



Retrieval and recall in science and foundation subjects.

In science and all foundation subjects there is key knowledge that we want pupils to learn, remember and be able to apply after the initial teaching. They may not need to remember all this knowledge all of the time, but we want them to be able to access it when relevant – when they are building on it for further learning.

Some principles that can shape the school's curriculum:

- Some key subject knowledge is required most of the time – for example, the understanding of specific terminology and vocabulary. This may need revisiting regularly, or whenever it appears to be slipping in current working.

A good way of revisiting this is to ask pupils for definitions or explanations of terms. Or, ask them to combine two terms in a sentence, e.g. circuit and battery. This evidences their retained familiarity and understanding. If pupils are grouped with a partner or in threes then they share recalled knowledge and reinforce each other without the need for teacher input. Class discussion can then consolidate agreed outcomes.

- Some prior subject knowledge only needs reviving before it is extended in new teaching. This may form part of baseline assessment before a unit commences. In many subjects, reference will need to be made to knowledge that was taught in previous years.

This is easily established by getting pupils to work in small groups of 3-4 and asking them: Can you write down everything you know about xxx on this large piece of paper? The teacher circulates with minor prompting to groups or questions such as 'what else can you say about xxx?' class discussion quickly establishes the full picture of everyone's collective knowledge and understanding. If the teacher records this on a flipchart it becomes a valuable resource.

- Some wider subject knowledge is deemed valuable to remember most of the time, so that links from current learning can be made to it. In these cases, revisiting can be planned into the curriculum at appropriate points. Again, this is likely to refer to knowledge taught in previous years, as well as earlier in the current year.

This key knowledge can be built into current teaching to prompt pupils to look for and explain links within and between subjects. Ideally these prompts can be written into the school curriculum rather than relying on individual teachers to remember them.