

Calculating the numbers in your paycheck

Students review a pay stub from a sample paycheck to understand the real-world effect of taxes and deductions on the amount of money they receive.

Learning goals

Big idea

The amount of money you earn from your job is different from the amount of money you receive in your paycheck.

Essential questions

- How does gross income differ from net income?
- How does a pay stub serve as a record of earnings and deductions?

Objectives


- Understand what types of taxes are deducted from a paycheck
- Calculate the difference between gross income and net income

NOTE

Please remember to consider your students' accommodations and special needs to ensure that all students are able to participate in a meaningful way.

KEY INFORMATION

Building block:

 Financial knowledge and decision-making skills

Grade level: High school (9-12)

Age range: 13-19

Topic: Earn (Getting paid, Making money, Paying taxes)

School subject: CTE (Career and technical education), Math, Social studies or history

Teaching strategy: Cooperative learning, Simulation

Bloom's Taxonomy level: Understand, Analyze

Activity duration: 45-60 minutes

National Standards for Personal Financial Education, 2021

Earning income: 8-5, 8-6, 8-7, 12-6, 12-7, 12-9

These standards are cumulative, and topics are not repeated in each grade level. This activity may include information students need to understand before exploring this topic in more detail.

What students will do

- Review information on how to read a pay stub and answer questions about earnings and deductions.
- Calculate tax withholdings, deductions, and the difference between gross income and net income.

Preparing for this activity

- While it's not necessary, completing the "Understanding taxes and your paycheck" activity first may make this one more meaningful.
- Print copies of all student materials for each student, or prepare for students to access them electronically.
- To support Spanish-speaking students, there is a Spanish version of this activity.
 - You can use just the worksheet available at https://files.consumerfinance.gov/f/documents/cfpb_building_block_activities_como-calcular-las-cifras-de-su-sueldo_tabla.pdf.
 - A Spanish version of the guide is available at https://files.consumerfinance.gov/f/documents/cfpb_building_block_activities_como-calcular-las-cifras-de-su-sueldo_guia.pdf.

What you'll need

THIS TEACHER GUIDE

- Calculating the numbers in your paycheck (guide)
[cfpb_building_block_activities_calculating-numbers-your-paycheck_guide.pdf](https://files.consumerfinance.gov/f/documents/cfpb_building_block_activities_calculating-numbers-your-paycheck_guide.pdf)

STUDENT MATERIALS

- Calculating the numbers in your paycheck (worksheet)
[cfpb_building_block_activities_calculating-numbers-your-paycheck_worksheet.pdf](https://files.consumerfinance.gov/f/documents/cfpb_building_block_activities_calculating-numbers-your-paycheck_worksheet.pdf)
- How to read a pay stub (handout)
[cfpb_building_block_activities_how-to-read-pay-stub_handout.pdf](https://files.consumerfinance.gov/f/documents/cfpb_building_block_activities_how-to-read-pay-stub_handout.pdf)

Exploring key financial concepts

When you get your first paycheck, the terms and the amounts on the pay stub may not always be easy to understand. You may wonder why your take-home pay is different from what you expected, based on what you earned. This may be your first direct experience with paying payroll and income taxes. These taxes and employee benefits like health care and retirement plans can seem like abstract concepts. Learning about each item on a pay stub can help you understand how taxes and deductions reduce your gross income, resulting in take-home pay that may be far less.

TIP

Because terms and laws related to taxes change, students should be encouraged to always look for the most up-to-date information.

Teaching this activity

Whole-class introduction

- Ask students to share what the purpose of a pay stub is.
 - Answers may include providing a record of your work for the previous week, the paycheck amount, or how much is taken out in deductions.
- Read the “Exploring key financial concepts” section to students.
- Distribute the “How to read a pay stub” handout and give students time to review it.
- Be sure students understand key vocabulary:
 - **Federal income tax:** The federal government collects taxes based on the earnings of individuals and businesses, called an income tax. The federal income tax pays for national programs such as defense, foreign affairs, law enforcement, and interest on the national debt.
 - **FICA - Federal Insurance Contributions Act:** A tax deducted from your pay to contribute to Social Security and Medicare; your employer contributes the same amount on your behalf.
 - **Form W-4: Employee’s Withholding Allowance Certificate:** A form that the employee completes and the employer uses to determine the amount of income tax to withhold.
 - **Gross income:** Total pay before taxes and other deductions are taken out.

TIP

Visit CFPB’s financial education glossary at consumerfinance.gov/financial-education-glossary/.

- **Income tax:** Federal, state, and local taxes on income, both earned (salaries, wages, tips, commissions) and unearned (interest, dividends). Includes both personal and business or corporate income taxes. Not all states and localities have income taxes.
- **Medicare:** A health insurance program for people who are 65 or older, certain younger people with disabilities, and people with permanent kidney failure requiring dialysis or a transplant; financed by deductions from wages and managed by the federal Social Security Administration.
- **Net income:** Amount of money you receive in your paycheck after taxes and other deductions are taken out; also called take-home pay.
- **Payroll tax:** Taxes taken from your paycheck, including Social Security and Medicare taxes.
- **State income tax:** Most states and some local municipalities require their residents to pay a personal income tax. Generally, states use one of two methods to determine income tax: the graduated income tax or the flat rate income tax. Both methods first require you to figure your taxable income.
- **Social Security:** Provides benefits for retired workers and people with disabilities, as well as the unmarried children, surviving spouses, or former spouses (in certain cases) of both.
- **Tax deduction:** An amount (often a personal or business expense) that reduces income subject to tax.
- **Tax refund:** Money owed to taxpayers when their total tax payments are greater than the total tax. Refunds are received from the government.
- **Taxes:** Required payments of money to governments, which use the funds to provide public goods and services for the benefit of the community as a whole.
- **Withholding (“pay-as-you-earn” taxes):** Money that employers withhold from employees’ paychecks. This money is deposited for the government and is credited against the employees’ tax liability when they file their returns. Employers withhold money for federal income taxes, Social Security and Medicare taxes, and state and local income taxes in some states and localities.

Individual or group work

- Distribute the “Calculating the numbers in your paycheck” worksheet and explain that students will use information from the handout to answer the worksheet questions.

- Students can work individually or in small groups to answer the questions but should complete their own worksheet.

Wrap-up

Bring students back together to discuss what they've learned.

Suggested next steps

Consider searching for other [CFPB activities](#) that address the topic of earning, including getting paid, making money, or paying taxes. Suggested activities include "[Understanding jobs, teens, and taxes](#)" and "[Investigating taxes in your life](#)".

Measuring student learning

Students' answers on their worksheets and during discussion can give you a sense of their understanding.

This answer guide provides possible answers for the "Calculating the numbers in your paycheck" worksheet. **Keep in mind that students' answers may vary.** The important thing is for students to have reasonable justification for their answers.

Answer guide

1. Which tax provides for federal health insurance?

- A. State income tax
- B. Federal income tax
- C. Social Security tax
- D. Medicare tax**

2. Which tax provides retirement benefits?

- A. State income tax
- B. Federal income tax
- C. Social Security tax**
- D. Medicare tax

3. Which tax provides disability benefits?

- A. State income tax
- B. Federal income tax
- C. Social Security tax**
- D. Medicare tax

4. What's true about net income? (Select one.)

- A. It's more than gross income.
- B. It's also known as take-home pay.**
- C. It's gross income minus Social Security and Medicare taxes.
- D. It's calculated based on how much the employee wants to pay in Social Security taxes.

5. What's the pay period for this paycheck? **8/01/22-8/15/22**

6. What's the gross income for this pay period? **\$200**

7. What are the total payroll taxes (Social Security plus Medicare)? **\$15.30**

8. How much was deducted in income taxes (federal plus state tax)? **\$9.37**

9. What's the net income for this pay period? **\$175.33**

10. Describe the difference between gross income and net income and how understanding this difference helps you better manage your money.

Answers will vary but should reflect the following:

- **Gross income is the amount of money a person makes before deductions are taken out.**
- **Net income is gross income minus all the taxes and other deductions. This is what is known as take-home pay.**
- **To create a realistic budget and ensure you have enough money to cover your necessary monthly expenses, it's helpful to base your monthly budget on net income, not gross income.**