

## Atomic Structure Homework

1. Oxygen has three isotopes; each is listed in the table below. Complete the gaps in the table.

Isotope	$^{16}_8\text{O}$		$^{18}_8\text{O}$
Number of electrons		8	
Number of protons	8		
Number of neutrons		9	10

2. An atom contains 16 protons, 18 neutrons and 16 electrons?
- What is its mass number?
  - Name the element of which this is an isotope.
3.  $^1_1\text{H}$  and  $^3_1\text{H}$  are isotopes of the element Hydrogen.
- Define the term isotope
  - Name these two isotopes
  - Describe how these two isotopes differ.
  - Explain how the isotopes of hydrogen have the same chemical properties, yet differ in their physical properties.
  - Give an example of another element which has isotopes not mentioned in this homework activity.
4. Isotopes have a variety of uses. Describe two of these uses below for two named isotopes