

Master Measuring Mass in Kilograms A

Rationale

In this practical step, pupils build upon measuring a kilogram in Year 1. They will measure masses of kilograms and describe the mass of objects to the nearest kilogram, judging whether the mass is nearer to the previous or next whole kilogram. They will apply their work on number lines to read kilogram scales. They will begin to recognise the abbreviation 'kg'. Pupils will use a benchmark to estimate the mass of objects. For example, they hold a kilogram weight and use that to estimate the mass of a bag of rice before weighing it to check the accuracy of their estimation.



Key Stem Sentences

- The mass of the ___ is exactly ___ kilograms.
- The mass of the ___ is ___ kilograms to the nearest kilogram.
- An estimation of the mass of the ___ is ___ kilograms.



Key Vocabulary

- mass / weighs
- kilograms / kg
- exactly / estimation
- to the nearest kilogram



Common Errors or Misconceptions

- Pupils may misread the scale.
- Pupils may make inappropriate estimates of masses.
- Pupils may find it difficult to identify the nearest kilogram, especially when rounding down to the previous kilogram.



Key Representations

Kilogram Scales



The mass of the rice is exactly 1 kilogram.



The mass of the rice is 4 kilograms to the nearest kilogram.

Weight (to use as a benchmark)



An estimation of the mass of the rice is 2 kilograms.



Pupils will FLOURISH if they can...

- accurately measure the mass of objects to exact kilograms and to the nearest kilogram.
- make appropriate estimates of the mass of objects in kilograms.
- explain their understanding using written sentences, concrete apparatus and given representations.

