

3

What would you do?

In "What would you do" kind of tasks pupils are provided with problem situations that stimulate creative thinking and also engage them in decision making. Their decisions can be based on personal ideas, personal experiences, or whatever the pupil wishes to call into play. However, the pupil must explain the mathematics that influenced his or her decision. The teacher must ensure that pupils are engaged in class discussion after completing the task so that pupils get an opportunity to learn how their friends solved the task and also appreciate the multitude of creative solutions justified by reasoning based on differing assumptions.

EXAMPLE 1

Soccer tournament

You are in charge of setting up the school's soccer tournament fixtures. There are 4 teams competing. Each team must play once.

1. Create a schedule for the tournament.
2. Explain your reasoning.

EXAMPLE 2

Birthday candles

Raju has 8 large and 5 small candles. He has to put candles on a birthday cake to celebrate his grandfather's 64th birthday.

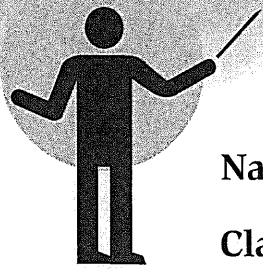
1. How many candles of each type could Raju put on the birthday cake?
2. Explain your reasoning.

**Teaching Goal**

After participating in this lesson, pupils will be able to use a number of tools such as their experiences, prior knowledge and individual preferences to solve problems that are somewhat open-ended. Pupils will also be able to support their answers using logic and reasoning.

**Teaching Plan**

1. Present the problem to the pupils.
2. Have pupils read the problem individually.
3. Engage the whole class in a discussion and check for comprehension of the problem.
4. Create an awareness of need to "make assumptions" as the problem is somewhat open-ended.
5. Tell pupils that they must defend or justify the solution they choose.
6. Give pupils time to complete the problem.
7. Ask a few pupils to present their solutions.
8. Engage the whole class in examining the solutions presented.
9. Emphasise the non-uniqueness of the solution to the problem.



What would you do?



Name: _____ Date : _____

Class : _____ Levels 3 - 6

1

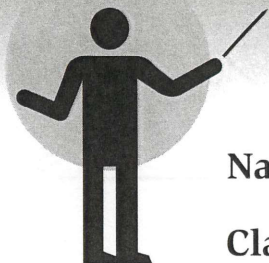
Topic: Money

Barbeque party

You are given \$100 to shop for food items for the year end barbeque party.
There are 40 pupils in your class.

1. Plan a menu for the barbeque party.
[You may need to refer to shopping guides for the price of food and other goods]
2. Explain your reasoning.

Created by Vanessa Lee Gek Kiat



What would you do?



Name: _____ Date : _____

Class : _____ Levels 4 - 6

2

Topic: Money

Taxi, bus or MRT?

Imagine you are a tour guide and you have to plan the mode of transport for a group of 10 people and yourself. There are 5 children and 6 adults altogether. You have been given a budget of \$11 to travel from Novena Square to Orchard Road.

1. Plan the mode of transport.
2. Explain your reasoning.

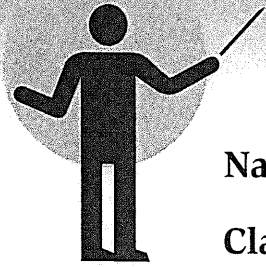
* Hint : Fare expenditure
from Novena Square to Orchard Road

Taxi - \$8.60
(4 passengers or less)

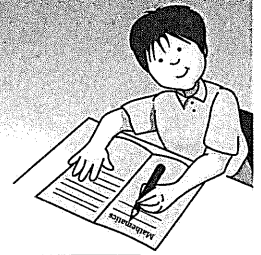
Bus - Child - \$0.60
(Air-con) Adult - \$1.10

MRT - Child - \$0.50
Adult - \$1.30

Created by Phyllis Ho



What would you do?



Name: _____ Date : _____

Class : _____ Levels 4 - 6

3

Topic: Money

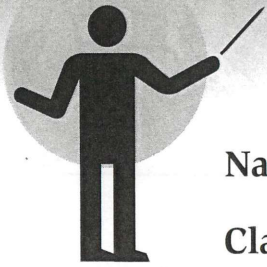
Different currencies

Paul has \$100 only. He would like to change his money to different currencies. Use the following table to help Paul.

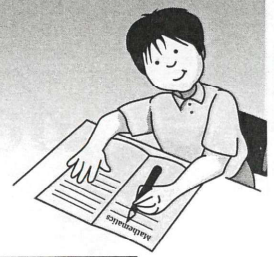
US \$1	\$1.40
MYR 1	\$0.45
£ 1	\$2.60

1. Suggest some combination of currencies Paul may consider.
2. Explain your reasoning.

Created by Abdul Rahman b Hussin



What would you do?



Name: _____ Date : _____

Class : _____ Levels 5 - 6

4

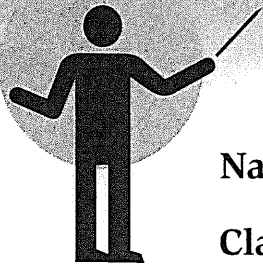
Topic: Word Problem

Colourful walls

John has 8 large tins of blue paint, 3 small tins of yellow paint and 2 small tins of red paint. He needs to paint 8 walls.

1. How can John paint the walls. They must all look the same and have geometrical shapes on it.
2. Explain your reasoning.

Created by Teo Yuen Cheng



What would you do?



Name: _____

Date : _____

Class : _____

Level 6

5

Topic: Volume

Cuboids

You are given 48 unit cubes to build different types of cuboids.

1. How many different cuboids can you build?
2. What are the dimensions of each cuboid? Record them in the table provided.
3. Explain your reasoning.

Cuboid	Dimensions of cuboid			Total number of cubes used
	Length	Width	Height	
				48
				48
				48
				48
				48
				48

Adapted from : Oxford Mathematics Activities For Upper Primary Pupils, p28-29
by Chandraselven Bavani