

Mathematical modelling to solve practical problems involving additive and multiplicative...

use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation

Learning intention

- use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing...

Teach and model

- modelling an everyday situation and determining which operations can be used to solve it using materials, diagrams, arrays and/or bar models to represent the problem...
- modelling a series of contextual problems, deciding whether an exact answer or an approximate calculation is appropriate; explaining their reasoning in relation to the...
- modelling financial situations such as creating financial plans; for example, creating a budget for a class fundraising event, using a spreadsheet to tabulate data...

Check understanding

- Explain the main idea in mathematical modelling to solve practical problems involving additive and multiplicative... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.