

Name _____ Date _____

Physical and Chemical Changes

1. Breaking a plastic spoon is a _____ change.
2. When hydrogen and oxygen form water it a _____ change.

Physical Properties:

3. What is a physical property?
4. List 5 examples of physical properties.

5. Every substance has its own set of _____ substances. _____, thus making physical a great tool for _____.

6. Define *density* –

7. Density is the ratio of a materials _____ to its _____.

8. Density is expressed as _____.

9. What is the density of pure water?

10. Name one substance that has a density lower than water?

11. Name two substances that have densities between 8g/cm^3 and 12g/cm^3

12. Name two substances that have densities between 2g/cm^3 and 4g/cm^3 .

13. Define *boiling point* –

14. Define *boiling*-

15. What is the boiling point of water?

16. Define *melting point*-

17. What is the melting point of water?

18. Define *solubility*-

19. What does a substance's solubility indicate?

20. How can you increase the solubility of a substance?

Chemical Properties:

21. What is a chemical property?

22. Name five examples of chemical properties.

23. What makes chemical properties different from physical properties?

24. What happens when burning ethanol is combined with oxygen?

Physical Changes:

25. Define *chemical changes*-

26. What happens during a physical change?

27. List 3 examples of physical changes.

28. Why are the three examples you listed, physical changes?

29. All changes in nature require _____. Whenever _____ is changed, there is a change in _____.

30. What type of changes are changes of state?

31. List five examples of changes in state.

32. Can physical changes be reversed? If yes, give an example.

Chemical Changes:

33. Define a **chemical change**-

34. Define **chemical bonds**-

35. What happens during a chemical bond?

36. Physical changes require energy, do chemical bonds require energy?

37. How is baking a cake an example of a chemical change?

38. Can you reverse a chemical change?

39. Define **chemical reactions**-

40. What happens to elements and compounds during a chemical reaction?

41. What are the first three examples of chemical reactions listed in the text?

42. Define **precipitate**-

43. The fourth example of a chemical reaction is the _____

44. Give an example of the above chemical reaction.

45. Why is the release of a gas not always an indicator of a chemical reaction?

46. What is the fifth example of a chemical reaction, and give an example.

47. What happens when wood or paper burns?

48. How is energy given off during the burning of wood or paper?

49. A log burning _____.

50. _____ is another example of a chemical _____.

51. Rusting is _____ from iron. The _____ is a DIFFERENT _____