



**How Much Do I Pay in Taxes? Infographic Activity (2024)**

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## How Much Do I Pay in Taxes? Infographic Activity

### Lesson Author:

Lesley Mace

### Grade Level:

9–12

### Concepts:

Gross income	Tax credits	Tax liability
Net income	Tax deductions	Taxes

### Objectives:

Students will be able to:

- Distinguish between various types of **taxes**.
- Understand the difference between **gross** and **net income**.
- Determine how **tax liability** is calculated.

### Time Required:

50 minutes

### Materials:

- How Much Do I Pay in Taxes? infographic (<https://bit.ly/frba-taxes-personal>)
- [Handout 1: Infographic Questionnaire](#)
- [Handout 2: Total Tax Formula Activity](#)
- [Visual 1](#) for display
- [Handout 3: Word Wall Words and Definitions](#)
- [Handout 4: Assessment](#)

### Preparation:

- Print and cut [Handout 2: Total Tax Formula Activity](#) into separate parts
- Cut apart [Handout 3: Word Wall Words and Definitions](#)

## Procedure:

1. To begin this activity, introduce the *How Much Do I Pay in Taxes?* infographic to students, either on a projector, posted around the room, or share copies of the infographic at student tables or desks.
2. Give students ten minutes to work together in pairs or groups of three to complete [Handout 1: Infographic Questionnaire](#). Tell students you will review their answers as a class during the closure of the lesson.
3. Tell students that **taxes** are collected by federal, state, and local governments when consumers buy goods and services, earn income, or have ownership of property. The infographic lists examples of the different types of **taxes** collected under each category.
4. The infographic also defines **gross income** and **net income**. Remind students that **gross income** is earnings before deductions are subtracted; **net income**, also known as take home pay, is income after deductions such as **taxes**, savings, and the cost of insurance and benefits are withdrawn.
5. Ask for 13 student volunteers. (You may also pair up students for larger classes). Randomly distribute the word and math symbol cards from [Handout 2: Total Tax Formula Activity Cards](#) to the student volunteers. Tell students that they are to line up at the front of the class to show the formula for determining total tax. Have the student with the Adjusted Gross Income card stand in the left, holding their card facing the class. Allow time for other students to line up in order of the formula, with the student holding the Total Tax card standing on the far right.
6. Make sure that students are lined up appropriately based on the formula and correct any misplacements. Have students continue to hold onto their cards for Step 7. (*Answer:  $AGI - Tax Deductions = Taxable Income \times Tax Rate = Tax Liability - Tax Credits = Total Tax$* )
7. Tell students that when you file your **taxes**, the following steps determine if you receive a refund or will owe additional **taxes**. Have student volunteers from Step 5 hold up their card when you call it out in the following four steps. (Cards are in italics).
  - Determine your *Adjusted Gross Income*, which is your **gross income** after certain adjustments are made, such as for insurance costs or retirement savings. This determines your taxable income.
  - Your *Adjusted Gross Income* is reduced by certain *deductions* that are allowed by law. After *deductions* are subtracted, you have your *taxable income*.
  - *Taxable income* is multiplied by the *tax rate* that applies to your *taxable income* level. Different levels apply for different levels of income, and by family status, such as single, married, or head of household. This formula will produce your *tax liability*.
  - *Tax credits*, which differ from **tax deductions**, can lower your *tax liability*. These include credits such as the child tax credit and earned income credit.
  - After all *credits* (if any) have been applied, taxpayers who have had more **taxes** withheld from their income than the amount due will receive a refund. If the amount due is greater than the amount a taxpayer has had withheld from their income, they will owe additional **taxes**.

8. To review the concept of **taxes** and refunds, show students the scenarios in [Visual 1](#). Review each scenario and ask students if the taxpayer will receive a refund or owe **taxes**. (*After the credit, Vijay's tax liability = \$5900. Vijay receives a refund of \$150 since the amount deducted, \$6050, exceeds his tax liability. After the credit, Sonya's tax liability = \$795. Sonya owes \$295 since the amount deducted, \$500, was less than her tax liability. After the credit, Alexander's tax liability is \$7100. Alexander receives a \$1700 refund since the amount deducted, \$8800, exceeds his tax liability.*)
9. To further review concepts and definitions in the infographic, distribute the fourteen words and fourteen definitions from [Handout 3: Word Wall Words and Definitions](#) to the class, one word or definition per student (28 total). Tell students to find their “match” and once students are paired have them read the words and definitions out loud to the class to reinforce the concepts.

*Optional activity: Create a word wall with the concepts listed in [Handout 3: Word Wall Words and Definitions](#). Cut the words into strips and post around the room. Cut the definitions into strips and pass out to students, one per student or pair of students, depending on the number in the class. (There are 14 words and 14 definitions.) Have students find the word on the wall that matches their definition. Review the matches as a class.*

## Closure

10. Display the infographic *How Much Do I Pay in Taxes?* Ask students to refer to their answers from [Handout 1: Infographic Questionnaire](#) and review the key points of the lesson by discussing the following:
  - What are three types of **taxes**? (*People pay three types of **taxes** on what they buy, what they earn, and what they own.*)
  - What are two examples of **taxes** on something you buy? (*sales and excise taxes*)
  - What are two examples of **taxes** on your earnings? (*income and payroll taxes*)
  - What are two examples of **taxes** on things you own? (*property and estate or inheritance taxes*)
  - What is the difference between **gross** and **net income**? (*The difference between **gross** and **net income** comes from deductions and **taxes** that are subtracted from total earnings to find take-home pay.*)
  - What taxes are subtracted from **gross income** to calculate **net income**? (*FICA and income taxes—state and federal—are **taxes** that are subtracted from **gross income** to calculate **net income**.*)
  - What are two examples of deductions that can be subtracted from adjusted **gross income** to find taxable income? (*charitable giving and mortgage interest*)
  - How do **tax credits** affect your **tax liability**? (***Tax credits** reduce your **tax liability**.*)
  - When the amount of **taxes** withheld from your earning is greater than what you owe, what occurs? (*You receive a refund from the US Treasury.*)
11. As a review or assessment, give each student a copy of [Handout 4: Assessment](#) to complete for homework.

## Handout 1: How Much Do I Pay in Taxes? Infographic Questionnaire

A wide variety of economic activities are **taxes** by various levels of government, including **taxes** on what individuals buy, earn, and own. As a major source of revenue for the federal government, as well as many state governments, income taxes affect wage earners' net pay. When taxpayers file federal and state income tax forms every year, they compute their **tax liability** and determine if they have paid more than the amount due (and will receive a refund) or if they have paid less than the amount due (and will have to pay the balance).

Refer to the infographic to answer the following questions.

1. What are the three types of **taxes**?
2. What are two examples of **taxes** on something you buy?
3. What are two examples of **taxes** on your earnings?
4. What are two examples of **taxes** on things you own?
5. What is the difference between **gross** and **net income**?
6. What **taxes** are subtracted from **gross income** to calculate **net income**?
7. What are two examples of deductions that can be subtracted from adjusted **gross income** to find taxable income?
8. How do **tax credits** affect your **tax liability**?
9. When the amount of **taxes** withheld from your earnings is greater than what you owe, what occurs?

**Handout 2**

**Adjusted Gross  
Income**

**-**

**Tax Deductions**

**=**

**Taxable Income**

**x**

**Tax Rate**

<b>=</b>
<b>Tax Liability</b>
<b>-</b>
<b>Tax Credits</b>
<b>=</b>
<b>Total Tax</b>

**Visual 1**

1. Vijay's **tax liability** is \$8400. He receives a \$2500 credit for college tuition. \$6050 was deducted from his income for the year. Does Vijay receive a refund or owe **taxes**?
2. Sonya's **tax liability** is \$4795. She has two children and receives \$4,000 in child **tax credits**. \$500 was deducted from her income for the year. Does Sonya receive a refund or owe **taxes**?
3. Alexander's **tax liability** is \$11,300. He receives a \$2200 credit for college tuition and \$2000 in child tax credit. \$8800 was deducted from his income for **taxes**. Does Alexander receive a refund or owe **taxes**?

### Handout 3: Word Wall Words and Definitions

<b>Sales tax</b>	A tax paid on many goods and services at time of purchase.
<b>Excise tax</b>	A tax paid by a consumer on a specific product type, such as gasoline.
<b>Income tax</b>	A tax paid on income from employment or investments.
<b>Payroll tax</b>	A tax paid on income to finance social insurance programs.
<b>Gross income</b>	Total earnings before any deductions or taxes are withdrawn.

<b>Tax deduction</b>	An amount a taxpayer could subtract from their gross income that may reduce taxable income.
<b>Net income</b>	Also known as take-home pay, this is gross income after deductions and taxes have been subtracted.
<b>Taxable income</b>	Adjusted gross income minus deductions, or the amount of income subject to income tax.
<b>Tax rate</b>	Taxable income is multiplied by this rate to determine tax liability.
<b>Tax liability</b>	This is the amount of taxes owed after deductions have been applied, but before credits are subtracted.

<b>Tax credit</b>	An amount deducted from tax liability that can reduce total tax owed.
<b>Tax refund</b>	If taxes withheld are more than the amount due, the Treasury will issue this to the taxpayer.
<b>Property tax</b>	A tax paid by the owners of land, buildings, and homes.
<b>Estate and inheritance taxes</b>	A tax paid based on the value of the money or property of someone who has died.

**Handout 4: Assessment**

1. **Taxes** are due when consumers buy goods and services, earn income, or have ownership of property. Categorize each of the following **taxes** in the correct column:

- |             |              |            |                 |
|-------------|--------------|------------|-----------------|
| Estate tax  | Excise tax   | Income tax | Inheritance tax |
| Payroll tax | Property tax | Sales tax  |                 |

Types of Taxes		
Buy	Earn	Own

2. What is the difference between **gross** and **net income**?

- a. Steve works for \$15 per hour and works 20 hours per week. His FICA taxes are \$23 and federal and state taxes are \$39. He puts away \$25 per paycheck towards savings but does not pay for insurance since he is still covered under his parents' policy. What is Steve's **gross income**? What is his **net income**?

Gross income: \_\_\_\_\_

Net income: \_\_\_\_\_

- b. Kyra earns a salary of \$2500 every two weeks. In her biweekly paycheck, \$191.25 is deducted for FICA taxes and \$62.50 is deducted for federal taxes. Her state does not have an income tax. Her health insurance premium is \$112 per paycheck, and she contributes \$125 per paycheck towards her 401(k) account. What is Kyra's **gross income**? What is her **net income**?

Gross income: \_\_\_\_\_

Net income: \_\_\_\_\_

- c. Ava's **tax liability** is \$2400. She receives a \$500 credit for college tuition and a \$3995 Earned Income Tax Credit. \$2250 was deducted from her income for the year. Does Ava receive a refund or owe **taxes**? How much is the refund or amount owed?

\_\_\_\_\_

3. Complete the formula:

**Adjusted Gross Income** – \_\_\_\_\_ = **Taxable** \_\_\_\_\_

**Taxable** \_\_\_\_\_ X **Tax** \_\_\_\_\_ = **Tax** \_\_\_\_\_

**Tax** \_\_\_\_\_ – **Tax** \_\_\_\_\_ = **Total Tax** \_\_\_\_\_

4. Match the word to the correct definition.

Term	Answer	Definition
Sales tax		This is the amount of taxes owed after deductions have been applied, but before credits are subtracted. (A)
Excise tax		Also known as take home pay, this is gross income after deductions and taxes have been subtracted. (B)
Income tax		A tax paid based on the value of the money or property of someone who has died. (C)
Payroll tax		If taxes withheld are more than the amount due, the Treasury will issue this to the taxpayer. (D)
Gross income		Taxable income is multiplied by this rate to determine tax liability. (E)
Tax deduction		Total earnings before any deductions or taxes are withdrawn. (F)
Net income		A tax paid by the owners of land, buildings, and homes. (G)
Taxable income		An amount a taxpayer could subtract from their gross income that may reduce taxable income. (H)
Tax rate		A tax paid on income to finance social insurance programs. (I)
Tax liability		An amount deducted from tax liability that can reduce total tax owed. (J)
Tax credit		A tax paid by a consumer on a specific product type, such as gasoline. (K)
Tax refund		A tax paid on many goods and services at time of purchase. (L)
Property tax		Adjusted gross income minus deductions, or the amount of income subject to income tax. (M)
Estate and inheritance taxes		A tax paid on income from employment or investments. (N)