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?
- A gram of Radium contains more energy than _____ 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: Period:
17. What force keeps the 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?