KABOOM! Answer Key

DIRECTIONS - Answer the following questions as you watch NOVA's KABOOM!

1. What happens to the atoms when an explosive detonates?
   Atoms mix and fragments explode

2. What is required to create an explosion?
   Ignition/fuel source/oxygen

3. What must be done to produce an explosion?
   Have to be combined

4. What explosion components do each of the following represent:

   a. Flour **ignition/fuel**

   b. Air **oxygen/oxidizing**

   c. Candle **fuel/source of ignition**

   d. Tube **controlled environment**

5. Who first discovered gunpowder?
   Chinese

6. What is release in fireworks?
   Energy

7. Who is the Master Blaster Pastor?
   Ron Lancaster

8. What did Roger Bacon discover?
   Gunpowder

9. What three things make up gunpowder?
   Salt peter/sulfur/charcoal

10. What is the modern name of salt peter?
    Potassium nitrate/black powder

11. Where can salt peter be naturally found?
    Soil/purified brown sludge

12. What separation technique did Roger Bacon use to purify salt peter?
    Brown sludge/concentrating mixture/crystallizing white powder

13. What type of explosive is nitroglycerin?
    High

14. What is a high explosive?
    Burns slow/nitroglycerin

15. What is a low explosive?
    Only explode when confined/burns fast

16. Who is the father of high explosives?
    Nobel

17. Where is one of the remaining Nobel nitroglycerin factories?
    Norway/all others blew up

18. What was Nobel's most famous invention?
    Dynamite/nitroglycerin mixed with white powder

19. What is Semtex?
    Plastic explosive

20. What are positive characteristics of Semtex?
    Pliable/forgiving/nothing you can do can set it off

21. What are the components of smokeless powder?
    Nitrocellulose/nitroglycerine

22. Why does smokeless powder fired bullets penetrate deeper than black powder fired bullets?
    Ballistite/more energy in the mass

23. What was Nobel's desired legacy?
    Nobel Peace Prize

24. How many munitions were used in World War I for each life lost?
    1 ton munitions for each life lost

25. What is the product of a chemical explosion?
    Gas and heat

26. What is the product of a nuclear explosion?
    Energy