

Tutor notes for Module 3: Essential number skills



Module 3: Essential number skills, Section A, Challenge 1

Challenge title	Making dinner		
Challenge	Plan a three-course meal for four people. Use recipes to find out how much of each ingredient you will need and work out the total cost of the meal. Calculate the amounts required and cost to make the same meal for six people.		
Aim	<ul style="list-style-type: none">• To use ratio and proportion to calculate costs• To discuss nutrition and planning healthy eating		
Challenge ref.	3A1	Session time	approx. 2 hours
Skills	Calculating with money; Financial literacy; Fractions, decimals and percentages; Independent living skills; Planning and organisation; Problem solving; Ratio and proportion; Reasoning.		

Suggested approach

Recipes are easy to find on the internet, but these can be confusing. Students will need guidance on what sort of recipes to use and also may need to calculate the recipe for four in the first place (eg if the recipe they find serves 2). The **example of scaling recipes** resource can be used to introduce the challenge.

Students need to use the unity method, whereby they will calculate the amount of each ingredient needed for one person and multiply up to the number of people they need to serve. This will be a consistent method they can use for other things and will inevitably throw up discussion around what to do about fractions of whole ingredients (eg eggs). This will make the students think about how rounding off numbers in real-life situations needs to work.

There will be potential problems with the units used for measuring in different recipes. For ease, tutors could ensure that students only use recipes in metric units. Alternatively a greater level of complexity can be introduced with conversion between units (eg cups to metric) and by using recipes that require a variety of different units, or units different to those on the packaging of ingredients.

A simplification of this challenge would be to simply come up with a three-course meal through a discussion around nutrition and healthy eating, then present the students with the recipes to use. This will enable the tutor to focus students' attention on the maths rather than on planning the meal.

Calculating the cost should develop skills in fractions, ratio and proportion as students will not need a whole packet of some ingredients (eg flour). This will again allow discussion round rounding off answers and the actual cost as opposed to a theoretical cost (eg you cannot buy half a bag of sugar, so do you present the cost of half a bag or the whole bag that you would need to buy?). Whatever students conclude, it is important that they work out what fraction of the packet is needed and how much that bit cost. The **recipe costing resource** can be used to support this part of the challenge.

When students write up their challenge they will need to explain each step in their working out and reasoning, setting this out in a short and concise way. Each step in the calculation needs to have a brief explanation of what is being done, before giving the total cost for each recipe.

Suggested resources

The following learner resources are provided for this challenge:

- Challenge walkthrough 3A1
- Example of scaling recipes (p.52 of the learner workbook)
- Recipe costing (p.53–55 of the learner workbook)