Addition and subtraction - money (2)

National Curriculum attainment targets

• Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs

• Represent and use number bonds and related subtraction facts within 20

• Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations

Lesson objectives

• Solve simple one-step problems that involve addition or subtraction in familiar practical contexts, e.g. money

• Represent and use addition and related subtraction facts within 20

Previous related lessons

Unit 1, Week 2, Lessons 1–4; Unit 2, Week 1, Lessons 1–4;
Unit 2, Week 2, Lessons 1–4; Unit 4, Week 1, Lessons 1–4;
Unit 5, Week 2, Lesson 1

Prerequisites for learning

Pupils need to:

• recognise and know the values of different coins: 1p, 2p, 5p, 10p and 20p

• be familiar with handling coins, using them to pay and receive change

• recognise, read and write numbers 0–15, and symbols +,− and =

• understand how to combine two groups of objects to find a total

• understand how to subtract one set of objects from another to find the number remaining

**Vocabulary**

zero, one, two, three … fifteen, how many?, count, count out,

money, coin, penny, pence, how much?, buy, sell, spend, pay,

add, plus, makes, equals, altogether, sign, write, more, less,

take away, subtract, minus, leaves, change

Future related lessons

Unit 5, Week 2, Lessons 3 and 4; Unit 7, Week 1, Lessons
1–4; Unit 7, Week 2, Lessons 1–4; Unit 9, Week 2,
Lessons 1–4; Unit 11, Week 1, Lessons 1–4; Unit 11,
Week 2, Lessons 1–4

Success criteria

Pupils can:

• solve simple one-step addition and subtraction problems involving money

• understand and record addition and subtraction facts within 15 using the symbols +, − and =

• recall addition and subtraction facts within 15 with increasing accuracy, and apply this knowledge to practical situations



Getting Started

• Choose an activity from Number – Addition and subtraction.

• Choose a game or activity from *Fluency in Number Facts: Y1/Y2 –* Addition and subtraction.

**Year 1, Unit 5, Week 2**

Teach

Resources

a selection of objects ‘for sale’, labelled with prices in the range 1p–10p (per class) (optional); a collection of 1p, 2p, 5p and 10p coins (per pair)

• Display: Slides 1–3 showing a selection of items for sale, or show a selection of actual objects labelled with prices in the range 1p–10p.

• Ask: **What is the price of a pencil?** (3p) **Which coins could I use to pay with?** (a 2p and a 1p coin; or three 1p coins) Show the combinations of coins that can be used to pay exactly.

• Repeat the questions for various items. Discuss with children the different combinations of coins that could be used to pay for each item, and show each combination as it is agreed.

• Then move on to ask questions about buying two items together.

• Say: **I buy a pencil and a rubber. How much do I spend?** (9p) **What if I buy a ruler and a pen instead? Will I pay more or less, or exactly the same?** (exactly the same)

• Record the calculations using the appropriate mathematical symbols: 3p + 6p = 9p, 5p + 4p = 9p.

• Repeat the questions for further examples, using addition facts within 10.

• Next, write on the board: 3p + 7p = 10p.

• Ask: **What did I buy?** (a banana and a bunch of grapes) Repeat for other pairs of items on Slides 1–3, using addition facts within 10.

• Say: **I spent ten pence. What did I buy?**

• Discuss possible answers on Slides 1–3 with children. Repeat for other totals within 10p.

• Then move on to ask questions about change.

• Say: **I had 10p and bought a pen. How much change did I get?** (5p)

• Write the calculation: 10p − 5p = 5p. Say: **Ten pence take away five pence leaves five pence
change. Five pence and five pence makes ten pence.**

It is important to

give children plenty

of opportunities to

practise handling money

in everyday situations.

They should experience

‘buying’ and ‘selling’

actual objects using real

money wherever possible

so that they become

familiar with finding a

total, counting out a

given amount, and giving

and checking change.

• Say: **I bought a rubber and got four pence change. How much did I start out with?** (10p)

• Write the calculation: 10p − 6p = 4p.

• Say: **Ten pence take away six pence leaves four pence change. Six pence and four pence makes ten pence.**

• Repeat for further examples, using subtraction facts within 10.

• Next, ask questions about buying two of the same item.

• Ask: **How much do two pens cost?** (10p) **How many pens can I buy for ten pence?** (2)

• Record the calculation on the board: 5p + 5p = 10p. Repeat for further examples, using addition facts within 10.

• Say: **You and your partner have ten pence to spend. Choose two items that you can buy so that you each have something, and tell me how much you have spent.**

• Discuss children’s choices and the calculations involved.

 **Activity Book 1B** – Page 7: Fruit stall sales

 **Progress Guide 1** – Extension, Year 1, Unit 5, Week 2, Lesson 2:
Making money

Individualised Learning

Refer to Activity 2 from the
Learning activities on page 224.

Plenary

• Display: the Money tool.

• Review and discuss the calculations that children completed in the Individualised Learning
activities, stating each of the questions involved as a word problem. For example, write a list
of the fruit prices from Activity Book page 7, and ask (for example): **What is the cost of a
strawberry and an apple?**

• Ask quick-fire questions involving totals, coin combinations and change.

• Say: **I have six pence. How much more do I need to make ten pence?** (4p)

• Ask: **Which coins make four pence?** (two 2p coins; two 1p coins and a 2p coin; or four 1p coins)

**Homework Guide 1**

Year 1, Unit 5, Week 2, Lesson 2: At the shops

• Say: **I have eight pence and spend five pence. How much change will I receive?** (3p)

Overcoming Barriers

• Children may be able to handle the range of numbers used and understand the process involved in a calculation but find it difficult to visualise the answer. Until they are confident working the answer out ‘in their head’ or able to recall addition or subtraction facts from memory, continue to provide concrete representations of calculations. In particular, provide coins to help support their work on money.