Singapore Environment Council in collaboration with NIE's GESL Group 1, Geslone

SUBJECT: MATHEMATICS

LEVEL	Primary 4	**TOPIC**	Money / Addition / Subtraction / Multiplication / Division
VENUE	Classroom	**DURATION**	1 Hour / 2 periods
LEARNING OBJECTIVES	By the end of the lesson, students will be able to achieve the following: 1. Solve simple word problems involving money using the 4 operations. 2. Explain how the use of reusable bags instead of plastic bags can save the Earth from the negative impact of plastic waste.	**MATERIALS NEEDED**	● Activity Worksheet (Provided) ● XYZ Supermarket Advertisement (Provided)

Duration	Description of Activities	Resources
10 mins	**1. INTRODUCTION – TUNING IN** Teacher to inform pupils of the objectives of the day's lesson. Start the lesson by showing a video regarding negative impacts of plastic waste to the environment.	Video: Plastic Planet (short version) http://youtu.be/t_wXlfV-xc4
5 mins	**2. DEVELOPMENT** Teacher to briefly run through the questions on the worksheet and pair students up to complete the activity. 1. Students to work in pairs to solve 4 word problems given various scenarios using the 4 operations when possible. 2. Individually understand simple word problems to calculate the total cost savings over a period of time.	Activity Worksheet XYZ Supermarket Advertisement

40 mins	**3. ACTIVITY** Teacher to use **Cooperative Learning Strategy- Pair Check.** 1. Pupils to work in pairs (student A and student B). 2. Teacher to give every pair of student 2 word problems and one XYZ supermarket advertisement. They can both solve it simultaneously. (***Refer to Activity worksheet and XYZ supermarket advertisement for Q 1 and 2)***. 3. All pairs to discuss their answers. 4. Teacher will then choose one or two pairs to share the problems with the class and give comment on their mathematical solutions and other answers.	Activity Worksheet XYZ Supermarket Advertisement
5 mins	**4. CLOSURE** Teacher to sum up the class by recapping with students on the following: 1. The use of the 4 operations to calculate cost savings when reusable bags are used instead of plastic bags. 2. The use of reusable bags instead of plastic bags can save the Earth from the negative impact of plastic waste.	

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XYZ Supermarket Advertisement

Fresh Milk

Price: $5.90

Longans

Price: $6.20

Tuna

Price: $2.50

Wheat Grain

Price: $2.10

Sugar Crackers

Price: $2.10

Cream Crackers

Price: $1.70

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Mathematics Activity Worksheet

Names: _____ Date: _____

Class: _____

Refer to the XYZ supermarket advertisement and solve the problem 1 and 2. Do make use of all 4 operations to answer the questions when possible. Do show all workings of 4 operations.

Problem 1

You are tasked by your parents to do the weekly grocery shopping for an upcoming party. You are to purchase 3 bottles of fresh milk, 4 boxes of longan and 6 cans of tuna.

i) How much would the total bill amount to?

ii) How much change would you received if you had $ 70 at first?

Answer (i): _____

Answer (ii): _____

Problem 2

If you used your own bag to carry your purchased items, you enjoy 20 cents off the total bill.

i) How much would you save if you visited the supermarket 52 times in a year?

ii) With the savings you have accumulated, what is the maximum number of products you could buy from the XYZ supermarket advertisement?

iii) If you have reusable bags at home, would you bring it to the supermarket to pack your grocery? Why?

Answer (i): _____

Answer (ii): _____

Answer (iii): _____

_____

Problem 3

A pack of 10 zip lock bags costs $3. You have an existing lunch box at home.

i) If you use your lunch box instead of zip lock bags to pack your lunch for 10 days, how much would you save each day?

ii) Would you continue to use your lunch box in the future? Why?

Answer (i): _____

Answer (ii): _____

_____

Problem 4

You were at a bookshop paying for 2 pens when you saw this sign at the cashier's counter.

"NOTICE"

Request For Extra Plastic Bag Will Be Charged As Follows:

Plastic bag size	Price
VERY LARGE (A1)	$1.07
LARGE (A2)	$0.54
MEDIUM (A3)	$0.32
SMALL (A4)	$0.21

Be Environmentally Friendly. Use Less Plastic Bags.

i) What would you do the next time you shop there knowing that you are getting many items?

ii) Explain briefly, giving 2 reasons why.

Answer (i): _____

_____

Answer (ii): _____

_____

Suggested solution for Worksheet

Problem 1

i) 3 x $5.90 + 4 x $6.20 + 6 x $2.50 = $57.50

ii) $70 - $57.50 = $12.50

Problem 2

i) 52 x $0.20 = $10.40

ii) $10.40 ÷ $1.70 = 6 packets of Cream Crackers (round down)

iii) Yes. It will help me to save $ 10.40 which can be used to buy other grocery items. I am also more environmentally friendly when I reduce the use of the plastic bag.

Problem 3

i) $3 ÷ 10 = $0.30

ii) Yes. It will help me to save money and I can do a part to save the environment.

Problem 4

i) I would bring my own bag to pack the things that I am going to buy.

ii) 1) I would be saving money since I have my own bag.

2) I would be more environmentally friendly when I reduce the use of plastic bags.

3) I would be a role model to my peers.

4) It would create an opportunity for me to share the reasons behind my choice.