

Each of the first three teaching points in this segment follow the same progression, as children learn to count in groups of (one,) two, five and ten. For each unit, counting should go up to at least ten groups (10 for ones, 20 for twos, 50 for fives and 100 for tens). In each of these teaching points, children will count with the support of both ordinal and cardinal representations. In preparation for *Teaching point 4*, the cardinal representations include pre-money tokens:









1 p pre-money token

2 p pre-money token

5 p pre-money token

10 p pre-money token

Once coins are introduced, the pre-money tokens will help children to move from a representation in which the cardinality *can* be seen (for example, two dots on the 2 p token) to one where the cardinality *cannot* be seen (for example, a 2 p coin).

Pre-money tokens can be made by sticking coloured dots onto counters. The size and colour of both the counters and the dots should be the same for all of the pre-money tokens, so that children's attention is focused on the defining feature: the number of dots on a token. The dots should only be placed on one side of each counter to avoid confusion about the value of a counter (for example, if there are five dots on each side of a counter, there are ten dots in total; in this case does the token have a value of five or a value of ten?).

Once children have fully explored the different coin denominations in *Teaching point 4* (using real coins if possible), the pre-money tokens also help children to apply their experience of skip counting (from *Teaching points 1–3*) to finding the value of a set of identical coins (*Teaching point 5*) and to finding the number of identical coins needed to make a particular value (*Teaching point 6*). The ability to simultaneously think about the number of identical coins, the value of each coin and the total value of the set of coins, will prepare children for future work on multiplication and division.

Extracted from NCETM Mastery Professional Development Materials Multiplication and Division

2.1 Counting, unitising and coins https://www.ncetm.org.uk/files/99596003/ncetm spine2 segment01 y1.pdf

Part of article https://www.ncetm.org.uk/resources/53991