Algebra and Ratio Unit 1

Short Mental Workouts

The short activities suggested below do not have to be done at the beginning of your maths lesson. They are suitable for doing at any time of the day to provide ongoing revision of important mental and oral skills.

While there probably is not time during your maths lesson for these activities, it is crucial to regularly rehearse these skills. You decide when to use them, perhaps at the beginning of the day for 'morning maths', as you line up for lunch, or as a 'brain-break' during the afternoon.

If an image is suggested, you can find it on the sheet(s) below and/or use the link (beginning https://wrht.org.uk/…) to find it, and other related generic materials.

Day 1
Equivalence
With children in pairs or 3s, ask them to think of pairs of numbers with a product of 48, then to write equalities to show equivalence, e.g. 12 × 4 = 6 × 8. Children write as many as they can. Repeat for divisions with answers of 4, e.g. 12 ÷ 3 = 40 ÷ 10. *Is anyone using decimals in their equalities?* e.g. 2 ÷ 0.5 = 4

Day 2
Function machines
Say that a function machine *multiplies numbers by 10, then subtracts 2*. Call out whole numbers. On the count of 5, children show the answer on their whiteboards. Repeat for *add 5, then double*.

Day 3
Counting back
Start at 125 and count back in steps of 6, first together, then around the class, including passing through zero: 125, 119, 113 … 11, 5, -1, -7… until everyone has had at least one turn of their own.

Day 4
Sequences
Play at https://mathsframe.co.uk/en/resources/playgame/42. Use this tool to count on and back in whole numbers. Scroll down the page and click on 'Play Game', click on 'level 8' at the bottom of the left-hand column, then 'hard' level of difficulty. Children write the number hidden by the green circle on their whiteboards. Click on the most common answer to check. Click 'next' for a new sequence. Repeat.