High Tunstall College of Science Curriculum Intent

Subject: Physics Year: 10

Magnetism and Electromagnetism

	Physics Thread	Progress		
Topic	**Key ideas**	**R**	**A**	**G**
Magnetism and electromagnetism	I can write a method and explain how temporary magnetism can be induced.			
	I can draw a magnetic field and explain how to use the right hand grip rule			
	I can explain real life applications of how electromagnets make things work			
	I can explain how to magnetic fields interact to cause movement.			
	I can explain how a current and potential difference is induced using a permanent magnet, a coil of wire and movement.			
	I can draw and label step-up and step down transformers and explain how they work.			

Lesson	Learning Focus	Assessment	Key Words
1	Explore how magnetism can be induced.	Write a method and explain how temporary magnetism can be induced. Formative questioning, exam questions and summative tests.	Temporary, polarity, induced
2	Review of magnetic fields and field lines and introducing the right hand grip rule	Draw a magnetic field and explain how to use the right hand grip rule. Formative questioning, exam questions and summative tests.	.Field Line, Pole, Magnetism
3	Application of electromagnetism	Explain real life applications of how electromagnets make things work. Formative questioning, exam questions and summative tests.	Current, magnetic field, repulsion, attraction, pole
4	Introduction to the motor effect and Flemings left hand rule	Explain how to magnetic fields interact to cause movement. Formative questioning, exam questions and summative tests.	Current, magnetic field, repulsion, permanent, temporary
5	Explore electromagnetic induction and the generator effect.	Explain how a current and potential difference is induced using a permanent magnet, a coil of wire and movement. Formative questioning, exam questions and summative tests.	Magnetic field, induce, potential difference, vector
6	Apply electromagnetic induction to transformers.	Draw and label step-up and step down transformers and explain how they work. Formative questioning, exam questions and summative tests.	Magnetic field, induce, potential difference , vector