Key Stage 3 Framework for Learning

Year 8 2018-2019: Creative Foundations

Curriculum Area: **Science**

Year 8	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	**Forensics** **Separating Mixtures** **States of Matter** **Density** **Ph** **Neutralisation** **Acids and Alkalis** **Using Indicators**	**Health and Nutrition** **Diet.** **Diabetes.** **Homeostasis.** **Digestive system.** **Modelling the journey of food.** **Digestive system big write.** **Respiratory system** **Gas exchange** **Respiratory BIG write** **Effects of cannabis** **Impact of exercise** **Impact of exercise BIG write**	**Microbes** **<u>Disease</u>** **Bacterial disease** **Viral disease** **Fungal disease** **Bacterial numeracy** **Malaria** **<u>Transmission and defence</u>** **Spreading microbes** **Human defence system** **Defence** **<u>Vaccination</u>** **Vaccination** **MMR** **MMR persuasive writing** **Antibiotics and pain killers** **MRSA**	**Energy transfer** Waves Wave equations Transverse and longitudinal w aves Reflection Refraction Dispersion Sound Transfer of sound through matter Structure of the Ear	**Genes and Evolution** Variation The structure of DNA Genes, chromosomes and the nucleus Cloning in plants and animals Selective breeding Natural selection Evolution Extinction conservation	**Motion and Forces** **Newton meters** **Hooke's Law** **Calculating speed** **Distance time graphs** **Speed and velocity – numeracy** **GPE and KE** **GPE and KE presentation** **Rollercoaster BIG WRITE**
Syllabus	**The year 7 and 8 curriculum has been developed from the KS3 national framework. All aspects that are not included in year 8, have been integrated into the KS4 curriculum taught during year 9. This can be found using the link below:** **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335174/SECONDARY_national_curriculum_-_Science_220714.pdf**					
Skills	**Experimental and Investigative Skills** Practical skills involving accuracy, equipment, observations Calculations using an equation Apply key terminology and data such as Repeats Accuracy Writing experimental methods	**Presentation and RWCN skills** Evaluating Communication Practical skills involving accuracy, equipment, observations Leter w riting Persuasive w riting Percentage components / RDA /	**Command words** Students w ill learn the command w ords explicitly and then be given opportunity to Identify w hich command w ords should be used and answ er questions which use the specific command w ords. Describe Explain Compare Contrast Evaluate	**Using and Interpreting Data.** Students w ill learn how to use and apply key terminology and data such as Repeats Reliability Reproducibility Mean Error Accuracy Resolution	**Control groups Sample Size** Students w ill learn w hy control groups are used to reduce bias and increase validity of scientific testing. Students w ill learn the importance of sample size and the range of possibilities in that sample. e.g. age, diet, gender	**Using and Interpreting Data.** Students w ill learn how to use and apply key terminology and data such as Repeats Reliability Reproducibility Mean Error Accuracy Resolution
Assessments	***Marking Point 1***	***Marking Point 1*** ***Diabetes evaluation***	***Marking Point 1*** ***Bacterial numeracy booklet***	***Marking Point 1*** ***Waves assessment***	***Marking Point 1*** ***Assessment and examination questions***	***Marking Point 1*** ***Speed and velocity numeracy task***

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	Marking Point 2 ***Marking Point 3***	***Marking Point 2*** ***Cultural Capital video on healthy eating and diet. Evaluating the diet of different groups*** ***Marking Point 3*** ***Progress test***	***Marking Point 2*** ***MMR persuasive writing task*** ***Marking Point 3*** ***MCT***	***Marking Point 2*** ***Light and sound assessment*** ***Marking Point 3*** ***Progress test***	***on evolution*** ***Marking Point 2*** ***Leaflet on extinction of elements*** ***Marking Point 3*** ***MCT***	***Marking Point 2*** ***Hooke's Law write up*** ***Marking Point 3*** ***Progress test***
Cultural Enrichment	Prada-Willi syndrome Students should describe the causes of the syndorme and the difficulties and dangers of having and living with someone who has the condition	Prada-Willi syndrome Students should describe the causes of the syndorme and the difficulties and dangers of having and living with someone who has the condition	Pain Puss and Poison – PAIN Evaluate the development of medicines over time. Pupils will write about medical advances in pain control and surgery.	Pain Puss and Poison – PAIN Evaluate the development of medicines over time. Pupils will write about medical advances in pain control and surgery.	Jurassic Park Students should research evolution of dinosaurs. They should include information about fossil records, natural selection, predator / prey relationships and extinction.	Jurassic Park Students should research evolution of dinosaurs. They should include information about fossil records, natural selection, predator / prey relationships and extinction.
Character	 QofS – Creativity & Curiosity Students will experiment with a variety of experiments during the Atoms and Elements topic and be encouraged to make predictions and show curiosity about their results. Whilst learning how to write a scientific report and during their homework task students will have an opportunity to think creatively.	 QofS – Empathy Whilst planning and delivering group presentations students will be expected to show high levels of creativity and independence. Students will need to be motivated to revise for their "Progress test". Students will be given advice on how to revise and be encouraged to use Personal Learning Checklists to support their revision. Students will have an opportunity to create a meal plan for various celebrity profiles and find a creative solution to encouraging healthy eating in school.	 QofS – Creativity & Curiosity Students will practise their understanding of key scientific skills and apply their knowledge and understanding of command words to exam style questions. This will be a key focus this half term as students are consolidating their application of scientific command words. Three assessment points through the term will enable students to be resilient when acting on their feedback by acknowledging which command words they need to gain further exam practice experience.	 QofS – Responsibility & Reflection Students will study the structure of the ear and hearing, they will develop an appreciation of what it is like not to have perfect hearing and how their world would be affected.	 QofS – Practice & Resiliency Students will be expected to show high levels of responsibility and independence whilst preparing for their "Progress Test". Students will be given advice on how to revise and be encouraged to use Personal Learning Checklists to support their revision. For their home learning this half term students will be set an extended writing task based on the film Jurassic Park where students must ensure they take responsibility to include key aspects of their half term classroom learning and relate it to aspects in the film.	 QofS – Motivation

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