

Subject: KS3 Science <i>In KS3 science classes rotate around 3 units in terms 1 to 3 and 2 units in terms 4 and 5. In term 6 they work on a project, which consolidates the scientific skills developed over terms 1-5. The rotation is necessary in relation to lab technicians workload planning and resources.</i>		Year Group: 7
Term 1 Key Focus/Topic(s): Life (Biology) <ul style="list-style-type: none"> • Organs and organ systems • Animal and Plant cells • Reproduction 	Term 2 Key Focus/Topic(s): Electricity (Physics) <ul style="list-style-type: none"> • Basic electrical circuits • Electrical safety • Energy stores and transfers • Renewable and non-renewable energy sources 	Term 3 Key Focus/Topic(s): Particles and Matter (Chemistry) <ul style="list-style-type: none"> • Particle model and states of matter • State changes. • Thermal energy transfers • Diffusion, solubility and mixtures • Separation techniques.
Term 1 Assessment Opportunities : <ul style="list-style-type: none"> • Classwork with a particular focus on core skills (see rationale section). • Extended writing task. • End of unit test. 	Term 2 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core skills (see rationale section). • Extended writing task. • End of unit test. 	Term 3 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core skills (see rationale section). • Extended writing task. • End of unit test.
Term 4 Key Focus/Topic(s): Space (Physics) <ul style="list-style-type: none"> • Exploring Space • The Solar System • Day and Night • The Moon • Seasons 	Term 5 Key Focus/Topic(s): Acids and Alkalis (Chemistry) <ul style="list-style-type: none"> • Acids and Alkalis • Gas Tests • Metals and Non-metals • Making Compounds • Chemical Reactions 	Term 6 Key Focus/Topic(s): Extinction (Biology) <ul style="list-style-type: none"> • Variation • Habitat • Adaptations + Prey or Predator • Food Chain • Extended project on extinction
Term 4 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core skills (see rationale section). • Extended writing task. • End of unit test. 	Term 6 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core skills (see rationale section). • Extended writing task. • End of unit test. 	Term 6 Assessment Opportunities <ul style="list-style-type: none"> • Assessment based on the reports and articles produced by the students. • Scientific skills applied.

Rationale:

The topics covered in Year 7 constitutes the core scientific areas that pupils will build on in future years. For example electricity is a key component of GCSE and A level Physics and the electricity unit is design to enable students to develop a foundation layer of knowledge to take forward.

The development and application of key scientific skills are the central focus of KS3 Science, these include:

Practical skills – working safely in a lab, making observations, recording data, using data to form conclusions

Literacy skills – using key terminology, writing scientific descriptions, writing scientific explanations, adding extra detail to scientific explanations

Numeracy skills – recording data, making measurements, basic calculations and averaging results, plotting and reading basic graphs

Evaluation:

Assessments opportunities will involve teacher, self and peer assessment. The assessment will focus around work produced in lessons where the students are required to demonstrate their literacy and/or numeracy skills as well as their scientific knowledge. Apart from the Extinction unit each unit of work will finish with an End of Unit Test. The assessment for the Extinction unit will be based on the reports and articles produced by the students.

A review of test papers and student work should show that the students are developing the literacy and numeracy skills expected in Year 7.

Book scrutiny, lesson observations and collegial discussions will be used to quality assure teaching and learning. Qualitative observations will be made on students during the term 6 projects.