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| **Disciplinary knowledge Science Curriculum**  Kensington Junior Academy |

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| **Autumn** | | | |
| **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Chemistry - Rocks**  Begin to talk about criteria for grouping, sorting and classifying and use simple keys.  Begin to compare and group according to behaviour or properties, based on testing. | **Chemistry – States of matter**  Measure carefully (taking account of mathematical knowledge up to Year 4) and add to scientific learning  Use measures (within Year 4 mathematical limits) to help find out more about the investigations they are engaged with  Use a thermometer to measure temperature and know there are two main scales used to measure temperature | **Physics – Forces / earth and space**  Make predictions based on information gleaned from investigations  Create new investigations which take account of what has been learned previously  Clear about what has been found out from recent enquiry and can relate this to other enquiries, where appropriate | **Physics – Electricity/ light**  Use all measurements as set out in Year 6 mathematics (measurement), including capacity, mass, ratio and proportion  Use test results to make predictions to set up further comparative and fair tests.  Recognise how to set up simple comparative and fair tests and explain which variables need to be controlled and why.  Suggest improvements to my method and give reasons.  Decide when it is appropriate to do a fair test. |

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| **Spring** | | | |
| **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Biology - Animals, including humans/ physics forces**  Begin to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data. | **Biology – Livings things and their habitats - animals including humans**  Group information according to common factors | **Biology – Livings things and their habitats/ animals inc. humans**  Begin to use and develop keys and other information records to identify, classify and describe, living, and non-living things and materials. | **Biology – Livings things and their habitats / evolution and inheritance**    Make accurate predictions based on information gleaned from their investigations and create new investigations as a result |

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| **Summer** | | | |
| **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Biology - Plants/Physics light/ forces**  Observe carefully eg at what time of day a shadow is likely to be at its longest and shortest or which type of plants grow in different places e.g. bluebells in woodland, roses in domestic gardens, etc or measuring the distance a car travels due to the amount of friction it creates.  Measure and record carefully (taking account of mathematical knowledge up to Year 3) and add to scientific learning | **Biology - Animals, including humans /physics sound/ electricity**  Gather and record information using a chart, matrix or tally chart, depending on what is most sensible  Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. | **Chemistry – Properties and changes in materials**  Begin to take measurements, using a range of scientific equipment with increasing accuracy and precision, taking repeat readings where appropriate.  Use all measurements as set out in Year 5 mathematics (measurement), including capacity and mass  Use other scientific instruments as needed e.g. thermometer, rain gauge, spring scales (for measuring Newtons) | **Biology - Animals, including humans**  Use and develop keys and other information records to identify, classify and describe, living, and non-living things and materials. |