

Income tax and National Insurance

Where does the money go between your pay and your pocket?

Answers and teaching notes

For the teacher

- **Aim:** Pupils calculate income tax and National Insurance on a salary, read a payslip, and understand that a higher rate applies only to the earnings above each threshold.
- **Curriculum links:** Financial Education Planning Framework, ages 14 to 16: understanding the important role money plays in our lives (gross and net pay, deductions, what taxes fund). Maths: percentages and multi-step problems. Citizenship: public money, how it is raised and spent. PSHE: economic wellbeing.
- **Watch first:** the Penny Explains video "Income tax" at pennyexplains.com.
- **Starter:** Show a job advert offering £30,000 a year. Ask: how much of that would reach your bank account each month? Collect guesses and return to them after activity 4 (£2,093.30).
- **Support:** Allow calculators and complete Kai's column of activity 2 together. Remind pupils that 20% is one fifth, and that 8% means multiplying by 0.08.
- **Stretch:** What gross salary gives take-home pay of exactly £2,000 a month? (About £28,445.) Or compare the tax on £30,000 using Scotland's income tax bands.
- **Note:** these income tax bands apply in England, Wales and Northern Ireland. Scotland sets its own. National Insurance is the same across the UK.
- **Total:** 44 points. Suggested answers are shown in red; accept any answer that is well reasoned.

I can...

- ☐ I can explain the Personal Allowance and the 20% and 40% income tax bands.
- ☐ I can calculate income tax and National Insurance on a yearly salary.
- ☐ I can tell gross pay from net pay and say what taxes pay for.

Key words

Gross pay: pay before anything is taken off.
Net pay is what reaches your bank account.
Personal Allowance: what you can earn in a tax year before paying income tax.
National Insurance (NI): a deduction from pay that builds your right to the State Pension.
PAYE: Pay As You Earn: your employer takes tax and NI off your pay.

1 Tax talk

3 points

Circle one letter for each question.

a) Which words mean your pay after tax and National Insurance are taken off?

- A Gross pay
- **B Net pay**
- C Basic pay
- D Overtime

b) Most employees pay tax through PAYE. What does that mean?

- A You get one tax bill each January
- B Tax is only charged on overtime
- **C Tax comes off before you are paid**
- D You pay tax when you buy things

c) Zara earns £30,000 a year. Which part of her pay is taxed at 20%?

- (A) All £30,000
- (B) The first £12,570
- **(C) The £17,430 above £12,570**
- (D) None of it

2 Kai and Zara's tax year

11 points

Kai and Zara left school together. Five years on, Kai is a junior chef and Zara is a lab technician. Use the 2026 to 2027 rates to fill in the gaps.

Income tax: 0% on the first £12,570, then 20% up to £50,270, then 40%.

National Insurance: 0% on the first £12,570, then 8% up to £50,270, then 2%.



Penny says: Between £12,570 and £50,270, 28p of every extra pound goes in tax and NI (20p + 8p). You keep the other 72p.

	Kai (junior chef)	Zara (lab technician)
Gross salary for the year	£20,000	£30,000
Earnings above £12,570	£7,430	**£17,430**
Income tax (20% of the row above)	**£1,486**	**£3,486**
National Insurance (8% of the same amount)	**£594.40**	**£1,394.40**
Total deductions	**£2,080.40**	**£4,880.40**
Net pay for the year	**£17,919.60**	**£25,119.60**

a) Zara's gross salary is £10,000 more than Kai's. How much more does she take home in a year? 2 marks

£7,200 (£25,119.60 − £17,919.60). Check: 72% of £10,000 = £7,200.

3 Dev and the 40% band

Challenge · 4 points

Zara's older brother Dev is a senior engineer earning **£60,000**. Some of his pay falls in the 40% band. Use the rates from activity 2.

a) Work out Dev's income tax for the year. Start by finding how much of his pay falls in each band.

Working

20% band: £50,270 − £12,570 = £37,700
40% band: £60,000 − £50,270 = £9,730
£37,700 × 0.20 = £7,540
£9,730 × 0.40 = £3,892
£7,540 + £3,892 = £11,432

Answer: **£11,432**

b) Work out Dev's National Insurance (8% on the first amount, 2% on the second). Then find his net pay for the year.

Working

£37,700 × 0.08 = £3,016
£9,730 × 0.02 = £194.60
NI: £3,016 + £194.60 = £3,210.60
Net pay: £60,000 − £11,432 − £3,210.60 = £45,357.40

Answer: **£45,357.40**

4 Read Zara's payslip

6 points

Use the document to answer the questions.

Brightwell Labs Ltd · Payslip	Paid 30 June 2026
Payments and deductions	**This month**
Basic pay (gross)	£2,500.00
Income tax (PAYE)	−£290.50
National Insurance	−£116.20
Net pay	**£ ?**
Employee: Zara Hussain · Tax code: 1257L · Paid monthly by bank transfer	

a) How much is taken off Zara's pay in total this month? 1 mark

£406.70 (£290.50 + £116.20).

b) Work out the missing net pay. 2 marks

£2,093.30 (£2,500.00 − £406.70).

c) Multiply the monthly income tax by 12. Does it match the yearly tax in your table? 2 marks

£290.50 × 12 = £3,486. Yes, it matches Zara's income tax in activity 2.

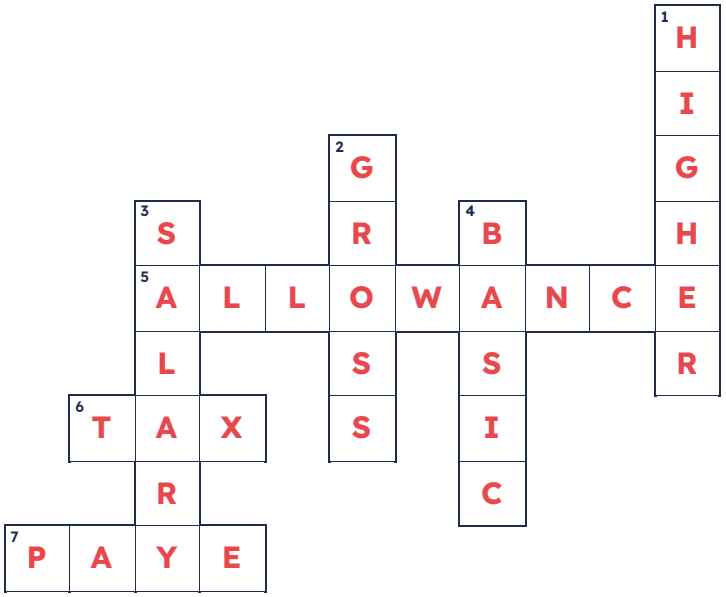
d) The tax code 1257L tells the employer how much pay is tax-free. Which yearly amount does 1257 stand for? 1 mark

£12,570, the Personal Allowance (the code drops the last digit).

5 Tax crossword

7 points

Use the clues to fill in the grid.



Across

5. The Personal ___ is the £12,570 you can earn tax-free (9)

6. Money collected by the government to pay for public services (3)

7. Tax taken from your pay before you get it (initials) (4)

Down

1. The ___ rate of income tax is 40% (6)

2. Pay before any deductions (5)

3. Pay for a year's work (6)

4. The ___ rate of income tax is 20% (5)

6 What do taxes pay for?

9 points

Tax and National Insurance pay for things we all share. Write each one in the right box.

A takeaway pizza · State schools · Police and fire services · The State Pension · A phone contract · A music streaming subscription · Road repairs · A gym membership · NHS hospitals

Paid for mainly by taxes

- NHS hospitals
- State schools
- Police and fire services
- The State Pension
- Road repairs

Paid for by the person who uses it

- A gym membership
- A music streaming subscription
- A phone contract
- A takeaway pizza

7 The pay rise myth: what would you do?

4 points

Read the story, then answer the questions.



Rosa is Kai's head chef. She earns **£50,000** a year and has been offered a promotion paying **£52,000**. A friend warns her: **"Don't take it! You'll go into the 40% tax band and end up with less money."**

a) Only earnings above £50,270 are taxed at 40%. How much of Rosa's new salary is that? 1 mark

> £1,730 (£52,000 – £50,270).

b) What would you say to Rosa's friend, and why? Would you take the promotion? 3 marks

> The friend is mistaken. A higher rate is charged only on the pounds above the threshold, never on all of your pay. Of the £2,000 rise, tax takes £746 (£54 + £692) and NI £56.20, so Rosa still keeps £1,197.80 more a year. Accept any reasoned view on taking the job.

8 Before you go

One thing I learned today

_____

_____

One question I still have

_____

_____

How sure do I feel?

Not yet · Getting there · Got it



Take it home

Ask someone at home if you can look at a payslip together, or find a sample one online. Can you spot the **gross pay**, the **tax code**, the **income tax**, the **National Insurance** and the **net pay**?

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2026 to 2027 rates. Education, not financial advice.