

Grocery Shop

Are you a Math teacher who is often hearing these questions, "Teacher, why are we learning Math? How will I benefit from it in real life? Am I going to use it in the future?"

In this session, you will show students the direct link between Math operations and their real lives by bringing a familiar setting that uses Math into your classroom, the Grocery Shop!

It is a fun opportunity for your students to experience Math and Social Studies in a way that they will connect with and relate to.

This session can be done by teachers who are teaching Math and Digital Skills to their students, and/or those who want to do some engaging and interactive extracurricular activities with their students.



Subject

Math



Level

Elementary and Intermediate



Objective(s)

- Draw connections between the math concepts studied in class and the application of those concepts in everyday life.
- Apply a wide variety of mathematical strategies that are used in a grocery shop setting such as addition, subtraction, multiplication, division, calculating change, calculating profit and/or loss, etc.



Extension(s)

This lesson can be extended by linking to the UN's SDGs for 2030 using the **World's Largest Lesson** "Food Heroes" lesson ([English link here](#)). Students will consider consumer behavior as well as what happens to food products before and after they are purchased at a grocery shop. Concepts such as making healthy food choices, reducing food waste, recycling food containers, and buying local products are presented.

E-Learning for Kids "Science World" content found on Thaki laptops as well as online can be used. Suggestions include:

- Grade 3; Atlantic Ocean - [Food Groups](#), [The Five Food Groups](#), [Healthy Eating Habits](#)
- Grade 6; North Sea - [Our Negative Impact on the Environment](#), [Care for our Environment](#)

Refer to the [E-Learning for Kids - Science World content guide](#) for further detail.

An alternate lesson extension that helps to lay the foundation for the important life skill of calculating household costs and budgeting, can be to ask students to participate in preparing a meal for their family members while calculating the cost per meal or per portion. As a guide, provide a simple example such as the following or create a more complex equation to suit the learners' needs: "How much does it cost to prepare sandwiches for lunch if 1 bag of bread costs #LBP, 1 container of labneh costs #LBP, 1 kilo cucumber costs #LBP, and ½ kilo olives costs #LBP?"

Material and Resources:



Teacher

Thaki laptop

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Students

Thaki laptops

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Lesson Activities:

Introduction (Warm-up activities)

🕒 Duration: 5-7 mins



Teacher Activities

Start the class by identifying the objectives of the session.

Begin with a survey asking questions about the grocery shops near students' homes and the Math operations used at a grocery shop. If an internet or hotspot connection is available, "[Kahoot](#)" can be used to prepare and present the survey questions, which students respond to with laptops or smartphones.

Or, in the absence of an internet connection, prepare an Impress presentation with survey questions to generate discussion and review the Math concepts to be practiced.

Sample questions could include:

- Do you see the sales person using a laptop or a computer in the grocery shop near your home?
- If so, why do you think they use one? If not, what do you see them use instead?
- What math problems do you think a laptop or computer can assist in solving in the grocery shop?
- If you buy an item priced at 750 LBP and you pay with a 1000LBP note, how much change will you get? Which operation did you use to calculate? Could a computer or laptop help you to solve this?



Student Activities

Share experiences and answer the survey questions.

Body

🕒 Duration: 40 mins



Teacher Activities

If students need an overview or refresher on the LibreOffice Calc program, play the [LibreOffice Calc Video Tutorial](#) in Arabic and provide an English translation in your own words as required.

After watching the video, prepare sample exercises to be modeled such as [these functions and formulas found online to teach budgeting](#).

After modeling and direct instruction, students work independently on the exercises using Thaki laptops. Circulate around the classroom to facilitate student work and answer questions.

Remind students to save their work in their digital student folders, or any other location according to the established classroom procedure.



Distance Learning

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Student Activities

Work on solving the exercises using Thaki laptops in pairs or individually based on the ratio of the number of laptops per the number of students.


Teacher Activities

Ask students level-appropriate questions relating to the lesson objective(s) on the functional uses of math in everyday life, such as:

1. Would you rather... purchase 1 kilo of your favorite fruit for 1500 LBP, or purchase whatever fruit is on sale “buy 2 kilos for 6000 LBP, get one free” ?
2. Would you rather... take an after school or weekend job earning 3000LBP per hour helping a cashier at a grocery shop, or a job at a clothing store earning 32,000 per week for 16 hours?
3. Would you rather... solve every math problem ever created, or learn how to use a computer to do it for you?

Where possible, challenge students to explain their reasoning for their choices by asking, “Why?” after every response.

Invite students to discuss responses with a partner or type responses in a LibreOffice Writer document, if time permits.


Distance Learning

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Student Activities

Respond to the reflection and comprehension questions.

Shopping Simulation Session

In this session, students will simulate the experience of shopping and/or working at a grocery shop using practical Math and Digital Skills in a real world scenario. Arrange the simulated grocery shop ahead of class, or have the students do it depending on the setting, time available, etc.

Material and Resources:

Teacher

Thaki laptop
Printed play money
Grocery shop items to buy / sell

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Students

Thaki laptops
Printed play money
Grocery shop items to buy / sell

Lesson Activities:

☰ Introduction (Warm-up activities)

Duration: 10 mins

Teacher Activities

Start the class by identifying the objectives of the session. Tell the students what they are going to learn and how they will apply their learning from the previous grocery shop simulation in today's session.

Ask students to work individually, in pairs, or in small groups to generate a list of at least 3 ways to use LibreOffice Calc to solve everyday math problems based on their learning from the previous session.

Take student responses to form a class list of guidance for using Calc including formulas, rules, etc. Fill in any missing information that may be helpful for the current lesson's activities.

Then, explain the class procedures regarding what students should do and how.

Student Activities

Generate a list of at least 3 ways to use LibreOffice Calc to solve everyday math problems and share ideas with the class.

Body

Duration: 30 mins

Teacher Activities

If possible, plan to have 1 laptop for every group of two-three students. Depending on the number of laptops available in the classroom, you may need to increase the number of students per group. When forming groups, consider selecting mixed ability students so the more capable students can guide and support the lower ability students, or put students in same/similar ability groups and tailor exercise tasks/questions to their respective levels.

Any of the four activities below (A-D) can be done as part of the Grocery Shop simulation. Each activity can take approximately 15 minutes so select the activities that suit your instructional needs and timing.

Explain the activity(ies) selected from the below and clarify the different tasks associated with the roles of the shopkeeper(s) and the shopper(s) as relevant. Invite students to think about which role they want to fill and inform them that, time permitting, they will have the opportunity to assume both roles.

Activity A) Ask each group to create a spreadsheet in LibreOffice Calc including whatever information is relevant to your desired lesson objectives. Some ideas include:

- A list of items they will sell the “manufacturer’s price” per item
- The price they will sell the item for
- The profit they will make each time that time is sold
- The amount of each item they have in stock

Activity B) If time permits and it suits the instructional objectives, invite groups to create a name for their shop and design a sign or promotion for it using LibreOffice Writer or Impress

Activity C) If the grocery shop has not already been set up, give students a specific amount of time to arrange their items and be creative in their designs.

Activity D) Conduct a role play. Assign roles or allow students to self-select:

- Shoppers buy the items and pay using the play money
- Cashiers to do the calculations using LibreOffice Calc on the laptops
- Sellers to assist the cashier in their work

Time permitting, allow students to switch between roles so that students who were Sellers can be Shoppers, for example.



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Student Activities

- Listen and ask clarifying questions about the activities to be performed.
- Reflect on the roles of shopper and shopkeeper in the lesson and in real life.
- Utilize LibreOffice programs Calc, Writer and/or Impress to simulate the tasks and skills of a shopkeeper and shopper.

Closure

Duration: 10 mins

Teacher Activities

Invite all students to discuss the relation between the real life setting of the Grocery Shop and the Math operations studied in class.

Where possible, do a brief assessment to gather evidence of the instructional objectives for the chosen activities. This could include:

Activity A) Ask each group to check the calculations of another group and give feedback.

Activity B) Ask each group to answer a reflection question such as, “How would your shop’s name and promotion change if it sold clothing instead of food?”

Activity C) Ask each group to answer a reflection question such as, “How did your setup design affect the shopper’s and the shopkeeper’s experience? Would you change anything for next time?”

Activity D) Ask each group to calculate the profit of their shop and see which group earned the highest.

If desired, reward the winning groups in categories such as:

- 1) the highest profit
- 2) the best collaboration and teamwork
- 3) the best shop set-up



Distance Learning

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Student Activities

- Discuss the relationship between Math concepts and real life.
- Complete the given assessment(s) according to the activities performed.