



The Importance of Mathematical Recordings & Jottings at Captain Webb Primary School.

“It is important for children to establish and maintain jotting habits throughout their mathematical journey...when children progress to multistep problems and later to mathematical proof they need to have strategies for keeping track of the steps that they have done and to be able to make it presentable and understandable to others.” Advanced Skills Teacher.

At Captain Webb Primary, we strive to develop and deepen children’s mathematical thinking through problem solving. Because of this, we are developing the place and value of meaningful recordings and jottings throughout school.

There are three different contexts in which recording might take place; the purpose for jottings need to be exemplified and modelled to the children at every stage.

1. *Recording in the moment* - While working on a problem, children might jot down anything that helps them come to a solution. These jottings are purely for them and are done ‘in the moment’. They are not intended for anyone else to read, therefore may not make sense to anyone else. This would include what Carruthers and Worthington refer to as ‘young children’s mathematical graphics’.
2. Jottings to make sense of the maths e.g. a bar model, a diagram a pictorial representation. These are taught strategies which need some degree of accuracy to ensure miscalculations do not occur.
3. Jottings to keep track of thinking-where is it tricky to keep everything in your head. These jottings should be systematically structured in order for the child to keep track of their mathematical thinking. These jottings may reveal an underlying pattern or structure which may lead to further exploration.
4. Jottings that represent a specific strategy e.g. using the inverse or calculating mentally. Again, these need to be performed in a structured fashion.

The implications for the classroom

Jottings and mathematical recording is a form of communication, meaning that it has an audience (even if that is ourselves). It’s important that children know **why** they are being asked to record and that different expectations are attached to each type of

communication. It is imperative that the children **understand the purpose** of their recording and **value** all types of recording and mathematical graphics. Children are encouraged to discuss a range of recording strategies, for example by asking "How else might we record this?" The modelling of appropriate jottings to address misconceptions and errors is pinnacle to the application by children. Having been shown a range of appropriate jottings, the children can independently make choices on the most appropriate jotting to the task in hand.

When pupils are secure and can answer mentally with accuracy, jottings are not required.

Working walls are used to exemplify the jottings that can be used to help pupils make good choices about when to use jottings.