

# High Tunstall College of Science Curriculum Intent

Subject: Separate Physics Year: 11

## Thread 2—Particles and radiation



	Physics Thread 2	Progress		
Topic	Key ideas	R	A	G
Particles and radiation	I can review nuclear radiation			
	I can formulate nuclear equations for alpha and beta decay			
	I can calculate half lives of different isotopes			
	I can describe nuclear fission			
	I can describe nuclear fusion			

Lesson	Learning Focus	Assessment	Key Words
1	What can I remember about radiation?	SOLO taxonomy tasks	<b>Radiation</b> , alpha, beta, gamma, decay
2	What happens when isotopes decay?	Completion of equations looking at decay	Decay. Alpha, beta, nucleus
3—4	What is half life, and why is this important?	Calculation of half lives and application to different contexts	<b>Half life</b> , decay, alpha, beta, gamma
5	What is nuclear fission?	Completion of learning mat and application to nuclear power	<b>Fission</b> , chain reaction, boron rods, energy
6	What is nuclear fusion?	SOLO taxonomy tasks	<b>Fusion</b> , nucleus