

NAME \_\_\_\_\_

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Chemistry: A Volatile History – The Power of the Elements

**Directions:** Use the video to answer the following questions on this sheet. Complete sentences are not required. **MAKING SENSE IS REQUIRED.**

1. How many elements occur naturally to make up our planet?
2. What is the special ingredient in Prussian blue paint? Beside the protein, which ELEMENT is present in the special ingredient?
3. Which compound is thought to account for the appearance of Mars?
4. Which elements are in silver cyanate? How is it different from silver fulminate? (Hint: Think of the toy building blocks.)
5. What gas bubbles are produced from burning a diamond?
6. Briefly, why is graphite softer than diamond? (Think bonding.)
7. Which elements make up the compound (nylon) invented by Carothers?
8. A compound of which element was added to "petrol" (gasoline) to prevent engine misfires?
9. What element, isolated by Curie, in the pitchblende was MORE radioactive than uranium?
10. How could an element possibly change its identity?

11. What was Fermi's big hope? And what was his clever idea for achieving it? (Did he achieve it?)

12. What surprised Meitner when she calculated the masses for the fission (splitting) of uranium?

13. What instrument was finally used to create element 93?

14. As of this program's production, what is the heaviest element artificially created?

15. How does the "gun" at the Helmholtz lab work? In other words, what do they fire into what?