

	Emerging	Securing	Deepening	Mastery
Scientific Attitudes	<ul style="list-style-type: none"> With support I can sometimes identify a question to investigate and follow most of a practical plan to help answer it I answer question which ask me to complete/ give reasons/ identify/ measure With support I can sometimes use scientific observations to suggest answers I can give a simple description of my ideas I can use some simple scientific key terms I need some support to help with spelling key words and sometimes need guidance to write in full sentences I can use some scientific symbols Using a checklist and support I can identify places where I have made a mistake/error With support I can identify a scientific process 	<ul style="list-style-type: none"> With support I can identify a question to investigate and follow a simple practical plan to answer it I can answer questions which ask me to compare/ describe/ draw I can use scientific observations to suggest answers With support I can give a simple description, using details I can use several scientific key terms I occasionally need support to help with spelling key scientific words and can write in full sentences I can use scientific symbols and with support can use some conventions With support I can identify places where I have made a mistake/error I can state an example of a scientific process 	<ul style="list-style-type: none"> I can identify a question to investigate and follow a simple plan to answer it. With support I can suggest my own practical investigation. I can answer questions which ask me to calculate/ compare and contrast/ estimate/ plot I use scientific observations to confidently answer questions I can describe my ideas using details I can define and use several scientific key terms I can confidently spell some scientific key words and always write in full sentences I use scientific symbols and some conventions I can identify places where I have made a mistake and suggest an improvement for one of them. I occasionally act on feedback to improve I can describe more than 1 scientific process 	<ul style="list-style-type: none"> I can identify a question to investigate and follow a plan to answer it. I can suggest my own practical investigation. I can answer questions which ask me to show/ analyse / justify / discuss I use scientific observations and knowledge to confidently answer questions I can confidently describe my ideas using details to enhance them. With guidance I can make links between new knowledge and prior knowledge. I can consistently define and use several scientific key terms I confidently spell a range of key scientific words, use correct punctuation, and use mostly correct grammar throughout I can use a range of scientific symbols and conventions I can identify places where I have made a mistake and suggest an improvement for several of them. I often act on feedback to improve I can explain at least 1 scientific process and describe a scientific phenomena

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Experimental Skills and Investigations	<ul style="list-style-type: none"> With support, I can write a hypothesis and choose a prediction from a list With help I can list most of equipment I need to use With support I can write a simple method. I can make visual observations and with support take readings from simple equipment With support I can draw a results table with headings With support I can identify 1 control variable I can identify a potential hazard and with support state the risk 	<ul style="list-style-type: none"> With support I can write a hypothesis and make a simple prediction I can list most of the equipment I need to use. I can write a method with limited support that can be followed, even with some points missing or out of order. I can make visual observations and take some readings from simple equipment I can draw results tables which are complete with headings. With support I can identify 1 control variable and use guidance to suggest a way to control it I can identify a potential hazard and state the risk 	<ul style="list-style-type: none"> I can write a hypothesis and make a prediction I can list all of the equipment I need to use and state the purpose of some of them I can write a method that can be followed by someone else and identify at least one measurement that needs to be made. I can write down both visual observations and readings from a range of equipment I can draw results tables with are complete with headings and units I can identify more than 1 control variable and suggest a way to control one of them I can identify a potential hazard, state the risk and with support suggest a precaution 	<ul style="list-style-type: none"> I can write a hypothesis and make a prediction, using some science to support it I can list all of the equipment I need to use and explain what they are used for Independently I can write a repeatable step-by-step method. The dependant variable and independent variables will be identified. I can record observations and results scientifically using a range of equipment to help me I can design my own results tables with clearly labelled headings including units I can identify a range of control variables and suggest ways to control them I can identify a potential hazard, state the risk and suggest a precaution

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Analysis and Evaluation	<ul style="list-style-type: none"> With help, I can state the trend I can see in my results. I can plot points on a graph and label axes with support With support I can attempt a straight line of best fit With support I can describe a difference between different types of graph I can write a simple conclusion I can identify if my data is of good quality With support, I can identify an anomalous (odd) result 	<ul style="list-style-type: none"> Independently I can link the variables to identify the trend in my results and use data to support it I can plot mostly accurate points on a graph and label axes with support With support I can draw a mostly accurate straight line of best fit I can describe the differences between continuous and discontinuous data I can write a conclusion and, with support, use data I can identify if my data is of good quality and, with support, give a reason for my answer I can identify an anomalous (odd) result. 	<ul style="list-style-type: none"> I can use experimental data to support my trend and explain it using relevant scientific knowledge. I can create a simple scale for a graph and plot points, with support I can independently draw an accurate straight line of best fit With support I can suggest the appropriate type of graph for a set of data I can write a conclusion using experimental data and compare to predictions With support, I can use the terms accurate and precise to explain if my data is of good quality I can suggest why an anomalous result may have occurred. 	<ul style="list-style-type: none"> I can use experimental data confidently to support my trend and explain it using relevant scientific knowledge. I can create a simple scale for a graph and accurately plot points I can independently draw either a straight or curved line of best fit I can suggest the appropriate type of graph for a set of data I can write a conclusion using experimental data and suggest improvements I can independently use the terms accurate, precise, and repeatable to explain if my data is of good quality With support, I can suggest an improvement which would reduce anomalies

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Measurement and Maths	<ul style="list-style-type: none"> I can take measurements of at least three different quantities I can use addition, subtraction and multiplication in simple calculations With support, I regularly use FIA to show my working 	<ul style="list-style-type: none"> I can take measurements using standard units using a range of equipment I can use addition, subtraction, multiplication and division in simple calculations I regularly use FIA and with support can use FIMA to show my workings With support I can round my answers using decimal places 	<ul style="list-style-type: none"> I can take measurements using a range of scientific equipment, with some accuracy I can calculate the mean average for a set of data with support I regularly use FIMA to show my workings I can round my answers using decimal places 	<ul style="list-style-type: none"> I can take measurements using a range of scientific equipment, with some accuracy, and occasionally take repeat readings I can confidently calculate the mean average for a set of data I always use FIMA to show my workings I can round my answers using decimal places or significant figures

Term	Mastery Pathway	Target
Autumn Term		
Spring Term		
Summer Term		