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| Self Assessment Grading Grade 1 - Excellent level of knowledge and understanding. Fully prepared to teach. Grade 2- Good level of knowledge and understanding. Not fully confident to teach. Grade 3 - Some knowledge and understanding. Further research and study required before teaching. Grade 4 - Limited knowledge and understanding. Action planning required to prepare for teaching | | | | | |
| **Area of Subject Knowledge** | **Self-assessment grade 1-4** | | | | |
|  | **June Pre-course** | **September Commencement of course** | **December At the end of the autumn term.** | **March At the end of the spring term** | **June At the end of the spring/summer term.** |
| **Curriculum content** |  | | | | |
| How aware are you of the Science pupils will have been taught before KS3? |  |  |  |  |  |
| How aware are you of the content of GCSE Science and how this builds on what is taught at KS3? |  |  |  |  |  |
| How aware are you of the content of a A'level in Science and how this builds on what is taught at KS4? |  |  |  |  |  |
| **Biology KS3** |  |  |  |  |  |
| **Structure and function of living organisms……….** |  |  |  |  |  |
| Cells and organisation |  |  |  |  |  |
| The skeletal and muscular system |  |  |  |  |  |
| Nutrition and digestion |  |  |  |  |  |
| Gas exchange systems |  |  |  |  |  |
| Reproduction |  |  |  |  |  |
| Health |  |  |  |  |  |
| **Material cycles and energy……..** |  |  |  |  |  |
| Photosynthesis |  |  |  |  |  |
| Cellular respiration |  |  |  |  |  |
| **Interactions and interdependencies………** |  |  |  |  |  |
| Relationships in an ecosystem |  |  |  |  |  |
| **Genetics and evolution………** |  |  |  |  |  |
| Inheritance, chromosomes, DNA and genes |  |  |  |  |  |
| **Biology KS4** Check the KS4 programme of study and the appropriate exam board specification for full detail |  |  |  |  |  |
| Cell biology |  |  |  |  |  |
| Transport systems |  |  |  |  |  |
| Health, disease and the development of medicines |  |  |  |  |  |
| Photosynthesis |  |  |  |  |  |
| Evolution, inheritance and variation |  |  |  |  |  |
|  |  |  |  |  |  |
| **Using technology in teaching** |  |  |  |  |  |
| ..creating, renaming, moving, copying and deleting files? |  |  |  |  |  |
| ..downloading and printing files? |  |  |  |  |  |
| ..creating an Excel spreadsheet? |  |  |  |  |  |
| ..using a database? |  |  |  |  |  |
| ..creating an electronic presentation, e.g. PowerPoint or Prezi? |  |  |  |  |  |
| ..sending and receiving email? |  |  |  |  |  |
| ..locating documents on a hard drive, CD ROM, USB or network? |  |  |  |  |  |
| ..using interactive whiteboards, e.g. Smartboard, Promethean? |  |  |  |  |  |
| ..using tablets, e.g. iPads? |  |  |  |  |  |
| ..using online forums or class blogs? |  |  |  |  |  |
| ..using social media for educational purposes? |  |  |  |  |  |

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|  | **June Pre-course** | **September Commencement of course** | **December At the end of the autumn term.** | **March At the end of the spring term** | **June At the end of the spring/summer term.** |
| **Chemistry KS3** |  | | | | |
| The particulate nature of matter |  |  |  |  |  |
| Atoms, elements and compounds |  |  |  |  |  |
| The Periodic Table |  |  |  |  |  |
| Pure and impure substances |  |  |  |  |  |
| Materials |  |  |  |  |  |
| Earth and Atmosphere |  |  |  |  |  |
| **Chemistry KS4** Check the KS4 programme of study and the appropriate exam board specification for full detail. |  |  |  |  |  |
| Atomic structure and the Periodic Table |  |  |  |  |  |
| Structure, bonding and the properties of matter |  |  |  |  |  |
| Chemical changes |  |  |  |  |  |
| Rate and extent of chemical change |  |  |  |  |  |
| Chemical analysis |  |  |  |  |  |
| Earth and atmospheric science |  |  |  |  |  |

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|  | **June Pre-course** | **September Commencement of course** | **December At the end of the autumn term.** | **March At the end of the spring term** | **June At the end of the spring/summer term.** |
| **Physics KS3** |  | | | | |
| Energy |  |  |  |  |  |
| Calculation of fuel uses and costs in the domestic context |  |  |  |  |  |
| Energy changes and transfers |  |  |  |  |  |
| Changes in systems |  |  |  |  |  |
| Motion and Forces |  |  |  |  |  |
| Describing motion |  |  |  |  |  |
| Forces |  |  |  |  |  |
| Pressure in fluids |  |  |  |  |  |
| Balanced forces |  |  |  |  |  |
| Forces and motion |  |  |  |  |  |
| Waves |  |  |  |  |  |
| Observed waves |  |  |  |  |  |
| Sound waves |  |  |  |  |  |
| Energy and Waves |  |  |  |  |  |
| Eletricity and electromagnetism |  |  |  |  |  |
| Current electricity |  |  |  |  |  |
| Static electricity |  |  |  |  |  |
| Magnetism |  |  |  |  |  |
| Matter |  |  |  |  |  |
| Physical changes |  |  |  |  |  |
| Particle model |  |  |  |  |  |
| Energy in matter |  |  |  |  |  |
| Space physics |  |  |  |  |  |
| **Physics KS4** Check the KS4 programme of study and the appropriate exam board specification for full detail. |  |  |  |  |  |
| Energy |  |  |  |  |  |
| Forces |  |  |  |  |  |
| Forces and motion |  |  |  |  |  |
| Wave motion |  |  |  |  |  |
| Electricity |  |  |  |  |  |
| Magnetism and electromagnetism |  |  |  |  |  |
| The structure of matter |  |  |  |  |  |
| Atomic strucure |  |  |  |  |  |
| Space physics |  |  |  |  |  |