



| Subject | Year | Term | | | | | | | | | | | | |
|---|------------------------------------|--|------------|---------|-------|--------|---------------|------|--------|-----|-----------------|------------|-------|-----|
| Physics | 10 | 3 | | | | | | | | | | | | |
| Topic | | | | | | | | | | | | | | |
| Electricity | | | | | | | | | | | | | | |
| Content (Intent) | | | | | | | | | | | | | | |
| Prior Learning (Topic) | Radioactivity and Atomic Structure | | | | | | | | | | | | | |
| Unit 2: Electricity Students will revisit electricity, identifying parts of circuits using symbols and the different types of circuits. They will learn about new rules for electricity circuits. A variety of components will be used for the first time such as diodes and thermistors. Required investigations into a variety of components will be completed to support the theory learnt. Students will have a better appreciation of mains electricity in the UK and learn about electric fields which support the prior topics of gravitational fields. | | | | | | | | | | | | | | |
| Future Learning (Topic) | Waves | | | | | | | | | | | | | |
| What Knowledge and Skills will be taught (Implementation) | | How will your understanding be assessed & recorded (Impact) | | | | | | | | | | | | |
| Knowledge <ul style="list-style-type: none">Knowing the difference between p.d. and current, using new formula to make predictionsI-V graphs for an ohmic conductor, lamp, and diodeThe structure of the plug and its purposeWhat electric fields look like and the reason why charge flowsAC/DC, the National Grid and the function of transformers – applying the power loss equationElectric Fields and uses and dangers of statics. | | Key Piece of work (Homework) Pupils given a percentage and formative feedback provided. End of topic test Pupils given a percentage and GCSE equivalent grade. Formative feedback provided. | | | | | | | | | | | | |
| Maths Skills <ul style="list-style-type: none">Applying new formula in familiar and unfamiliar contexts.The application of collected data into graphs and for analysis. | | Interleaving Topic: Unit 6: Waves, and Unit 1: Energy – reviewing formulae and key concepts and required practicals. | | | | | | | | | | | | |
| Practical Skills <ul style="list-style-type: none">Reading measuring equipment with accuracy and precision, taking repeats, following methods. | | | | | | | | | | | | | | |
| How can parents help at home? | | | | | | | | | | | | | | |
| Ensure all class booklets are complete and homework submitted on time Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers. Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters. Ensure all pupils have all their resources required for science lessons, including Knowledge organisers, pens and calculators | | | | | | | | | | | | | | |
| Helpful further reading/discussion (including Reading and Vocabulary Lists) | | | | | | | | | | | | | | |
| Reading AQA revision guides AQA revision cards EDUCAKE online learning platform. GCSE POD BHHS Knowledge organisers | | Vocabulary Lists: <table><tr><td>Resistance</td><td>Coulomb</td></tr><tr><td>Mains</td><td>Charge</td></tr><tr><td>National Grid</td><td>P.d.</td></tr><tr><td>Static</td><td>Ohm</td></tr><tr><td>Electric Fields</td><td>Thermistor</td></tr><tr><td>Diode</td><td>LDR</td></tr></table> | Resistance | Coulomb | Mains | Charge | National Grid | P.d. | Static | Ohm | Electric Fields | Thermistor | Diode | LDR |
| Resistance | Coulomb | | | | | | | | | | | | | |
| Mains | Charge | | | | | | | | | | | | | |
| National Grid | P.d. | | | | | | | | | | | | | |
| Static | Ohm | | | | | | | | | | | | | |
| Electric Fields | Thermistor | | | | | | | | | | | | | |
| Diode | LDR | | | | | | | | | | | | | |