

- Previous lessons knowledge L1: Students have learned percentages changes In December, simple interest and compound interest first week of Jan 2020. (Recall/retain/retrieval of knowledge)
- This lesson L2: **To be able to understand how taxes work, and calculate net income after tax.**
- Next lessons L3: will be on how to work out National Insurance contributions.
- L4 Net Pay after tax and NIC
- L5: Student Loans and their repayments.
- L6 Exam question on the above 5 lessons (9 marks)

Finance: Income Tax

Learning Objective: To be able to understand how taxes work, and calculate net income.

Starter - Barclays pays compound interest at a rate of 2% per annum in their savings accounts. Find how much you'd receive if you invested:

- 1. £3000 invested for 1 year**
- 2. £3000 invested for 4 years**
- 3. £12,000 invested for 4 years**

Santander offer 3% instead. If you invested £11,500 for 4 years. Would you be better off than investment choice number 3 with Barclays?

Key Words:

Income, Tax, Allowance, Net, PAYE.

Answers

Starter - Barclays pays compound interest at a rate of 2% per annum in their savings accounts. Find how much you'd receive if you invested:

- 1. £3000 invested for 1 year** $£3000 \times 1.02 = £3060$
- 2. £3000 invested for 4 years** $£3000 \times (1.02)^4 = £3247.30$
- 3. £12,000 invested for 4 years** $£12,000 \times (1.02)^4 = £12989.19$

Santander offer 3% instead. If you invested £11,500 for 4 years. Would you be better off than investment choice number 3 with Barclays?

$$£11,500 \times (1.03)^4 = £12943.35$$

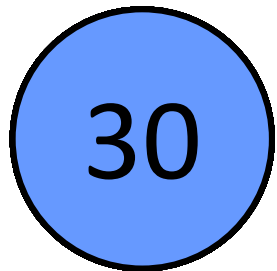
So the better option is with Barclays.

What is tax?

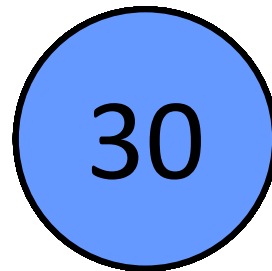
Income tax is a mandatory payment everybody* must pay to the Government.

What kind of things do you think income tax pays for?

Think



Pair



What is tax?

Income Tax pays for things such as:

NHS and healthcare

Education and the welfare system

Investment in public projects, such as roads, rail and housing

Public Services such as police, fire service, the military (Army, Navy and the RAF)

Who pays tax?

Everybody who is financially able are required to pay taxes.

People pay taxes at different rates depending on how much they earn.

I.e. people who earn more money pay more tax than others.

How much tax do we pay?

As we said tax is paid in different amounts depending on how much you earn.

The amount of tax you pay is determined by which **band** your income falls into

Income Tax and National Insurance 2018–2019

Income tax 2018–2019

Everyone in the UK has a personal allowance. This is their annual amount of tax-free income. The standard personal allowance for 2018–2019 is £11 850

The rates of income tax you pay depend on how much taxable income you have after deducting your personal allowance and any other allowances.

Income tax rates and taxable bands 2018–2019

If you earn up to £100 000 per year the following table is used to calculate your rate of tax.

Rate	Taxable income after allowances
Basic: 20%	up to £34 500
Higher: 40%	over £34 500

To calculate your income tax if your annual income is £100 000 or less

Find your taxable income by subtracting your personal allowance and any other allowances from your annual gross income.

How much tax do we pay?

Tim is a shop assistant.

He earns £10,000 a year.

How much income tax does he pay?

He pays nothing – since he's in the personal tax allowance.

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To calculate your income tax if your annual income is £100 000 or less

Find your taxable income by subtracting your personal allowance and any other allowances from your annual gross income.

You pay income tax at 20% on the first £34 500 of your taxable income.

You pay income tax at 40% on your taxable income over £34 500



How much tax do we pay?

Gerry is a postal worker.

He earns £17,851 a year.

How much income tax does she pay?

After his allowance she has $£17,850 - £11,850 = £6000$ that is taxable.

So he is taxed 20% on this amount.

20% of £6000 = £1200, so £1200 paid in income tax.



How much tax do we pay?

Alexandra is a civil engineer.

She earns £42,500 a year.

How much income tax does she pay?

After her allowance she has $£42,500 - £11,850 = £30,650$ that is taxable.

So she is taxed 20% on this amount.

20% of £30,650 = £6130, so £6130 paid in income tax.



How much tax do we pay?

John L is a detective chief inspector.

He earns £76,400 a year.

How much income tax does he pay?

He pays nothing on the first £11,850

He pays 20% on the next amount £34500 after tax free allowance.

There is £34500 between those amounts. 20% of £34500 = £6900.

Then he pays 40% on the amount over £46,350, which is

$£76,400 - £46,350 = £30,050$. 40% of £30,050 = £12,020.

So total income tax paid is $£6900 + £12,020 = £18,920$.



Your turn..

Getting started...	Graduating...	Genius Level
Part time pizza delivery driver. £10,675	Train Driver £27,950	Air Traffic Controller £70,000
Bricklayer £25,000	Teacher £34,400 Exam Pay: £950	Lawyer £65,000 Overtime: £3550
Chef £17,500	Psychologist £40,000 Extra Consultancy Work: £3400	Surgeon £72,940
Social Worker £28,400	Police Officer £38,750	Banker £173,465

Now draw a flow map for working out the income tax.