

Year 10 Summer Term Curriculum Plan

Year 10 students will continue studying GCSE content in this term. As some groups are taught by more than one teacher, the order of topics may vary between classes. They will continue to be set work in each specialism by the same teachers as per normal lessons. Below is an outline of each topic and is not an exhaustive list of content taught. If there are any questions regarding the work set for Year 10 students, please do not hesitate to contact Miss Clayton (Assistant Faculty Leader) at kay.clayton@jmhs.hereford.sch.uk

Overview for Biology topic – Health, Disease and the Development of Medicine

To understand the basis of communicable and non-communicable disease, how the body responds to disease and how medicines can be developed and used to treat diseases.

Key Content
<ul style="list-style-type: none">• Define health and what it means to be healthy• Describe non-communicable disease as diseases that are not transmissible• Identify and explain the impact of some lifestyle factors on non-communicable disease
<ul style="list-style-type: none">• Describe the different types of pathogen that cause disease and how they can be spread• Outline the ways their spread can be reduced• Identify the ways that the body can protect itself from disease
<ul style="list-style-type: none">• Explain the role of the immune system in fighting infection• Understand what vaccines are and how they are useful against certain types of infection• Describe the ways in which medicines are developed

Overview for Chemistry topic – Calculations Involving Masses

To use the relative atomic mass to deduce molecular and empirical formulae and calculate the mass of a reactant or product in a reaction

Key Content
<ul style="list-style-type: none">• Understand what is meant by relative atomic mass, relative formula mass and moles.• Calculate relative formula mass from relative atomic masses• Calculate empirical formula
<ul style="list-style-type: none">• Explain the law of conservation of energy in open and closed systems• Use a balanced equation to determine the mass of products or reactants, given suitable data• Explain how the mass of products formed in a reaction is limited by the reactant not in excess
<ul style="list-style-type: none">• Calculate the number of moles and particles of a substance (HT only)• Deduce a balanced equation for a reaction based on the ratio of moles (HT only)

Overview for Physics topic – Conservation of Energy

To understand stores and transfers of energy and how different energy sources can be used to generate electricity

Key Content
<ul style="list-style-type: none">• State the law of conservation of energy• Describe some energy stores and how energy can be transferred between stores, including how it can be dissipated• Describe how insulation can be used to prevent unwanted thermal energy transfers• Calculate efficiency• Calculate gravitational potential energy and kinetic energy stores
<ul style="list-style-type: none">• Describe renewable and non-renewable sources of energy• Compare and contrast the different sources of energy and how they may be used