Day One

NAME _____

DVD WORKSHEET

Follow along with the questions below as you watch *Day One*. Part A will count as two daily grades, Parts B & C will together be one daily grade, and Part D will be one daily grade. If you are absent for any day of the assignment, use may use the Internet, your chemistry book, or a history book to research the answers.

A. Explain the role of each person, place, or thing listed below <u>in the development of the atomic bomb</u>. You may use phrases here, but answering with only a few words will not be accepted. Also make sure you identity each item as to how it is related to <u>the development of the atomic bomb.</u>

1. Germany, 1933

2. Leo Szilard

3. Columbia University, 1939

4. Enrico Fermi

5. Albert Einstein

6. Franklin D. Roosevelt

7. Brig. Gen. Lewis Groves

8. Manhattan project

9. Ernest (Ed) Lawrence

10. University of California at Berkley

11. Cooling systems

12. Critical mass

13. Uranium -235

14. Robert Oppenheimer

15. Squash courts at The University of Chicago, Dec. 2, 1942

16. Los Alamos, New Mexico

17. 15 kilograms & 5 kilograms *(Not just random masses! Listen carefully!)*

18. Oak Ridge, Tennessee

19. Seth Neddermeyer

20. Implosion vs. explosion

21. Strontium-90

22. Strassburg, France, 1944

23. Arms race

24. Alamogordo, New Mexico

25. Fission

26. 1/1,000,000 (one millionth) of a second

27. Little Boy

28. Col. Paul Tibbets & Capt. Deek Parsons

29. $2,000,000,000.00

30. Three years

31. Harry S. Truman

32. Edward Teller

33. Potsdam, Germany, July 15, 1945

34. July 16, 1945, 5:30 A.M.

35. 20,000 tons of TNT

36. Gen. Eisenhower

37. Enola Gay

38. August 6, 1945

39. Hiroshima, Japan

40. Nagasaki, Japan

B. Answer the following questions related to *Day One*.

1. What person was responsible for the first event in the "chain reaction" that led to the development of the atomic bomb? What was his idea? What was his opinion of the bomb after its development?

2. Why was the atomic bomb initially developed? In the end, it was used for what purpose?

3. What was the source of conflict between the military head of the project and the scientists?

4. What were the two major sites of research on the atomic bomb?

5. Many people had questions about Oppenheimer serving as head of the project at Los Alamos. What were their concerns?

6. What were the scientist's predictions about the effect of the bomb?

7. What did many people think was the only alternative to dropping the bomb on Japan?

8. What was Gen. Eisenhower's opinion on dropping the bomb on Japan?

9. What almost caused a delay in the testing of the first atomic bomb? Why?

C. The following are quotes from *Day One* that illustrate two basic opinions about the use of the atomic bomb as a weapon. Choose one of the quotes below. List it as your first sentence, and then below the quote, discuss it from these two aspects:

(1) Explain the context of the quote, who said it and what was the quote referring to in the video. (2 sentences)

(2) Defend the quote based on your opinion after you watched *Day One*. (2 sentences)

- "This day will go down in history as a black mark against mankind."
- "While advances in the project have been fostered by the needs of the war, the implications go far beyond the needs of the present war. What we have learned must be controlled to make it an assurance of future peace rather than a menace to civilization."
- "We built the bomb; we have the responsibility to see that it is used wisely."
- "We can end the war more quickly and save more lives in the long run if we drop the bomb."
- "My God, what have we done?"

D. Scientist and government officials throughout *Day One* were debating the necessity of the atomic bomb vs. the moral implications of the bomb. Today scientists continue to debate the value of research versus the moral and ethical dilemmas that come about as a result of the new research.

1. Find an article about a NEW RESEARCH IDEA that was published on the Internet, or in a newspaper, magazine or journal during this year. The article must be at least 200 words long. If you cannot complete any of the following instructions with your article, choose a different article.

2. Read the article and write down what the scientists were trying to find out - what question were they trying to answer.

3. Underline in two different colors the following information IN THE ARTICLE. Include a color key at the top of your article. ***(20 pts.)***

   - ❑ The methods the scientists were using (procedure) and the type of data collected.
   - ❑ What the scientists found out (results and conclusions).

4. Answer the questions below on a separate sheet of paper and staple the article or a copy of it to the back of your work.

QUESTIONS:

1. a. Title of the article ***(5 pts.)***
   b. Topic of the article ***(5 pts.)***
   c. Author(s) ***(5 pts.)***
   d. Source and date (name of newspaper, magazine, address/URL and name of Internet site) ***(5 pts.)***

2. a. Write the full name and title (if given) of a person quoted in the article. (If no one is quoted, choose a different article.) ***(5 pts.)***

   b. Why was this person quoted? What is his/her expertise? ***(5 pts.)***

3. How did scientists obtain the evidence on which this article is based? What steps did they follow, what types of tools did they us, and what type of data did they collect? ***(10 pts.)***

4. Draw an illustration of the important information explained in this article. Label your drawing with words/descriptions. (No graphs or charts.) ***(10 pts.)***

5. Write a summary of at least four complete sentences in your own words. Do not use direct quotes from the article. ***(20 pts.)***

6. Discuss your opinion of the value of the research versus the moral and ethical dilemmas that could result. Explain whether or not you think the research should continue and why. ***(10 pts.)***