Guidance for teachers – Key Stage 1 Multiplication 2

2.2 Multiplication 2 Representing Equal Groups

These short videos are intended to provide your pupils with interactive lessons whilst they are learning from home. You can choose how regularly you set them for your class. Some of the learning might be consolidation and practice which aids confidence and retrieval and helps build firm foundations for moving on to future areas of mathematics. It is important that pupils experience these in the suggested order. They have been designed to be a coherent sequence of learning which builds on previous understanding and exemplify a teaching for mastery approach.

General features of a teaching for mastery approach, which can be found within these lessons:

- ***Stem sentences*** which promote precise mathematical vocabulary and generalisations for all pupils
- ***Representations*** which are carefully chosen and can be concrete, iconic, or abstract and that move between the three
- ***Opportunities for deepening understanding for all pupils*** - using small steps of learning enables pupils to learn together and gain deep conceptual understanding
- ***Independent practice and retrieval*** - you could ask the children to send you their practice activities so that you can check understanding. You could also set supplementary activities to extend practice and develop fluency in counting in steps of 2, 5 and 10.

These lessons follow on from the last unit for KS1 Multiplication and gradually build towards formal multiplication.

Lesson 4 - Consider 'equal groups' in more detail

Children describe the number of groups and the number in each group. They look at different contexts such as children on fairground rides and practise the language using the stem sentences: **'There are __ equal groups of ___.'**, **'There are __ in each group.'** and **'There are __groups of __.'** They also move objects into equal groups as well as circle groups and again practise the language focusing on connecting each number to the representation.

Lesson 5 - Practice using the sentence: **'There are __ groups of ___.'**

Using the stem sentences from the previous lesson, an opportunity is provided for the children to deepen their understanding as they describe the number of groups and the size of each group, knowing what each number represents. They compare the maths presented in different ways and have a go at completing an incomplete representation from a given description.

Lesson 6 - The use of a repeated addition expression to represent equal groups

The use of a repeated addition expression is introduced to represent the repeated groups. The children continue to describe the group and the number of groups and write the expression to match. For example: **'Three groups of five'**, they can write 5 + 5 + 5. Connections are made to the learning on money in previous lessons where the practice activity allows them to apply this new learning using coins.

Lesson 7 - See a repeated addition expression first and then make groups to match.

This lesson makes sure that the children can explain what each number represents in a repeated addition expression and they are encouraged to explain how an expression matches a representation. They should still use a sentence that describes the number of groups and the size of the group. This is more challenging as you do not write this number in the expression as it is how many times it occurs in it, for example, There are **3** groups of **4**. We can write this as 4 + 4 + 4 (the **3** is how many **4**s).

Lesson 8 - Think more deeply – does the representation match the expression?

First, there is a review of the previous lesson. Examples are then used where the children must consider whether an addition expression matches a given representation. Some examples are expressions that are not repeated addition, and the children are encouraged to reason why they do not match. At the end of the lesson they are asked to create true or false questions to try on someone at home.

These lessons have been planned from the NCETM Mastery PD Materials. Please access the original materials here.

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