

The supermarket supply chain

Mathematics and Numeracy lesson plan



Area of learning and experience:

Mathematics and Numeracy

Statements of what matters:

WMI: The number system is used to represent and compare relationships between numbers and quantities.

Descriptions of learning

Progression step 2:

- I can use my understanding of multiplication to recall some multiplication facts and tables starting with tables 2, 3, 4, 5 and 10 and I can use the term 'multiples'.
- I can understand that the value of a number can be determined by the position of the digits.
- I have explored additive relationships, using a range of representations. I can add and subtract whole numbers, using a variety of written and mental methods.

Lesson objectives

- Apply multiplication, division, addition and subtraction in real-world contexts.
- Solve multi-step problems and reason mathematically.
- Understand how eggs move through the supermarket supply chain.

Key vocabulary

Egg, box, calculate, supply chain, remainder, total, multiply, divide, subtract, profit, value

Resources needed

- Lesson Presentation
- Hen to Shop Activity Sheet
- Egg Supply Chain Board Game
- Egg Supply Chain Recording Sheet
- Egg Supply Chain Pick-up Cards
- Egg Supply Chain Instructions
- Dice
- Counters

Prior learning

Children should already be able to: multiply and divide whole numbers, including division with remainders; add and subtract numbers confidently; understand basic fractions and percentages and use reasoning to solve word problems.

Time	Teaching activity	Teacher notes
10 mins	Using the Lesson Presentation , introduce the lesson and ask children the questions on the slide. Demonstrate the calculation.	
15 mins	Organise children into pairs. Give each pair a Hen to Shop Activity Sheet and explain to the children that their task is to solve the egg supply chain problems. Model the first calculation on the board with the children.	<i>Support children that may need it by providing number lines or counters to assist their counting. Mixed-ability pairs may be beneficial for this activity.</i>

Time	Teaching Activity	Teacher Notes
10 mins	If time allows, you may wish to go through the answers to the Hen to Shop Activity Sheet. Explain to the children the Egg Supply Chain Board Game, then model the game to the class with the help of a few children. Organise children into small groups, ideally four per game. Each turn, the children roll a die and move their counter. On each square, they follow the instructions for the square they have landed on and draw a challenge card if instructed. They must solve the problem on the card before moving on. Using the Egg Supply Chain Recording Sheet, children write down each turn and record the running total of eggs and boxes. The game continues until all players reach the end space and the player with the highest total of eggs wins.	<i>Support children to show their working on the recording sheet.</i>
20 mins	Share the reflection questions with the children on the slide and discuss as a class.	<i>Encourage children to use full sentences and key vocabulary. Lower ability children may benefit from having the vocabulary available to them either on the board or on a sheet in front of them. As support, children could be given sentence starters, such as 'I solved this problem by.....'.</i>

Lesson reflections / next steps / teacher notes

Assessment opportunities

- Analyse children's understanding of division and multiplication in the first activity.
- Identify accuracy in calculations and reasoning during the board game.
- Are children able to effectively reason and explain using mathematical language?

Suggestions for future learning

- This could lead into a lesson on percentages and fractions in supply chains.

Home learning opportunities

- Children could create their own board game at home, either focused on the supply chain or a different area.