

## Lesson Three: The War at Home and School

### Objectives:

Students will learn how everyday life at home, school, and work, was affected by World War II. They will have the opportunity to understand rationing, scrap metal drives, and Victory Gardens, using a combination of math, science, and history lessons.

**Materials:** *The Rules of Rationing*; *Necessity is the Mother of Invention*; *Rationing on Main Street Resource Packet* and *Game Board* (print both on legal paper); *What is a Victory Garden?*; *Building Your Terrarium* (see worksheet for materials list); *Victory Garden Scientific Log*; *Driving to Win: Collecting Scrap and Buying Bonds*; *Student Scrap Collectors*; graph paper; *Buy Bonds Today!*; *Scientific Vocabulary*; *War Bond Booklet*; *Lesson Three Quiz*.

### Procedures:

#### Activity One: “Do with less, so they’ll have more”

1. Distribute *The Rules of Rationing* to your class. Lead a discussion about what rationing is, why it was important during World War II, and the various types of rationing imposed.
2. Next, divide students into groups of three or four and distribute *Necessity is the Mother of Invention*. Working as a team, have them identify the impact rationed items would have on their lives today and brainstorm solutions to cope with their loss. Allow groups the chance to share their solutions with the class.
3. Play *Rationing on Main Street* using the game board and other materials found in the *Resource Packet* (print both on legal paper).

#### Activity Two: Victory Gardens

1. Distribute the *What is a Victory Garden?* worksheet to your class. Discuss with your students the importance of Victory Gardens to the war effort. Is this type of gardening still popular? Why or why not? Should it be?
2. Prepare students to plant their own Victory Garden with the *Building Your Terrarium* worksheet. Discuss the procedure for building a terrarium. Have students determine what seeds they will plant.
3. Distribute the *Victory Garden Scientific Log*. Have students decide on the title, purpose, and hypothesis of their experiment. If they are designing their own experiment (see *Building Your Terrarium*), have students fill in the details of their design in the procedures section.

#### Activity Three: Schools at War

1. Distribute *Driving to Win: Collecting Scrap and Buying Bonds* to your class. Discuss with students the scale to which Americans, young people included, worked towards collecting scrap metal and other products and sold war bonds or stamps to help the war effort. What sort of impact did this have on their everyday lives?
2. Distribute *Student Scrap Collectors* and/or *Buy Bonds Today!* to your class and determine the mathematical impact of scrap metal drives and war bonds on the war effort.

### Extension Activities:

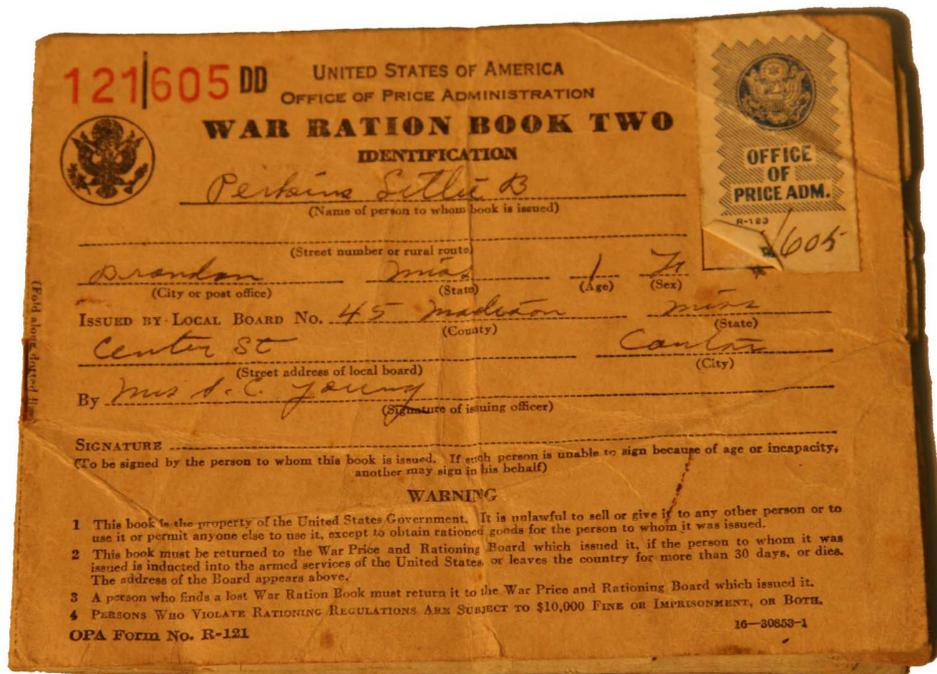
**Scientific Vocabulary:** Use the *Scientific Vocabulary* worksheet to help students learn new words related to science and experimentation.

**Stamp Collectors:** Distribute a *War Bond Booklet* to each student and allow them to purchase or earn stamps to achieve a decided goal. Stamps may be sold by the teacher for 25 cents each (with the monies going to a predetermined charity or special class event) or students may earn stamps with actions such as cleaning up the classroom after a messy activity, showing an act of kindness to a fellow student, or turning in their homework before its due date. When a student has collected \$18.75 worth of stamps (75 stamps total) they may cash in their War Bond for a prize such as comic books, posters, etc.

## The Rules of Rationing

War puts significant strain on a country's normal economy and often diverts resources to build up and maintain a strong fighting force. During World War II this was especially true as millions of new soldiers needed uniforms, equipment, and food. Fuel for transporting the troops and supplies was also needed on a large scale. Consequently, Americans on the home front had to make do with less. Rationing was a method used by the government to ensure that everyone got their fair share of goods for a fair price.

Many food items were rationed including sugar, coffee, meat, and cheese. Canned vegetables were also rationed, not only because they helped feed servicemen and women but because their tin cans were needed to build military equipment. Gas was also rationed in limited amounts to civilians because it was needed to transport servicemen, equipment, food, and support military operations. On the home front, Americans began taking buses, car pooling, and giving up long-distance road trips.



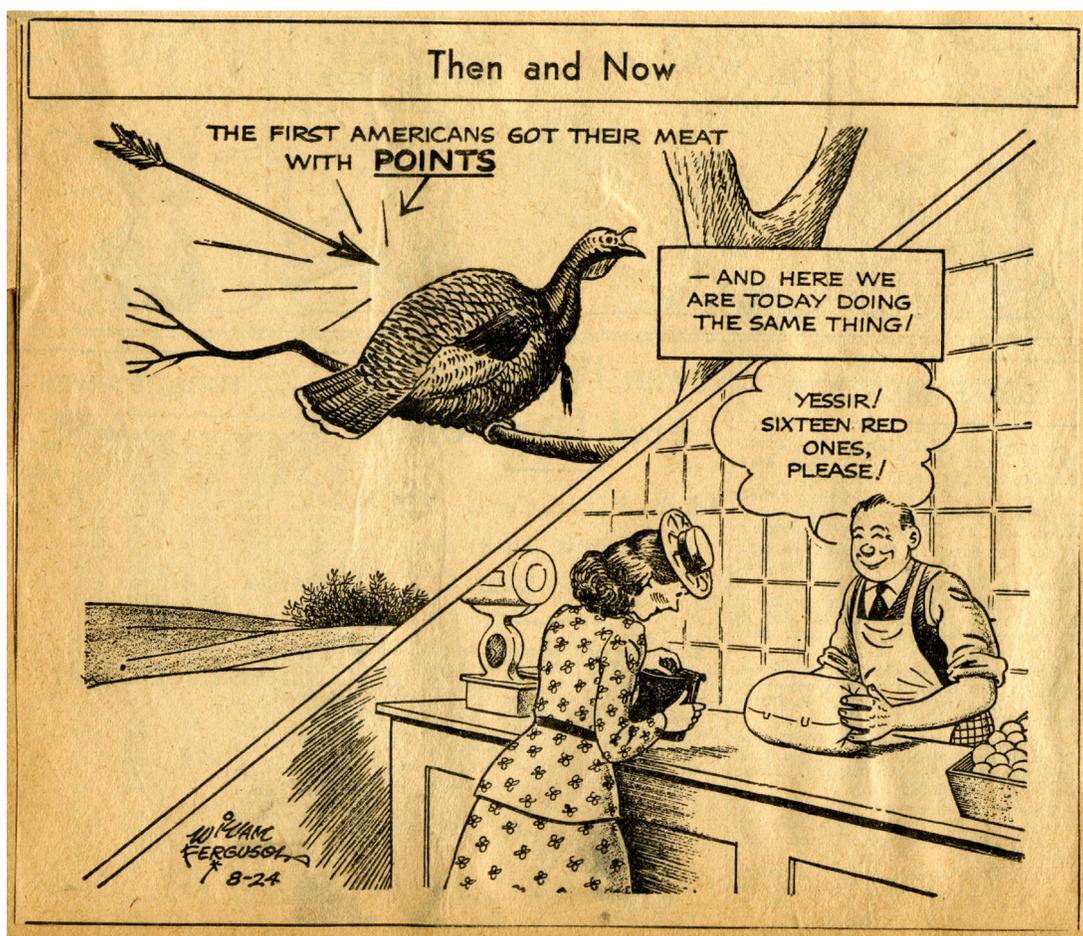
MDAH Museum Division Collections.

The rules of rationing were complex. Everyone (even babies!) were issued a ration book that detailed how much of each rationed item they were entitled to at any given time. When people went into a store to make a purchase, they had to detach the appropriate ration coupon from their book and give it to the cashier (along with their money) in order to receive the item.

There were several different types of rationing in effect during the course of the war. They included:

- **Point Rationing** was used for meat and processed foods. Each consumer was given a set amount of points that they could spend on any meat or processed food item. But people had to shop early because there were only so many of these items available. Some items, such as meat, would have necessitated a consumer waiting in line to make a purchase and possibly being disappointed when they reached the counter.

- **Uniform Coupon Rationing** was used for sugar and shoes. These ration coupons gave each American the same amount of sugar that was meant to last a specific length of time.
- **Differential Coupon Rationing** was used for gasoline and fuel oil. Gas was one commodity that was required in different amounts by different people and a separate system of rationing was created to accommodate it. For example, individuals who were doctors, had to commute to a war production factory, or taught in a rural school were entitled to more gasoline than people who could walk to work.
- **Certificates** were used for special, single item purchases such as tires, typewriters, and stoves. To gain a certificate, an applicant had to meet certain standards of eligibility before purchasing the item.



*Image courtesy of Mike Allard.*

To supplement their rations, Americans got creative. Many adopted the mottoes “Do with less, so they’ll have more” or “Use it up, wear it out, make it do.” This included mending and re-styling old clothes (a popular form of patriotism for men because it made women’s skirts shorter); women using eyeliner to draw a stocking seam on the back of their legs in the absence of silk stockings; and planting Victory Gardens to gain access to fresh fruit and vegetables and then canning the surplus for later use.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## *Necessity is the Mother of Invention*

*Below is a list of some of the items that were rationed during World War II. Imagine these items were rationed today. Write the impact their loss or reduction would have on your daily life and then write a solution for coping with their loss.*

<b>Rationed Item</b>	<b>World War II Military Use</b>	<b>Today's Daily Impact</b>	<b>World War II Solution or Substitution</b>	<b>Today's Solution or Substitution</b>
<b>Gas</b>	Transport troops and supplies			
<b>Rubber</b>	Gas masks, life rafts, Jeeps, airplanes			
<b>Butter</b>	Feed the troops			
<b>Copper</b>	The copper was used in assault wire that allowed telephone communication on the front lines			
<b>Zippers</b>	Military uniforms and gear			
<b>Metal</b>	Tanks, machine guns, ammunition cartridges			
<b>Nylon</b>	Parachutes, tents, ponchos, tires, ropes			
<b>Meat</b>	Feed the troops			
<b>Sugar</b>	Chocolate and chewing gum (found in K rations provided to servicemen on the front lines). It was also used in the production of gunpowder, dynamite, and other chemical products.			
<b>Coffee</b>	Feed the troops			
<b>Silk</b>	Parachutes, powder sacks (silk left no residue inside gun barrels), crosshairs of gunsights			
<b>Shoes</b>	Military uniforms			

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## *Necessity is the Mother of Invention* **Answer Key**

*Below is a list of some of the items that were rationed during World War II. Imagine these items were rationed today. Write the impact their loss or reduction would have on your daily life and then write a solution for coping with their loss.*

<b>Rationed Item</b>	<b>World War II Military Use</b>	<b>Today's Daily Impact</b>	<b>World War II Solution or Substitution</b>	<b>Today's Solution or Substitution</b>
<b>Gas</b>	Transport troops and supplies	Can't drive as often as I would like; can't drive by myself.	Public transportation; ride a bike or walk; start a car pool.	Public transportation; ride a bike or walk; start a car pool; solar powered car.
<b>Rubber</b>	Gas masks, life rafts, Jeeps, airplanes	Tires (for cars and bikes) are in shorter supply; rubber boots are unavailable.	Public transportation; ride a bike or walk; start a car pool.	Public transportation; ride a bike or walk; start a car pool.
<b>Butter</b>	Feed the troops	No butter for toast or muffins; fewer baked goods.	Margarine, shortening, lard.	Margarine, shortening, lard, oil.
<b>Copper</b>	The copper was used in assault wire that allowed telephone communication on the front lines	Money – pennies are made of copper.	In 1943 the U.S. Mint began making pennies out of steel to help conserve copper.	PVC instead of copper pipes.
<b>Zippers</b>	Military uniforms and gear	Jeans, jackets, backpacks, purses, and other clothing and accessories would be impacted.	Wooden Buttons.	Buttons, ties.
<b>Metal</b>	Tanks, machine guns, ammunition cartridges	Metal license plates disappeared.	Cardboard License Plates.	Plastics.
<b>Nylon</b>	Parachutes, tents, ponchos, tires, ropes	Little access to nylon stockings.	Women would paint their legs with makeup and use eyeliner to draw a stocking seam up the back of their legs.	Leggings, knit stockings, pants.
<b>Meat</b>	Feed the troops	Less roasts, hams, turkeys, and chickens; less deli meat for sandwiches.	"Meatless Monday"	Fish, tofu.
<b>Sugar</b>	Chocolate and chewing gum (found in K rations provided to servicemen on the front lines). It was also used in the production of gunpowder, dynamite, and other chemical products.	Fewer sweets; less sweetener for drinks such as tea and coffee.	Saccharin, corn syrup, honey, molasses; for special treats (such as birthday cakes) bakers had to save up several weeks worth of sugar rations.	Artificial sweeteners.
<b>Coffee</b>	Feed the troops	People can't get their morning jolt; coffee shop business declines.	Potsum, an instant coffee drink made of roasted grains and meant to taste like coffee.	Instant coffee, tea, hot chocolate.
<b>Silk</b>	Parachutes, powder sacks (silk left no residue inside gun barrels), crosshairs of gunsights	Little access to silk stockings, silk party or prom dresses, and wedding dresses.	Women would paint their legs with makeup and use eyeliner to draw a stocking seam up the back of their legs; reuse and re-cut old garments for special events.	Synthetic fabrics.
<b>Shoes</b>	Military uniforms	Lack of brand new shoes on a regular basis.	Resole old shoes; use hand-me-downs.	Resole old shoes; use hand-me-downs.

## What is a Victory Garden?

Victory Gardens became an important aspect of life on the home front during World War II. Rationing had been put in place to ensure that American troops overseas had all the food, medicine, and materials they needed to fight the war. But rationing also left those on the home front with fewer resources than they had had in the past. One way to combat a lack of fruit and vegetables was to grow your own and soon there were over twenty million Victory Gardens planted across the United States. These appeared in the yards of private homes, the window boxes of tiny apartments, the rooftops of city buildings, and the grounds of schools and other public areas. By 1944 forty percent of all vegetables grown in the United States came from Victory Gardens. Not only did Victory Gardens provide an important necessity of daily life, but they helped boost the morale of people on the home front by helping them feel that they were supporting the war effort and helping to bring their own loved ones back home.

He'd never seen a plane. He was that war's horrors come not again soon flying, and later transferred in our time, or any other time.



### VICTORY GARDENS

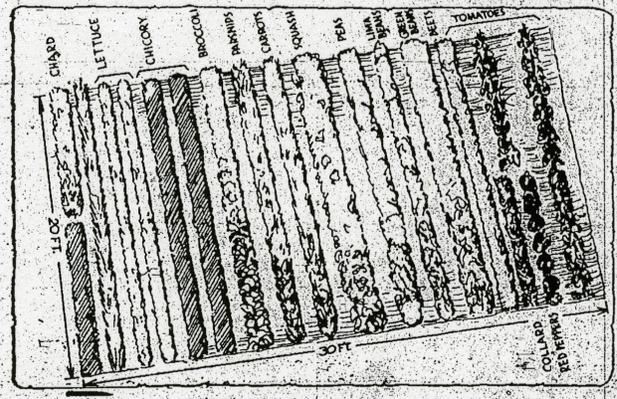
America needs millions of Victory gardens in 1943. It must have at least 12 million city and town gardens. This is because one-fourth of all foods now go to the armed forces, and other United Nations.

You can help win the war by planting a Victory Garden. Keep the following in mind:

1. Obtain from the Jackson County extension agent or home demonstration agent information on amounts and kinds of vegetables needed for best nutrition of the family. They will be glad to give you this. These agents are located in their office building on Ker St. behind the Courthouse.
2. Draw a plan of your garden, preferably to scale, showing location of each row and the distance between rows, as well as planting dates.
3. Co-operate with others in your locality in buying seed, tools and supplies. Seed is more economical purchased this way, as are fertilizers and insecticides. A single set of tools can

serve a number of gardens.

4. If you have any doubts about your soil, consult the county agent. He will tell you the kind of fertilizer it needs.
5. If possible choose a site which is reasonably level and well exposed to sun and air movement.
6. Find out lime requirement of your soil and apply it. For soils with a considerable lime requirement, it is the cheapest fertilizer.
7. Clean up rubbish and especially any large, thick-stemmed weeds which may be present in or near your garden. This step will reduce the population of certain pests this Summer.
8. Spade or plow your garden deeply and well, incorporating any organic matter or humus-making material into the soil.
9. Plant straight rows, using a stretched string for accuracy. Mark distances carefully and observe proper planting depths. Keep ahead of the weeds and insect pests.
10. Water if possible when the soil becomes dry, applying enough



An ideal layout for a Victory Garden, 20 x 30 feet, is shown in the sketch above.

Ingalls News, vol. 1, no. 29, Thursday, February 25, 1943. MDAH Archives and Records Services. Used with the permission of Ingalls Shipbuilding.

## Early Season V-Gardening

### Red Cross Points Out Common Hazards of Vigorous Outdoor Work

WASHINGTON, D. C. — To America's victory gardeners, the Accident Prevention Service of the Red Cross offers suggestions on how to avoid more common gardening hazards.

Blistered hands, strained and aching back and shoulder muscles, sunburn, ruptures, tetanus and lockjaw infection are potential gardening hazards which can be avoided with a little thought and planning, the Red Cross pointed out.

Correct gardening clothes are important. They should include comfortable, roomy clothes that allow freedom of action, sturdy flat-heeled shoes, a wide-brimmed hat for protection from the sun, and gloves.

Blisters, which can be a source of serious infection as well as annoying and painful, can be avoided by wearing gloves to protect hands unhardened to the rigors of outdoor work. Finger rings should be removed. All cuts, abrasions and breaks in the skin, no matter how minor, should be given first aid at once, the Red Cross warned. Tetanus and lockjaw germs lurk in gardens, especially when manure has been used.

Back and shoulder strain may result from bending over or working too long at a stretch. Ruptures and severe back injuries may result from improperly lifting heavy objects. Be sure to bend knees, keep back straight, and use leg, shoulder and back muscles when lifting heavy objects.

Work periods should be short at the beginning of the season, and gradually increased as the gardener becomes accustomed to exposure in the sun and the exertions of gardening.

American Red Cross New Service, no. 145. MDAH Archives and Records Services.

## ***Building Your Terrarium***

**Materials:** One 2-liter plastic bottle per student; scissors; rocks, pebbles, or activated charcoal; potting soil; seeds of your choice (see notes below); marker; ruler; popsicle sticks; tape; *Victory Garden Scientific Log*.

### **Use the following directions to build your terrarium:**

1. Cut the 2-liter bottle into two parts, about 5 inches above the bottom of the bottle.
2. Place several rocks, pebbles, or pieces of activated charcoal in the base of the bottle to allow water drainage.
3. Fill the base of the bottle with potting soil.
4. Plant seeds. Remember that too many seeds placed too closely together will compete with each other for resources and not grow properly. Six seeds or less are enough for this size terrarium.
5. Use a ruler and a permanent marker to mark measurements on a popsicle stick. One inch above its base draw a line and label it “zero.” Make additional lines and labels at the 1, 2, 3, etc. centimeter marks.
6. Place popsicle stick in bottle with its “zero” label at the soil level.
7. Add water.
8. Slide the top of the bottle back onto the base. Tape the two pieces together. Ensure that the bottlecap is secure. If the cap is missing, tightly seal the opening with tape.
9. Place in desired location to await germination. Follow directions on back of seed packet to place in correct lighting.
10. Use the *Victory Garden Scientific Log* to take regular measurements and make observations about the plants as they grow.

**Design your own experiment!** What’s better for plants: water or kool-aid? Twelve hours of sunlight or 24-hours of darkness? Living inside or living outside? Being in the ground or being in a pot? Have students determine what they want to know about plant growth, write a hypothesis, design an experiment, and find out the answer. Designate a control plant (Plant A) that is grown according to seed packet instructions to compare with the student-designed experiment plant (Plant B).

### **Notes for the Teacher:**

**Choice of seeds:** The MDAH Education Staff tested a variety of vegetable seeds for this unit. The quickest to germinate were radishes, which sprouted within 24-hours. Students could observe these on a daily basis and see noticeable change. Others that provided quick results were beans, basil, lettuce, and pumpkins which would offer excellent every-other-day observations. Tomatoes, peas, peppers, and chives took longer to sprout and would be best observed on a weekly basis. Within several weeks of germinating, the plants will need to be transplanted. At this point, they can be sent home with students or added to a school or local community garden.

**Harvesting your produce:** The MDAH Education Staff was most successful with its basil, radishes, lettuce, tomatoes and especially its beans and peppers. Be prepared to wait a longer period of time from planting to harvest than is notated on the back of seed packets.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## *Victory Garden Scientific Log*

Title of Experiment: \_\_\_\_\_

Name of Lead Scientist: \_\_\_\_\_

Experiment Start Date: \_\_\_\_\_

Purpose of Experiment: \_\_\_\_\_

Hypothesis: I think that \_\_\_\_\_

because \_\_\_\_\_

\_\_\_\_\_

### **Procedures Followed:**

1. Terrarium Constructed.
2. Type and number of seeds planted: \_\_\_\_\_
3. Amount of water provided: \_\_\_\_\_
4. Location of terrarium: \_\_\_\_\_
5. Special Instructions (includes frequency of watering, changes in light or temperature conditions, or any additional variables):



## **Data Interpretation:**

*Interpret your data using one of the following methods:*

**Graphing:** Using a sheet of graph paper, make a line graph showing the daily/weekly growth of your plant. If testing two variables (such as one plant with water and one without), create a bar graph showing the daily/weekly growth of the plants.

**Ratios:** Determine how many seeds germinated compared to those that did not germinate. Find the ratio of your terrarium and then the median ratio of those in the whole class.

## **Conclusion:**

*Write a conclusion summarizing what you have learned from your experiment. It should include the following:*

- A restatement of your purpose and hypothesis.
- An explanation of how you conducted your experiment and any problems you encountered.
- A summary of your results and any surprises they may have offered.
- A decision on whether your hypothesis was correct or incorrect and why or why not.
- What your next steps or future experiment would seek to clarify.
- Changes you would make to the experiment in the future.

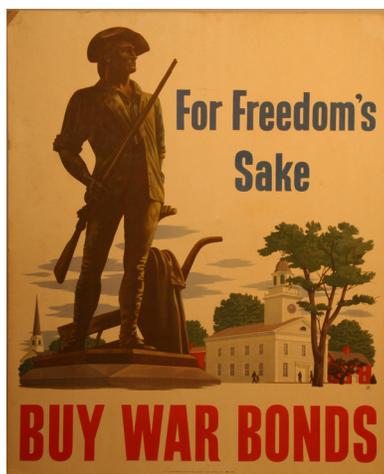
## *Driving to Win: Collecting Scrap and Buying Bonds*

World War II wasn't just a war fought on battlefields far away; it was also a war fought at home by every man, woman, and child who stayed behind. And there were plenty of ways for even the youngest citizens to contribute to the war effort. Two common ways were by collecting scrap and buying and selling war bonds and stamps.

Many different types of scrap and waste were collected for a variety of purposes. For example, thirty used lipstick cases could make twenty ammunition cartridges and 2,300 pairs of nylon stockings could make one parachute. Metal scrap drives were especially popular with schools, scout troops, businesses, and other community organizations and collecting scrap metal from garbage dumps and back alleyways was an adventurous way for children to make a contribution. Even the tin foil wrappers of bubble gum were saved and turned in for scrap! In addition to salvaging dumped or forgotten materials children also made sacrifices to provide it, including dismantling old cars and donating playground equipment.



*Scrap Drive at the Chinese Mission School, Cleveland, October 27, 194-. Money raised was donated to the Red Cross. MDAH Archives and Records Services.*



*War Bond Poster, 1943. MDAH Museum Division Collections.*

Many schools also promoted war bond drives, opportunities for citizens to pay \$18.75 for a war bond which in ten years would be worth \$25.00. In the meantime it would help purchase uniforms, air planes, medicine, food, and other supplies for the military. For many parents, a war bond was not only an investment in their country, but a nest egg so that after the war they could purchase a new home or send their children off to college. Stamps were particularly popular with young people. For twenty-five cents, they could purchase a stamp, put it in a War Bond Booklet, and once they had seventy-five stamps (\$18.75), they could cash it in for a war bond. By the end of the war, over 85 million Americans had purchased approximately \$185.7 billion worth of war bonds.



*Students at Jackson's Lanier High (left) and Meridian Senior High School (right) line up to purchase war bonds and stamps at their respective schools. MDAH Archives and Records Services.*

The Schools-at-War Program (sponsored by the War Savings Staff of the U.S. Treasury Department, the U.S. Office of Education and its Wartime Commission) encouraged schools across the country to record their war work. The Mississippi Department of Archives and History has eight of these scrapbooks from schools across the state which detail events such as scrap metal drives and war bond sales, but also Red Cross training, physical fitness efforts, and the progress of school Victory Gardens. Many of the scrapbooks also include clippings from the school newspaper about wartime life and poems, essays, and artwork illustrating the importance of supporting the war effort.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

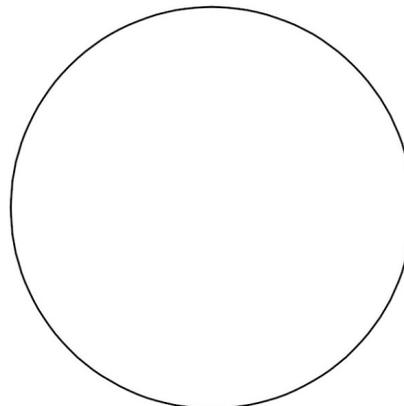
## Student Scrap Collectors

Part 1: Use the table below to answer the following questions. Add your answers to the table as you find them.

Macon Elementary and High School Scrap Metal Collection Drive, November 2-18, 1942

Grade	Pounds Collected	Percent Collected	Number of Degrees
1	1,170		
2	5,300		
3	6,736		
4	9,442		
5	6,309		
6	7,791		
7	4,470		
8	10,854		
9	5,330		
10	210		
11	4,040		
12	1,810		
<b>Total</b>			

1. What was the total amount of scrap metal collected by Macon students?
2. Determine the percentage of scrap metal that each grade level collected using the following formula:  
$$(\text{Pounds Collected} / \text{Total Scrap Collected}) \times 100 = \text{Percent Collected}$$
3. Turn your information into a pie chart.
  - a. First, determine the number of degrees of each pie slice using the following formula (remember, a circle is 360 degrees):  
$$(\text{Pounds Collected} / \text{Total Scrap Collected}) \times 360 = \text{Number of Degrees}$$
  - b. Use the circle and a protractor to measure the degrees of each pie slice.



*Part 2: Use the table below to answer the following questions.*

School	Enrollment	Community Size	Pounds of Scrap Collected
<b>Macon Elementary and High School</b> Macon, MS	586	2,261	63,462
<b>Chinese Mission School</b> Cleveland, MS	36	4,000	6,000
<b>St. Mary's</b> Vicksburg, MS	465	24,460	6,750
<b>The Home Nursing Squad, Ruleville School</b> Ruleville, MS	14	1,378	5,745
<b>The Airplane Modeling Club, Ruleville School</b> Ruleville, MS	?	1,378	1,150
<b>Total Scrap Collected</b>	-----	-----	83,107

1. Use the table above and a sheet of graph paper to create a scatter plot graph showing the relationship between the amounts of scrap metal collected by each school or club and the size of their community (where the collection was made).
2. Which school or club collected the most scrap metal? Which collected the least?
3. Which school or club collected the most scrap metal per student?
4. Why do you think some schools or clubs were able to collect more or less than others? Does community size or geographic location impact the amount of scrap metal collected?

**Part 3: Use the table from Part 2 and the table below to answer the following questions.**

Type of Scrap	Yields
30,000 razor blades	50 .30-caliber machine guns
2,500 tons of tin and 190,000 tons of steel	5,000 tanks
30 lipstick cases	20 ammunition cartridges
2,300 pair of nylons	1 parachute
3 pounds of fat	3 pounds of gunpowder
18 tons metal (36,000 pounds)	1 tank
900 tons metal (900,000 pounds)	1 ship

1. The schools and clubs in **Part 2** collected a total of 83,107 pounds of scrap metal. If all the metal collected was used to make tanks, how many tanks could be built?
2. Suppose it took the schools and clubs in **Part 2** one year to collect their scrap metal. How many years would it take for them to have enough scrap to build one ship?
3. a. Find the average amount of scrap collected by the schools and clubs in **Part 2**.  
  
b. If every school collected the average amount of scrap in one year, how many schools would it take to build a ship?

**Part 4: Consider one of the following topics and write a one-page paper with your response. Support your position with researched facts.**

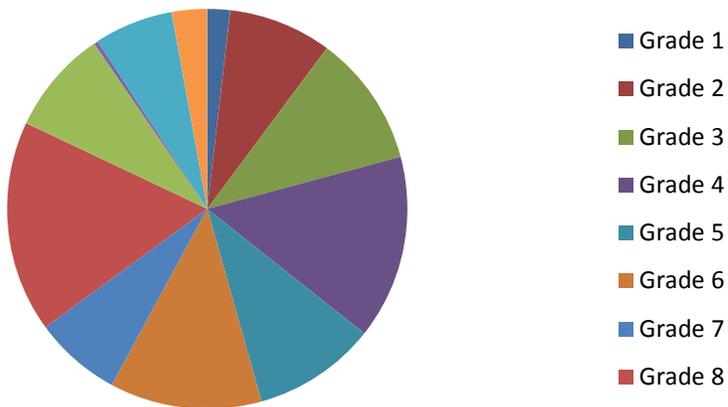
1. What program today is similar to the scrap metal drives (and scrap and waste collections) of the World War II era? How are these initiatives the same? How are they different? Do they have the same amount of support or has one made a bigger impact than the other?
2. A wide variety of scrap collected during World War II was intended to be remade into essential military supplies, such as tanks, helmets, and ammunition. What materials are recyclable today? What products do they make?
3. During World War II all citizens made contributions to scrap drives, oftentimes making sacrifices of valued, but non-essential metals found in playground equipment, car bumpers, and even memorials and monuments. Imagine you were asked to do the same. What would you give up? What could you not bear to part with? What are your justifications for not contributing certain items?

## Student Scrap Collectors *Answer Key*

### Part 1:

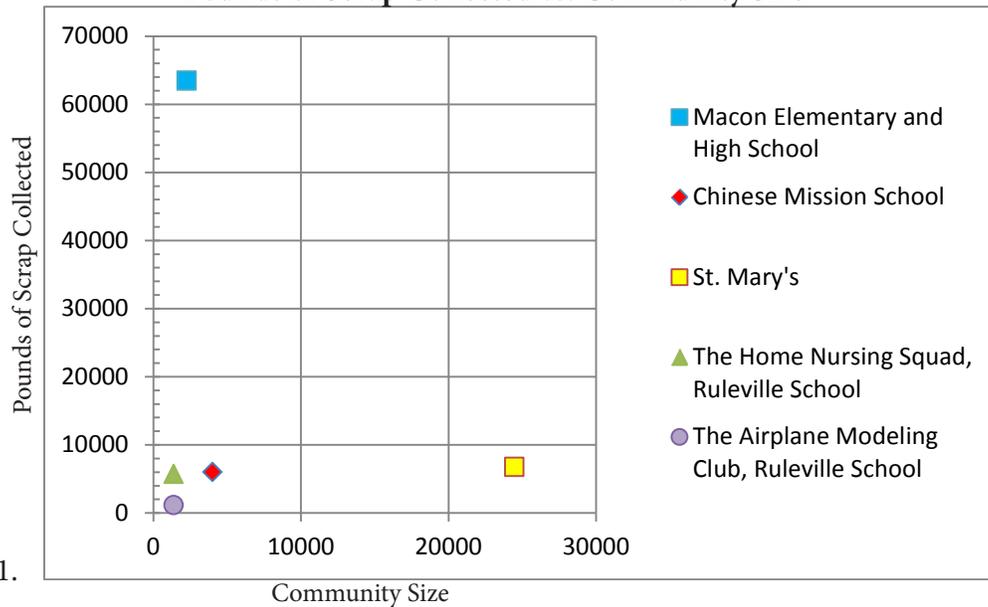
Grade	Pounds Collected	Percent Collected	Number of Degrees
1	1,170	1.84	6.64
2	5,300	8.35	30.07
3	6,736	10.61	38.21
4	9,442	14.88	53.56
5	6,309	9.94	35.79
6	7,791	12.28	44.20
7	4,470	7.04	25.36
8	10,854	17.10	61.57
9	5,330	8.40	30.24
10	210	0.33	1.19
11	4,040	6.37	22.92
12	1,810	2.85	10.27
<b>Total</b>	<b>63,462</b>	<b>99.99</b>	<b>360.02</b>

**Macon Schools Scrap Metal Collection Drive,  
November 2-18, 1942**



**Part 2:**

**Pounds of Scrap Collected vs. Community Size**



1.

2. The Macon Elementary and High School collected the most (63,462 pounds); the Airplane Modeling Club at Ruleville School collected the least (1,150 pounds).

3. The Home Nursing Squad at Ruleville School.  
 $5,745 \text{ pounds} / 14 \text{ students} = 410.36 \text{ pounds/student}$

4. Schools with small communities, such as Macon, may have been able to collect large amounts of scrap because of being located in rural communities where much of the scrap collected was salvaged from farms. This could also explain why the Chinese Mission School, with only 36 students, was also able to collect a substantial amount of scrap metal. Schools located in large cities, such as St. Mary's in Vicksburg, may not have had access to excess or "forgotten" metal scraps lying around. St. Mary's would also have been competing for their scrap metal with other schools or community groups who were also collecting.

**Part 3:**

1.  $83,107 / 36,000 = 2.31$  Two tanks could be built.

2.  $900,000 / 83,107 = 10.83$  years

3. a.  $63,462 + 6,000 + 6,750 + 5,745 + 1,150 = 83,107$   
 $83,107 / 5 = 16,621.4$  average pounds per school

b.  $900,000 / 16,621.4 = 55$  schools to build a ship in one year

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## ***Buy Bonds Today!***

*Use the table below to answer the following questions.*

School	Enrollment	Number of Teachers	Number of Grades	Community Size	Amount of Bonds and Stamps Sold
<b>Macon Elementary and High School Macon, MS</b>	586	?	12	2,261	\$10,967.15
<b>Chinese Mission School* Cleveland, MS</b>	36	3	11	4,000	\$1,200.10
<b>St. Mary's Vicksburg, MS</b>	465	10	10	24,460	\$340.55
<b>Monroe County Training School Amory, MS</b>	475	10	12	1,600	\$816.75
<b>Lanier High School Jackson, MS</b>	956	22	4	62,107	\$419.60
<b>Meridian Senior High-Junior College Meridian, MS</b>	651	35	4	45,000	\$8,282.00

\*The Chinese School also collected \$1,500.00 for the China Relief Fund.

- Ten \$18.75 war bonds could buy one life raft that could save the lives of ten men. How many life rafts could the students at St. Mary's purchase? How many men would that purchase save?
  
- One twenty-five cent war stamp could purchase film for an aerial photograph which was helpful in planning battles and saving lives. If all the money raised by the Monroe County Training School was spent on aerial film, how many photographs would it provide film for?
  
- Macon School's eighth grade class sold \$2,701.30 worth of war bonds and stamps.
  - What percentage of Macon Elementary and High School Schools did the eighth graders sell?

b. The eighth grade boasted that this \$2,701.30 could buy one of the following: 36 rifles, 2 jeeps, or 4460 steel helmets. Determine how much each of these products cost.

c. If you were a student at Macon, which product would you want your war bonds to buy? Explain your reasoning.

4. The table notes that in addition to supporting the American war effort with war bonds, the Chinese Mission School was also collecting money for another cause. What was it? Research the cause. Why would this group of students and their families have supported it? Based on your research, how would their money be used? Cite evidence from your research to support your inference.

## ***Buy Bonds Today! Answer Key***

1.  $\$340.55/\$18.75 = 18$  life rafts could be purchased  
18 life rafts x 10 men each = 180 men's lives saved
2.  $\$816.75/0.25$  cents = 3,267 aerial photographs
3. See below:
  - a.  $(\$2701.30/\$10967.15) \times 100 = 24.63\%$
  - b.  $\$2701.30/36$  rifles = \$75.04 cost per rifle  
 $\$2701.30/2$  jeeps = \$1,350.65 cost per jeep  
 $\$2701.30/4460$  helmets = 0.61 cents per helmet
  - c. Answers will vary.
4. The Second Sino-Japanese War lasted from 1937 to the end of World War II in 1945, when Japan surrendered unconditionally to China. But since the late 1930s the Japanese military had ravaged China, committing numerous war crimes and atrocities against the civilian population. Many of the children attending the Chinese Mission School had either just arrived themselves from China or were first or generation Americans. Thus, not only their cultural roots but also their family ties were still closely linked to other family members back in China. The money raised by Chinese relief organizations all over the world went towards a variety of purposes, including medical supplies, food, war materials, and weapons for the Chinese population fighting Japan.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## *Scientific Vocabulary*

*Use the list below to familiarize yourself with some new words that you will encounter while building your terrarium.*

**Conclusion:** to sum-up the outcome of an event or idea.

**Control:** a standard of comparison for checking or verifying the results of an experiment.

**Data:** facts or items of information.

**Experiment:** a test or trial to discover something unknown.

**Germinate:** to begin to grow or develop.

**Hypothesis/Theory:** a guess of what will occur.

**Independent Variable:** one aspect of an experiment that is manipulated in order to observe its relationship to the control.

**Observation:** to attentively watch.

**Procedure:** a specific course of action or steps.

**Purpose:** the reason to do something.

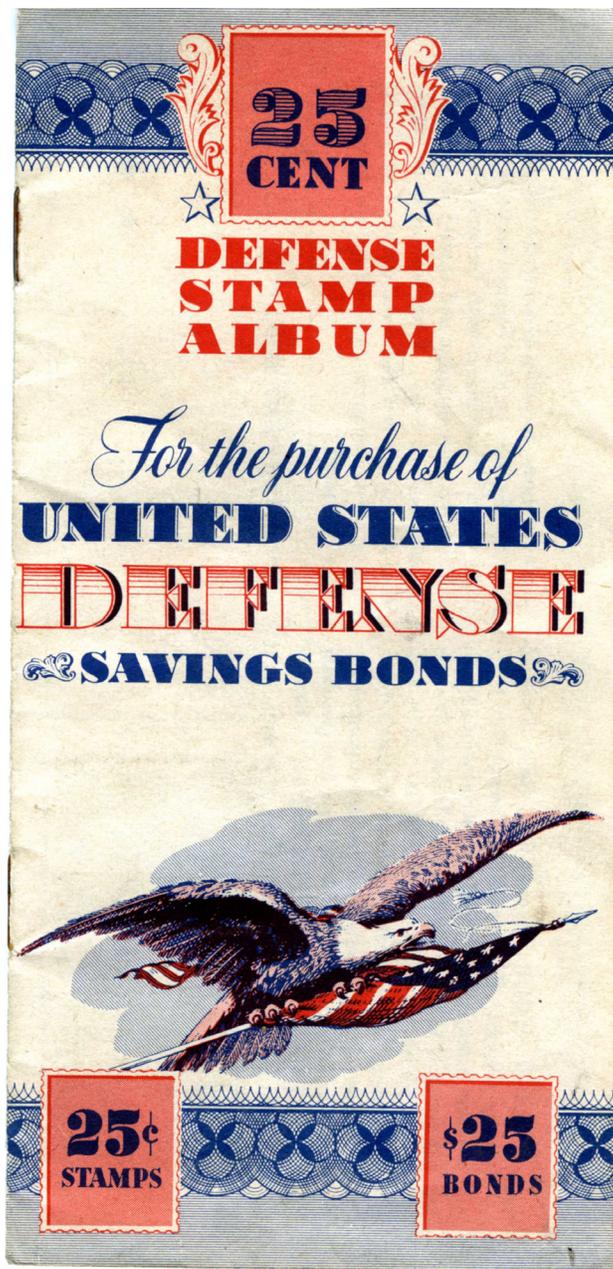
**Terrarium:** an enclosed container for growing plants under scientific observation.

**Variable:** factor or condition subject to change.

**Water Cycle:** The circle of the earth's water, where water evaporates from the oceans into the air, then returns to earth as rain or snow, and then returns to oceans by the rivers.

## War Bond Booklet

Using the War Bond Booklet below and on the following pages, collect \$18.75 worth of stamps (seventy-five stamps total). This may be done by purchasing stamps for twenty-five cents each (with the monies going to a predetermined charity or special class event) or by earning stamps with actions such as cleaning up the classroom after a messy activity, showing an act of kindness to a fellow student, or turning in their homework before its due date. When the book is completely filled, cash in your War Bond for a prize.



Images courtesy of Mike Allard.

**THIS IS YOUR Twenty-five Cent Defense Stamp Album.** Fill it with 75 Twenty-five Cent Defense Stamps, and it will have a value of \$18.75. Exchange it at the post office for a Defense Savings Bond which, after 10 years, will be worth \$25. Then start filling another Defense Stamp Album.

Defense Stamps are sold in five denominations—10c, 25c, 50c, \$1, and \$5. With your first purchase of any Defense Stamp, you are entitled to receive an Album for mounting that kind of Stamp.

Mount none but 25c Defense Stamps in this Album. Be sure to affix Stamps securely.

As you fill this Album with Defense Stamps it will rapidly grow in value and should be guarded against theft or loss. A precaution is to carry your Album in a self-addressed stamped envelope, with a written request on the envelope to return to you if found.

This Album is the property of—

Name . . . . .

★ ★ ★ Address . . . . . ★ ★ ★

City . . . . . State . . . . .



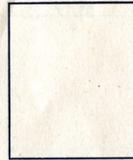
25c



50c



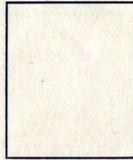
75c



\$1.00



\$1.25



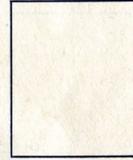
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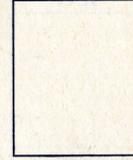
\$1.75



\$2.00



\$2.25



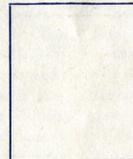
\$2.50



\$2.75



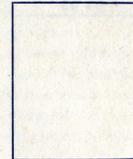
\$3.00



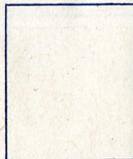
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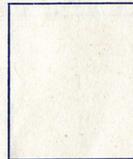
\$3.50



\$3.75



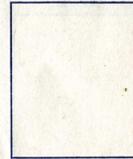
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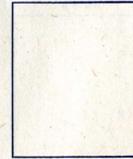
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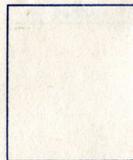
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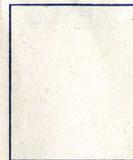
\$4.75



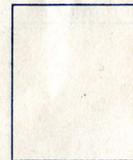
\$5.00



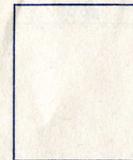
\$5.25



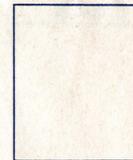
\$5.50



\$5.75



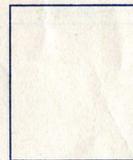
\$6.00



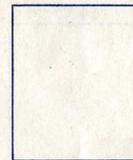
\$6.25



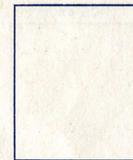
\$6.50



\$6.75



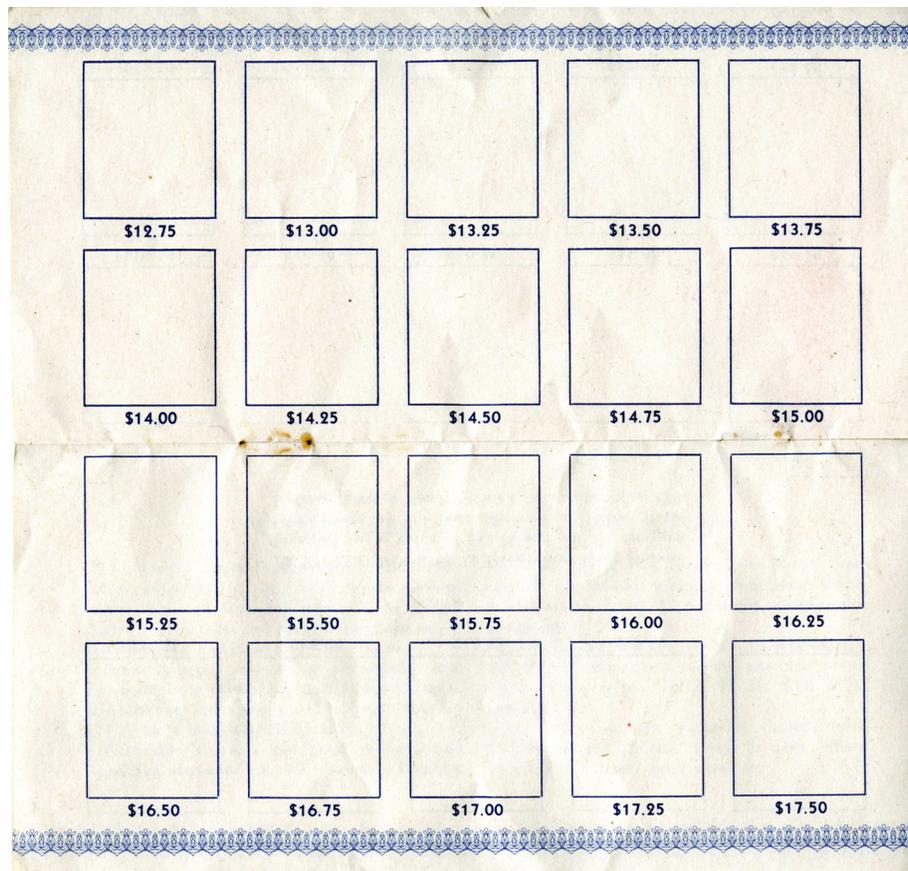
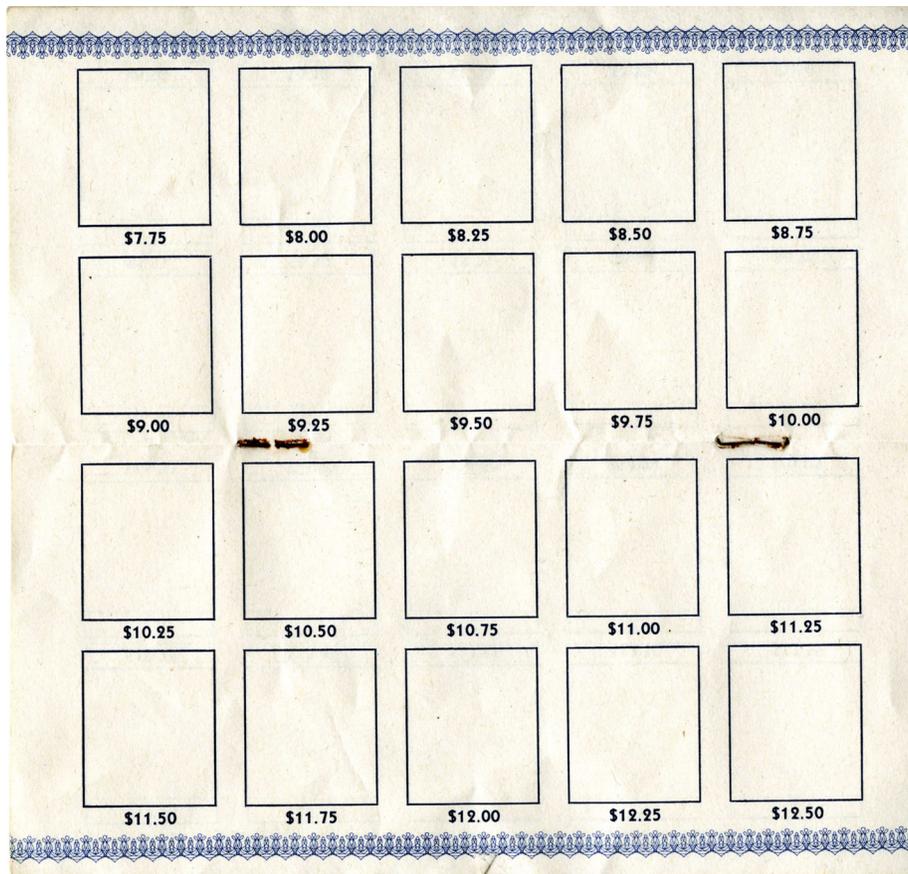
\$7.00



\$7.25

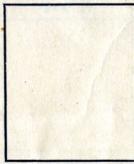


\$7.50





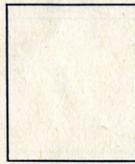
\$17.75



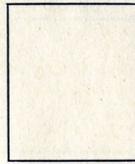
\$18.00



\$18.25



\$18.50



\$18.75

**A** FILLED BOOK of 75 Twenty-five Cent Defense Stamps, has a value of \$18.75 and will be accepted in exchange by the post office for a United States Defense Savings Bond, Series E, maturity value \$25.

### UNITED STATES DEFENSE SAVINGS BONDS

**A**LL United States Defense Savings Bonds are direct obligations of the United States Government. The full faith and credit of the United States Government are pledged for payment of both principal and interest on these bonds.

Series E bonds are sold on a discount basis. For example, instead of paying \$25 for a \$25 bond and receiving interest at stated intervals, you pay \$18.75 for a bond of \$25 maturity value.

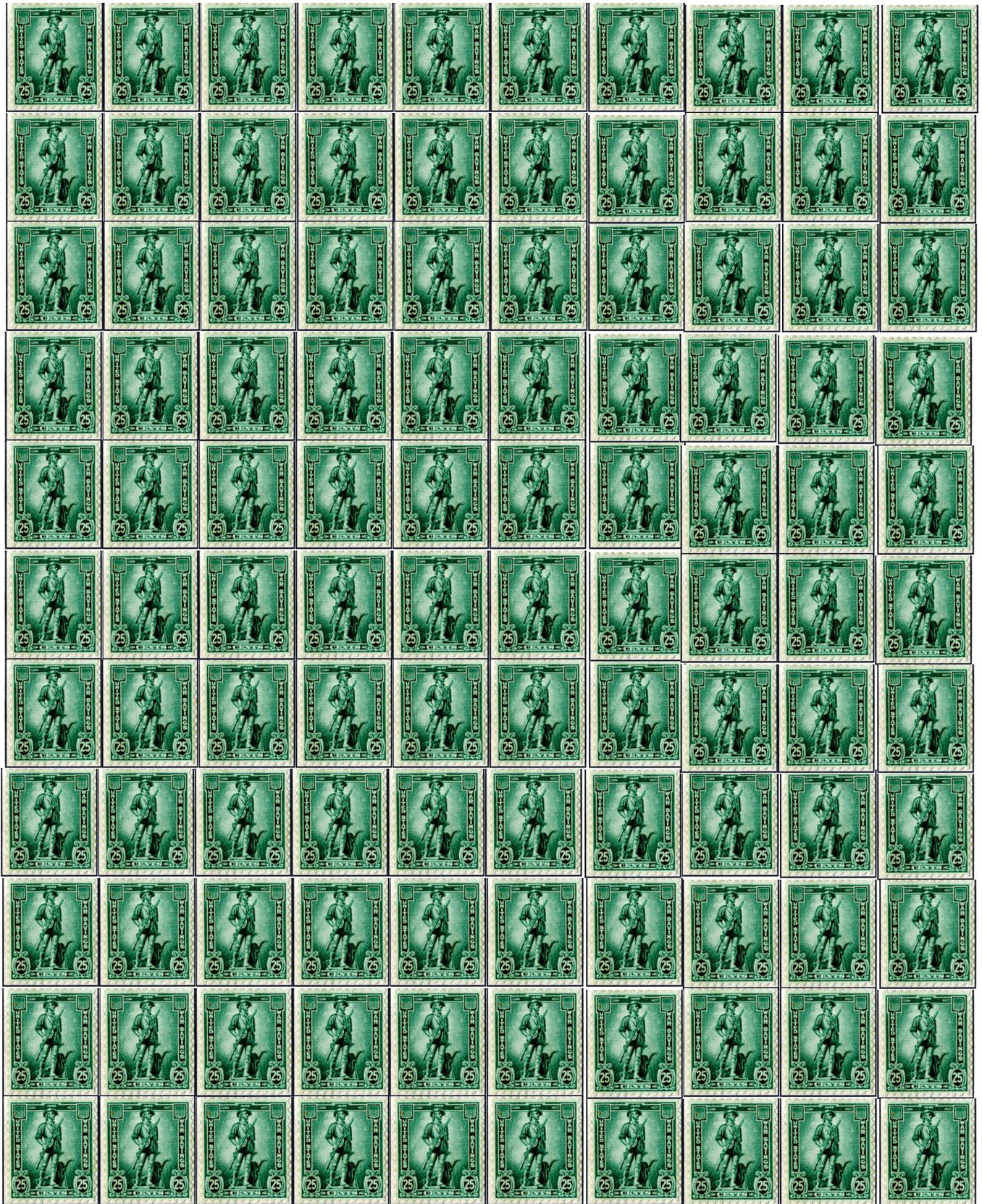
Held for 10 years the bond matures and upon due surrender you will receive a Treasury

check for \$25, a 33 1/4 percent increase on your original investment, which is equivalent to an annual interest rate of 2.9 percent compounded semiannually.

Series E bonds are issued in \$25, \$50, \$100, \$500, and \$1,000 denominations, the purchase prices being, respectively, \$18.75, \$37.50, \$75, \$375, and \$750.

For full particulars concerning United States Defense Savings Bonds, apply to post offices or other designated sales agencies.





NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

### ***Lesson Three Quiz: The War at Home and School***

***Choose the best answer from the multiple choice questions below.***

1. Rationing ensured that
  - a. everyone got their fair share
  - b. military troops were well supplied
  - c. a surplus of food and supplies was always available
  - d. a and b
  
2. Point rationing was used for
  - a. sugar and shoes
  - b. gasoline and fuel oil
  - c. meat and processed foods
  - d. fruits and vegetables
  
3. Certificates allowed Americans to purchase special items such as
  - a. tires
  - b. typewriters
  - c. stoves
  - d. all of the above
  
4. People could receive extra rations of gas if they worked in essential jobs such as
  - a. doctors
  - b. war production factories
  - c. rural school teachers
  - d. all of the above
  
5. By 1944, \_\_\_\_\_ of all vegetables in the United States came from Victory Gardens.
  - a. 30%
  - b. 40%
  - c. 50%
  - d. 60%
  
6. Victory Gardens popularized this form of food preservation during World War II.
  - a. freezing
  - b. drying
  - c. smoking
  - d. canning

7. The cost of a war bond was \_\_\_\_\_. In ten years it would be worth \$25.00.
  - a. \$15.75
  - b. \$17.85
  - c. \$18.75
  - d. \$20.00
  
8. Popular reasons for buying war bonds included
  - a. patriotism
  - b. nest egg
  - c. support the troops
  - d. all of the above
  
9. Scrap metal collecting was an especially popular pastime for \_\_\_\_\_ who wanted to help the war effort.
  - a. schoolchildren
  - b. prisoners of war
  - c. servicemen and women on leave from military duties
  - d. mothers
  
10. This program encouraged schoolchildren to participate in and record their war work.
  - a. YMCA
  - b. Schools-at-War
  - c. Boy and Girl Scouts
  - d. Department of Education

***Use a separate sheet of paper to complete the short answer questions below.***

1. Consider the system of rationing, its purposes and outcome. Was it an effective system? Why or why not?
2. Many inventions from the World War II era continue to impact us on a daily basis, including penicillin, nylon, duct tape, jeeps, radars, and computers. What is it about war that stimulates creative problem solving?
3. Do you think Victory Gardens had a larger impact on rural or metropolitan areas? Explain your reasoning.
4. American children during World War II were very involved in following wartime events and supporting the war effort. Do you think children today follow current events and express their opinions about them with the same enthusiasm? Why or why not?

*Lesson Three Quiz: The War at Home and School* **Answer Key**

1. D
2. C
3. D
4. D
5. B
6. D
7. C
8. D
9. A
10. B