

Teacher Notes

Introduction

Pupils can work on this problem individually or with others.

- They can discuss how they would calculate the cost of each ingredient and how they would total these costs. They will divide whole numbers up to 1000 by a smaller whole number and use the 2, 4 and 5 times tables in their calculations.
- They can discuss how they will compare the price of making the pancakes at home with the price of pancakes sold in a local shop, noting the difference between pence and pounds.
- They can compare their approach and adapt their own strategy if needed.

This problem deals with a pupil's ability to read through information, cost the ingredients needed to make the recipe and compare this cost to those bought in a shop. They perform simple calculations using unitary fractions to make a decision to either make or buy the pancakes, explaining their choice by considering value for money.

What I know (think)

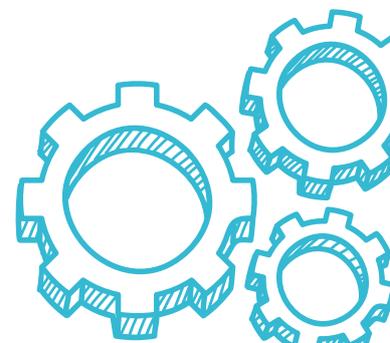
The pupils should know from the given problem:

- Ellie is making pancakes with ingredients she has in the house.
- She wants to know how much it would cost to make the pancakes.
- It costs £1.10 to buy a packet of shop-bought pancakes.
- Ellie has a recipe for making six pancakes.
- She knows the cost of 500 g of flour, 1 egg, 1 litre of milk and the cost of the required sunflower oil.

What I need to know (identify)

Pupils need to identify:

- the cost of 100 g of flour;
- the cost of 2 eggs;
- the cost of the milk;
- the total cost of all ingredients;
- whether the total cost is cheaper than £1.10 (shop-bought pancakes); and
- the difference in price.



Making Pancakes 2 (Continued)

What I need to do (employ)

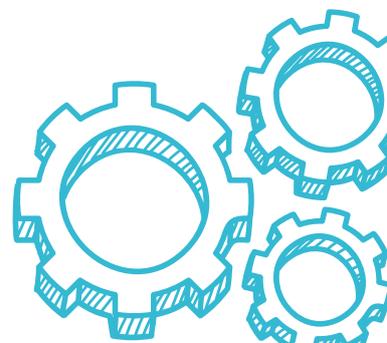
Pupils should use the information they have been given and come up with appropriate steps using Ellie's Mum's recipe to help them solve the problem, for example:

- They recognise that they need to calculate the cost of each ingredient before finding the total cost.
- They begin by calculating the cost of the flour by dividing 80p by 5, recognising that 100 ml is $\frac{1}{5}$ of 500 ml.
- They multiply by 2 to get the cost of 2 eggs.
- They calculate the cost of the milk by dividing 84p by 4, recognising that 1 litre is the same as 1000 ml and that 250 ml is $\frac{1}{4}$ of 1000 ml.
- They total the cost of all ingredients, including the oil, and compare this to the given shop price.
- They deduce that the cost of the ingredients is 38p less than the cost of the packet of pancakes.

What I did (review)

Pupils will use self-assessment, peer assessment or teacher feedback to decide whether they have approached the problem as intended.

- Did they correctly calculate the cost of each ingredient?
- Did they accurately total all costs to get 72p?
- Did they subtract or 'add-on' to calculate that this was 38p (£0.38) cheaper than the cost of the packet of pancakes?
- Did they note that if the ingredients were purchased solely for the purpose of making 6 pancakes then it would be cheaper to buy the packet of pancakes from the shop for £1.10?
- Did they identify hidden costs, such as energy and time?



Making Pancakes 2 (Continued)

Curriculum Objectives

This problem should enable pupils to demonstrate their knowledge, understanding and skills through:

Developing pupils as Contributors to the Economy and the Environment

Apply mathematical skills in everyday financial planning and decision making:

- Pupils will show how to cost ingredients to enable them to make a personal financial decision.

Thinking Skills and Personal Capabilities

This problem can provide an opportunity for pupils to demonstrate a variety of the following Thinking Skills and Personal Capabilities:

Managing Information

- Plan and set goals and break a task into sub-tasks

Thinking, Problem-Solving and Decision Making

- Examine options and weigh up pros and cons
- Generate possible solutions, try out alternative approaches and evaluate outcomes

Being Creative

- Experiment with ideas and questions
- Learn from and value other people's ideas

Working with Others

- Listen actively and share opinions
- Suggest ways of improving their approach to working collaboratively

Self-Management

- Seek advice when necessary
- Organise and plan how to go about a task

Cross-Curricular Skills

This problem should enable pupils to demonstrate a variety of the following Cross-Curriculum Skills:



Using Mathematics

