Boiling vats used to prepare hogs for hair removal, circa 1890.

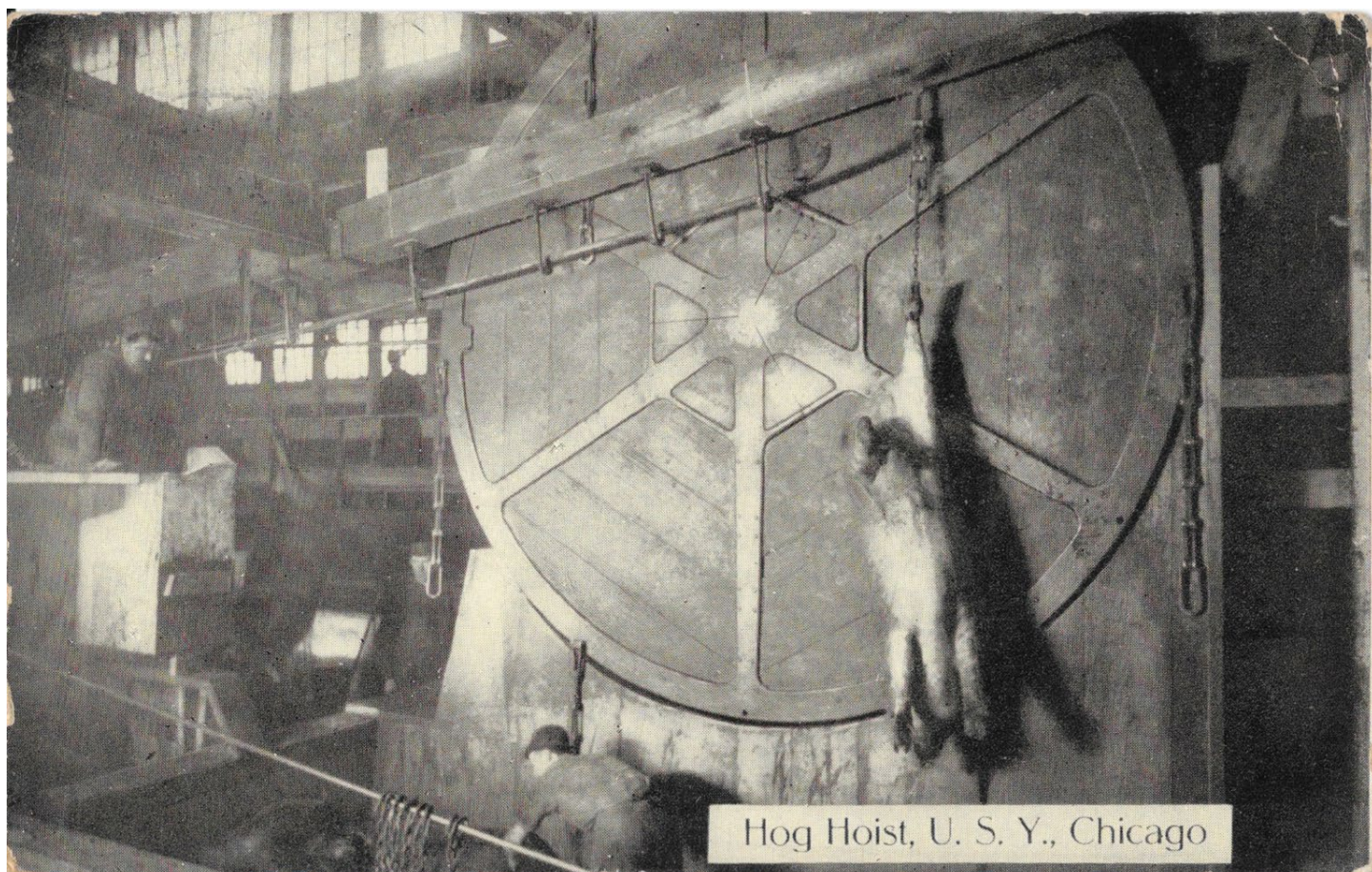


Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2F	View from Union Stock Yard
Pacyga, D. A. (2018). <i>Slaughterhouse: Chicago's Union Stock Yard and the World It Made</i> . University of Chicago Press.	

The view from the Union Stock Yard water tower looking southwest to the sheep house and Packingtown, circa 1890. Notice the smoke rising from the huge plants.



Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2G	Postcard from Union Stock Yard
<i>Postcard Depicting the Union Stockyard in Chicago. (1909). photograph, Chicago, Illinois.</i>	



Supporting question 2	How accurate was Upton Sinclair's <i>The Jungle</i> ?
Source 2B	How 'The Jungle' Changed American Food
Maggio, J., & Denison, T. (2020). <i>The Poison Squad: The American People Had No Idea What They Were Eating</i> . Ark Media. PBS Learning Media. Retrieved from https://www.youtube.com/watch?v=OuukM9OY-is	

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Name: _____

Supporting question 2: How accurate was Upton Sinclair’s *The Jungle*?

Directions: Upton Sinclair made some sensational claims in his novel. Before acting, President Roosevelt and Congress needed to verify those claims. Your job is to help the President and Congress by verifying each passage from *The Jungle* found below. As a team, review each source and find at least one quote that backs up Upton Sinclair’s assertions. When you’ve found it, write it in the space provided. Once you are done, answer the supporting question individually.

Read Source 2A: Excerpts from Upton Sinclair’s <i>The Jungle</i>	Source 2B: Neill-Reynolds Report	Sources 2C-2G: Visit the Stock Yards of the 1890s	Source 2H: How "The Jungle" Changed American Food
1. “There was never the least attention paid to what was cut up for sausage; there would come all the way back from Europe old sausage that had been rejected, and that was moldy and white – it would be dosed with borax and glycerin, and dumped into the hoppers, and made over again for home consumption.”			
2. “There would be meat that had tumbled out on the floor, in the dirt and sawdust, where the workers had tramped and spit uncounted billions of consumption germs.”			
3. “There was no place for the men to wash their hands before they ate their dinner, and so they made a practice of washing them in the water that was to be ladled into the sausage.”			

Read Source 2A: Excerpts from Upton Sinclair's <i>The Jungle</i>	Source 2B: Neill-Reynolds Report	Sources 2C-2G: Visit the Stock Yards of the 1890s	Source 2H: How "The Jungle" Changed American Food
4. "All of their sausage came out of the same bowl, but when they came to wrap it they would stamp some of it "special," and for this they would charge two cents more a pound."			
5. "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."			
6. "There would be meat stored in great piles in rooms; and the water from leaky roofs would drip over it".			

What are some possible solutions to the problems seen in these sources?

How accurate was Upton Sinclair's *The Jungle*?

Name: _____

Supporting question 2: How accurate was Upton Sinclair's *The Jungle*? **ANSWER KEY**

Directions: Upton Sinclair made some sensational claims in his novel. Before acting, President Roosevelt and Congress needed to verify those claims. Your job is to help the President and Congress by verifying each passage from *The Jungle* found below. As a team, review each source and find at least one quote that backs up Upton Sinclair's assertions. When you've found it, write it in the space provided. Once you are done, answer the supporting question individually.

Read Source 2A: Excerpts from Upton Sinclair's <i>The Jungle</i>	Source 2B: Neill-Reynolds Report	Sources 2C-2G: Visit the Stock Yards of the 1890s	Source 2H: How "The Jungle" Changed American Food
1. "There was never the least attention paid to what was cut up for sausage; there would come all the way back from Europe old sausage that had been rejected, and that was moldy and white – it would be dosed with borax and glycerin, and dumped into the hoppers, and made over again for home consumption."	<i>"In two different establishments great stocks of old canned goods were being put through a washing process to remove the old labels. Fresh labels, with the Government name on them, were added, and they were to be sent out as a new product. In one of these instances, the superintendent admitted the stock being relabeled was over two years old."</i>		<i>1:44 Mold-covered meat, washed off in a bath of Borax</i>
2. "There would be meat that had tumbled out on the floor, in the dirt and sawdust, where the workers had tramped and spit uncounted billions of consumption germs."	<i>"An absence of cleanliness was found everywhere. As an extreme example, we saw a hog that had just been killed, cleaned, and washed fall from the sliding rail to a dirty wooden truck and slide part way into a filthy men's privy."</i>		<i>0:41- inhuman labor practices and unsanitary conditions on factory floors</i>

Read Source 2A: Excerpts from Upton Sinclair's <i>The Jungle</i>	Source 2B: Neill-Reynolds Report	Sources 2C-2G: Visit the Stock Yards of the 1890s	Source 2H: How "The Jungle" Changed American Food
3. "There was no place for the men to wash their hands before they ate their dinner, and so they made a practice of washing them in the water that was to be ladled into the sausage."	<i>"One example of the lack of cleanliness are the privies for both men and women. They consist of a row of seats, generally without even side partitions. Washing sinks are either not furnished or are small and dirty."</i>	<i>Source 2D- it just looks really hot and gross</i>	
4. "All of their sausage came out of the same bowl, but when they came to wrap it they would stamp some of it "special," and for this they would charge two cents more a pound."	<i>"The Government inspectors do not know what may have been placed in the cans in addition to "inspected meat." Abuse of the labels was noticed."</i>		
5. "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."	<i>"The buildings have been constructed with little regard to either light or ventilation. Their dark and dingy rooms are not kept suitably clean."</i>		<i>0:47 Rat infestations</i>

Read Source 2A: Excerpts from Upton Sinclair's <i>The Jungle</i>	Source 2B: Neill-Reynolds Report	Sources 2C-2G: Visit the Stock Yards of the 1890s	Source 2H: How "The Jungle" Changed American Food
6. "There would be meat stored in great piles in rooms; and the water from leaky roofs would drip over it".	<i>"The worktables, the floor carts, and the tubs and other receptacles which touch the meat are generally made of wood. The wood is frequently found water soaked, only half cleansed and with meat scraps and grease accumulations adhering to it and collecting dirt."</i>		

What are some possible solutions to the problems seen in these sources?

Answers may vary

How accurate was Upton Sinclair's *The Jungle*?

The Jungle seems really accurate. Even if the only source we had was the report, every single thing that Sinclair says here is backed up in some way in the report.

Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neil-Reynolds Report (Sinclair)?
Source 3A	Excerpts from Wiley's Law
Federal Food and Drug Act of 1906. (The "Wiley Act") Public Law Number 59-384 34 STAT. 768 (1906) 21 U.S.C. Sec 1-15 (1934) (Repealed in 1938 BY 21 U.S.C. Sec 329 (a))	

Public Law 59-384, 34 STAT 768, "An Act of June 30, 1906, for Preventing the Manufacture, Sale, or Transportation of Adulterated or Misbranded or Poisonous or Deleterious Foods, Drugs, Medicines, and Liquors, and for Regulating Traffic Therein, and for Other Purposes"

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

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

In the case of food:

First. If any substance has been mixed and packed with it in such a way as to reduce, lower or negatively affect its quality or strength.

Second. If any substance has been substituted wholly or in part for the food article.

Third. If any important part of the food article has been wholly or in part removed.

Fourth. If it be mixed, colored, powdered, coated, or stained in a way where damage or inferiority is concealed.

Fifth. If it contains any added poisonous or other added bad ingredient which may cause it to be harmful to health: The provisions of this Act shall be construed as applying only when food is ready for consumption, and not transportation.

Sixth. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any part 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 in a way that is not by slaughter.

Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials and the Neil-Reynolds Report?
Source 3B	What the Food Law Saves Us From
The World's Work. (1907). United States: Doubleday, Page & Company.	

The World's Work (1900–1932) was a monthly magazine that covered national affairs from a pro-business point of view. This story ran following the passage of both Wiley's Law and the Meat Inspection Act. See some excerpts below.

WHAT THE FOOD LAW SAVES US FROM

TOMATO KETCHUP

It is pronounced by connoisseurs one of the finest condiments for use with hot and cold meats, game, fish and oyster stews, etc.

This ketchup contains a combination of tomatoes, vinegar and spices, and is preserved with one tenth of 1% benzoate of soda. No coloring matter.

The above label could not be used now if any coloring matter is employed.

PREPARED MUSTARD

COMPOUNDED OF

Vinegar, .8226. Mustard seed, .0482. Mustard bran, .0344. Maize Flour, .0688. Salt, .01725. Cayenne, .00125. Turmeric, .003. Annatto, .0025. Cinnamon, .001. Cloves, .001.

The above label fully meets the requirements of the law and lets the consumer know exactly what he is buying.

SHREDDED CODFISH

One pound of Shredded Codfish is equal to more than two pounds of any other fish in the market.

This is probably an exaggerated claim. Food Law Regulation 17, (c) says: "Descriptive matter upon the label shall be *free from any statement*, design or device regarding the article or the ingredients or substances contained therein, or *quality thereof*, or place of origin, which are *false or misleading in any particular*."

ORANGE MARMALADE FRUIT JAM

These jams are made from fresh fruit and are the finest packed. 50% fruit—30% granulated sugar—19½% corn syrup—½% benzoate of soda.

The word "fruit" on jams and jellies generally means apple juice. Most of these imitation products are given the particular fruit or berry flavor indicated by the label from a coal-tar essence. This label is misleading and the guarantee by no means insures that the "fruit" is orange.

Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neil-Reynolds Report (Sinclair)?
Source 3C	Excerpts from the Federal Meat Inspection Act passed in 1906.
Fifty-Ninth Congress. (1906, June 30). Federal Meat Inspection Act of 1906- P.L. 59-382. Wayback Machine. Retrieved February 2, 2017, from https://web.archive.org/web/20170202024233/http://legisworks.org/congress/59/session-1/publaw-382.pdf .	

Examination Before Slaughter- To prevent the use in **interstate** or foreign commerce of meat and meat food products which are unfit for human food, the Secretary of Agriculture, may examine and inspect all cattle, sheep, swine and goats before are allowed to enter into any slaughtering, packing, meat-canning, **rendering**, or similar slaughtering house. The meat and meat food products found to show symptoms of disease shall be set apart and slaughtered separately, and when slaughtered the carcasses of the bad cattle, sheep, swine, or goats shall be subject to careful examination and inspection.

Interstate: crossing state lines

Rendering: melting down fat

Post-mortem: Latin for “after death”

Prescribe: state authoritatively or as a rule that (an action or procedure)

Examination After Slaughter- A **post-mortem** examination and inspection shall be conducted of the carcasses and parts of all cattle, sheep, swine, and goats to be prepared for human consumption at any slaughtering establishment for transportation or sale through interstate or foreign commerce. The carcasses of all animals found to be fit for human food shall be marked, stamped, tagged, or labeled as "Inspected and passed;" Inspectors shall label, mark, stamp, or tag as "Inspected and condemned," all carcasses and parts found to be unfit for human food; those shall be destroyed for food purposes by the establishment in the presence of an inspector.

- The above rules shall also apply to all products which, after having been issued from any slaughtering house or similar establishment, shall be returned to the same or to any similar establishment where inspection is maintained.

Examination of Products Intended for Interstate or Foreign Commerce and Labeling-There shall be an examination and inspection of all meat food products prepared for interstate or foreign commerce in any slaughtering or similar establishment. For this purpose, inspectors shall always have full access to the establishment, day or night, whether the establishment is open or not.

- Inspectors shall mark, stamp, tag, or label as "Inspected and passed" all products found to be sound, healthful, and wholesome, and which contain no dyes, chemicals, preservatives, or ingredients which render such meat or meat food products unsound, unhealthful, unwholesome, or unfit for human food.
- Inspectors shall label, mark, stamp, or tag as “Inspected and condemned” all products found unsound, unhealthful, and unwholesome or unfit for human food, and all such condemned meat food products shall be destroyed for food purposes.
- When any inspected meat or meat food product is prepared for interstate commerce and is packed in any container, a label shall be attached under the supervision of an inspector, saying that the contents have been "inspected and passed" under the provisions of this Act.

Sanitary Inspection of Establishments - The Secretary of Agriculture shall ensure inspection, by experts in sanitation or by other competent inspectors, of all establishments in which cattle, sheep, swine, and goats are slaughtered and meat and meat food products are prepared for interstate or foreign commerce, and **prescribe** the rules and regulations of sanitation under which such establishments shall be maintained.



Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neil-Reynolds Report (Sinclair)?
Source 3D	Food Safety Timeline
See list of references on page 2	

- 1899** Bad meat leads to the death of American soldiers in the Spanish-American War. Future President Theodore Roosevelt gives testimony to Congress regarding the unsafe conditions of the food.
- November 1902** Dr. Harvey W. Wiley, with \$5,000 in Congressional funding, begins the Hygienic Table Trials (known in the press as the "Poison Squad").
- 1904** Results of the Hygienic Table Trials experiments with Borax published. Proves Borax is injurious to health. Lobbying from industry groups and lack of Congressional interest led to the Secretary of Agriculture refusing to publish the future reports publicly, although the reports are still compiled and filed by Wiley. The Hygienic Table Trials officially ran until 1907, when the Pure Food and Drug Act takes effect.
- February 25, 1905 – November 4, 1905** Upton Sinclair's *The Jungle* is serialized in the Socialist newspaper *Appeal to Reason*. Sinclair hopes it will shed light on the horrible conditions faced by immigrant workers in the meatpacking industry. As he later put it: "I aimed for the public's heart, and by accident hit it in the stomach."
- February 26, 1906** *The Jungle* is published as a book.
- March 10, 1906** Riding a groundswell of public outrage, Sinclair urges President Roosevelt to send independent investigators to the meatpacking houses of Chicago. Despite the Bureau of Animal Industry already investigating, Pres. Roosevelt eventually agrees and handpicks Commissioner of Labor Charles P. Neill and social worker James Bronson Reynolds as investigators.
- April 3, 1906** The Bureau of Animal Industry finishes its official investigation and reports to the House Committee on Agriculture on the appalling conditions in the Chicago Stockyards.
- May 21, 1906** Senator Albert Beveridge introduces legislation in the Senate that is known at the time as "the Beveridge Amendment." It forms the core of what will become the Meat Inspection Act, which ultimately becomes law as an amendment in a House funding bill.
- June 4, 1906** Independent investigators Neill and Reynolds submit their findings about horrific, unsanitary conditions in the Chicago Stockyards to Pres. Roosevelt and the House Committee on Agriculture. That same day, Pres. Roosevelt sends a letter to the House Committee supporting the findings and urging reforms.
- June 7-8, 1906** Neill and Reynolds testify to their findings in front of the House Committee on Agriculture.
- June 30, 1906** Roosevelt signs into law the Pure Food and Drug Act (known in the press as 'Wiley's Law') and the Pure Meat Inspection Act.

What do you notice about the amount of change (and the speed of that change surrounding food reform) before *The Jungle* was published compared to after?

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Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neill-Reynolds Report (Sinclair)?
Source 3E	Excerpt from “Progressivism in the White House”
Corbett, P. S., Janssen, V., Lund, J. M., Pfannestiel, T., Waskiewicz, S., & Vickery, P. (2014). 21.4 Progressivism in the White House. In <i>U.S. History</i> . OpenStax. https://openstax.org/books/us-history/pages/1-introduction	

This is an excerpt from an online textbook called OpenStax, published by Rice University. This excerpt is taken from a longer chapter on the Progressive Era.

“Early in his second term, Roosevelt read muckraker Upton Sinclair’s 1905 novel and exposé on the meatpacking industry, *The Jungle*. Although Roosevelt initially questioned the book due to Sinclair’s **professed** Socialist leanings, a subsequent presidential commission investigated the industry and **corroborated** the **deplorable** conditions under which Chicago’s meatpackers processed meats for American consumers. Alarmed by the results and under pressure from an outraged public disgusted with the revelations, Roosevelt moved quickly to protect public health. He urged the passage of two laws to do so. The first, the Meat Inspection Act of 1906, established a system of government inspection for meat products, including grading the meat based on its quality. This standard was also used for imported meats. The second was the Pure Food and Drug Act of 1906, which required labels on all food and drug products that clearly stated the materials in the product. The law also prohibited any “**adulterated**” products, a measure aimed at some specific, unhealthy food preservatives. For Sinclair, this outcome was a disappointment nonetheless, since he had sought to draw attention to the plight of workers in the slaughterhouses, not the poor quality of the meat products. “I aimed at the public’s heart, and by accident, I hit it in the stomach,” he concluded with frustration.”

Professed: publicly declared

Corroborate: confirm; support with evidence

Deplorable: terrible

Adulterated: altered (in a bad way)

Comprehension Questions

1. Why was Roosevelt originally skeptical of Sinclair’s claims?
2. According to this document, who seems to be responsible for the reforms to food safety laws in the United States?
3. What was the original purpose of Sinclair’s novel?

Responding to Open-Response Questions using the C-E-R Method

Before you write...what is the question asking?

- Read the question carefully
- Circle or underline key words in the questions
- Restate the question in your own words



Claim

Your concise answer to the question. The rest of your response should PROVE your claim.



Evidence

This includes a direct quotation or a paraphrased detail from the text that **PROVES** your claim is correct. You need to **CITE** your evidence.



Reasoning

You need to **EXPLAIN** in your own words how your evidence proves that your claim is correct.

Sentence starters for introducing evidence

These sentence starters can help you introduce your text evidence:

- **The author stated...** *"insert direct quotation" (citation).*
- **According to the text...** *"insert direct quotation" (citation).*
- **In the text it stated...** *"insert direct quotation" (citation).*
- **This example provides evidence that...** *"insert direct quotation" (citation).*
- **An example is...** *"insert direct quotation" (citation).*
- **The graphic showed...** *(insert explanation of graphic) (citation).*
- **The illustration showed...** *(insert explanation of illustration) (citation).*

Sentence starters for reasoning

These sentence starters can help you begin your reasoning:

- **This shows...**
- **This means...**
- **This reveals...**
- **This expresses the idea...**
- **This implies...**
- **This suggests...**
- **This confirms...**
- **This highlights the difference between...**
- **The author's point is that...**
- **This example proves that...**



Name: _____

Compelling question: Would the food regulation laws of the early 20th century have happened without the publication of *The Jungle*?

Directions: Based on the documents you’ve reviewed (both from the Hygienic Table Trials and the investigation into *The Jungle*, write a response to the compelling question. Your response should include a minimum of three pieces of evidence from the documents your group read. You may use a document twice, but you should cite a different part of the document each time.

Claim: A claim is a statement that answers the question. It will usually only be one sentence in length. The claim does not include any explanation, reasoning, or evidence so it should not include any transition words such as “because.”

Evidence: The evidence is the data used to support the claim. It can be either quantitative or qualitative depending on the question. The evidence should be a direct quote or paraphrase from one of the sources. Don’t forget to include a citation!

Evidence #1	Evidence #2	Evidence #3

Reasoning: The reasoning is the explanation of “why and how” the evidence supports the claim. This is written in your own words.

Reasoning #1	Reasoning #2	Reasoning #3

Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neil-Reynolds Report (Sinclair)?
Source 3D	Food Safety Timeline ANSWER KEY
<i>See list of references on page 2</i>	

What do you notice about the amount of change (and the speed of that change surrounding food reform) before *The Jungle* was published compared to after?

There had been studies and complaints for years, but change happened quickly after Upton Sinclair published The Jungle.



Supporting question 3	What did the US Government do with the evidence from the Hygienic Table Trials (Wiley) and the Neill-Reynolds Report (Sinclair)?
Source 3E	Excerpt from “Progressivism in the White House”
Corbett, P. S., Janssen, V., Lund, J. M., Pfannestiel, T., Waskiewicz, S., & Vickery, P. (2014). 21.4 Progressivism in the White House. In <i>U.S. History</i> . OpenStax. https://openstax.org/books/us-history/pages/1-introduction	

Comprehension Questions **ANSWER KEY**

1. Why was Roosevelt originally skeptical of Sinclair’s claims?

Roosevelt was distrustful of Sinclair’s socialist leanings.

2. According to this document, who seems to be responsible for the reforms to food safety laws in the United States?

*Theodore Roosevelt (with help from *The Jungle* and Upton Sinclair)*

3. What was the original purpose of Sinclair’s novel?

To draw attention to the plight of immigrant workers in the meatpacking industry