**Curriculum Overview for Science**

**Year 7**

|  |  |  |
| --- | --- | --- |
| **Half Term 1: How to Science****Substantive Knowledge:**Parts of the Bunsen burnerSafety symbolsVariables**Disciplinary Knowledge:**Identifying hazardsIdentifying variablesHow to draw a tableWriting methodsRecording timeMeasuring massMeasuring volumeHow to use a Bunsen burnerMeasuring temperature How to create revision resources (flash cards, revision cards and mind maps) | Books | Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading, |
| Speech | Safety, Hazard, Independent, dependent variable, control variable, Table, variable, Method, Hypothesis, Accurate, Resolution, Volume, Meniscus, mass, Safety flame, Roaring flame, Scale, thermometer, Double- blind, trial |
| Checklist RTL | Recall quiz x 1 |
| Home | Article Homework to promote reading like a scientistRecall quiz x 1 |
| **Half Term 2: Fundamentals****Substantive Knowledge:**Organelles of plant and animal cellsStructure and function of plant cellsParts of a microscopeHierarchy of cells, tissues, organs, organ systems, organismsStructure of an atomWhat elements, compound, mixture and molecules areDiagrams of state of matterChanges of stateAcids and alkalis on pH scaleStores and transfers of energy.Contact and non contact forcesNames of simple forces.How forces affect the motion of an object**Disciplinary Knowledge:**How to safely use a microscopeHow to observe cells using a light microscopeComparison of structures of cellsLinking structure to functionObservations of a chemical reactionColours of pH scale – acids and alkalisWord equationDrawing a transfer chain.Drawing force diagrams.Calculating a resultant force. | Books | Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading |
| Speech |  Kinetic, gravitational potential, chemical, thermal, elastic, NuclearLight, Sound, Heat, Forces, Electricity, Conservation of energy, transfer chains, Contact and non-contact forces, Balanced and un balanced, resultant, Acceleration, deceleration, constant speed, Atom, subatomic particle, Element, Compound, mixture and molecules, Solid, liquid, gasObservation, Particles, Acid, Alkali Cell, organelle, chloroplast, vacuole, cell wall, magnify, microscope, eukaryotic, prokaryotic, specialised, differentiation, unicellular, organisation, organism |
| Checklist RTL | Recall quiz x3End of unit assessment |
| Home | Article Homework to promote reading like a scientistRecall quiz x3Revision for end of unit assessment |