Classifying substances recall – can you answer these?

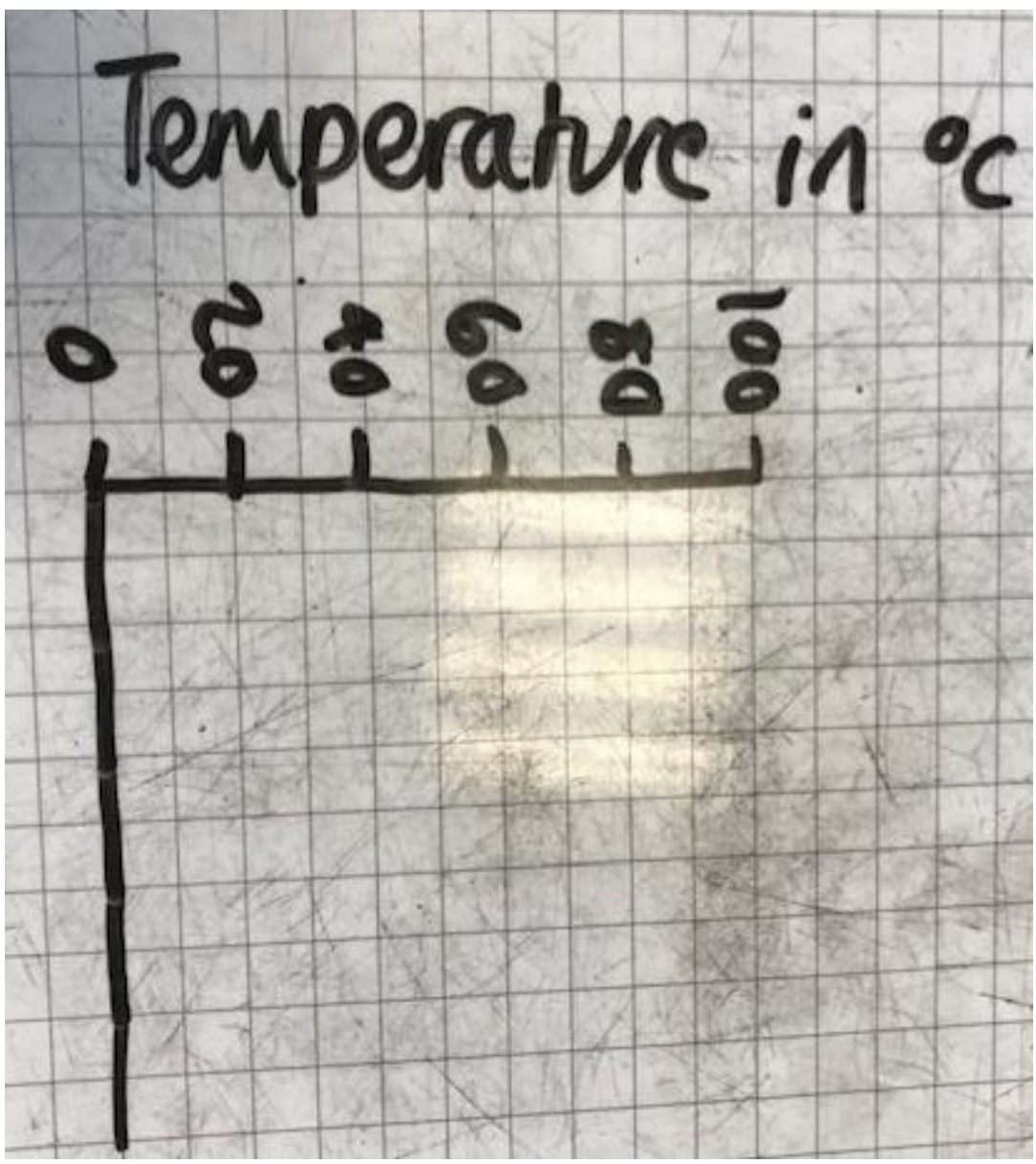
1. Substances can be neutral, acid or alkali
2. Name two everyday acids. Vinegar, lemon juice
3. What element do all acids contain? hydrogen
4. Name two everyday alkalis. Toothpaste, soap, bleach
5. 64.8 64.9 64.7 Calculate the mean of these numbers. **Make sure to show your working out**. 64.8 + 64.9 + 64.7 = 194.4 194.4 ÷ 3 = 64.8
6. What scale measures how strong an acid or alkali is? pH scale
7. What is the pH number of a neutral substance? 7
8. Draw a number line from 0 – 14. On the number line mark off the positions of :
   neutral strong acid strong alkali weak acid weak alkali
   0 – strong acid weak acid neutral at 7 weak alkali strong alkali - 14
9. What do we call a chemical that changes colour to show us something? indicator
10. What are the colours of litmus indicator in acids red and in alkalis? Blue
11. What colour are neutral substances in Universal indicator? Green
12. What is the colour of a strong acid in Universal indicator? Red
13. What is the colour of a strong alkali in Universal indicator? Purple
14. Which type of variable is one we must keep the same in an investigation? control

Reactions of acids– can you answer these?

1. Complete the general word equation:
   acid + alkali → salt + water
2. Sodium hydroxide + hydrochloric acid → sodium chloride + water
3. Similar word equation problems.
4. There are 30 students in a class. 1/6th of them are allergic to bee stings.
   Calculate the number of students allergic to bee stings. You must show your working out. 30 ÷ 6 = 5 5 x 1 = 5 students
5. Bee stings are acidic. Name one everyday chemical that could be rubbed into a bee sting. Soap, bicarbonate of soda
6. Wasp stings are alkaline. Name one everyday chemical that could be rubbed into a wasp sting. Vinegar or lemon juice
7. Complete the general word equation:
   acid + metal → salt + hydrogen
8. What is the chemical test for hydrogen? Lit splint makes a squeaky pop sound
9. Magnesium + sulfuric acid → magnesium sulfate + hydrogen
10. Similar word equation problems.
11. Write down one hazard when using a metal powder and one safety rule for this hazard. Getting it in your eye – wear goggles and wash hands

Other chemical reactions– can you answer these?

1. Which part of air is most reactive? oxygen
2. Copper + oxygen → copper oxide
3. Similar word equations.
4. Explain why putting water on a fire stops the fire burning. Stops the heat part of the fire triangle
5. Write down 12.7892 to 2 decimal places 12.79 **OR** write down 674 982 to 3 significant figures 675 000.
6. What three things are needed for rusting? Oxygen, water, metal
7. Give two reasons to explain why painting iron rails stops them rusting. Stops oxygen and water coming into contact with the metal
8. Thermal decomposition means using heat to make large molecules smaller.
9. On the grid board, draw an X-axis and a Y-axis. Label the Y-axis 'temperature in ^{O}C' and make a clearly marked even scale that goes up in 20s to 100. next slide
10. In a displacement reaction a less reactive metal replaces a more reactive metal in a metal compound.
11. Magnesium + copper sulfate → magnesium sulfate + copper
12. Similar word equations.


Temperature in °C
0
25
50
75
100