

How To deliver an effective Computing lesson

Computing lessons that promote learning effectively are active and participatory. There are five key aspects of the lessons that promote learning in this way:

1. They get off to a clear start. The teachers build on pupils' **existing learning** and **rehearse** familiar concepts with the pupils before they move on to something new.
2. The teachers set **clear objectives** using subject specific vocabulary. Computing has a subject-specific vocabulary just like other areas of the curriculum. Some of these words will be totally new perhaps, like 'debug' and others might not be new, but have different meanings in the context of computing.
3. Lessons include '**off screen activities**' to support pupil learning. It is especially important for pupils to understand the relationship between the code and something happening on screen, and often the best way to get this across is to move away from the screen and into the physical world. In the early stages of computing in Primary schools, learning is often off screen, using programmable toys. As the curriculum progresses into the Secondary phase, concepts are applied in more abstract settings
4. When pupils are debugging ready-made code blocks this is a powerful form of learning – it develops the crucial skill of problem solving. This is bit like taking apart a model to understand how it is made and it means that pupils can make changes to the code, like changing the distance a sprite travels or costumes, and see the effect immediately. Trial and error is a major way that pupils learn to program.
5. **Pupil to pupil learning** is important, and successful teachers give lots of opportunities for this to happen. Teachers have also found that if they use freely available software, pupils can download it and practice their skills at home.