

Dear LA 10 A Students,

Now, that you know all about life at Temima, I'm sure you are prepared for your summer reading. This summer, you will have assignments associated with reading *The Green Glass Sea* by Ellen Klages, and you will keep a journal throughout the summer.

The following pages include: information to get you started before you begin reading, your summer reading assignment (to be turned in during the first week of school), and your journal writing assignment.

Feel free to e-mail me at tnorman@temima.org throughout the summer with any questions you may have as you approach this work.

I hope you have a great summer and enjoy this novel and your journal writing.

Sincerely,

Mrs. Tova Norman

The Green Glass Sea: Before You Read

An introduction to the book: *The Green Glass Sea*

It is 1943, and 11-year-old Dewey Kerrigan is on a train to New Mexico, where she will live with her mathematician father. She doesn't know where in New Mexico, exactly; the corporal who took her to the station can't tell her. The war is going on, and so many things are secret.

Soon she arrives at a town that-officially-doesn't exist. It is called Los Alamos, and it is abuzz with activity, as famous scientists and mathematicians from all over America and Europe--Dewey's father among them--work on the biggest secret of all, something everyone only calls "the gadget." Over the next few years, Dewey gets to know those scientists, starts working on her own mechanical projects, and locks horns with Suze Gordon, a budding artist who is as much of a misfit as she is.

None of them--not J. Robert Oppenheimer, the director of the Manhattan Project; not the mathematicians and scientists; and least of all, Dewey and Suze--know how much "the gadget" is about to change their lives.

Historical Fiction: The *Green Glass Sea* is fiction; however, it is based on real people and places. The setting of the novel is Los Alamos. Read the summary below of Los Alamos's history written by the Los Alamos Historical Society. This can be a guide as you read.

Los Alamos Laboratory, known as Project Y, was conceived during the early part of World War II. The United States wanted to build an atomic explosive to counter the threat posed by the German nuclear development program. The term Manhattan Project came about because the program began under the Manhattan Engineering District of the War Department.

Gen. Leslie Groves, military head of the project, and Robert Oppenheimer, scientific director, wanted the top-secret project to take place in an area that was isolated yet still accessible, a place with an adequate water supply, a readily available labor force, and a moderate climate. At the same time, Oppenheimer envisioned a laboratory with a beautiful setting that would inspire his scientists. He wanted to bring researchers that were scattered at various universities across the country together to discuss all aspects of the project.

Contrary to a widely accepted myth, neither Oppenheimer nor Groves attend the [Los Alamos Ranch School](#). However, Percival C. Keith, a member of the planning board for the government's Office of Scientific Research and Development, as well as the father of two Los Alamos Ranch School summer campers, proved instrumental in making the recommendation for Los Alamos. Col. Whitney Ashbridge, a graduate of the school, later became commander of the Army Post for the Manhattan Project. Oppenheimer knew of Los Alamos because he had a ranch in the Sangre de Cristo Mountains and had spent time horseback riding in the Jemez.

After touring the site, officials felt the Ranch School buildings would supply adequate housing for the estimated 30 scientists who would work on the project. Little

did anyone at the time realize the town would grow to more than 6,000 residents during the war, causing constant shortages of housing and water, among other hardships.

New residents of Los Alamos rode the train into tiny Lamy, New Mexico, the nearest station to Santa Fe. Then they checked in at 109 East Palace Ave. in Santa Fe where Dorothy McKibbin would make arrangements for everything from their luggage and household goods to their passes that would get them into the Secret City. Next, it was a 35-mile trip to the northwest, one that could take up to four hours, depending on the conditions of the dusty or muddy arroyos and the steep, winding mountain road.

Physicists, chemists, metallurgists, explosive experts and military personnel converged on the isolated plateau. At times, six Nobel Prize winners gathered with the other scientists and engineers in the weekly colloquia put on by Robert Oppenheimer. Meanwhile, the Army was charged with supporting the work, building buildings, keeping the commissary supplied, and guarding the top-secret work.

Hurriedly built, huge laboratory buildings sprawled along the south side of Ashley Pond. Rows of four-family apartments strung to the west toward the mountains. A few board sidewalks raised residents up out of the mud that was prevalent in winter when snow melted and in summers during the afternoon monsoons.

The obstacles that had to be overcome and questions that had to be answered before an atomic bomb could be built were numerous. The required amount of fissionable material did not exist in the world. How would a nuclear explosion be triggered? What could be used to trigger it? What sorts of metals were needed for such a bomb? Could a nuclear explosion burn the atmosphere? Many even wondered whether the “gadget,” as it was called, would work. The scientists worked feverishly in fear that the Germans were developing a nuclear weapon and would have it ready before the United States.

The scientists and engineers labored on for two years. They carried out experiments in metallurgy and high explosives. They scribbled mathematical calculations on chalkboards and cocktail napkins. They worked 10- and 12-hour days six days a week then sipped famously potent martinis at Oppenheimer’s home and played musical concerts in Fuller Lodge for relaxation. Meanwhile, enriched uranium and plutonium were developed in Oakridge, Tenn., and Hanford, Wash.

Finally, on July 16, 1945, at 5:30 a.m., an incredible burst of light exploded over the desert in south central New Mexico. Trinity, as the test shot was known, answered many of the questions the scientists had been asking. The bomb’s yield, equivalent of 18,000 tons of TNT, astounded even the scientists who had spent years making painstaking calculations.

President Truman, meeting at Potsdam with Winston Churchill and Josef Stalin, was informed of the successful test. Soon, he made the decision to use the remaining bombs in the U.S. arsenal on Japan.

Atomic bombs were dropped on Hiroshima on Aug. 6 and on Nagasaki on Aug. 9. Five days later, the Emperor of Japan agreed to an unconditional surrender. World War II formally ended on Sept. 2, 1945, when treaties were signed aboard the USS Missouri.

Photos from Los Alamos

. J. Robert Oppenheimer, scientific director of the Manhattan Project.



Scientists E.O. Lawrence, Enrico Fermi & I.I. Rabi discuss work on the Manhattan Project.



Preparing "the gadget" at Trinity Test Site

World War II Timeline: This timeline of World War II should help you put the storyline of *The Green Glass Sea* into the context of what you already know about World War II.

September 1939: Germany invades Poland, starting World War II. Britain and France declare war on Germany.

April 1940: Germany invades Norway and Denmark.

May 1940: Germany invades Belgium and the Netherlands.

July 1940: Germany begins bombing Britain.

June 1941: Germany invades the Soviet Union.

December 1941: Japan bombs Pearl Harbor. The U.S. declares war on Japan.

February 1942: Japan captures Singapore.

May 1942: Japan captures the Philippines and Burma.

June 1942: The tide turns — the Allies defeat Japan in the Battle of Midway.

February 1943: German troops surrender in Stalingrad, USSR.

May 1943: Axis troops in northern Africa surrender.

September 1943: Italy surrenders.

November 1943: U.S. forces invade Tarawa.

June 1944: D-day: Allied troops land in France and begin invasion.

October 1944: Japan's navy is defeated near the Philippines.

December 1944: Germans fight back in Battle of the Bulge.

March 1945: Allied troops capture Iwo Jima.

May 1945: Germany surrenders, ending World War II in Europe.

August 1945: Atomic bombs dropped on Hiroshima and Nagasaki.

September 1945: Japan signs surrender agreement, ending war

The Green Glass Sea: Assignment

After you complete reading the novel please complete the following assignments:

1. **Artwork and comprehension.** Create a collage similar to the ones that Suze creates throughout the novel. Your collage should represent one of your favorite moments in the novel. You may need to re-read a section where Suze is creating her artwork in order to get a basic idea of how to create it. I'd like you to use your understanding of Klages's descriptions to understand how to create your collage and what you will depict.

2. **Non-fiction connection.** As the novel comes to a close, the first atomic bomb is being dropped on Japan. Today, we live in a time when nuclear weapons and nuclear energy are a part of our lives. Please find an article about a current event that relates to this topic to share with the class. You must complete the graphic organizer on the following pages to prepare you to present your article. You must turn in a copy of your article as well.

Current Event Graphic Organizer

Who is the article about? Be Specific.	
Who does the article affect?	
When did this event occur?	
Where did this event occur?	
How did the event occur? Use details.	
What happened?	
How does the event in the article impact the world?	
How does the event in the article impact people?	
How does the event in the article impact animals?	
How does the event in the article impact environment?	

How does the event in the article impact the economy?	
Why did you choose this article?	
What do you find interesting about the article?	
What questions do you have about the article?	
How does the article make you feel? Why? Explain.	
Does this article impact you personally? How?	

Journal Writing: Assignment

The goal of journal writing is to continue the act of writing throughout the summer. The journals will not be graded on grammar or spelling; however, they will be turned in and you will receive a grade on whether or not they were completed with substantial writing. Here are some guidelines:

- Each entry should be dated.
- You should make at least one entry per week of summer vacation, but you will need to make more than one per week most weeks.
- You must have **at least 22** entries by the end of the summer.
- An entry must **fill the front and back of one page** to count. Your topic may change, but the pages must be filled.
- You may write on any topic in any genre: fiction, memoir, poetry, etc.; however, I recommend writing about your personal experiences.
- We will share some entries with the class when we return.

Here are some writing prompts to help you get started:

- What is your favorite season? Describe how you feel during different times of year.
- What is your favorite game? Think about indoor games, outdoor games, board games, car games, and more!
- Write about your favorite subject in school. What is your least favorite subject?
- What do you want to be when you grow up? Choose and describe at least three jobs that you think you would enjoy.
- What is your favorite holiday and why? What traditions does your family share?
- What qualities do you look for in a friend? How do you try to be a good friend?
- Have you ever had to apologize for something you did? How did you feel before and after the apology?
- Describe a typical day in your life. Use sensory detail (sight, sound, touch, smell, taste) to make your daily experience come to life.
- Describe a "fantasy" day in your life. If you could design a whole day to do anything and everything you wanted, what would you choose to do?
- Write about your brothers and sisters. If you don't have any, do you wish you did?
- What do you think is the "perfect" age to be? If you could choose one age and stay that age forever, what would you choose?
- Do you have any nicknames? Describe where the nicknames came from and what they mean to you.
- Write about what you do on the weekends. How do your weekends differ from your weekdays?
- What are your favorite foods? What are your least favorite foods? Describe how it feels to eat each of the foods.
- What is your favorite type of weather? Write about how your activities change with different types of weather.