'Thinking Scientifically' End of year statements for ARE pupils

	Y1	Y2	Y3	Y4	Y5	Y6
	Begin to ask simple questions about what they see.	Ask simple questions and recognises that they can be answered in different ways.	Use results to draw a conclusion and make predictions for answering a different question.	Use results to draw a conclusion and make predictions or suggest improvements for answering a different question or repeating a test.	Begin to identify scientific evidence that has been used to support or refute ideas or arguments.	Independently identify and evaluate scientific evidence from multiple sources that has been used to support or refute ideas or arguments.
	Begin to observe more closely, using simple equipment with support.	Use simple equipment to look very closely at things to understand them better.	Identify some simple differences or similarities when making comparisons.	Identify differences, similarities or changes related to simple scientific ideas and processes.	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Independently plan different types of multiple-step scientific enquiries to answer questions, including recognising and controlling variables where necessary.
	Begin to perform simple tests. In simple ways.	Perform simple tests	Support answers to questions by pointing out the scientific evidence.	Support answers and conclusions by pointing out the scientific evidence	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Confidently take detailed and accurate measurements, using a range of scientific equipment, with increasing precision, taking repeat readings when appropriate
	Begin to identify and group similar things together.	Identify different things in Science and group similar ones together.	Begin to report on findings from enquiries, including oral and written explanations, of results and conclusions.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	Begin to record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Record and independently organise data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
	Begin to answer questions based on what they have seen.	Use what they have seen and think how this helps them when I answering scientific questions.	Gather data to answer a scientific question and then present them in a table, grid or graph.	Gather, record, classify and present data in a variety of ways to help in answering questions.	Begin to use test results to make more specific predictions to set up further comparative and fair tests.	Use test results to accurately make predictions to set up and justify further comparative and fair tests to challenge data in more depth.
	Find information to help answer simple questions.	Find and record information, which helps when answering questions.	Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Explain conclusions in more detail using a report or graph to describe the key evidence to support answers.	Explain conclusions in detail using a report or graph to describe the key evidence to support answers and highlight the specific causes of the outcomes of experiments independently.
			Begin to set up simple practical enquiries, comparative and fair tests.	Set up simple practical enquiries, comparative and fair tests.		
			Make observations and record measurements (for example in mm or g).	Make systematic and careful observations and where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		
			Begin to ask relevant questions and use different types of scientific enquiries to answer them.	Ask relevant questions and use different types of scientific enquiries to answer them.		