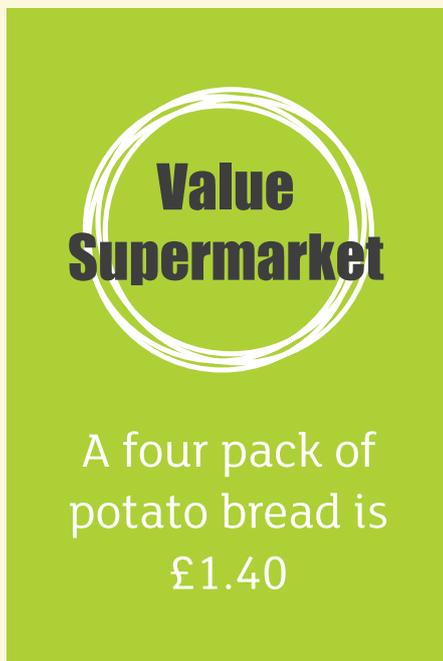


open-Ended Problem: What's the Best Value?

Introduction

Talk with the pupils about offers that they have seen in the shops, online or on TV and what they mean. For example, 'buy one get one free' or '50% off'.

Share the three potato bread offers below (also available as a **Resource Sheet**).



**Value
Supermarket**

A four pack of
potato bread is
£1.40



Spendwell

A four pack of
potato bread is
£1.40 but there is
a '3 for 2' offer



Careful Cost

A four pack of
potato bread is
£1.40 but you get
50% extra free

Discuss:

- What is a four pack?
- If there are four farls in 1 pack, how many farls are there in 3, 5, 6 packs?
- Why might a '3 for 2' offer be attractive to customers?
- In a four pack, how many farls would you get if there is '50% extra free'? What if it was '100% extra free'?
- Is there a difference between '100% extra free' and 'buy one get one free'?

Explain to the pupils that it can be easy to get confused about which offers are the best value. An advertised offer does not always mean that it is the best value.

Remember, offers are advertised to encourage customers to spend money and increase their profits!

When you are making your decision, it is also helpful to consider:

- How many of an item do you actually need?
- What will be left over?
- Will this be wasted?

Can you solve this problem?

Which of the supermarket potato bread offers above provide the best value and the least waste if you need to buy enough potato bread for a class of 30 children to have one farl each?

Extension

Would the same deal offer the best value and the least waste if you needed to buy enough potato bread for a family of five who want to have two farls each?

Resource Sheet

Value Supermarket

A four pack of
potato bread is
£1.40

Spendwell

A four pack of
potato bread is
£1.40 but there is
a '3 for 2' offer

Careful Cost

A four pack of
potato bread is
£1.40 but you get
50% extra free

Can you solve this problem?

Which of the supermarket potato bread offers above provide the best value and the least waste if you need to buy enough potato bread for a class of 30 children to have one farl each?

Extension

Would the same deal offer the best value and the least waste if you needed to buy enough potato bread for a family of five who want to have two farls each?

Teacher Information: Problem Solution and Explanation

It is important to give pupils time and space to persist with meaningful discussion as they collaborate to solve the problem. The less scaffolding you give pupils, the more genuine the problem solving will be.

Value Supermarket

- Need 30 farls
- Buy 8 packs of 4 = 32 farls (2 wasted)
- Costs $8 \times \text{£}1.40 = \text{£}11.20$

Spendwell

Option 1:

- Need 30 farls
- Buy 3 sets of the offer = 9 packs = 36 farls (6 wasted)
- Costs $3 \times \text{£}2.80 = \text{£}8.40$

Option 2:

- Need 30 farls
- Buy 2 sets of the offer = 6 packs = 24 farls
- Cost $2 \times \text{£}2.80 = \text{£}5.60$
- Need another 6 farls
- Forget about the offer and buy 2 packs and leave the free pack behind = 8 farls (2 wasted)
- Costs $2 \times \text{£}1.40 = \text{£}2.80$
- Total of $\text{£}8.40$ and 2 wasted

Careful Cost

- Need 30 farls
- 50% extra free means that each pack contains 6 farls
- Buy 5 packs = 30 farls (0 wasted)
- Costs $5 \times \text{£}1.40 = \text{£}7.00$

The Careful Cost offer provides the best value and the least waste.