

Physics – Atomic Structure Combined

Content	RAG
Describe the structure of an atom	
Define an isotope and state the differences in numbers of subatomic particles between isotopes and atoms.	
Describe and compare the plum pudding and atomic models of the atom	
Describe the alpha scattering experiment	
Describe properties of alpha, beta and gamma radiation	
Be able to complete nuclear equations of alpha and beta decay	
Define the term 'Half-life'	
Calculate the half-life of a radioactive isotope from graphs or given information	
HT ONLY: Calculate the net decline in emission after a certain number of half-lives, expressed as a ratio	
Describe the difference between contamination and irradiation	
Compare hazards with contamination and irradiation and suggest suitable precautions	
<b>TRIPLE ONLY:</b> Explain what is meant by background radiation and give some examples	
<b>TRIPLE ONLY:</b> describe and evaluate the use of radiation in medicine	
<b>TRIPLE ONLY:</b> Evaluate the risks of using radiation	
<b>TRIPLE ONLY:</b> Describe and explain nuclear fission	
<b>TRIPLE ONLY:</b> Describe and explain nuclear fusion	