

Topic 3: Documentation for pay and pay calculations

After completing this topic, you will be able to:

- define 'pay as you earn' (PAYE);
- understand a payslip, including:
 - National Insurance (NI);
 - income tax and tax codes; and
 - personal allowance;
- explain and calculate gross pay, net pay and deductions;
- work out pay, including tax;
- work out overtime payments;
- explain sick pay;
- explain the arrangements for repayment of a student loan;
- explain the National Minimum Wage and National Living Wage;
- explain how tax is calculated for the self-employed (that is, self-assessment), including:
 - what a 'tax return' is; and
 - what 'self-assessment' is; and
- explain the two tax documents – that is, the P45 and the P60.

What are 'earnings'?

Before we look at the documentation, we will look at earnings.

'Earnings' means the money that you get for doing a job. It comes from the verb 'to earn', which means to get something because you have worked for it.



What other words can you think of that mean the money you get for doing a job?

Earnings are called 'wages' or 'salary'.

The word 'wages' is usually used when talking about how much a person is paid per hour – for example, £7.60 an hour.



The word 'salary' is usually used when talking about a job for which the person's pay is expressed as a yearly figure – for example, £15,000 a year. (Sometimes, you will see it written as '£15,000 pa', in which 'pa' means 'per annum' – another way of saying 'per year'.)



Activity 3a

Consider the following people.

- **Ali delivers newspapers for The Corner Shop and earns £3 an hour. He also gets £5 each week for pocket money.**
- **Bethany babysits for her neighbours and earns £3.40 an hour. She also gets an allowance from her grandma of £40 each month.**
- **Connor works in a sports shop called Jump on Saturdays and earns £4.85 an hour. He also helps his father at his shop for an hour each day after college for £20 a week.**
- **Demi is a receptionist at Dolby and Crane Ltd earning £18,000 a year. Before that, she was unemployed and received a government benefit that paid her £57.90 per week.**
- **Evan is a painter / decorator who works for himself (that is, he is 'self-employed'). He charges £200 per day. He also works as a DJ at a club on Saturdays and at weddings, for which he charges £100 a time.**

Which one is earning a salary?

Gross pay and net pay

We all have to pay part of our earnings to the government as tax and National Insurance contributions (NICs). All payments to the government from pay are collected by HM Revenue & Customs (HMRC). We may choose to pay part of our earnings into a pension.

All of these payments are called 'deductions'.

'Gross pay' is the amount that we earn *before* any deductions are taken away.

'Net pay' is the amount that we receive *after* all deductions have been taken off. This is the amount that actually gets paid into your bank account. Net pay is sometimes also called 'take-home pay'.



Activity 3b



a) Jimmy has gross monthly pay of £1,100 and total deductions of £87.54. How much money will be paid into his bank account this month?

b) Lizzie has gross monthly pay of £1,480. She has to pay income tax of £112.67 and NICs of £96.48. How much is her net pay?

Pay as you earn (PAYE)

PAYE means 'pay as you earn'. This is the way in which employees pay their tax: it is collected from their gross pay by their employer and given to the government. This is to ensure that it is paid in full, and is much better than relying on the employee to work out their own tax and pay it to the government at the end of the year.

Payslips

The employer must give each employee a written payslip showing details of the pay earned and the amounts deducted.

Employers must give employees payslips at the time, or just before, they are paid. Payslips are usually delivered in envelopes marked 'Private and Confidential'.

There is no standard layout for a payslip. Working regulations do say, however, that a payslip must at the very least contain:

- the gross amount of the earnings before deductions;
- the reasons for, and the amounts of, all deductions;
- the net amount of the earnings; and
- an explanation of how the earnings are paid.

Demi's payslip

Dolby and Crane Limited

Date: 01/06/201X

Payment period		Payment method	
01/05/201X to 31/05/201X		Credit transfer	
Tax code	Employee no	Employee name	NI number
1100L	26	Demi Morgan	NS102030P
PAYMENTS		DEDUCTIONS	
Description	Amount	Description	Amount
Basic salary T	1,500.00	PAYE tax	116.67
		NI	98.88
Gross pay	1,500.00	Total deductions	215.55
Net pay	1,284.45		
Taxable pay to date	3,000.00	Tax paid to date	233.34
		NI paid to date	197.76

T = taxable

Looking at Demi's payslip from the top down, the boxes show:

- the **employer's name** – that is, where Demi works (Dolby and Crane Limited);
- the **date** – that is, the date on which her earnings will be paid (1 June 201X);

- the **payment period** (usually a month or a week) – that is, the period for which Demi is being paid (one month spanning 01/05/201X to 31/05/201X); and
- the **payment method** – that is, how Demi’s earnings will be paid (credit transfer, meaning that her salary will be paid directly to her bank account).



Activity 3c

How much money will Demi be paid on 1 June 201X?

There is a lot of information on Demi’s payslip, which is explained in more detail below.

National Insurance (NI)

All employees also have to pay National Insurance (NI). The government uses these funds to pay for things such as Jobseeker’s Allowance and State Pension. NI is worked out based on your weekly pay, and depends on how much you earn and whether you are employed or self-employed.

Your NI number

Your NI number is your own personal account number. The number ensures that the NICs and the tax that you pay are properly recorded on your NI and tax account. It also acts as a reference number for the whole social security system should you need to make a claim for any of the benefits that the government offers.

NI numbers are made up of two letters followed by six numbers and one letter.



Who do you think uses your NI number?

Calculating NI

NI is worked out weekly. There are different 'classes' of NI; the class and the rate that you have to pay depends on whether you are employed or self-employed.

Most employees pay 'Class 1' contributions, the 2016/17 rate of which is 12 per cent if your weekly earnings are between £155 and £827 (and 2 per cent for earnings above £827).



Case study

Karim is employed and earns £12,480 a year. This works out as £240 a week. He does not have to pay NI on the first £155 per week.

So:

$$£240 - £155 = £85$$

Karim has to pay:

$$12\% \times £85 = £10.20 \text{ per week}$$



Case study

Mark is also employed. He earns £52,000 a year. This works out at £1,000 per week. He does not have to pay NI on the first £155 a week.

He has to pay 12 per cent on earnings between £155 a week and £827 a week:

$$£827 - £155 = £672$$

$$12\% \times £672 = £80.64$$

He also has to pay 2 per cent on earnings between £827 a week and £1,000 a week:

$$£1,000 - £827 = £173$$

$$2\% \times £173 = £3.46$$

So Mark has to pay:

$$£80.64 + £3.46 = £84.10 \text{ per week}$$

Did you know?

Part-time workers can sometimes have a surprise, because they may get a deduction for NI in a week during which they have done some extra hours. As a consequence, the extra bit of work does not pay as much as they thought.



Case study

Priya has a part-time job of ten hours a week at £8 an hour. Her usual pay is £80 and so she does not pay NI.

One week, however, she worked full-time to cover for a sick colleague. She worked 35 hours that week. This meant that her gross pay was £280.

The pay office deducted £15 in NICs and so her net pay was:

$$£280 - £15 = £265$$

Unlike tax, National Insurance cannot be claimed back, even if it worked out at the end of the tax year that an individual earned on average less than £155 per week.



Income tax and tax codes

Income is taxable and the tax has to be paid to HMRC. The amount of tax is calculated as a percentage of your income and the more you earn, the more tax you will need to pay.

Taxpayers receive a 'personal allowance', which is an amount of taxable income that they are allowed to earn or receive each year tax-free. The personal allowance for most adults for 2016/17 is £11,000.

There is also a 'blind person's allowance', which allows a person who is registered blind to earn another £2,290 before paying tax and, unlike the personal allowance, this can be transferred to a spouse.

In addition, from April 2016 lower-earning married or civil partners are allowed to transfer up to 10 per cent of their personal allowance to their spouse. This is called the Marriage Allowance. So, for 2016/17, 10 per cent of £11,000 (£1,100) can be transferred between spouses if one spouse earns less than the personal allowance, ie is a non-taxpayer, and the other is a basic-rate taxpayer.

Income tax is due only on income that is above your tax-free allowance.



Case study

Demi earns £18,000 a year. Her personal allowance is £11,000.

So Demi's taxable pay is:

$$£18,000 - £11,000 = £7,000$$



Activity 3d

a) *Alfie's personal allowance is £11,000 and he earns £54,000. What is his taxable pay?*

b) *Julia earns £6,000 a year at her local newsagent. Her full personal allowance for the year is £11,000, so she has plenty of spare allowance to transfer £1,100 to her husband, Mark.*

Mark is a website designer earning £32,000 a year, and so is a basic-rate taxpayer. His personal allowance increases by £1,100 to £12,100 when Julia makes her transfer.

Calculate Marks's income tax.

Tax rate and tax band

The actual tax paid is worked out as a percentage of the taxable income. The government calls this a 'tax band':

- for taxable income below £32,000 (in 2016/17), the rate of tax is 20 per cent – which is the **basic-rate band**;
- for taxable income between £32,001 and £150,000, the rate of tax is 40 per cent – which is the **higher-rate band**; and
- for taxable income above £150,000, the rate of tax is 45 per cent – which is the **additional-rate band**.

You do not pay tax at the highest rate for all of your income – only for that part of your income which is in the higher bands.



Case study

Demi earns £18,000 and we worked out above that her taxable pay is £7,000.

This is all in the basic-rate band and so she will pay all of her tax at 20 per cent.

Her tax for the year is:

$$20\% \times £7,000 = £1,400$$

Because she is paid monthly, her employer takes from her monthly pay under the PAYE scheme:

$$£1,400 \div 12 = £116.67$$

If you look at Demi's payslip, you will see that this is the amount of tax that has been deducted.



Case study

Alfie earns £54,000 and we worked out above that his taxable pay is:

$$£54,000 - £11,000 = £43,000$$

This income means that Alfie pays tax in both the basic rate band and the higher rate band. He pays tax at the basic rate on the first £32,000 of his taxable income and he pays tax at the higher rate on the rest – that is, on:

$$£43,000 - £32,000 = £11,000$$

We can set the calculation out as follows.

Band	Rate	Pay in the band	Tax calculation	Amount of tax
Basic rate	20%	£32,000	£32,000 × 20%	£6,400
Higher rate	40%	£43,000 – £32,000	£11,000 × 40%	£4,400
Total tax				£10,800

So Alfie has paid tax at 40 per cent on the taxable pay that is above £32,000.

His tax paid each month is: £10,800 ÷ 12 = £900

Did you know?

Tax calculations are always rounded down so that no one pays more tax than they have to.

**Activity 3e**

Work out the monthly tax for the following people.

- a) **Jamie earns £24,000 and has a personal allowance of £11,000.**
- b) **Becky earns £7,670 and has a personal allowance of £11,000. (Think about this one carefully.)**
- c) **Hiten earns £76,800 and has a personal allowance of £11,000.**

Tax code

Your employer uses a tax code to calculate the amount of tax to deduct from your pay.

The tax code is made up of several numbers and a letter – for example, ‘1100L’ or ‘950L’. The ‘L’ at the end tells the employer that the code includes the personal allowance.

Demi’s tax code, for example, is ‘1100L’ because she can earn the standard personal allowance of £11,000 before starting to pay tax. This is the simplest and most common tax code.

When the tax code numbers are multiplied by 10, this tells the employer how much pay is tax-free and so the employer can work out the taxable pay.

Tax codes are used by HMRC to collect tax that may not have been paid in a previous year. Someone who has underpaid tax in one year will have to pay extra tax in the following year. Rather than write to the individual asking them to pay the amount owed in cash, HMRC will usually reduce the person's tax allowance for the next year.



Activity 3f

Karim, who works in a gym, has a tax code of 803L. He earns £12,480 in a year.

Karim owes some tax because he had a second job last year as a casual DJ and did not pay tax on his earnings. The government found out about it and told him that he owed extra tax. The tax code has reduced the income that he can earn without paying tax. This means that he is now going to pay back the tax that he owes.

a) Work out Karim's monthly gross pay.

b) Work out his taxable pay.

c) Work out his monthly tax.

d) Work out his pay after tax has been deducted (that is, his net pay).





Activity 3g

The following are some calculations for you to try. In each case, work out the:

- **monthly gross pay;**
 - **taxable pay;**
 - **monthly tax; and**
 - **net monthly pay (that is, pay after tax has been deducted).**
- a) **Jenny has a tax code of 845L and earns £34,000.**

b) **Aisha has a tax code of 786L and earns £25,000.**

c) **Cassandra has a tax code of 680L and earns £78,000. (Remember to use the higher-rate tax band for Cassandra.)**

Overtime

‘Overtime’ is the amount of time that someone works beyond normal working hours. Payment for overtime can be at a higher rate than the usual rate. Overtime rates can be said to be:

- ‘time and a half’, meaning that you get paid one-and-a-half times your usual hourly rate;
- ‘time and a quarter’, meaning that you get paid one-and-a-quarter times your usual hourly rate; or
- ‘double time’, meaning that you get paid twice your usual hourly rate.

Some businesses will pay double time if you work at a bank holiday.

Sick pay

If you are ill and cannot work, your employer may not pay you for the time during which you are away from work.

The government will pay you sick pay, which is actually paid by your employer on behalf of the government. This is called Statutory Sick Pay (SSP).

The rules are quite complex, but the basic principles are that SSP will be paid if you:

- are sick for at least four days in a row;
- are earning at least £112 a week; and
- have told your employer that you are sick.



You may also need to provide medical evidence from the eighth day.

Your employer will pay SSP at the current rate of £88.45 each week.

Did you know?

For many employees, their contract of employment gives them better payments than SSP. For example, teachers who have worked for more than three years are paid on full pay for 100 days of illness.

Student loans

Part of the financial support package that the government provides for students is student loans. People who take out this type of loan for college or university start making repayments to the government only when they earn more than £21,000 a year.

Their employer takes the repayments out of their wages in the same way that it deducts income tax and NI. This repayment is made out of the employee's gross pay and is paid to government through PAYE.

The amount of the repayment depends on how much more than £21,000 the employee earns. Repayments to student loans are made only from that income which falls above £21,000.



Case study

Sanjay earns £22,000 a year – that is, £1,000 more than £21,000.

Student loan repayments are made at 9 per cent of these extra earnings.

Sanjay makes repayments each year of:

$$9\% \times £1,000 = £90$$



There is no set length of time over which to repay this type of student loan. Graduates make repayments to the government until they have repaid the money that they owe.



Activity 3h

Mia earns £26,000 per year. How much will her student loan repayments be?

National Minimum Wage

The law says that employers must pay workers at least a minimum wage. The government introduced the National Minimum Wage to make sure that employees are not forced to work for a low and unfair rate of pay because they are desperate to work or too scared to complain about their pay.

The National Minimum Wage applies to all employees in the UK aged 16 to 25 (employees over 25 get the National Living Wage, as described on the next page). It varies according to how old the employee is, as follows.

Age	Minimum per hour until 30 September 2016	Minimum per hour from 1 October 2016
Apprentice rate	£3.30	£3.40
16–17	£3.87	£4.00
18–20	£5.30	£5.55
21–24	£6.70	£6.95

National Living Wage

From 6 April 2016, the National Living Wage gives anyone in the UK aged 25 or over (and not in the first year of an apprenticeship) the legal right to at least £7.20 per hour.

Apprenticeship minimum wage

Apprenticeships combine study with practical training in a job. An apprentice works alongside experienced staff gaining job-specific skills while at the same time studying towards a related qualification. Apprenticeships take between one and four years, during which time the apprentice earns a wage and receives holiday pay. The minimum wage for an apprentice from October 2016 is £3.40 per hour



Activity 3i



From October 2016:

- a) **What is the minimum wage that Connor (who is aged 17) must be paid?**

- b) **What is the minimum wage that Demi (who is aged 19) must be paid?**



Activity 3j

Kit works at Arnold and Walsh, a firm of solicitors. He earns £23,000 per year. Kit is repaying a student loan. Kit's payslip is overleaf.

a) How much money will Kit get on 1 June 201X?

b) How much is his student loan repayment for the month?

Arnold and Walsh

Date: 01/06/201X

Payment period		Payment method	
01/05/201X to 31/05/201X		Credit transfer	
Tax code	Employee no	Employee name	NI number
1100L	37	Kit Stewart	AK654321B

PAYMENTS		DEDUCTIONS	
Description	Amount	Description	Amount
Basic salary T	1,916.67	PAYE tax	200.00
		NI	148.88
		Student loan	15.00
Gross pay	1,916.67	Total deductions	363.88
Net pay	1,552.79		
Taxable pay to date	3,833.34	Tax paid to date	400.00
		NI paid to date	297.76

T = taxable

Tax and NI paid to date

If you look at Kit's payslip above, it also tells him the amount of taxable pay that he has earned in the tax year so far, along with the tax that he has paid and the NI that he has paid. This is for his information and will also be put into two important documents at which we will look now.

P45 and P60

The P45 and the P60 are two common tax documents that must, by law, be given to you.

The P45 is used when you stop working for an employer. It is the record of the taxable income that you have earned during the tax year, and the amount of tax and NI that you have paid.

You should keep your P45 safe and, if you start a new job, you should immediately give it to your new employer. If you do so, your tax payments will continue and be calculated using the tax code on the P45. If you do not start a new job, you will need it if you are claiming state benefits or if you want to claim back any tax that you may have overpaid.

If you have not worked before, or have not worked for a little while, you will be asked to complete form P46. This will enable the employer to give you a tax code and to start to deduct tax if applicable.

The P60 is the summary of your pay and the tax that has been deducted from it in the tax year. Your employer should give you a P60 to keep as a record at the end of every tax year. It will tell you the total taxable earnings for the year, and the total tax and NI that you have paid. It will also tell you the tax code and so you could use this information to check your tax paid.

Self-employed people

Income tax and NI

Self-employed people do not know how much money they will earn in a year until the year is ended. This is because they do not know how much work they will get.

So self-employed people cannot pay income tax as they earn, using PAYE. Instead, they fill in a tax return at the end of the tax year, and calculate how much tax and NI they owe. They then pay the tax and NI to HMRC.

This method is called 'self-assessment'.



If Evan makes a mistake and pays too little income tax, what do you think HMRC will do?

Tax return (self-assessment)



Self-assessment involves completing an online or paper tax return in order to tell HMRC about your income. HMRC uses the figures on the tax return to work out your tax bill, or you can work it out yourself.

People need to complete a self-assessment form if they have more complicated tax affairs, or have earnings that are not taxed through PAYE. This might include a person who has two jobs, the total earnings from which put them in the higher rate tax band.

Self-assessment online is the method that HMRC prefers, although the government announced in the March 2015 Budget that the annual tax return is to be abolished and replaced with a digital system.

Basic wage calculations



Case study

Dai is working for a company making car parts. He is paid £10 an hour and works a 40-hour week.

His weekly pay is:

$$40 \times £10 = £400$$

The company is busy and his supervisor asks Dai to work some extra hours. This is called overtime, because it is time above his normal of 40 hours each week. Dai's company pays overtime at one-and-a-half times his normal pay. So his overtime hourly rate is:

$$1.5 \times £10 = £15$$

Dai does six hours' overtime and so will earn an additional:

$$6 \text{ hrs} \times £15 = £90$$

Dai's total pay for the week is:

$$£400 + £90 = £490$$



Activity 3k

- a) **Zach works a 40-hour week in a shop. He is paid £6.95 an hour. He does an extra eight hours' overtime at time and a half. What is his pay for the week?**

- b) **Karim works a 40-hour week in a gym. He is paid £6 an hour. He does an extra four hours' overtime at time and a quarter. What is his pay for the week?**

- c) **Nicky works a 40-hour week in a boutique. She is paid £5.50 an hour. She also works seven hours on a bank holiday and gets double time. What is her pay for the week?**



Review questions

1. 'HMRC' is an abbreviation of what?
2. How much must an employee earn before they start paying back a student loan?
3. What is the percentage used to calculate student loan repayments?
4. Are Student Loan Company loan repayments made through the PAYE system?
5. Clare's payslip shows expenses of £20. Will she pay income tax on this amount?
6. Saroop's payslip shows overtime payments of £84. Will he pay income tax on this?
7. Andreas has left his job with Peel and Co to start a job with Johnson Sports. What is the name of the tax form that Peel and Co must give him?
8. Max earns £24,000 per year. Complete Max's payslip by entering gross pay, total deductions and net pay.

Patel and Company Limited		Date: 01/07/201X	
Payment period		Payment method	
01/06/201X to 30/06/201X		Credit transfer	
Tax code	Employee no	Employee name	NI number
1100L	135	Max Cooper	PT768321K
PAYMENTS		DEDUCTIONS	
Description	Amount	Description	Amount
Basic salary T	2,000.00	PAYE tax	246.67
Bonus T	150.00	NI	176.88
		Student loan	22.50
Gross pay _____		Total deductions _____	
Net pay _____			

T = taxable

Learning activities



Internet

- Use a search engine to find a blank P46 form and try filling it in.
- Visit www.hmrc.gov.uk and under 'Self-assessment' look at the videos and webinars. What are the advantages of self-assessment?
- Visit www.slc.co.uk, click on 'Loan repayment' and then on 'How repayment works'. Find out if graduates can make additional, voluntary repayments if they want to do so. See if you can find out from the home page the number of people who are currently repaying student loans.



Group

- Debate the advantages and disadvantages of repaying a student loan more quickly by making voluntary, extra repayments.
- Design a payslip for a fictitious company. You can decide what the company is called and in what business it is. Then design the layout of the payslip, so that it is easy to read and includes all of the information that employees need. Use Excel, so that you can add formulae and automate all of the calculations.
- Try to design an Excel spreadsheet that calculates monthly pay after the personal allowance.



Individual

Ask a member of your family or a family friend if you may see their payslip.

- Identify what each of the items on the payslip means.
- Multiply the gross monthly pay by 12 to find the annual salary.
- Look at the tax code to identify the tax allowance and work out the tax for the month – does your figure match the tax figure on the payslip?
- Do the same for the NICs – does your figure match the one on the payslip?



Key points for Topic 3

You should now understand:

- what is meant by 'PAYE';
- what is meant by 'National Insurance';
- what is meant by 'income tax';
- what is meant by 'personal allowance';
- what is meant by 'tax code';
- what is meant by 'gross pay';
- what is meant by 'net pay';
- what is meant by 'deductions';
- how to calculate taxable pay using the tax code or personal allowance;
- how to calculate monthly pay after tax has been paid using the basic tax rate and the higher tax rate;
- how to calculate overtime payments;
- what is meant by 'time and a half', 'time and a quarter' and 'double time';
- what is meant by 'sick pay';
- why some people get better sick pay than Statutory Sick Pay;
- how student loans are repaid, including how much a person can earn before they have to make repayments, the rate at which loans are repaid and how to calculate the repayments;
- what is meant by the 'National Minimum Wage';
- what a 'tax return' is, including who has to complete one;
- what 'self-assessment' is;
- what a self-employed person has to do about tax;
- what a 'P45' and 'P60' are;
- what happens with regard to your tax if you start a new job.