Borrowing money for a house

Students "buy" a local home and calculate payments based on the principal, interest rate, and length of mortgage loans to learn how different loan terms affect the overall cost.

Learning goals

Big idea

The amount actually paid for a home is determined by the price and the mortgage loan's specific terms.

Essential questions

- How do the principal, interest rate, and loan term affect mortgage payments?
- How do you compare loan offers to get the best deal?

Objectives

- Make informed choices about mortgages
- Calculate monthly payments for loans based on the principal, interest rate, and loan term

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: Middle school (6–8)

Age range: 11–14

Topic: Borrow (Getting loans, Managing credit)

School subject: CTE (Career and technical education), Math

Teaching strategy: Direct instruction, Project-based learning

Bloom's Taxonomy level: Understand, Apply, Evaluate

Activity duration: 45–60 minutes

National Standards for Personal Financial Education, 2021
Spending: 4-1, 4-2, 8-1, 8-2, 12-1, 12-2, 12-6
Managing credit: 4-1, 4-2, 8-1, 8-2, 8-3, 8-6, 12-3, 12-3

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

- Calculate monthly payments on three mortgage loans.
- Compare the three loans to identify the best deal for them.
- Reflect on ways to reduce the amount owed on a loan.

Preparing for this activity

- ☐ While it's not necessary, completing the "Being a responsible borrower" 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.
- ☐ Ensure students have access to calculators.
- ☐ To customize this activity for your local area, visit websites that list homes for sale near you.
  - Print pictures and prices of four to six houses that vary in size and price.
  - You can further customize the activity by visiting the Consumer Financial Protection Bureau's "Explore interest rates" page at https://www.consumerfinance.gov/owning-a-home/explore-rates/ to find current interest rates in your state.
  - For each house you printed out, choose three interest rates for loans available near you.
  - Make sure some loan options are 15-year mortgages and some are 30-year mortgages.
  - Write the three interest rates and terms on the pictures you printed for each house.
- ☐ Make enough copies of the sample house pictures for each student to have one.

What you'll need

THIS TEACHER GUIDE

- **Borrowing money for a house** (guide)
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STUDENT MATERIALS

- **Borrowing money for a house** (worksheet)
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- Calculators
- Pictures and prices of local homes

Exploring key financial concepts

Most people don't make enough money or have enough in savings to buy something as expensive as a house. Instead, they take out a loan that allows them to make payments, usually each month, until the item is paid off. To buy a house, people usually use some of their own money as a down payment and borrow the rest of the money (the **principal**) they need. A loan that people use to buy a house is called a mortgage.

Banks, credit unions, and other financial institutions offer mortgages with different interest rates and terms. **Interest** is the fee the lender charges for borrowing money. The **interest rate** can be higher or lower depending on your borrowing history. Mortgages also come in different terms. The **term** is the amount of time the loan is supposed to last. Generally, mortgages have a term of 15 years or 30 years.

TIP

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

The lower the loan numbers are, the better the outcome for you:

- Lower principal = less money you borrow and therefore less money you'll repay
- Lower interest rate = less interest you'll be charged to borrow money
- Shorter term = fewer total payments you'll have to make, but each payment is higher

When people are thinking of buying a house, it's a good idea for them to track their spending and create a budget if they're not already doing this. This will help them figure out how much they can spend on their mortgage each month. It's also a good idea to shop around for mortgage loans to get the best deal.

Understanding the real costs of borrowing money can help you make informed credit and loan decisions.

Teaching this activity

Whole-class introduction

- Ask the students to raise their hands if they would like to buy a home when they are adults.
- Tell students that they'll learn about borrowing money to buy a home.
    - You can read the "Exploring key financial concepts" section of this guide aloud to the class to introduce the idea of mortgages.
- Review with students how to use an oversimplified interest formula of principal x rate x term to calculate monthly payments. This oversimplified interest formula is often written as $I = P \times R \times T$:
    - I = the amount of simple interest
    - P = the principal (the amount borrowed)
    - R = the interest rate of the loan
    - T = the period of time (in years) from the date the money was borrowed to the date it was repaid
- Distribute the "Borrowing money for a house" worksheet to students.
    - It's recommended that students use calculators to do the math on the worksheet.
- Be sure students understand key vocabulary:
    - **Principal:** In the lending context, principal is the amount of money that you originally received from the lender and agreed to pay back on the loan with interest.
    - **Interest:** A fee charged by a lender, and paid by a borrower, for the use of money.

NOTE

This is an oversimplified approach to determining interest. The actual math will likely be more complicated.

TIP

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

- **Interest rate:** A percentage of a sum borrowed that is charged by a lender or merchant for letting you use its money.
- **Loan:** Money that needs to be repaid by the borrower, generally with interest.
- **Mortgage:** Mortgage loans are used to buy a home or to borrow money against the value of a home you already own.
- **Term:** A fixed or limited period of time for which something lasts or is intended to last (for example, a five-year loan, a three-year certificate of deposit, a one-year insurance policy, a 30-year mortgage).

Individual work

- Students will work independently to complete the worksheet.
  - If you have customized the activity based on the instructions in the "Preparing for this activity" section, tell students to come to you to "buy" a home and use the information you've provided instead of the loan information on the worksheet. You'll provide them with a picture and the price of a home listed for sale in your area, along with the principal and three interest rate and term options.
- Students will then answer the reflection questions.

Wrap-up

- Bring students together and ask them to share their results.
  - You might consider documenting their results in a chart that shows the original price of their house and how much they actually ended up paying for it.
- Ask students to share their answers to the reflection questions.

Suggested next steps

Consider searching for other CFPB activities that address the topic of borrowing, including getting loans and managing credit. Suggested activities include "Asking for a loan" and "Understanding ways to pay for education after high school."

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 "Borrowing money for a house" worksheet.

Keep in mind that students' answers to reflection questions may vary, as there may not be only one right answer. The important thing is for students to have reasonable justification for their answers.

Answer guide

	Principal	Rate	Term	Interest charged	Total amount paid	Monthly payment
House loan option 1	$299,400	3.69%	30 years	$331,435.80	$630,835.80	$1,752.32
House loan option 2	$299,400	3.15%	15 years	$141,466.50	$440,866.50	$2,449.26
House loan option 3	$299,400	3.35%	30 years	$300,897.00	$600,297.00	$1,667.49