By the end of Spring 1 you will know:

Safety in Science

1. What is the symbol for a flammable substance?
2. What is the symbol for a corrosive substance?
3. What is the symbol for a toxic substance?
4. What is the symbol for an explosive substance?
5. What are three main rules to follow in a Science lab.
6. What piece of equipment is used to measure temperature?
7. What piece of equipment is used to measure volume?
8. What piece of equipment is used to measure mass?
9. What pieces of equipment would be needed to boil water?
10. What piece of equipment is used to protect our eyes?
11. What is a risk?
12. What is a hazard?
13. What is the purpose of a risk assessment?
14. Name the parts of the Bunsen burner.
15. Name the two types of flame.
16. What is the difference between the two flames?
17. What are the main rules when working with Bunsen?

Nature of matter

1. What are the three states of matter?
2. Show how the particles are arranged in each state.
3. What is the behaviour of particles like in a sold?
4. What is the behaviour of particles like in a liquid?
5. What is the behaviour of particles like in a gas?
6. Name the changes of state.
7. What is sublimation?
8. What does increase man?
9. What does decrease mean?
10. What is melting?
11. What is happening to the particles in terms of energy during melting?
12. What is freezing?
13. What is happening to the particles in terms of energy during freezing?
14. What piece of equipment is used for measuring time?
15. What is meant by the boiling point?
16. What piece of equipment is used to measure temperature?
17. What is evaporation?
18. What is happening to particles in terms of energy during evaporation?
19. What factors affect the rate of evaporation?
20. What is condensation?
21. What is happening to particles in terms of energy during condensation?
22. What is diffusion?
23. What can increase the rate of diffusion?
24. Give an example of diffusion.
25. What is gas pressure?
26. What can increase gas pressure?

By the end of spring 2 you will know:

Pure and impure substances

1. What is a pure substance?
2. Name two pure substances.
3. What is a mixture?
4. Name 2 mixtures.
5. What does it mean if a substance is soluble?
6. What does it mean if a substance is insoluble?
7. What is a solute?
8. What is a solvent?
9. What is a solution?
10. What is the independent variable?
11. What is the dependent variable?
12. What is the control variable?
13. What is solubility?
14. What piece of equipment is used for measuring volume?
15. What is the standard unit for volume?
16. What are repeatable results?
17. What are reproducible results?
18. What is filtration?
19. Give an example of filtration.
20. Your teacher separates a mixture of sand and water. What is the filtrate?
21. Your teacher separates a mixture of sand and water. What is the residue?
22. Name 2 key pieces of equipment needed for filtration.
23. What is distillation?
24. What does distillation separate?
25. What temperature does water boil at?
26. Give an example of distillation.
27. What does the condenser do in distillation?
28. What is meant by the term boiling point?
29. Name four separation techniques.
30. What are 2 examples of solvents used in chromatography?
31. What is chromatography used for?

Elements and compounds

1. Where are all of the known elements recorded?
2. Which side of the periodic table are the metals?
3. Which side of the periodic table are the non-metals?
4. What does a vertical column represent?
5. What does a horizontal row represent?
6. State the chemical symbols for carbon, potassium and chlorine
7. How is the periodic table arranged?
8. What is an element?
9. Why does each element have a symbol?
10. State the chemical symbol for oxygen, sodium, and neon
11. What is a compound?
12. Give 2 examples of compounds.
13. What is a mixture?
14. What is a similarity of compounds and mixtures?
15. What is a difference of compounds and mixtures?

16. What is a chemical formula?
17. What substance has the formula H_2O?
18. What elements are found in methane CH_4?
19. How many oxygen atoms are in $KMnO_4$?
20. What is the chemical formula for carbon dioxide?
21. What is a physical change?
22. Name 2 common physical changes
23. What is a chemical reaction?
24. Name 2 chemical reactions
25. What is a reversible reaction?