

**You will need your textbook to complete the following work. If you do not have your textbook or the ebook version from the front of your textbook, then use the following link to help <https://www.bbc.co.uk/bitesize/examspecs/zqpshv4>**

You need to draw a poster, make a powerpoint or some other review materials on the following topics.

Topic	Textbook page number	Notes
Reflection of light rays at a plane mirror	p.114	Remember the 3 rules!
Refractive index	p.115-115	Remember all of the diagrams and the formula. Use 'changes direction' rather than 'bends'.
Total internal reflection/critical angle	p.117-119	What is the formula, how do you find the critical angle by experiment. Draw a diagram
Applications that use total internal reflection	p.119-121	How can total internal reflection be useful?
Plotting and interpreting graphs	p.281-283	Plotting - Scale, label axes with variables and their units, line or curve of best fit Interpreting – refer to the general pattern e.g. linear/ proportional / increasing / decreasing etc
Electric conductors and insulators	p.68	Electrons and current flow
What materials are magnetic	p.197-198	Not directly covered in the textbook – this is assumed knowledge from lower secondary.  Iron, steel, cobalt and the rare earth metals e.g. neodymium
Magnetic field patterns for 2 bar magnets	p.200	Remember the 4 diagrams and arrow directions
DC Motors The motor effect	p.207-209	How do you make a simple motor How can you make the motor change direction/ make more force
Electromagnetic induction The dynamo effect	p.210-212	Explain how you can induce a current in a wire. What factors affect the size of the current?

Experimental and investigative skills	p.280-284	Reliability, repeats, variables – designing experiments
---------------------------------------	-----------	---

### Tasks

- 1) make a powerpoint /revision booklet / poster covering all of the above
- 2) extra work: answer the light questions on p. 122

EMG High School