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| ***Words to know and spell (Tier 2 Vocabulary)*** |
| Similarities | Changes | Fair test |
| Differences | Identify | Measurement |
| Observations | Evidence | Thermometer |
| Keys | Predict | Results |
| Bar chart | Data | Increase |
| Decrease | Accurate | Theory |

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| ***Words to understand and spell (Tier 3 Vocabulary)*** |
| **Data logger** | An electronic device that records data on temperature, light and noise. |
| **Classify** | Arrange into groups or categories. |
| **Conclusion** | A statement based on measurements and observations. |
| **Hypothesis** | A prediction based on scientific theory. |
| **Dependent variable** | The variable that is being measure or observed. |
| **Independent variable** | A variable that is unchanged.  |

 ** LKS2 – Science KCV – Working Scientifically**

• Know that we can ask questions and answer them by setting up scientific enquiries

• Know how to make relevant predictions that will be tested in a scientific enquiry

• Know that in a fair test one thing is altered (independent variable) and one thing that may change as a result is measured (dependent variable) while all other conditions are kept the same

• Know how to use a range of equipment to measure accurately

• Know how to draw bar charts; how to label a diagram using lines to connect information to the diagram; how to use a coloured key how to draw a neat table; how to draw a classification key; how to show the relationship between an independent variable in a two-way table; and how to label specific results in a two-way table

• Know – with structured guidance - how to write a simple scientific enquiry write-up

• Know how to precis a scientific enquiry write-up into a brief oral discussion of what was found in a scientific enquiry

• Know that scientific enquiries can suggest relationships, but that they do not prove whether a prediction is true

• Know that scientific enquiries are limited by the accuracy of the measurements (and measuring equipment) and by the extent to which conditions can vary even, and that repeating enquiries, measurements and taking measures to keep conditions as consistent as possible can improve an enquiry

• Know that the conclusions of scientific enquiries can lead to further questions

• Know that they can draw conclusions from the findings of other scientists

• Know that a theory is an explanation of observations that has been tested to some extent and that a hypothesis is an explanation that has not yet been tested, but that can be tested through a scientific enquiry

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***Key skills to do:***

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| What do you predict will happen?What do your results show?How could we present these results?**Opportunities for Investigation:** A child-led project to be developed over the half term, ideally to cover an ‘observing over time’ line of enquiry.**Suggestions:**How long does a battery light a torch for?When is our classroom the quietest?How does an eggshell change when left in cola? |
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***Concept check questions. Test yourself:***

**Year 3/4 – Science – Spring 2 – Heyford Park School**

**Year 5 – Science – Autumn 1 – Heyford Park School**