Video question script: Found in the ground

Question/Activity	Likely response	Rationale
When teaching about the Earth we often use practical activities to explore Earth processes. This example uses the Earthlearningidea: Found in the ground https://www.earthlearningidea.com/ PDF/155_Found_in_ground.pdf	-	Preparation for bridging from the model to real Earth processes
What is this?	A tray containing a range of Earth materials and some manufactured objects	Concrete preparation - asking pupils to describe the apparatus
Ask: Sort the items into three or four groups, based on properties which you think they have in common. Discuss your reasons for the sorting with your pupil group while you are doing this.	Sorting carried out by each group, according to their own choice of criteria, accompanied by reasoned discussion among the pupils	Construction - applying their previous knowledge. Metacognition – debating reasons for sorting within the pupil group
Ask pupils to compare their sorting with that of a neighbouring group and discus reasons why they differ.	Observation of other groups' criteria for sorting, and discussion of the differences from their own	Metacognition – debating reasons for sorting between the pupil groups
Demonstrate the usual geologist's way of sorting the items to ensure uniformity. Provide definitions of the terms *mineral, rock* and *fossil.*	Pupils rearranging their set of items in accordance with the geologist's way	Construction – finding a new pattern in the items, Bridging to the wider world of things found in the ground
Ask if there were any items where it was difficult to decide in which category they should belong.	Some fossils were enclosed in rocks, so it is difficult to say in which category they belong	Cognitive conflict in making the decision
Ask pupils to examine the specimen which has been marked with a spot, and ask how they know it is a rock and not a mineral.	The specimen is composed of a mixture of grains and is therefore not a compound or element.	Metacognition – debating reasons for grouping
Ask pupils to relate some of the manufactured objects to the minerals from which they were manufactured.	The lead strip was made from the ore of lead, galena, and the steel nail from the iron ore, haematite.	Bridging = applying learning from the activity to the world of manufacture.