

Year 8 Science - Chemistry Outcomes

Matter

1. Describe the science of Chemistry
2. List three main states of matter and describe their properties
3. Draw diagrams of the three states of matter using the principles of the "kinetic theory of matter"
4. Describe what happens when a state of matter changes into another (eg: liquid to gas) using the principles of the "kinetic theory of matter"
5. Describe what the terms 'elements' and 'atoms' mean
6. List the elemental symbol for common elements (activity 7)
7. Identify which elements are metals and which are non metals on a periodic table
8. Describe the difference between a mixture and a compound
9. Define and draw examples of molecules
10. Write down chemical formula from a known combination of atoms
11. Name chemical compounds from a known formula

Solutions

12. Define the terms solution, solute, solvent, soluble and insoluble
13. Explain what a saturated solution is and how to make one
14. Explain the different type of liquid mixtures: colloids, emulsions and suspensions

Separation Techniques

15. Explain how sedimentation and decantation can be used to separate mixtures
16. Explain how filtration can be used to separate mixtures
17. Explain how centrifugation can be used to separate mixtures
18. Explain how evaporation can be used to separate mixtures
19. Explain how distillation can be used to separate mixtures and label a device that chemists use for distillation
20. Explain how chromatography can be used to separate mixtures
21. Explain how crystallisation can be used to separate mixtures

Chemical Reactions

22. Explain the difference, using examples, between a physical and chemical change
23. Use examples to show how to write chemical word equations
24. Explain a method that can prepare and collect carbon dioxide gas
25. Explain a method that can prepare and collect oxygen gas
26. Explain a method that can prepare and collect hydrogen gas