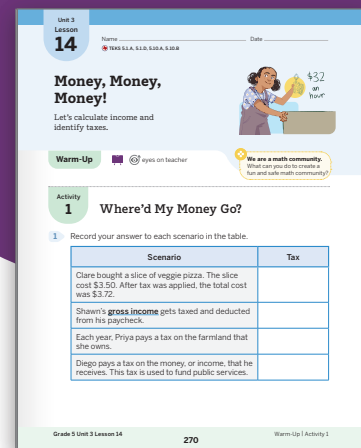Student Edition pages and Presentation Screens support learning in this lesson.

Money, Money, Money!

Types of Income and Taxes

Let's calculate income and identify taxes.

Key Concepts

- **Today's Goals**

    1. **Goal:** Apply mathematical operations to calculate gross income and net income.

    2. **Language Goal:** Define income tax, payroll tax, sales tax, and property tax. (Listening and Speaking) 🔴 ELPS 1.B, 2.B, 2.E

    3. **Language Goal:** Explain the difference between gross income and net income. (Listening, Speaking, and Writing) 🔴 ELPS 1.B, 2.B, 2.E, 4.C, 4.D, 4.F

Connections and Coherence

Students develop a deeper understanding of financial literacy as they explore the concepts of **gross income** and **net income** through real-world scenarios. They strengthen their understanding of net income through the exploration of various taxes that impact finances in everyday life and demonstrate their knowledge using precise language. **(TEKS 5.1.A, 5.1.D)**

◀ **Prior Learning**
In Grade 4, students calculated profits and described how to allocate weekly allowances giving them an insight into money being made and how to use that money.

▶ **Future Learning**
In Lesson 16, students will use their understanding of net income to create a budget for spending money.

Integrating Rigor in Student Thinking

- Students develop their **conceptual understanding** of gross and net income, as well as different types of taxes and how they relate to wages.
- Students **apply** their understanding of operations involving money to solve real-world problems.

Vocabulary

New Vocabulary

gross income	payroll tax
income tax	property tax
net income	sales tax

Review Vocabulary

income

🔴 TEKS

Addressing

5.10.B

Explain the difference between gross income and net income.

Also Addressing: **5.10.A**

Math Process Standards: 5.1.A, 5.1.D

ELPS: 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 3.F, 4.C, 4.D, 4.F

Building On

4.10.B

4.10.D

Building Math Identity

⊗ **We are a math community.**
What can you do to create a fun and safe math community?

Invite students to reflect on this question as they complete this lesson.
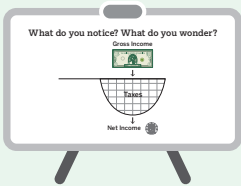

Lesson at a Glance ⏱ 60 min

Warm-Up
👥 Whole Class | ⏱ 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about income. They are introduced to the terms **gross income**, and **net income**.
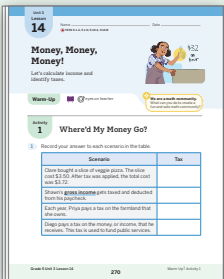

Activity 1
👥 Small Groups | ⏱ 20 min

Students move around the room to explore various scenarios where taxes are deducted and identify **income tax**, **payroll tax**, **property tax**, and **sales tax**. Students then use this information to calculate gross income and net income and explain the difference.

Materials: Activity 1 PDF, chart paper, markers, *Tax Types* chart (teacher made)

Note: Print Activity 1 PDF front and back to allow students to check their answers as they go.
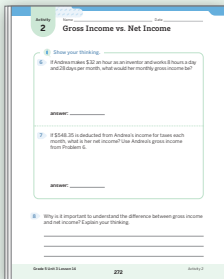

Activity 2
👥 Pairs | ⏱ 15 min

Students work in pairs to calculate and explain why it is important to know the difference between the 2 types of income. Students also identify taxes being deducted in real-world scenarios.
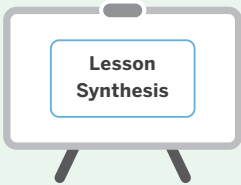
Materials: *Tax Types* chart (from Activity 1)

Synthesis
👥 Whole Class | ⏱ 10 min

Students review and reflect on the difference between gross income and net income and which is more helpful to know when making financial decisions.
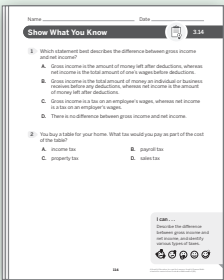

Show What You Know
👤 Independent | ⏱ 5 min

Students demonstrate their understanding of net income and gross income by describing the difference. Students also demonstrate an understanding of various types of taxes by identifying the correct tax form being deducted in a scenario.

Materials: *Show What You Know* PDF

Math Language Development

EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

🔺 ELPS 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 3.C, 4.C, 4.D

Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to and **read** English. They **speak** and **write** using their primary languages, gestures, and single words or short phrases.	Students **listen** to and **read** English. They **speak** and **write** using short phrases or simple sentences.	Students **listen** to and **read** English. They **speak** and **write** using a variety of sentence types.	Students **listen** to and **read** English. They **speak** and **write** using longer sentences. Exemplar responses are provided

Whole Class | 🕐 10 min

Warm-Up Notice and Wonder

Purpose: Students examine an image showing gross income, taxes, and net income to activate their prior knowledge of income and taxes.

What do you notice? What do you wonder?

Gross Income

Taxes

Net Income

1 Launch

Use the Notice and Wonder **routine.**

Use the Think-Pair-Share **routine.** Ask, "What do you notice? What do you wonder?"

2 Connect

Record students' responses as they share.

Say, "**Gross income** is the total amount of money you receive from wages and other sources before taxes are deducted or paid. Taxes are then paid or *deducted* from gross income, resulting in **net income**, or the amount of money you have left after taxes."

Record the definitions on chart paper to be displayed during the lesson.

Students might say . . . 🍁 ELPS 2.B

I notice that there is more money with gross income than there is with net income.

I notice that the net is labeled taxes and is showing money being filtered out for taxes.

I wonder how much money goes to taxes.

I wonder what the different types of taxes are.

Activity 1 Where'd My Money Go?

Purpose: Students identify different tax types from real-world scenarios to relate to the concept of net income.

Materials

Lesson Resources:

- Display the Activity 1 PDF around the room during the Launch.

Classroom materials:

- Use chart paper and markers to prepare the *Tax Types* chart before the activity. Display the *Tax Types* chart during the Connect.

🕐 **Short on time?** Consider going through the scenarios as a whole group.

1 Launch

Say, "Andrea is learning about jobs at Career Day at her school. She overhears an adult talking about taxes and becomes curious."

Use the Think-Pair-Share routine. Ask, "What do you know about taxes?"

Say:

- (if not mentioned in the discussion) "A tax is money paid to the government to help pay for things people need."
- "Around the room are scenarios involving different types of taxes that Andrea has researched."

Read aloud the Activity 1 PDF directions.

Say, "Record your answers in the table for Problem 1. Then complete Problems 2–5 with your partner."

EB **Emergent Bilinguals** If possible, pair students with different levels of English language proficiency together as they complete this activity. 🟥 **ELPS 1.E, 2.C, 2.D**

2 Monitor

After students have completed **Problem 2**, refer to the **D** Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What is the key information in the scenario?"
- Ask, "How could you use that information to help you identify the tax?"

3 Connect

Invite students to share their responses and strategies from Problem 2.

Use the Think-Pair-Share routine. Ask, "How do these types of taxes affect your gross and net income?"

Record the definitions of each type of tax on the *Tax Types* chart under columns gross and net income.

A **Accessibility: Conceptual processing** Clarify vocabulary by displaying the terms *income tax, property tax, payroll tax, and sales tax,* along with their definitions and examples of each.

🔑 **Key Takeaway:** Say, "Taxes are money paid to the government by individuals and businesses to fund public services. **Income tax**, **payroll tax**, and **property tax** come out of your gross income, while **sales tax** applies to purchases."
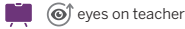
Unit 3
Lesson
14

Name _____ Date _____

TEKS 5.1.A, 5.1.D, 5.10.A, 5.10.B

Money, Money, Money!

Let's calculate income and identify taxes.

Warm-Up 📺 ◎ eyes on teacher

We are a math community. What can you do to create a fun and safe math community?

Activity
1 Where'd My Money Go?

1   Record your answer to each scenario in the table.

Scenario	Tax
Clare bought a slice of veggie pizza. The slice cost $3.50. After tax was applied, the total cost was $3.72.	sales tax
Shawn's **gross income** gets taxed and deducted from his paycheck.	payroll tax
Each year, Priya pays a tax on the farmland that she owns.	property tax
Diego pays a tax on the money, or income, that he receives. This tax is used to fund public services.	income tax

Activity
1

Name _____ Date _____

Where'd My Money Go? (continued)

2   Discuss 💬 Oral activity: No writing expected. Sample response shown.
How is **sales tax** different from **income tax**, **payroll tax**, and **property tax**?
Sales tax is different because it is not taken out of your gross income but is added to purchases.

ⓘ Show your thinking.

3   Jada earns $25 per hour and works 40 hours per week. What is Jada's weekly gross income?
Sample work shown.

$$\begin{array}{r} 2 \\ 25 \\ \times \quad 40 \\ \hline 00 \\ + \ 1000 \\ \hline 1000 \end{array}$$

answer: __$1,000__

4   If $65.10 is taken out of Jada's gross weekly income for taxes, what is her weekly **net income**? Use Jada's gross income from Problem 3.

$$\begin{array}{r} 1000.00 \\ - \quad 65.10 \\ \hline 934.90 \end{array}$$
⟵ gross income
⟵ taxes
⟵ net income

answer: __$934.90__

5   Explain the difference between gross income and net income.
Sample response shown.
Gross income is the income someone earns before taxes. Net income is gross income minus taxes.

📺 Presentation Screens

D **Differentiation | Teacher Moves**

Look for students who . . .	For example . . .	Provide support . . .
Almost there Identify sales tax using the definition.	Sales tax is a tax that is added to the cost of a purchase.	🅢 **Support** Ask, "How could you use the definitions of income tax, property tax, and payroll tax to understand the difference?"
Identify sales tax and compare it to the other types of taxes.	Sales tax is different because it is not taken out of your gross income. Sales tax gets added to purchases you make.	🅢 **Stretch** Ask, "What other factors could affect gross or net income?"

Activity 2 Gross Income vs. Net Income

Purpose: Students differentiate between gross and net income to explore how they affect financial decisions in real-world scenarios.

Materials

Classroom materials:

- Display and reference the *Tax Types* chart during the Activity.

Short on time? Consider omitting Problems 6 and 7.

1 Launch

Say, "After learning about taxes, Andrea began to wonder how much she might make as an inventor (her dream job when she grows up) and how taxes might affect this income. You are going to work with a partner to help Andrea calculate her possible gross income and net income."

Display the *Tax Types* chart to be referenced during the lesson.

Have students complete Problems 6–13.

> **MLR1: Stronger and Clearer Each Time** ELPS 1.E, 2.E
>
> After students complete Problem 8, have pairs meet with another pair to share their responses. Encourage listeners to ask clarifying questions using stems, such as:
>
> - "What do you mean by . . .?"
> - "Could you tell me more about . . .?"
>
> Have students revise their responses based on the feedback they receive.

> **EB Emergent Bilinguals** Encourage students to use gestures or hand motions to help them describe the new terms. ELPS 1.B

2 Monitor

After students have completed **Problem 8**, refer to the **D Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What information do you know from the problem?"
- Ask, "How do you determine the gross income?"

3 Connect

Invite students to share their responses for Problem 8.

Record what is discussed about the importance of knowing the difference on the class *Definitions* chart from the Launch.

> 🔑 **Key Takeaway:** Say, "Gross income is the total amount of money you earn from wages paid for performing a job before any deductions. Net income is the amount of money left after deducting taxes from gross income. Understanding the difference is important when making financial decisions."

Activity 2 — Gross Income vs. Net Income

Show your thinking. Sample work shown.

6 If Andrea makes $32 an hour as an inventor and works 8 hours a day and 28 days per month, what would her monthly gross income be?

$$
\begin{array}{r}
\overset{6}{2}8 \\
\times \quad 8 \\
\hline
224
\end{array}
$$

$$
\begin{array}{r}
\overset{1}{2}24 \\
\times \quad 32 \\
\hline
448 \\
+\ 6720 \\
\hline
7,168
\end{array}
$$

answer: **$7,168**

7 If $548.35 is deducted from Andrea's income for taxes each month, what is her net income? Use Andrea's gross income from Problem 6.

$$
\begin{array}{r}
7,168.00 \\
-\ \ 548.35 \\
\hline
6,619.65
\end{array}
$$

answer: **$6,619.65**

8 Why is it important to understand the difference between gross income and net income? Explain your thinking. **Sample response shown.**

It is important to understand the difference between gross income and net income so that you know how much money you actually have to spend.

Activity 2 — Gross Income vs. Net Income (continued)

For Problems 9 and 10, use the word bank to write the term that matches the definition for the tax that could be taken out of Andrea's income.

income tax	payroll tax	property tax	sales tax

9 A tax paid on money received, including money from wages and other sources.

income tax

10 A tax paid on property such as houses and land.

property tax

11 Gil cannot wait to get a job and earn money when he grows up. When he gets his first paycheck, Gil expects that it will include his gross income and deductions for taxes. What are the taxes that will be deducted from Gil's paycheck called?

- (A) income tax
- **(B) payroll tax**
- (C) property tax
- (D) sales tax

12 As working adults, Andrea and Gil plan to go out to lunch every Friday to catch up. Which tax will be added to their bill?

- (A) income tax
- (B) payroll tax
- (C) property tax
- **(D) sales tax**

13 Andrea tells Gil that net income is always less than gross income. Do you *agree* or *disagree*? Explain your thinking. **Sample explanation shown.**

I agree. Net income will always be less than gross income because taxes are taken out of gross income to calculate net income.

Presentation Screens

D | Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there — Explains the importance using the definitions of each term.	It is important to understand the difference between gross income and net income because gross income is the amount of money you make before taxes and net income is the amount of money left after taxes.	**Support** Ask, "How would knowing the meaning of each term help you make financial decisions?"
Explains the importance of being able to understand how much money you have left to spend.	It is important to understand the difference between gross income and net income so that you know how much money you actually have to spend.	**Stretch** Ask, "Why is it important to know your gross income?"
Explains the importance of being able to understand how much money you make before taxes and how much money you have left to spend.	It is important to understand the difference between gross income and net income so that you know how much money you have to pay in taxes and how much money you actually have to spend.	**Stretch** Ask, "Which income would you use to make a budget? Why? What would the other income help you budget for?"

Synthesis

Lesson Takeaway: <u>Gross income</u> is money received from wages and other sources before taxes are deducted or paid. <u>**Net income**</u> is gross income minus taxes and deductions.

Lesson Synthesis

Say, "Gross income is money received from wages and other sources. Net income is gross income minus taxes and deductions."

Use the Think-Pair-Share **routine.** Ask, "Is gross income or net income more useful when making spending decisions? Why?"

Say (if not yet mentioned during discussion), "It is important to understand that you will not receive all of the money from your gross income. Net income is an accurate calculation of the amount of money you will receive after taxes have been paid. Income tax, payroll tax, and property tax are all taken out of your gross income, while sales tax is added to your purchases."

Formalize vocabulary: <u>gross income</u>, <u>income tax</u>, <u>net income</u>, <u>payroll tax</u>, <u>property tax</u>, <u>sales tax</u>

(optional) **Consider using the** Word Structure: Compound Words **routine** with the terms *gross income*, *income tax*, *net income*, *payroll tax*, *property tax*, and *sales tax*. Consider asking, "How can you use your understanding of each individual word to help you remember what each of these terms mean?" ⭐ **ELPS 1.B, 3.C, 3.F**

Refer to the *Math Language Development Resources* for a description of this routine and for more vocabulary support.

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know

PDF Show What You Know PDF

Name _____ Date _____

Show What You Know   3.14

1   Which statement best describes the difference between gross income and net income?

A. Gross income is the amount of money left after deductions, whereas net income is the total amount of one's wages before deductions.

B. Gross income is the total amount of money an individual or business receives before any deductions, whereas net income is the amount of money left after deductions.

C. Gross income is a tax on an employee's wages, whereas net income is a tax on an employer's wages.

D. There is no difference between gross income and net income.

2   You buy a table for your home. What tax would you pay as part of the cost of the table?

A. income tax   B. payroll tax

C. property tax   D. sales tax

I can...
Describe the difference between gross income and net income, and identify various types of taxes.

114

📠 Today's Goals

1. **Goal:** Apply mathematical operations to calculate gross income and net income.

2. **Language Goal:** Define income tax, payroll tax, sales tax and property tax. **(Listening and Speaking)** ⭐ **ELPS 1.B, 2.B, 2.E**
   - In Problem 2 in the *Show What You Know*, students selected the term defined.

3. **Language Goal:** Explain the difference between gross income and net income. **(Listening, Speaking, and Writing)** ⭐ **ELPS 1.B, 2.B, 2.E, 4.C, 4.D, 4.F**
   - In Problem 1 in the *Show What You Know*, students chose the best answer to describe the difference between gross income and net income.

D **Differentiation**   See the last page of the lesson for differentiation and Math Language Development support.

Practice 👤 Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics including connections to assessment practice, and ongoing spiral review.

Students using print

Summary 3.14

Net income is the amount of money that is left after taxes have been deducted from **gross income**.

gross income

↓

Taxes

↓

net income

net income The total amount of money left after taxes are deducted.

Practice 3.14

1. 🧭 Jada earns $15 an hour at her job. If she works for 36 hours this month, which statement about her monthly income is *true*?

   (A) Her gross income is less than $540.

   (B) Her net income is less than $540.

   (C) Her gross income is more than $540.

   (D) Her net income is more than $540.

2. Describe a situation in which you had to pay sales tax.
   Sample response shown.
   I bought a video game and money was added to the total.

Grade 5 Unit 3 Lesson 14 — Summary | Practice — **274**

Practice 3.14

Name _____ Date _____

3. Match each vocabulary word with its definition.

Vocabulary		Definition
A. net income	C	a tax on income received from wages and other sources
B. payroll tax	A	total amount of money left after taxes are deducted
C. income tax	B	a tax deducted from a paycheck based on wages earned
D. gross income	F	a tax paid on goods and services
E. property tax	D	money received from wages and other sources before taxes are deducted or paid
F. sales tax	E	a tax paid on property that is owned, such as land

Grade 5 Unit 3 Lesson 14 — Practice — **275**

Practice 3.14

Name _____ Date _____

Spiral Review

4. Which best describes the difference between fixed expenses and variable expenses?

   (A) Fixed expenses stay the same, whereas variable expenses can change.

   (B) Variable expenses stay the same, whereas fixed expenses can change.

   (C) Both fixed expenses and variable expenses can change.

   (D) Both fixed expenses and variable expenses stay the same.

Use the table for Problems 5 and 6.

Expenses	February	March	April
phone service	$64.15	$64.15	$64.15
TV streaming	$40.00	$40.00	$40.00
groceries	$35.85	$72.19	$43.12

5. Circle the expenses that are fixed. **Correct response shown on the table.**

6. How much money is needed to pay the expenses in February?

   ℹ **Show your thinking.**
   Sample work shown.

   ```
     64.15          1 1 1
   + 40.00        104.15
   ──────         + 35.85
   104.15         ──────
                  140.00
   ```

   answer: **$140.00**

For Problems 7–10, evaluate the expression.

7. 50 × 90 **4,500**

8. 80 × 60 **4,800**

9. 60 × 70 **4,200**

10. 40 × 70 **2,800**

Grade 5 Unit 3 Lesson 14 — Practice — **276**

Practice Problem Item Analysis

	Problem(s)	DOK	🧭 TEKS
On-lesson			
🧭 Test Practice	1	2	5.10.B
	2	1	5.10.A
	3	1	5.10.A, 5.10.B
Spiral Review			
	4, 5	1	4.10.A
Fluency	6	1	4.4.A
Fluency	7–10	1	4.4.D

Need more Practice?

Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

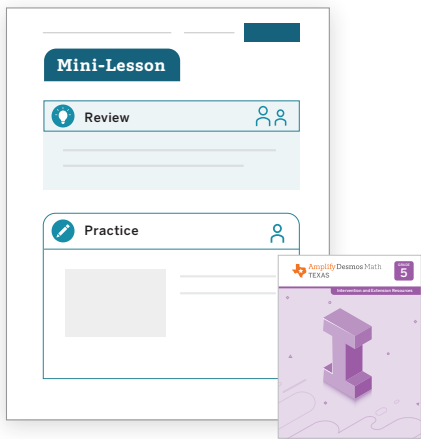**Lesson Goal:** Explain the difference between gross income and net income.

Ⓢ Support

Provide targeted intervention for students by using these resources.

> **If students** define gross and net income:

Respond:

- Assign the *Identifying Types of Income and Taxes* Mini-Lesson. | 🕐 15 min
- Students will also have more opportunities to develop this concept in future lessons, so intervention is not necessary at this time.
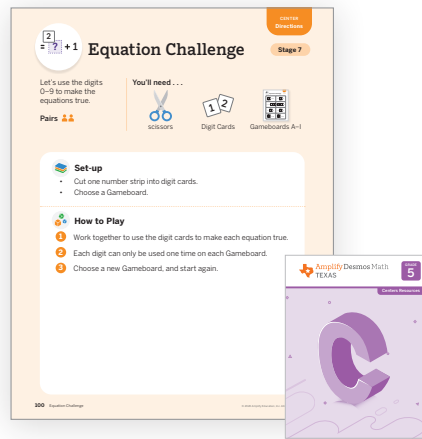

Ⓢ Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

> **If students** explain the difference between gross and net income:

Respond:

- Invite students to play the **Center**. | 🕐 15 min
  Equation Challenge: Add and Subtract Beyond 1,000
- Have students complete **Lesson 14 Practice.** | 🕐 15 min
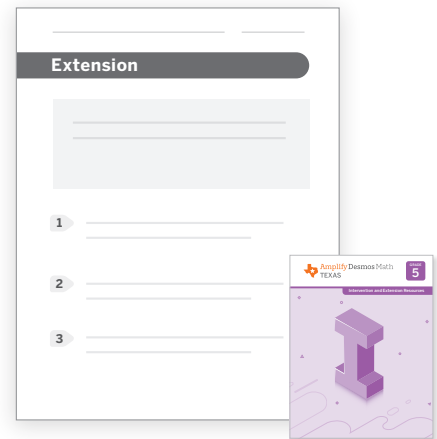- **Item Bank**

Ⓢ Stretch

Challenge students and extend their learning with these resources.

> **If students** explain the importance of being able to understand how much money you make before taxes and how much money you have left to spend:

Respond:

- Invite students to explore the **Sub-Unit 4 Extension Activities.** | 🕐 15 min

- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 🕐 5 min

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📈 *Support, Strengthen,* and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
- **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the *Math Language Development Resources* for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines

Professional Learning

Reflect on the opportunities students have to notice and wonder about gross and net income in the real world. How could you support students with noticing and describing income and taxes they see in their school and community?