Unit 12: Money

Lesson 1: Pounds and pence

→ pages 29–31

1. a) 159 pence b) 254 pence c) 109 pence

2. a) 2 pounds 76 pence
b) 4 pounds 25 pence
c) 7 pounds 8 pence

3. Notes/coins circled:
a) £5, £2, £1, 50p, 20p and 2p
b) £10, £2, 10p, 5p, 2p and 1p

4. Missing amounts:
a) 78p c) 195p
b) £3 and 67p d) 1,095p

5. a) £1·97 b) £4·06 c) £2·40

6. a) £2·58 f) 895p
b) £3·70 g) 209p
c) £4·08 h) 290p
d) £12·57 i) 1,115p
e) 118p j) 900p

7. Box A = £3 Box C = £3·10
Box B = £30 Box D = £29

Reflect

£3·18; £3 and 18 pence; 318p

Lesson 2: Pounds, tenths and hundredths

→ pages 32–34

1. a) 27p = £0·27
b) 98p = £0·98
Different methods possible; some may count the number of squares with coins in, possibly counting in 10s. Another way is to subtract the empty squares from 100, i.e. 100 – 2 = 98.

2. a) 40p = £0·40 b) 90p = £0·90

3. a) £0·72 b) £2·40 c) £2·04

4. Coins circled:
a) Four possible combinations:
20p, 5p and 2p
20p, 5p, 1p and 1p
10p, 10p, 5p and 2p
10p, 10p, 5p, 1p and 1p
b) Four possible combinations:
£1, 20p and 10p
£1, 20p, 5p, 2p, 1p, 1p and 1p
£1, 10p, 10p and 10p
£1, 10p, 10p, 5p, 2p, 1p, 1p and 1p
c) Two possible combinations:
£1, 2p and 1p
£1, 1p, 1p and 1p

5. Aki is incorrect; he has £4·30, and he has counted the coins correctly but written the money notation incorrectly. When writing an amount of money in pounds and using the decimal point, you should always have two digits after the decimal point. So, there needs to be a zero after the 3 in this case, i.e. £4·3 should be written as £4·30.

6. a)

$\frac{3}{10}$ of £1	$\frac{3}{100}$ of £1	$\frac{73}{100}$ of £1	$\frac{9}{10}$ of £1	$\frac{90}{100}$ of £1
30p	3p	73p	90p	90p

b) Amal gets £0·40 change.

Reflect

Answers will vary; for example:

Same: Both amounts are made using the digits 1, 3 and 0. Both amounts have 1 pound.

Different: The amounts have different values for the pence since the 0 and 3 are in different places, so the first amount is £1 and 30 pence whereas the second amount is £1 and 3 pence.

Lesson 3: Ordering amounts of money

→ pages 35–37

1. a) Circled: yo-yo
Explanations may vary; for example:
It is the only item with 0 pounds so must be the least expensive.
b) Circled: headphones
Explanations may vary; for example:
I converted all the prices to pence and then compared.

2. Circled: crocodile toy bucket and spade eraser

3. a) 72p > 50p £2 < £8
72p < 500p £2 = 200p
72p > 5p £2 < £2·05
72p < £5 £2 > 195p
b) Seven pounds eighty pence > £7·09
£5·99 < six pounds

4. a) £0·25 £2·05 255 pence £5·25
b) £0·84 408 pence 4 pounds eighty pence £8·04 £8·40

5. a) eight pounds ninety pence £0·99 98 pence £0·89
b) 11 pounds £1·11 110 pence 1 pound 1 pence £0·01

6. Missing digits:
a) 5 or 6 c) 5 or 6
b) 8 or 9 d) 5, 6, 8 or 9

7. Isla ➜ £3·50
Amelia ➜ £5·30
Richard ➜ 385 pence
Max ➜ 5 pounds and 3 pence

Reflect

Isla is incorrect; to make a comparison she needs to use the same units of either pounds or pence. 3 pounds = 300 pence.

257 < 300

Lesson 4: Rounding money

➜ pages 38–40

1. a) £2
b) £3
c) £10
d) Number line marked from £12 to £13
£12·70 rounded to the nearest pound is £13.

2. a) £2·40 b) £0·80

3.

Item	Price rounded to the nearest £1	Price rounded to the nearest 10p
Hat £1.95	£2	£2 (or £2·00)
Shoes £8.24	£8	£8·20
Shorts £3.50	£4	£3·50

4. Circled: ball and towel

5. Answers will vary; accept any answer between £2·45 and £2·54.

6. Yes, if the price of the baseball caps was in the range £4·45 to £4·49.

Reflect

To round to the nearest £1, look at the digit in the ten pence position (tenths in terms of place value); the 8 represents 80p and this is closer to 100p than 0p, so the amount should be rounded up to the next pound. £3·89 therefore rounds up to £4 when rounded to the nearest pound.

To round to the nearest 10p, look at the digit in the one pence position (hundredths in terms of place value); the 9 represents 9 pence, and this is closer to 10p than 0p, the amount should be rounded up to the next ten pence. £3·89 therefore rounds up to £3·90 when rounded to the nearest 10p.

Lesson 5: Using rounding to estimate money

➜ pages 41–43

1. a) £1·56 rounded to the nearest £1 is £2.
£4·12 rounded to the nearest £1 is £4.
£2 + £4 = £6
An estimate of the total cost is £6.
b) £1·56 rounded to the nearest 10p is £1·60.
£4·12 rounded to the nearest 10p is £4·10.
£1 + £4 = £5
60p + 10p = 70p
So £5 + 70p = £5·70
An estimate of the total cost is £5·70.
c) The estimate of £5·70 is more accurate because rounding to the nearest 10p is closer to the original amount.

2. Sugar = 70p; coffee = £3·60
An estimate of the total cost is £4·30.

3. Cake = £2; water = £1; rucksack = £4. Total cost is £7.
Max has an over estimate, since all prices have been rounded up.

4. £7·49

5. To the nearest £1,000 the car costs £8,000. Sofia has savings of about £2,000.
£8,000 – £2,000 = £6,000
I estimate Sofia needs to save £6,000.

6. Explanations will vary; for example:
When rounding to the nearest pound, each of these items is rounded down. So, Lexi's estimate of £19 for the total cost is an underestimate and the actual total will be more than this. This means that the actual cost could be over £20, which would mean Lexi would not have enough money.

Reflect

Suggestions may vary; for example:

An advantage with rounding to the nearest pound is that it is easy to add the amounts since it involves adding whole numbers.

A disadvantage is that it is not as accurate as rounding to the nearest 10 pence and could produce an under estimate.

Lesson 6: Problem solving – pounds and pence

➜ pages 44–46

1. a) £4·55
b) £5 and 37p
c) £5 + £4 = £9
55p + 37p = 92p
£9 and 92p = £9·92
Max and Olivia have £9·92 in total.

2. £2·45 = £2 and 45p
£1·59 = £1 and 59p
£2·45 + £1·59 = £3 and 104p = £3 + £1 + 4p = £4·04
Jamilla spends £4·04 in total.

3. a) £32·56 b) £5·67

4. £2·15

5. £3·65

6. £13·35 + £7·40 = £20·75
£25 – £20·75 = £4·25
The minimum number of coins Lexi will get in her change is 4 (£2 + £2 + 20p + 5p).

Reflect

Methods may vary.

£2·55 + 70p + £1·68 = £4·93

Richard spends £4·93 so he will get £0·07 or 7p change if he pays with a £5 note.

Lesson 7: Problem solving – multiplication and division

➜ pages 47–49

1. 3 × £1 = £3 3 × 26p = 78p
£3 and 78p = £3·78
3 glasses of milk cost £3·78.

2. a)

		4	8
×			7
	3	3	6
			5

48p × 7 = 336p
336p = £3·36

b)

		9	2
×			5
	4	6	0
			1

5 × 92 = 460p
460p = £4·60

3. a) £3·18 × 6 = £19·08
b) 5 × £7·49 = £37·45

4. a) 160p ÷ 4 = 40p 12p ÷ 4 = 3p
40p + 3p = 43p
A scone costs 43p.
b) 1 ruler costs £0·43.
(This is the same calculation as a) but with the price written in pounds rather than pence.)

5. a) £0·92 b) £1·38

6. $\frac{1}{3}$ of £9·72 = £3·24
$\frac{2}{3}$ = 2 × £3·24 = £6·48
$\frac{2}{3}$ of £9·72 = £6·48

7. Assuming that burgers and buns can be bought individually:

3 burgers costs £4·62, so 12 cost £4·62 × 4 = £18·48

1 bread bun costs £1·20 ÷ 5 = £0·24, so 12 cost £0·24 × 12 = £2·88

£18·48 + £2·88 = £21·36

The total cost is £21·36.

Reflect

Answers will vary; the easiest way is to round one book up to £8 and find the approximate cost of 8.

£8 × 8 = £64

The price of each book has been rounded up by 1p for each book, so this cost is 1p × 8 = 8p over.
£64·00 – £0·08 = £63·92

Lesson 8: Solving two-step problems

➜ pages 50–52

1. a) 4 × 17p = 68p 4 × 23p = 92p
68p + 92p = 160p = £1·60
The total cost is £1·60.
b) 23p + 17p = 40p
4 × 40p = 160p = £1·60
The total cost is £1·60.
c) The method used in part b) is more efficient. This is because when you add the price of one lemon and one pepper the answer is a multiple of 10 so it is easy to multiply.

2. 3 × 80p = £2·40
£2·40 + 0·45 = £2·85
Tom spends £2·85.

3. Yes. Explanations may vary; for example:
Each pen costs less than 50p. The ruler and the paperclip each cost less than 40p. So, the items altogether will cost less than 50p + 50p + 40p+ 40p, which is £1·80.
Others answers could involve adding exact amounts:
0·35 + 0·96 + 0·32 = £1·63

4. Carrots = 32p each onions = 18p each
32p = 18p = 50p
The total cost of buying a carrot and an onion is 50p.

5. The football costs £7. (The toy train costs £11.)

Reflect

Answers will vary depending on children's previous experience and levels of confidence.

Lesson 9: Problem solving – money

➜ pages 53–55

1. 5 × 84p = 420p = £4·20
Andy gets £0·80 change.

2. a) If the bars of chocolate cost £1 each he would pay £8 for 8 bars and get £2 change. Since Max received more than £2 change the bars of chocolate must cost less than £1 each.
b) £10 = 1,000p, £3·52 = 352p
1,000p – 35p2 = 648p
648p ÷ 8 = 81p
A bar of chocolate costs £0·81.

3. It is cheaper to pay for 6 throws at £1·20 because this costs 20p for each throw compared with 25p a throw when paid for individually.

4. Power Cabs: £3 + (8 × £0·40) = £3 + £3·20 = £6·40
A1 Cars: 9 × £0·70 = £6·30
The least expensive taxi company for Sofia is A1 Cars.

5. £2·67 + £5·75 = £8·42

6. No, Amelia is not correct.
Buying individual buns is 4 × £0·60 = £2·40, but you get 1 free so the cost is £2·40 for 5, compared with the pack of 5 at £2·50.

Reflect

Answers will vary. 4 bread rolls at 55p each = 4 × £0·55 = £2·20, so the price children suggests for 4 rolls must be less than £2·20.

End of unit check

➜ pages 56–57

My journal

Ebo will need to convert the amounts to pence (£1·34 = 134p). He can then add 134 + 72 = 206p = £2·06.

Power puzzle

1. A toaster costs £24.
A kettle costs £48.

2. The radio costs £85.

3. A pair of speakers cost £51.
A pair of headphones costs £17.
A camera costs £87.
headphones (£17) < toaster (£24) < kettle (£48) < speakers (£51) < radio (£85) < camera (£87) < laptop (£425)