

<u>AF-1 Thinking Scientifically</u>	<u>AF-2 Understanding How Science is Used</u>	<u>AF-3 Communicating and Collaborating in Science</u>	<u>AF-4 Investigating</u>	<u>AF-5 Collecting and Reflecting on Results</u>
Ask questions stimulated by their exploration of their world	Identify a link to science in familiar objects or contexts	Use everyday terms to describe simple features or actions of objects, living things or events they observe	Respond to prompts by making some simple suggestions about how to find an answer or make observations	Respond to prompts to say what happened
Recognise basic features of objects, living things or events	Recognise scientific and technological developments that help us	Present evidence they have collected in simple templates provided for them	Use their senses and simple equipment to make observations	Say what has changed when observing objects, living things or events
Draw on their everyday experience to help answer questions	Express personal feelings or opinions about scientific or technological phenomena	Communicate simple features or components of objects, living things or events they have observed in appropriate forms	Make some suggestions about how to find things out or how to collect data to answer a question or idea they are investigating	Say what happened in their experiment or investigation
Respond to suggestions to identify some evidence (in the form of information, observations or measurements) that has been used to answer a question	Describe, in familiar contexts, how science helps people do things	Share their own ideas and listen to the ideas of others	Identify things to measure or observe that are relevant to the question or idea they are investigating	Say whether what happened was what they expected, acknowledging any unexpected outcomes
Draw on their observations and ideas to offer answers to questions	Identify people who use science to help others	Present their ideas and evidence in appropriate ways	Correctly use equipment provided to make observations and measurements	Respond to prompts to suggest different ways they could have done things
Make comparisons between basic features or components of objects, living things or events	Identify scientific or technological phenomena and say whether or not they are helpful	Respond to prompts by using simple texts and electronic media to find information	Make measurements, using standard or non-standard units as appropriate	Identify straightforward patterns in observations or in data presented in various formats, including tables, pie and bar charts
Sort and group objects, living things or events on the basis of what they have observed	Explain the purposes of a variety of scientific or technological developments	Work together on an experiment or investigation and recognise contributions made by others	Identify one or more control variables in investigations from those provided	Describe what they have found out in experiments or investigations, linking cause and effect
Respond to suggestions to identify some evidence (in the form of information, observations or measurements) needed to answer a question	Link applications to specific characteristics or properties	Identify aspects of our lives, or of the work that people do, which are based on scientific ideas	Select equipment or information sources from those provided to address a question or idea under investigation	Suggest improvements to their working methods
Identify differences, similarities or changes related to simple scientific ideas, processes or phenomena	Identify aspects of our lives, or of the work that people do, which are based on scientific ideas	Use scientific forms of language when communicating simple scientific ideas, processes or phenomena	Make some accurate observations or whole number measurements relevant to questions or ideas under investigation	Identify patterns in data presented in various formats, including line graphs
Respond to ideas given to them to answer questions or suggest solutions to problems	Describe some simple positive and negative consequences of scientific and technological developments	Identify simple advantages of working together on experiments or investigations	Recognise obvious risks when prompted	Draw straightforward conclusions from data presented in various formats
Represent things in the real world using simple physical models	Recognise applications of specific scientific ideas	Select appropriate ways of presenting scientific data	Decide when it is appropriate to carry out fair tests in investigations	Identify scientific evidence they have used in drawing conclusions
Use straightforward scientific evidence to answer questions, or to support their findings	Identify aspects of science used within particular jobs or roles	Use appropriate scientific forms of language to communicate scientific ideas, processes or phenomena	Select appropriate equipment or information sources to address specific questions or ideas under investigation	Suggest improvements to their working methods, giving reasons
Use scientific ideas when describing simple processes or phenomena	Describe different viewpoints a range of people may have about scientific or technological developments	Use scientific and mathematical conventions when communicating information or ideas	Make sets of observations or measurements, identifying the ranges and intervals used	Interpret data in a variety of formats, recognising obvious inconsistencies
Use simple models to describe scientific ideas	Indicate how scientific or technological developments may affect different groups of people in different ways	Distinguish between opinion and scientific evidence in contexts related to science, and use evidence rather than opinion to support or challenge scientific arguments	Identify possible risks to themselves and others	Provide straightforward explanations for differences in repeated observations or measurements
Identify scientific evidence that is being used to support or refute ideas or arguments	Identify ethical or moral issues linked to scientific or technological developments	Decide on the most appropriate formats to present sets of scientific data, such as using line graphs for continuous variables	Recognise significant variables in investigations, selecting the most suitable to investigate	Draw valid conclusions that utilise more than one piece of supporting evidence, including numerical data and line graphs
Use abstract ideas or models or more than one step when describing processes or phenomena	Link applications of science or technology to their underpinning scientific ideas	Use appropriate scientific and mathematical conventions and terminology to communicate abstract ideas	Explain why particular pieces of equipment or information sources are appropriate for the questions or ideas under investigation	Evaluate the effectiveness of their working methods, making practical suggestions for improving them
Explain processes or phenomena, suggest solutions to problems or answer questions by drawing on abstract ideas or models		Suggest how collaborative approaches to specific experiments or investigations may improve the evidence collected	Repeat sets of observations or measurements where appropriate, selecting suitable ranges and intervals	
Recognise scientific questions that do not yet have definitive answers			Make, and act on, suggestions to control obvious risks to themselves and others	
Identify the use of evidence and creative thinking by scientists in the development of scientific ideas				

Key:

Level 1 

Level 2 

Level 3 

Level 4 

Level 5 

