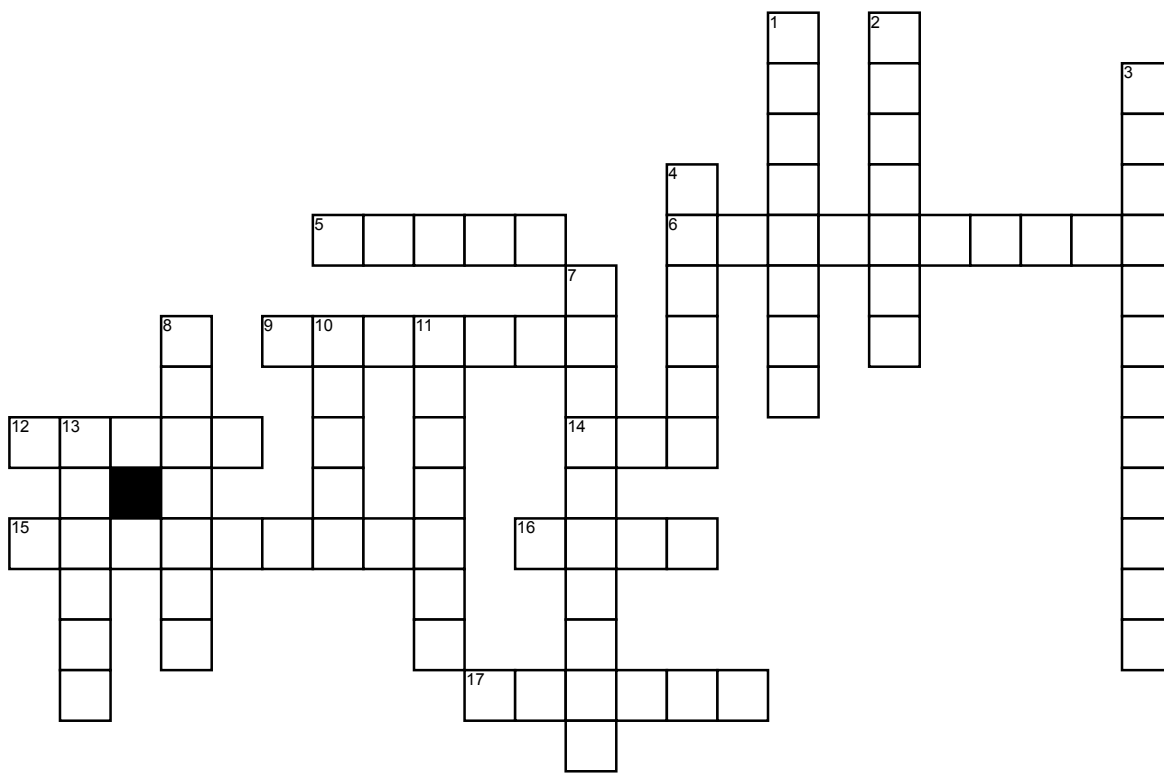


# Atoms, Acids and Bases



## **Across**

- 5.** Substances that turn litmus paper red  
**6.** Scientist who fired particles at thin gold foil and proved that the atom is mostly empty space  
**9.** Sub-atomic particle that has mass but no charge  
**12.** Substances that are bitter to taste  
**14.** When an atom loses or gains electrons, it becomes charged and is called an .....  
**15.** The name of particles with two or more atoms chemically bonded together

**16.** The ..... number of an atom is the number of protons plus neutrons in the nucleus

**17.** The colour of phenolphthalein in a substance with a pH of 13

## **Down**

- 1.** Sub-atomic particle that orbits the nucleus  
**2.** The clump of protons and neutrons in the centre of an atom  
**3.** The name of our current model of the atom  
**4.** Sub-atomic particle that has a positive charge

**7.** Phenolphthalein, Methyl Orange and Bromothymol Blue are all examples of...

**8.** A substance containing only one type of atom

**10.** In a neutral atom, there will be ..... numbers of protons and electrons

**11.** Scientist who suggested the "Plum Pudding" model of the atom

**13.** The ..... number of an atom is the number of protons in the nucleus