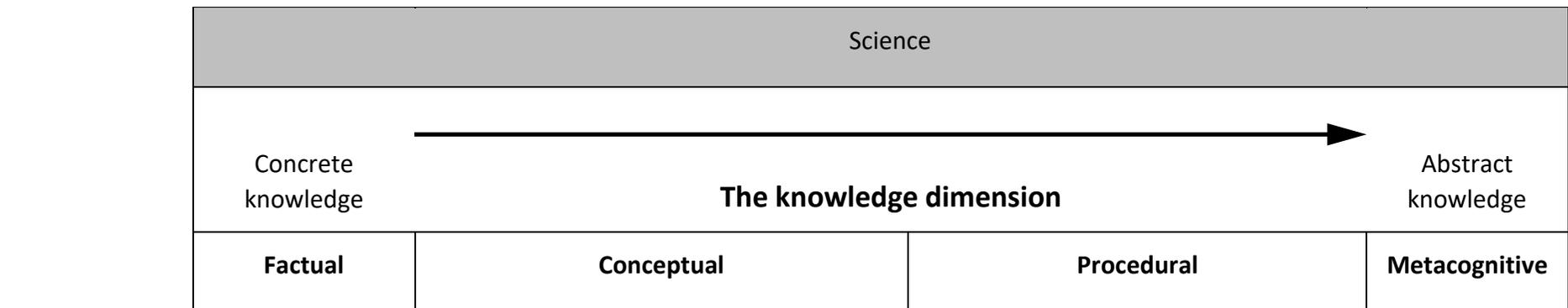


		Science			
		Concrete knowledge			Abstract knowledge
					
		The knowledge dimension			
		Factual	Conceptual	Procedural	Metacognitive
	Remembering	What is this [plant/flower/tree/animal/insect] called? Can you make a list of different [birds/amphibians/reptiles/fish/mammals]? What are the ends of a magnet called? Who is the [famous scientist/ naturalist] in the photograph?	What is a variable? What is a [food chain/fossil]? Which did we learn about the [nervous/digestive/circulatory] system? What happened to the water when it was [heated/cooled]?	What happened next? What are the steps we follow when carrying out an experiment? What happens to food once it is inside the mouth? Can you remember the next stage in the life cycle of a [flowering plant/ frog/human]?	Is there a way to help you remember each stage of the process? Can you use an acronym or acrostic to help you remember? What have you learned about in previous science lessons that could help you with this lesson? Why do scientists [repeat experiments/make notes and recordings]?

The cognitive process dimension 	Understanding	Why does the plant have roots? What is the function of the [liver/kidneys/lungs/heart]? Can you give me a definition for [scientific word]? Why must we be careful when using...?	Can you sort these [flowers/plants/animals] by size? Why were only some objects attracted to the magnet? Why didn't the [feather/seed] fall straight downwards? If there were fewer [foxes/rabbits/plants], what effect would this have on the food chain?	Why should you only change one variable in the experiment? Why is it important to repeat experiments? Can you explain why the days are [longer in summer/shorter in winter] in the UK? How is [sedimentary/ igneous/metamorphic] rock formed?	Can you predict the results of the experiment? Why do you think this happened? Can you explain the findings of the experiment in your own words? What might help you to better understand [the movements of the moon and Earth/the effect of gravity on objects]?



 <p>The cognitive process dimension</p>	Applying	<p>What do you already know about this [plant/animal]?</p> <p>Using your research, how can you group the [plants/animals]?</p> <p>Which scientific words would best describe...?</p> <p>Which observations prove [outcome/concept]?</p>	<p>Are there any similarities between ... and ...?</p> <p>Can you think of another process like this?</p> <p>When does digestion begin and when does it end?</p> <p>Can you give some scientific advice to the other group?</p>	<p>How do you carry out a fair test? How do you use this equipment accurately?</p> <p>What safety rules do you need to follow?</p> <p>How will you [record/show] the data?</p>	<p>What questions would you ask a scientist?</p> <p>Do you need to adapt a task to fit your preferred learning style?</p> <p>How are you working like a scientist in this lesson?</p> <p>What scientific methods and techniques did you use?</p>
	Analysing	<p>What do your results tell you?</p> <p>Were your predictions accurate?</p> <p>How did you check your facts?</p> <p>Did any results surprise you? If so, why?</p> <p>Was your data accurate? How do you know?</p>	<p>Why do the [materials/rocks] have different properties?</p> <p>Which of our 'healthy lifestyle' plans would you recommend and why?</p> <p>Why was this experiment more reliable than [the previous/the other group's] experiment?</p> <p>Why did the [cress/beans] grow better in that location?</p>	<p>What do you think went wrong?</p> <p>Can you explain what must have happened when...?</p> <p>How did [famous scientist] carry out their work?</p> <p>What caused the change to occur?</p>	<p>What do you already know about this aspect of science that might be useful?</p> <p>What are the most useful pieces of information you have learned? How would finding out more information help you with your work?</p> <p>What motivated [famous scientist] to become a scientist?</p>

		Science			
		Concrete knowledge			Abstract knowledge
					
		The knowledge dimension			
		Factual	Conceptual	Procedural	Metacognitive
Evaluating		<p>Why is that website a reliable source of scientific information?</p> <p>What specific scientific vocabulary best describes this [process/ result/investigation]?</p> <p>Why are your results [accurate/ not accurate]?</p> <p>What [information/data] is missing?</p>	<p>What influence has [famous scientist/naturalist] had?</p> <p>What are the positive and the negative aspects of selective breeding in dogs?</p> <p>Why is that scientific knowledge important to know?</p> <p>Are all the results of the experiment relevant?</p>	<p>Why did you choose [this approach/that equipment/that method of recording data]?</p> <p>Was this the most reliable way to test your hypothesis?</p> <p>Why is it difficult to replicate some experiments?</p> <p>How would you defend Darwin and Wallace against their critics?</p>	<p>If you were learning about this aspect of science again, what would you do differently and why?</p> <p>What helps you learn in science? Why?</p> <p>What do you find most difficult in science lessons? Why?</p> <p>Which are the most useful things to remember. Why?</p>

<p style="text-align: center;">The cognitive process dimension</p> 	Creating	<p>Can you prepare an assembly about the importance of [cleaning our teeth/healthy eating]?</p> <p>Can you produce a PowerPoint presentation about [tress/amphibians/evolution]?</p> <p>Can you provide illustrations for each [planet/season/classification of living things]?</p> <p>How many objects can you find that are made of that material?</p>	<p>Who could help you carry out this investigation? How would they be able to help?</p> <p>How will you convince someone that the test was fair?</p> <p>Can you compare the data in more than one way?</p> <p>Can you create and illustrate your own scale to measure [wind strength/sound]?</p>	<p>Can you produce a 'Guide to Carrying Out Experiments' for the children in Year 2?</p> <p>During the day, can you prove the Earth is rotating on its axis by using webcams from around the world's cities?</p> <p>Can you explain the scientific process to a friend?</p> <p>What could change the results of this investigation? Why?</p>	<p>What do you want to learn in this unit of work and how will it be useful?</p> <p>Can you select work that demonstrates your learning in science?</p> <p>How might this scientific knowledge be useful in other subjects?</p> <p>How will you further develop your science skills and knowledge?</p>