

TEACHER ACTIVITY GUIDE – LET'S BAKE A CAKE

Recommended student level: Grade 7+

Activity summary

In this activity, students will choose a cake recipe, shop for the ingredients, set and plan to achieve a financial goal, and explore how a hobby could become a business with good financial management and budgeting skills. Students will need to use mathematical knowledge to calculate cost and price, including converting between different measurement types, and use this information to prepare budgets and make financial decisions.

This activity can be done in parts or as a complete activity depending on your students. There are two parts to this activity and sections within each of those parts. Sections are clearly identified and can be used to stop the activity or to continue and add additional challenge.

Activity objectives

By the end of this activity, students should be able to:

- Identify prices and calculate the total cost of a list of items (Part 1 Section 1).
- Assess the reasonableness of that cost by comparing prices from different sources (Part 1 Section 1).
- Use mathematical knowledge to calculate total cost and unit cost and make purchase decisions based on unit cost (Part 1 Section 1).
- Set a financial goal and plan to achieve it (Part 1 Section 2).
- Use mathematical knowledge to calculate total cost and unit cost when measurement types differ (Part 1 Section 2).
- Consider the relationship between cost and selling price and predict why selling price can differ for similar items (Part 1 Section 2).
- Distinguish between fixed and variable expenses and prepare of budget of income and expenses for a small business (Part 2 Section 1).
- Apply an understanding of the relationship between income and expenses in a budget to adjust the budget for changes in income and/or expenses and to make smart financial decisions for a small business (Part 2 Section 2).
- Distinguish between an employee and a self-employed individual and reflect on the pros and cons of a career path of both (Part 2 Section 3).

Activity materials

- Let's Bake a Cake (PowerPoint)
- Let's Bake a Cake – Student Worksheets A – F (note: for students who are ready for more challenge and/or are learning how to use spreadsheets, this activity could also be done in Google Sheets using the worksheets as guides for the structure and set up).

Activity instructions

Part 1 Section 1 (PowerPoint slides 4 – 7, Student Worksheet A)

In this section students will choose a cake recipe (or bring a favourite cake recipe from home) and shop for the ingredients using online grocery sites. Where connectivity or internet access is not available, flyers could also be used, or the shopping could be done as a large group activity using a single internet connection. Students will use the prices found while shopping to calculate the total cost of the ingredients required to make their cake and then explore ways to get the best value for money by searching for deals. Students will need an understanding of price and quantity, including different measurement types. Online conversion tools can be used to help when needed (see Teacher Tip and resources on slide 5). The mathematical concept of unit cost will be explained, and students will be challenged to think about how unit costs could help you get the best value for your money.

Part 1 Section 2 (PowerPoint slides 8-12, Student Worksheets B & C)

In this section, students will set a financial goal. Students will practice setting SMART goals to help improve the chances of achieving that goal (see Teacher Tip and resources on slide 9). Students will then make a plan to achieve their goal by selling their cakes. Students will need an understanding of price, quantity, and unit costs, as well as conversion from one measurement type to another. Online conversion tools can be used to help when needed (see Teacher Tip on slide 10). Students will explore the relationship between cost and selling price and do market research to set a reasonable price for their cake. Where connectivity or internet access is not available, competitor scenarios could be made up, or the research could be done as a large group activity using a single internet connection. Students will apply their understanding of unit cost and price to determine how much money they can make selling their cakes and how many cakes they will need to sell to meet their goal. Students will be challenged to consider the factors that influence price and cost, and why similar items might have different prices.

Part 2 Section 1 (PowerPoint slides 16-21, Student Worksheets D & E)

In this section, students will take their plans to make money selling cakes further by starting a business. The concept of fixed and variable expenses will be explained and used to prepare an expense budget for their small business. The relationship between income and expenses will be explored and students will be challenged to develop a mathematical formula to calculate how many cakes need to be sold to pay for the expenses (see Teacher Tip on slide 20). Students will create and modify a budget for their small business.

Part 2 Section 2 (PowerPoint Slides 22 – 25, Student Worksheet F)

In this section, students will use the budget they created to help them make smart decisions. Using their knowledge of the relationship between income and expenses and the mathematical formula developed in the previous section, they will predict the impact of changes to expenses on the number of cakes they will need to sell and adjust their budget to capture these changes. Students will be challenged to reflect on the importance of a budget to support smart financial decision making and what can help or hinder that decision making (see Teacher Tip on slide 25).

Part 2 Section 3 (PowerPoint Slides 26 – 27)

In this section, students will consider how working as an employee or working as a self-employed individual (small business owner) are different and what the pros and cons of each career pathway could be. Using this understanding, students will be challenged to consider which pathway might be best for them. For further exploration, students could interview a small business owner in their community to learn more about entrepreneurship (see Teacher Tip on slide 27).

Resources

Examples of online grocery sites:

- <https://www.zehrs.ca/>
- <https://www.metro.ca/en>
- https://www.walmart.ca/en/cp/grocery/10019?cid=home_page_grocery_grocery_54170_RQ8KCT0MXM

Online conversion tools

- <https://www.foodnetwork.ca/article/your-ultimate-guide-to-cooking-and-baking-conversions/>
- <https://www.thecalculatorsite.com/cooking/>

Converting measurement units

- <https://courseware.cemc.uwaterloo.ca/27/75/assignments/584/0>

Calculating unit rates

- <https://courseware.cemc.uwaterloo.ca/27/75/assignments/586/0>

Employee vs. Self-Employed

- <https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/rc4110/employee-self-employed.html>
- <https://ca.indeed.com/career-advice/finding-a-job/employed-vs-self-employed>