

## Unit 1 – Chemistry & Our Earth

Assignment 1	Research the names and chemical symbols of 3 elements, 3 compounds and 3 mixtures
	Research the particle diagrams of the same elements, compound and mixtures as homework 1
	Choose a compound and research its properties and the properties of its constituent elements
Assignment 2	Research the physical properties of metals and non-metals
	Merit task
	Distinction task
Assignment 3	Make a model of a helium atom
	Research the work of Mendeleev
	Find out why the noble gases are called “noble” gases – what does it mean and why?
	Research 3 uses of chlorine
	Distinction task
	Complete distinction task
Assignment 4	Research the collision theory
	Plot a graph of results from the practical and calculate the rate of reaction
	Merit task
	Distinction task
Assignment 5	Research environmental problems caused by mining and chemical plants
	merit task
	distinction task
Assignment 6	research a volcanic eruption from the last 150 years, find out how it affected the landscape and atmosphere
	merit task research
	merit task

## Unit 2 – Energy & Our Universe

Assignment 1	Research the 9 types of energy & 3 examples of each.
	Research what is meant by efficiency
	Produce a lab report for the pass practical work.
Assignment 2	Research the energy transfers for a gas boiler, electric heaters, solar panels, normal lightbulbs and energy efficient light bulbs.
	Distinction task
Assignment 3	Research the name & a use for each wave in the electromagnetic spectrum
	Research the wavelength of each wave in the spectrum and 3 common properties
	Merit task
	Distinction task
Assignment 4	Merit task
	Distinction task
Assignment 5	Research the percentage of energy produced in the UK from fossil fuels, renewable sources and nuclear power.
	Research the efficiency of non renewable and renewable energy resources
	merit task
	distinction task
Assignment 6	Draw series and parallel circuits
	Practice calculations using Ohm's law
Assignment 7	Research the solar system
	Research the big bang, red shift and cosmic background radiation
	Merit tasks
	Distinction tasks

## Unit 3 – Biology & Our Environment

Assignment 1	Research DNA.
	Distinction
Assignment 2	Research 5 different dinosaurs and find pictures
	Draw a key to identify 5 household objects
Assignment 3	Research 2 different arctic food webs
	Merit 1 task
	Merit 2 task
Assignment 4	Research ways in which humans affect the environment
	Merit task
	Distinction task
Assignment 5	Research 10 different factors on human health.
	Research 2 inherited diseases
	merit task