

Video question script, KS2: Plenary: What was it like to be there? Bringing a fossil back to life

Question/Activity	Likely response	Rationale
When teaching about the Earth we often use practical activities to explore Earth processes. This example asks how we might “bring a fossil back to life” from the evidence of the fossil, and the material in which it is found.		Preparation for bridging from the fossil to the living animal
What is this?	An uninteresting-looking piece of mudstone	Concrete preparation = asking them to describe the item
But what can we see when I split it open? What were the conditions like when it lived?	Two matching imprints of a trilobite fossil – rather badly preserved. The mudstone shows that it lived in muddy water. Trilobites are extinct, but we know that they lived in the sea, because we find fossil animals along with them whose descendants only live in the sea today.	Construction = applying their previous knowledge (Uniformitarian principle)
We are going to see if we can “bring a trilobite back to life” in our imagination, but we need a better example, so here is a photo of a well preserved trilobite.	Photo of <i>Dalmanites limulurus</i> 7cm long. Even this good specimen only has its hard parts preserved: the soft parts rotted away not long after it died. (Taken by DanielCD. Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License.)	Concrete preparation
Now use the evidence in the photo to decide: <ul style="list-style-type: none"> • What sort of place was this animal living in? What did it breathe? What did it eat? Was it a hunter? – or hunted? – or both? What could it have sensed? What could it have seen? How did it die? – can we tell? What happened after it died? 	<ul style="list-style-type: none"> • The flat shape suggests that it crawled around on the sea bed or swam near the sea floor; It probably had gills, so that it could take oxygen from the water around; • It probably ate smaller sea- bed creatures or bits of dead animals; • It had an “armoured” exterior, so it was probably hunted by bigger animals; • It could sense light with its eyes and vibrations in the water with its body; • It had eyes, so it could have looked around and seen plants and animals and maybe fish in the water above; • This near-perfect specimen might have been suddenly buried by muddy sediment and died; • After it died the soft parts rotted and disappeared and the surrounding sediment hardened into rock. 	Pupils have to use their creativity and imagination to bring the animals and their environments to life, whilst ‘bridging’ between life today and in the past. Discussion about the activity is metacognition.
Now try this one for yourselves, and we are not going to give you the answers this time.	Photo of <i>Albertosaurus</i> , 4m across (http://www.earthscienceworld.org/images/index.html . Photo ID: hpdzvvh, copyright Abi Howe, AGI)	As above.