

Working Scientifically Framework

	M1	M2	M3	M4	M5	M6	M7	M8
Experimental skills and Investigations	Encounters a range of sensory evidence during activities	Changes body language in a more sustained way	Positively or negatively anticipates events (eg: shows excitement or fear when familiar equipment is coming out or when a particular sound happens)	Communicates awareness of some obvious changes	Responds to simple scientific questions.	Responds to simple scientific questions that require a more detailed response.	Responds to questions required an informed decision. (ie: how much should you use? Should you add more or less?)	Begins to ask some of their own questions based on observation.
	May react during sensory based activities	Gathers further sensory evidence by observing for a short but sustained period when there is a change or simple cause/effect relationship	Purposefully uses equipment to observe a change	Explore objects provided using any sensory mode	Responds to and follows instructions involving more than one step.	Recalls the stages of a simple procedure as it is carried out.	Makes simple suggestions of what to do to find the answer.	Contributes to planning an investigation.
	May give intermittent reactions		Chooses what equipment to use, who to work with or activity they wanted to do	Follows a simple procedure with step-by-step support to gather evidence	Completes a simple task with guidance.	Engages in experimentation using familiar equipment.	Uses learnt skills in a different context.	Shows an awareness of amounts to use.
			Chooses which changes to observe or compare		Follows a more complex experiment with a range of prompts. (ie: sequence of photos or modelled behaviour)	Completes a procedure following simple instructions.	Makes detailed observations.	Makes simple predictions based on something already encountered.
						Records observations by grouping similar results.	Begins to respond to encouragement to repeat or modify tasks.	Notices when something has not worked and tries a different approach.
Analysis and Evaluation		Recognises familiar events and objects.	Requests events or activities.	Imitates actions	Groups and/or matches objects in terms of single obvious features.	Uses familiar resources to gather evidence using skills involving a small number of simple steps.	Looks through a book or other media to locate information	Repeats or follows up previous activities to investigate further. (ie: previous seeds grew in given conditions, will different seeds grow in the same conditions?)
		Communicates consistent preferences.	Engages in an activity and observes a change. (ie: watching light move or bubbles rise)	Uses resources, following step-by-step instructions to gain information or collect evidence.	Completes a set of steps to locate information within a book, display or computer programme.	Detects and indicates where sensory information differs.	Communicates related ideas and observations using simple phrases/signs.	Identifies changed or unusual items and brings to the attention of others.
			Chooses a favourite or best result.		Identifies where changes have taken place. (ie: plant has grown or shape has changed)	Begins to make generalisations, predictions, or connections.	Sorts materials with help and obvious given criterion.	Brings basic order to results/observations
					Indicates where similar changes have happened.	Recognises distinctive features of objects and where they belong.	Indicates the 'best' results.	Sorts materials using simple criteria.
								Begins to arrange results in "size" order.
Scientific attitudes	Participation is fully prompted.	Begins to show interest in events and objects.	Becomes aware of the sources of sensory evidence.	Shows interest in objects and activities.	Takes part in activities focused on anticipation of something in a particular environment.	Explores objects and materials provided appropriately.	Actively joins in scientific investigations.	Explores and observes similarities, differences, and changes.
	Allows themselves to be involved in activity.	Responds with increasing consistency to sensory based activities.	Observes results of own actions with interest.	Response to prompts to observe sensory based outcomes of an experiment.	Uses resources with increasing independence.	Recognise a safety warning.	Identifies some obvious hazards.	Identifies obvious risks and reduces risk.
	Shows emerging awareness of activities and experiences.	Begins to be proactive in interactions.	Requests stimulus through gesture.				Shows understanding of some simple scientific vocabulary.	
	May have periods of alertness.		Actively explores objects and events for more extended periods.					
Measurement				Observes outcomes of simple physical change.	Indicates the before and after of material changes.	Matches object to a similar one.	Distinguishes between different results.	Begins to use non-standard measures with help to record results (ie: height of foam from different washing up liquids)
						Observes change closely.		