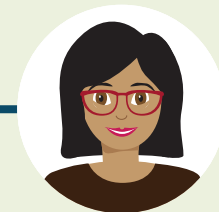


Money & Inflation



LESSON 1

Inflation is the increase in the price of goods and services over time, which means that long-term financial goals will likely cost more than they do today.



Graduate
School



Early
Twenties

A Place of My Own

Hi, it's Nikki! I can't believe that I'm about to finish graduate school. I'm so proud of my hard work *and* my new job title: Senior Programmer of Robotic Applications! Thanks to my good salary—and the fact that I've been able to save money by living with my parents—I've paid off most of my student loans. Hurray!



I've also got new goals. As much as I love my family, I think it's time I lived on my own. I am a grown-up after all! When I said I wanted to buy a house or a condominium with my savings, Grandma explained that almost no one can afford to buy a home that way. She told me I'd have to make a cash **down payment** (usually equal to 20% of the cost of the home) and then borrow the rest from a bank.



MORTGAGE

This loan is called a **mortgage**, and most people pay it off over 30 years. That's a long-term commitment!

There's one house I absolutely adore (it's got a huge backyard!) that costs \$150,000. A down payment, or 20% of this price, would be \$30,000. I have about \$6,000 in savings now, so I'd have to save \$24,000 more before I could purchase it.



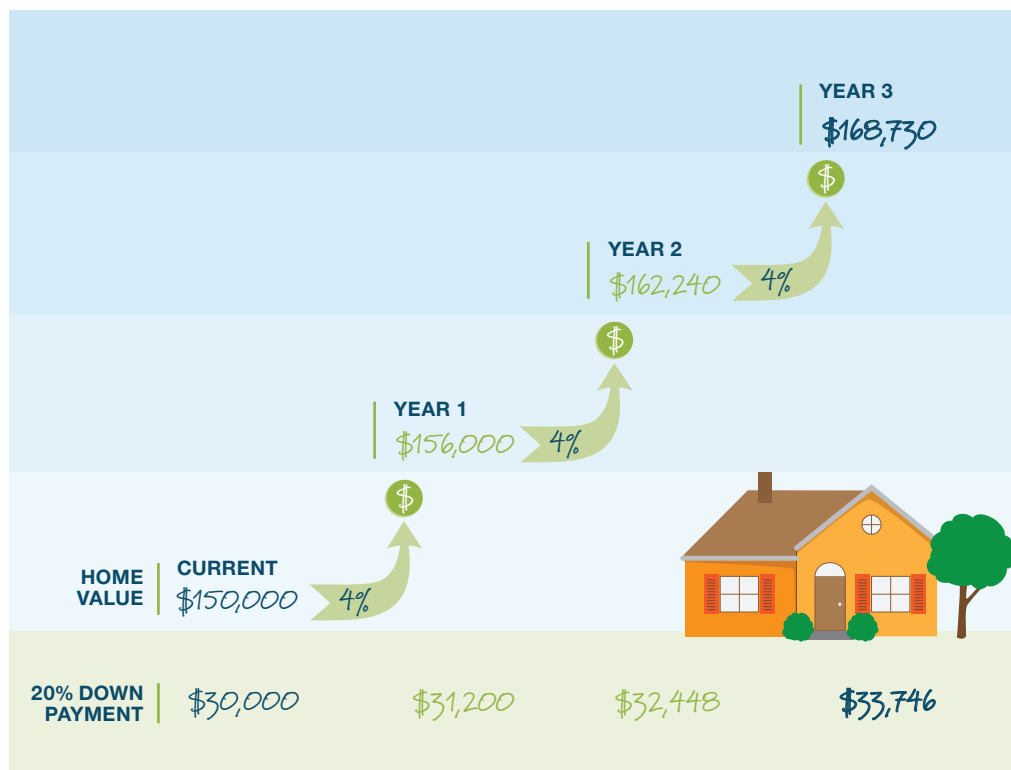
SHORT-TERM TIME HORIZON



SAVING FOR HOUSE
DOWN PAYMENT

I figure my time horizon to save for the down payment will only take me three years!

But then, Grandma kind of bummed me out when she told me about **inflation**, which is the increase in prices over time. She explained that three years from now, my dream house will likely have gone up in value—which means my down payment would also rise. So, if the price of my \$150,000 home increases 4% per year, it will cost almost \$169,000 in three years. At that point a 20% down payment will be \$33,800, not \$30,000! I'll have to save even more than I thought. I'm glad I'm learning this now!



To calculate the effects of inflation over several years:

1. First, **add 100%** to the percentage increase. (So, for a 2% inflation rate, use 1.02%.)
2. Then **convert the percentage** to a decimal (2% is equivalent to .02.)
3. Finally, **multiply the decimal** times the current cost.
4. For inflation over more than one year, **multiply the calculation for year 1** by the decimal. Repeat this operation—multiplying the result by the decimal once for each year.

Example: A \$200 item has a projected 2% inflation rate. After three years, the cost will be \$212.24 (rounded to the nearest cent). Year 1: $\$200 \times 1.02 = \204 ; Year 2: $\$204 \times 1.02 = \208.08 ; Year 3: $\$208.08 \times 1.02 = \212.24 .



WHAT'S THE Big Idea?

When you're planning for a financial goal with a long-term time horizon, you need to consider and plan for the effects of inflation.

Name _____



**MONEY AND INFLATION
ACTIVITY SHEET 1**



When Prices Rise

Nikki is still dreaming about one of her biggest goals—owning her own home—but the reality of inflation is really putting a wrench in things! She wonders how she will plan for rising housing prices, along with all the other expenses that come with homeownership, like property taxes, utilities (gas, electric, water), and insurance. Plus, as Grandma reminded her, there are unexpected costs, like a roof repair. Although many mortgages have payments that stay the same for the life of the loan, all the other costs could increase due to inflation.



Nikki planned to spend a total of \$1,150 per month for housing. If she takes inflation into account, will \$1,150 be enough for all her housing costs? If not, how much will she need to budget?

Hint: Inflation is an economic force that reduces purchasing power, meaning that a dollar buys less than it used to. Inflation is expressed as a percentage increase. If the price of an item was \$100 on January 1, 2019, and \$110 on January 1, 2020, the annual inflation rate for that item was 10%.

Directions to calculate inflation are on page 25 (second page of Money & Inflation Lesson 1)



NIKKI'S MONTHLY HOUSE BUDGET

Expense Type	Current Year Cost	Projected Annual Inflation Rate	Cost Three Years From Now
Mortgage	\$600	None	_____
Property tax	\$300	2%	_____
Gas	\$100	1%	_____
Electricity	\$50	2%	_____
Water	\$25	3%	_____
Insurance	\$50	5%	_____
TOTAL	\$1,125		

Answer Key (third column): Mortgage, \$600; Property tax, \$318.36; Gas, \$103.03; Electricity, \$53.06; Water, \$27.32; Insurance, \$57.88; Total: \$1,159.65. Nikki's housing budget of \$1,150 is sufficient for the current year, but it will be less than her projected costs in the third year, when she will have to increase her housing budget to \$1,160 per month.