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Hollinswood Primary School and  
Nursery

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Science Skills Grid

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2019-2020

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Science is understanding the world through the specific disciplines of biology, chemistry and physics. Science can be used to explain what is occurring, predict how things will behave and analyse causes.

### Science skill: Asking questions and making a prediction. (Plan)

EYFS	Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. Talks about why things happen and how things work.	Question, answer, equipment
KS1	Ask simple questions and recognising that they can be answered in different ways.	
Lower KS2	Ask relevant questions and using different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests.	Research, relevant questions, scientific enquiry, comparative and fair test, systematic, careful observation, accurate measurement, thermometer, data logger
Upper KS2	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables when necessary. Use test results to make predictions to set up further comparative and fair tests.	Plan, variables, accuracy, precision, repeat readings
KS3	Ask questions and develop a line of enquiry based on observations of the real world alongside prior knowledge and experience. Make predictions using scientific knowledge and understanding.	

### Science skill: Observing and measuring. (Do)

EYFS	Know about similarities and differences in relation to places, objects, materials and living things. They make observations of animals and plants	Observe, observing, identify, classify, sort, group record, diagram, chart, map, data
KS1	Observe closely, using simple equipment. Perform simple tests. Identify and classify	
Lower KS2	Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	systematic, careful observation, accurate measurement, thermometer, data logger
Upper KS2	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat reading where appropriate,	Patterns, systematic, quantitative measurements, identify, classify, describe
KS3	Carry out the most appropriate types of scientific enquiries to test predictions.	

### Science skill: Gathering and recording (Record)

EYFS	Can talk about some of the things they have observed such as plants, animals, natural and found objects.	Compare, contrast, describe
KS1	Gather and record data to help in answering questions	
Lower KS2	Gather, record, classify and present data in a variety of ways to help in answering questions Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	Gather, record, classify, present, drawings, labelled diagrams, keys, bar charts, tables
Upper KS2	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Scientific diagrams, labels, classification keys, scatter graphs, bar and line graphs,
KS3	Make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements Present observations and data using appropriate methods, including tables and graphs	

### Science skill: Evaluation (Review)

EYFS	Explain why some things occur and talk about changes.	
KS1	Use their observations and ideas to suggest answers to questions	Compare, contrast, describe
Lower KS2	Report on findings from enquiries, include oral and written explanations, displays or presentations of results and conclusions Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identify differences, similarities or changes related to simple scientific ideas and processes Use straightforward scientific evidence to answer questions or to support their findings.	Difference, similarities, changes, oral and written explanations, conclusions, predictions, evidence, primary and secondary sources, construct, interpret
Upper KS2	Report and present findings from enquiries, including conclusions, causal relationships and of and degree of trust in results, in oral and written forms such as displays and other presentations. Identify scientific evidence that has been used to support or refute ideas or arguments.	Support, refute ideas or arguments, further comparative and fair test, conclusions, causal relationship, explanations, degree of trust
KS3	Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions. Present reasoned explanations, including data in relation to predictions and hypotheses. Evaluate data, showing awareness of potential sources of error. Identify further questions arising from results.	

