Addition and subtraction - money (1)

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

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

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 2–4; 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 collection of 1p, 2p, 5p and 10p coins (per pair); objects to ‘sell’, e.g. pencils, pens, books, games (per class)

Many children

are likely to be

familiar with coins and their values; some may benefit from consolidation of coin recognition.

• Display 1p, 2p, 5p and 10p coins. Show both ‘heads’ and ‘tails’.

• Point to the 1p coin. Ask: **Which coin is this? How much is this?**

• Repeat until children have identified all the coins.

• Display: Slide 1 showing a child buying an item in a shop. Show a selection of coins.

• Say: **Theo bought a sticker. It cost 2p. Which coins could he use to pay?**

• Ask pairs to decide which coin or coins he could use to pay and hold them up. Emphasise that he
might use just one coin to pay or he could use more than one. Establish that he could use a 2p
coin. Show a 2p coin.

• Ask: **Is there any other way he could pay 2p?**

• Agree he could pay with two 1p coins. Show two 1p coins. Encourage children to explain that
this is the same value as one 2p coin. Say: **Theo could use a 2p coin** (point to the 2p coin) **or he
could use two 1p coins** (point to the two 1p coins)**.**

• Display: Slides 2–5.

Alter the range

of numbers

used as appropriate. For example, if children are not yet confident with addition facts to 10, particularly in relation to handling money, continue to practise these, gradually increasing the range to 15. Equally, if children are confident with addition facts to 15, gradually extend the range to 20.

• Repeat for Slides 2–5 and describe children buying items costing up to at least 10p. For each one,
ask children to suggest a way of paying and display the coin or coins. Then ask them to suggest a
different way of paying and display the coin or coins with equivalent values.

• Display some sets of coins that have a total value equivalent to a single coin, e.g. 2p, 2p and 1p
(5p). Ask children to identify the single coin they could swap each set for.

• Next, introduce the idea of ‘change’, relating it to everyday experiences.

• Say: **We don’t always have the right money.**

• Show a 5p coin.

• Ask: **If you bought a pencil sharpener that cost three pence and you handed the shopkeeper this 5p coin, how much change would you get?** (2p)

• Repeat for other prices and for change from at least 10p.

• Write on the board some of the ‘change’ calculations as subtractions.

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 (for example): **I have a 10p coin. I buy a sweet costing 3p. How much change do I get?** (7p)

• Write on the board: 10p – 3p = 7p. Say: **I had 10p** (point to 10p)**. I spent 3p** (point)**. I get 7p
change** (point)**. 10p take away 3p leaves 7p change.**

• ‘Sell’ various items with prices to at least 10p to individual children. Question children as they
buy the items.

• Say (for example): **This pencil costs 6p. Can you pay for it exactly with two coins? Which two? Which single coin might you use to pay for it? Will you get any change? How much? Which coins might you get in your change?**

Individualised Learning

 **Activity Book 1B** – Page 6: Pocket money spending

**Progress Guide 1** – Support, Year 1, Unit 5, Week 2, Lesson 1:
Coin collections

Resources: scissors and glue (per child)

Refer to Activity 1 from the
Learning activities on page 224.

Plenary

• Ask questions involving equivalent values.

• Ask (for example): **I have three pence in my pocket. Which coins might I have?** (a 2p and a
1p coin; or three 1p coins) Ask: **I have two coins in my pocket. They add up to 4p. Which coins
do I have?** (two 2p coins) Ask: **How could you make five pence?** (two 2p and one 1p coins; one
2p coin and three 1p coins; five 1p coins) Show the equivalent sets of coins as children answer.

• Record the equivalents as additions, e.g. 2p + 1p = 3p, 1p + 1p + 1p = 3p.

• Revise giving change and ‘how much left?’

• Say: **I had a 10p coin. I bought a sticker for three pence. What is my change?** (7p) **I spent 6p on an apple and 2p on a chew. How much did I spend altogether?** (8p) **If I had 9p to begin with, how much did I have left?** (1p)

• Write the calculations as additions or subtractions on the board, as appropriate, e.g. 10p – 3p = 7p; 6p + 2p = 8p, 9p – 8p = 1p.

Overcoming Barriers

• Children may be able to work accurately with 1p coins but find it difficult to grasp equivalence between different numbers of coins, e.g. that one 10p coin has the same value as ten 1p coins; they may connect the largest number of coins with the highest value, and so assume that ten 1p coins are worth much more than one 10p coin. Provide practical examples and problems to demonstrate to children the number of pennies that are equivalent to each coin. For example, display a row of ten 1p coins, and underneath a row of four coins: a 5p, 2p, 5p and 1p. Ask children to decide who has the most money to spend. Then count the amount in the bottom row together, replacing each coin with the equivalent in 1p coins. The top row will still have ten pennies, but the row below will have 13.