

**Nuclear Energy Video Notes**

*Practice Sheet #44*

**The Bomb:**

1. What countries have the bomb?
  
  
  
  
  
  
  
  
  
  
2. How much more powerful is the average nuclear bomb today?
3. Which country is the only country to ever utilize the nuclear bomb in wartime?
4. When was the first bomb dropped? On which country? On which City?
  
  
  
  
  
  
  
  
  
  
5. Why was the nuclear bomb dropped?
  
  
  
  
  
  
  
  
  
  
6. Briefly describe the three stages of the explosion:
  - a. Stage 1:
  
  
  
  
  
  
  
  
  
  
  - b. Stage 2:
  
  
  
  
  
  
  
  
  
  
  - c. Stage 3:
  
  
  
  
  
  
  
  
  
  
7. How long does it take for all three of these stages to occur?
8. How many people died in just stage 1?
9. How many total deaths occurred from this bomb?
10. Where was the second bomb dropped? When?
11. What is black rain?

**Nuclear Power Plant Disasters**

*Three Mile Island: Pennsylvania's Big Meltdown*

12. What year did this meltdown occur?
13. What Technical failure started the problem but did not cause the meltdown?
  
  
  
  
  
  
  
  
  
  
14. What failure did cause the meltdown?

Name: \_\_\_\_\_ Per \_\_\_\_\_

15. What is the "China Syndrome?"
16. Was there a partial or a full meltdown?

*Simi Valley: Only 25 miles away!*

17. Why year did this meltdown occur?
18. What coolant was used in Loop 1 instead of water?
19. WHY was this coolant chosen to replace water?
20. How did this meltdown occur?
21. How did this meltdown occur?
22. Name at least one radioactive isotope that was released (and is still present in Simi Valley Santa Susanna Pass area) during this accident and that can affect human health.

*Chernobyl Disaster*

1. Why did the Chernobyl power plant blow up?
2. What was released from the power plant because of the explosion?
3. What is Pripjat?
4. What kind of pills were the people of Pripjat told to take to counteract the effects of the radiation?
5. How long did it take to initiate the evacuation of 40,000 people?
6. How long did the actual evacuation take?
7. Name at least three countries that received nuclear fallout as a result of the winds carrying the radioactive clouds over Europe.
8. How did the world community find out about the Chernobyl accident?
9. What initial symptoms of ARS did the nurses at the hospital observe in the soldiers and firemen first responders?
10. After a month or so, what happened to these men?
11. What legacy has been left by the Chernobyl disaster?