## Video Worksheet

The Atom P2 = Key to the Cosmos

1. How many atoms in a single grain of sand?
2. How many atoms are in the universe?
3. How many "flavors" of atoms are there?
4. Who was the woman who first studied radioactivity?
5. What year did she discover Radium?
6. A gram of Radium contains more energy than
$\qquad$ tons of coal.
7. In what year did the first person become an "Alchemist"?
8. Who was the first "Alchemist"?
9. What gas did he see appear from radioactivity?
10. Which atmospheric gas changes into Oxygen and Hydrogen under radioactivity?
11. What is the center of an atom called?
12. What subatomic particle tells you the element you have?
13. What subatomic particle makes the masses of the atoms actually correct?
14. In what year was it discovered?
15. Who discovered it?
16. What new science came about by the discovery of the nucleus?

Name: $\qquad$
Period: $\qquad$ Date: $\qquad$
17. What force keeps the $\mathrm{p}+$ inside the nucleus?
18. How does this force work?
19. Which force is the strongest? (Nuclear, Gravity, Electromagnetism)
20. What nuclear process makes the sun shine?
21. Which force holds the nucleus together?
22. Which force tries to rip the nucleus apart?
23. Which element has the most stable nucleus in the universe?
24. What process splits a larger atom apart?
25. Where are all the heavier elements than Helium created?
26. What do we call the stars that can create the large atoms?
27. What can create the really large atoms?
28. Which two elements could not be explained by the answers to \#25, \#26, \& \#27?
29. Who were the two scientists who battled over the creation of those two elements?
30. Who won the argument?
31. What clue proved that he won the argument?
32. When and where did those two elements get created?

