

Matilda - Arithmetic

Lesson
plan

Overview

Learning objective

- To be able to calculate Mr Wormwood's profit.

Learning outcome

- To create and answer a set of Mr Wormwood-style arithmetic questions.

Book reference

- Chapter 5: Arithmetic.

Cross-curricular link

- Numeracy, Literacy, Art, Drama.

Resources

- Tokens in denominations of £1000, £50, £10; mini pictures of cars.



Starter

- Read the fifth chapter of *Matilda*, Arithmetic, to the class

Main teaching activity

- Explain how Mr Wormwood calculates his profit using arithmetic.
- Demonstrate how he buys a car at a low price, buys sawdust for the gearbox, and then sells the car on at a higher price in order to make profit.



Group or independent activity

- Divide the class into groups.
- Each group is a car company. They invent a name for their company.
- Give each group £1000 in tokens of £10.
- As the teacher, you have pictures of cars worth £50 each and sawdust bags worth £10 each.
- Each company must buy cars, and sawdust from you. They must then work out a cost for their refurbished cars and try to sell their cars on at a profit to other car companies.
- After a set time period, pause the game and ask the companies to report on who has made the most profit.
- Model some Mr Wormwood-themed arithmetic questions. For example:

Mr Wormwood puts sawdust into his old gearboxes to silence them. He has 6 litres of sawdust and 3 cars. Each car can hold 3 litres. If Mr Wormwood shares out the sawdust evenly how much is in each car?

You want to make a profit of £2000 for the day. You've made £1400 all day. How much do you need to sell you last car for?

Mr. Wormwood reduces the mileage on his cars with a high-speed electric drill. Mr. Wormwood has a car with a mileage of 150,000 and he wants to reduce this to 8,000. How much must he reduce the mileage by?

You are short of your target so what will you do to make your profit?

- It has 40,000 miles on the clock but cars can go up £50 in value each time 10,000 miles is taken off. If you were to take off 40,000 miles how much will this add to the price of the car?
- The gearbox makes a lot of noise and needs silencing in order for you to sell it you'll need to buy 3 litres of sawdust to silence it. The sawdust costs £5 per litre. How much will this take away from your profits?
- You can mark up the car by £400 if you get it painted red to hide the rust. You spend £70 on paint. What will your total profit be for the car?

- Each group makes a similar maths quiz, creating 5 arithmetic questions in the style of Mr Wormwood's questions on profit.

Plenary

- The groups swap quizzes and complete the answers.

Other activities

- In groups, make a TV advert to try to sell a car that is in a very bad state!
- Put Mr Wormwood on trial. Hold a court case with a jury, judge, witnesses and lawyers. Witnesses, such as a car dealer, a car buyer, Michael and Matilda, can come and give their statements defending or attacking Mr Wormwood. The jury can decide on the verdict.
- Hold a TV chat show in which Mr Wormwood, Mrs Wormwood, Matilda and Michael come on set to meet the host. Discuss the contentious issue of Mr Wormwood's dodgy deals. The rest of the class can be the audience, posing questions to Mr Wormwood.

