Subject	Year	Term
Science	11	1

Topic

11P2 Electricity

Content (Intent)

Prior Learning (Topic) P2a Electricity

- Predict the how current and potential difference act in series and parallel circuits
- Know the circuit symbols
- Define resistance and the factors that affect it
- Recognise V-I plots for an ohmic conductor, filament lamp and diode
- Describe how the resistance of semi-conductors (Thermistors and LDRs) change depending on the temperature or light level
- Describe the effect of combining resistors in series and parallel
- Describe the difference between alternating and direct current
- Describe the structure and function of the features of a three-pin plug (including the properties and function of live, neutral and earth wires)
- Define and calculate electrical power using E = Pt and P=IV
- Recall and use the formula E = QV

Future Learning (Topic) A level topic 3 - Electricity

How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)
Demos: Function of a fuse wire **Practical work:** building and measuring properties of circuits using voltmeters, ammeters and multimeters. IV characteristic graphs of components **Written:** Notes and completed worksheets in exercise books.	- 2 x standard homeworks (Level given. Written feedback. Response expected.) -1 x end of topic test (Level given. Verbal feedback to class and individuals.)

How can parents help at home?

Look at the topic specific resources on the VLE
Use appropriate youtube channels: cognito, primrosekitten, khan academy, freesciencelessons.
Take an interest! Ask your children what they have learnt and be curious about their learning.

Helpful further reading/discussion

Reading	Vocabulary Lists	Careers Links
'Basic Electricity' Mussow Phet interactive simulations The Invisible Rainbow: A History of Electricity and Life	Potential difference Current Resistance Thermistor LDR Series and parallel Alternating current (ac) Direct current (dc) Power Energy Live, Neutral and Earth	Physicist Engineer Environmental engineering Energy companies