

# High Tunstall College of Science Curriculum Intent

Subject: Physics (Separate) Year: 10

## Thread 3 — Electricity



	Physics Thread 3—Electricity	Progress		
Topic	Key ideas	R	A	G
Electricity	I can state the relationship between current and charge			
	I can use and manipulate the equation that links potential difference, current and resistance			
	I can carry out practical work to investigate factor affecting resistance in a wire			
	I can identify charge in series and parallel circuits			
	I can state the difference between AC and DC			
	I can describe the National Grid			
	I can use the equations $P=VI$ and $P=I^2R$ to calculate power within electrical circuits			
	I understand how electrical charges can move between objects			

Lesson	Learning Focus	Assessment	Key Words
1	State relationship between current and charge using $Q=It$	Practice questions	Current, Charge
2	How are current, voltage and resistance linked?	Practice Questions	Current, potential difference, voltage
3	RPA—Resistance in a wire	Completion of RPA activity	Resistance, current, potential difference
4	Use $E = VQ$ and $V=IR$ to identify charge in series and parallel circuits	Practice Questions	Voltage Current Resistance
5	I can state the difference between AC and DC	Compare and contrast AC and DC	Alternating Direct
6/7	Using the equations $P=VI$ and $P=I^2R$ to calculate power within electrical circuits	Practice Questions	Power
8	How does the National Grid transfer electricity?	Extended writing	National grid, transformer
9	Students will discover how electrical charges can move between objects	Homework	Transfer
10	Pupils can talk about electrical fields and how charges move through them	Pupils are able to describe how a charge passes through an electric field	Electrical Fields, Charge