## RUKUN NEGARA

Bahawasanya Negara Kita Malaysia mendukung cita-cita hendak:

Mencapai perpaduan yang lebih erat dalam kalangan seluruh masyarakatnya;

Memelihara satu cara hidup demokrasi;
Mencipta satu masyarakat yang adil di mana kemakmuran negara akan dapat dinikmati bersama secara adil dan saksama;

Menjamin satu cara yang liberal terhadap tradisi-tradisi kebudayaannya yang kaya dan pelbagai corak;

Membina satu masyarakat progresif yang akan menggunakan sains dan teknologi moden.

MAKA KAMI, rakyat Malaysia, berikrar akan menumpukan
seluruh tenaga dan usaha kami untuk mencapai cita-cita tersebut berdasarkan prinsip-prinsip yang berikut:

# KEPERCAYAAN KEPADA TUHAN KESETIAAN KEPADA RAJA DAN NEGARA KELUHURAN PERLEMBAGAAN KEDAULATAN UNDANG-UNDANG KESOPANAN DAN KESUSILAAN 

## DUAL LANGUAGE PROGRAMME

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## Writers

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## RECOGNISE FRACTIONS



The part taken out is one over six.


## one over six



- Carry out activities to write proper fractions by naming orally and using fraction picture cards and word cards.


I have not painted 3 out of IO parts. $\frac{3}{10}$ is still white.


## LET'S ANSWER

1) Say the fraction of one part.


2 What are the fractions of the blue coloured parts?


## WRITE FRACTIONS




## two over four

## If I more part is pasted, what is the fraction?

Guide pupils to name proper fractions based on picture cards, paper foldings, and fraction kits. Relate to daily activities such as painting and pasting.

- Emphasise that when the value of the numerator and denominator is equal, the fraction is equal to $I$. 4 parts in orange. 5 other parts are in green.


I wrote the fraction for the orange parts.




## LET'S ANSWER

(1) Write the fractions of the red coloured parts.

(b)


2 Write the fractions of the yellow coloured parts.


3 Write the fractions in words.
a) $\frac{1}{5}$
(b) $\frac{1}{7}$
(C) $\frac{6}{9}$
d $\frac{9}{10}$
4. Write the fractions in numerals.
a one over five
(b) one over ten
C two over eight
d five over nine

- Guide pupils to represent fractions on paper folds. Emphasise that


## COMPARE FRACTIONS

These 2 parts are for Rishi.


Who got more parts of the cake?

2 parts are more.


## $\frac{2}{6}$ is larger than



Rishi got more parts of the cake.

2. Which fractions are smaller?


- Emphasise that if the denominators are the same, the fraction with the larger numerator has a bigger value.


## 3 Between $\frac{4}{7}$ and $\frac{3}{7}$, which is more?



Which is less,


5 Compare $\frac{1}{2}$ and $\frac{1}{10}$.


Mei Lin and Zali coloured the fraction diagrams. Whose coloured parts is larger?

## LET'S ANSWER

1) Which is larger?

©


## 2 Compare.



## CONVERT FRACTIONS TO DECIMALS



The fraction of the white coloured part is $\frac{1}{10}$. The fraction of tenths can be converted to decimals.


I say and write it as zero point one.


2 Monday
 Write 2 out of 10 parts in decimal.

3 Tenths fractions and decimals on number line.


Convert to decimals.
a) $\frac{2}{10}$
(b) $\frac{4}{10}$
C $\frac{6}{10}$
d $\frac{9}{10}$


4
I coloured zero point four.
0.9

- Guide pupils to say and write zero point one until zero point nine based on various diagrams, paper foldings, and number lines.
- Emphasise that decimal values of proper fraction for tenths fractions are less than I.
- Guide pupils to cut the answers on page 95 AB .


Which is 0.5 ? Why?

## LET'S ANSWER

1 What fractions are the red coloured parts?
a


(b) |  |  |  |  |
| :--- | :--- | :--- | :--- |

2 What decimals are the blue coloured parts?
a

(b)


3 Convert fractions to decimals.
a $\frac{1}{10}$
(b) $\frac{5}{10}$
C $\frac{6}{10}$
d $\frac{8}{10}$

4 Which diagrams are correct for the decimals given?
a 0.6

(b) 0.8

iiii)


## COMPARE DECIMALS



2 Which is larger, 0.5 or 0.8 ?
 0.8 is larger than 0.5 .

The value gets larger as the decimals move to the right.

What decimals are larger than 0.5 but smaller than 0.9 ?
a

b

(C) 0.7

## COMPARE FRACTIONS AND DECIMALS


0.7 is more than $\frac{3}{10}$.

2 Let's compare using a number line.

(a) $\frac{1}{10} \begin{gathered}\text { is equal } \\ \text { to }\end{gathered} 0.1$ b 0.8 is more $\begin{aligned} & \frac{3}{10} \\ & \text { than }\end{aligned}$


## LET'S ANSWER

Compare.


- Guide pupils to compare tenths fractions and decimals by converting tenths fractions to decimals and vice versa. Use fraction boards and paper foldings too.


## SOLVE IT

1. Muhi gave 3 out of 8 parts of a cake to Mogan. What fraction of the cake did Mogan get?


Method


2 Chong ate $\frac{1}{6}$ of a pizza. His brother ate $\frac{1}{4}$ of the pizza. Who ate a larger pizza?


Chong's brother Chong

than $\frac{1}{6}$.


Chong's brother ate a larger pizza, $\frac{1}{4}$.

3 Alia colours yellow and purple on a pattern as shown in the picture. State the purple coloured parts in decimal.

## Method

Purple parts are 7 out of 10 parts.

$$
\frac{7}{10}=0.7
$$

The purple part is 0.7 .

4 A piece of ribbon is used as shown in the table.
Which ribbon is longer?
Method

| Use | Tie <br> gift | Make <br> flower |
| :---: | :---: | :---: |
| Length <br> of ribbon | $\frac{6}{10}$ | 0.4 |

Tie a gift


The ribbon to tie a gift is longer.

## LET'S ANSWER

Solve the problems.
1
Muna ate 5 out of 8 parts of a chocolate. What fraction of the chocolate did she eat?


2 Kevin coloureda IO-partnumber wheel. He coloured it with yellow and green alternately. State the yellow parts in decimal.


Santi coloured 4 parts. Zamri coloured I part less than Santi. What fraction of the shape did Zamri colour?

Gary and Chan shared a mooncake. Gary ate $\frac{1}{2}$. Chan ate $\frac{1}{4}$.
Was the whole mooncake eaten?


## Lucky Cards

## Materials/Resources

20 fraction and decimal cards
Front


## Participants

## 3 pupils per group

## Method

Place cards face down 2 The second player on the table.
The first player opens two cards. opens one card. If any card matches, keep the matching cards.

3. Take turns. Repeat step 2. Play until all the cards are matched.


## RECOGNISE MONEY



The RMIOO note is purple.

The size of these notes is not the same.

All notes have pictures.




Fifty ringgit
RM50
Twenty ringgit and ninety sen

RM20.90



## Discuss other combinations for this value of money.



## LET'S ANSWER

1 Say the value of money.

-


2 Say the combination of money.

| Value of money | Number of notes/coins (pieces) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (3.3id |  | \% | 20.2 | - | (4) | (2)2 | (24) |  | 2 |
| RMI5.00 |  |  |  |  |  |  |  |  |  |  |
| RM75.50 |  |  |  |  |  |  |  |  |  |  |
| RM91. 35 |  |  |  |  |  |  |  |  |  |  |

- Carry out a simulation showing the value of goods such as groceries and stationery using play money based on price tags within the range of RMIOO.
- In pairs, carry out money changing activities of the same value using play money.


## ADDITION OF MONEY

What is the total price of the dictionary and the pen?


RM40 + RM30 $=$ RM70


The total price of the dictionary and the pen is RM70.
2 Calculate the total price of the cake and the card. RM68. $10+80$ sen $=\square$


Add the value in sen
 first. Then, add the value in ringgit.

## RM68.10 +80 sen $=$ RM68.90

The total price of the cake and the card is RM68.90.

[^0]
a What is the total price for sets $B$ and $D$ ? RM24.80 + RM56.70 = $\square$

| RM | sen |
| ---: | :--- |
| 11 |  |
| 24 | 80 |
| +56 | 70 |
| 81 | 50 |
|  | 150 sen |

RM24.80 + RM56.70 = RM8I.50
The total price for sets $B$ and $D$ is RM8I.50.
(b) Find the total price of sets $A, B$ and $C$.

RM9.90 + RM24.80 + RM34.80 = $\square$


RM9.90 + RM24.80 + RM34.80 = RM69.50
The total price for sets A, B and C is RM69.50.

- Carry out addition activities by combining different sets of food


## 4 RM30 + RM4I. $90+\mathrm{RMI} 8.55=\square$

| RM30 can <br> be written <br> as RM30.00.1 <br> RM 30.00 <br> RM 41.90 |
| ---: |
| + RM 18.55 |
| RM 90.45 |

H. RM30 + RM41. $90+$ RM18.55 $=$ RM90.45

## LET'S ANSWER

1. Total up.
a RM2O $\begin{array}{r}\text { RM70 } \\ +\quad \text { RM70 } \\ \hline\end{array}$
(b) RM5I. 30 + RMI 8.25

(C) RM 6.10

RMI 8.25 + RM35.95

d RM47.05 +65 sen $=\square$
e $\mathrm{RM} 60.40+\mathrm{RMI9}+\mathrm{RM} 4.70=\square$
2 Look at the picture. Answer the questions below.

a Add the price of guavas and mangoes.
(b) Calculate the total price of bananas, mangoes, and rambutans.

- Show various methods such as counting on, compensation method, and fast calculation to add the values of money.


## SUBTRACTION OF MONEY



RM90 - RM20 = RM70


The price difference is RM70.
2. Subtract RM20.50 from RM74.80.

RM74.80 - RM20.50 = $\square$

Method I


Method 2
RM 74.80
-RM 20.50
RM 54.30

## Method 3



RM74.80 - RM20.50 = RM54.30
3 RM30 - RM25.70 = $\square$

| RM | sen |
| ---: | ---: |
| 29 | 100 |
| 30 | 00 |
| -25 | 70 |
| 4 | 30 |

RM30 - RM25.70 = RM4.30


RMIO0 - RMI9.90 - RM57.50 = RM22.60
Siti's balance is RM22.60.


- Emphasise regrouping from ringgit to sen which involves RMI equals

5 RM90 - RM53 - RMI2.55 $=\square$

$$
910
$$

810

| RM 9 '0. 00 | M 37.80 |
| :---: | :---: |
| RM 53.00 | RM I 2.55 |
| M 37.00 | RM |

RM90 - RM53 - RMI2.55 = RM24.45

## LET'S ANSWER

1 Subtract.


2 Look at the prices. Answer the questions.


RRM87.50

a What is the difference in price between $\square$ and
(b) Lim buys $\because$ and . He pays RMIOO.

Calculate Lim's balance.

## MULTIPLIGATION OF MONEY

What is the price for 3 packets of jackfruit?


Method I

RM 8


RM24

## Method 2

RM8 + RM8 + RM8 = RM24
$3 \times$ RM8 $=$ RM24
The price for 3 packets of jackfruit is RM24.
2. Calculate the price of 4
$4 \times \mathrm{RM} 5=\square$

Method I


Method 2


3 Calculate the total price of the dragon fruits.
$6 \times \mathrm{RMIO}=\square$

| RMIO |
| ---: |
| $\times \quad 6$ |
| RM60 |

$6 \times$ RMIO $=$ RM60


The total price of dragon fruits is RM60.


## DIVISION OF MONEY

1. RMI5 is given equally to 3 persons. How much money does each person get?


Method I


Method 2
$3 \longdiv { R M 5 }$


RMI5 $\div 3=$ RM5
Each person gets RM5.
2. $\mathrm{RM} 30 \div 6=\square$ $6 \begin{array}{r}\text { RM } 5 \\ \text { RM30 }\end{array}$ ( $\quad 30$
$-\quad 0$

RM $30 \div 6=$ RM5
$3 \mathrm{RM} 72 \div 9=\square$
$\begin{array}{r}R M 8 \\ 9 \longdiv { R M 7 2 } \\ -\quad 72 \\ \hline 0\end{array}$
RM72 $\div 9=$ RM8

4 The price of 7 kilograms of durians is RM63. What is the price for I kilogram of durians?

RM63 $\div 7=\square$


RM63 $\div 7=$ RM9


The price for I kilogram of durians is RM9.

## 5. $\mathrm{RM} 60 \div 10=\square$

Method I

$$
\begin{array}{r}
\mathrm{RM} 6 \\
1 0 \longdiv { R M 6 0 } \\
-\quad 10 \times R M \sqrt{60} \\
\hline 0
\end{array}
$$



## LET'S ANSWER

Divide.
a $4 \longdiv { \text { RM24 } }$
(b) $5 \longdiv { \text { RM2O } }$
(C) $6 \longdiv { \text { RM48 } }$
d $8 \longdiv { \text { RM72 } }$
(e) $\mathrm{RM} 45 \div 5=$ $\square$ (f) $\mathrm{RM} 80 \div 10=\square$

## MONEY LITERACY

## Zarif won a prize of RM300.

## Congratulations!




Zarif plans for the money to be kept and to be spent.


You get RM200 during Hari Raya. Record the money to be kept and to be spent. Talk about it with your classmates.


- Emphasise the importance of planning and managing finances effectively to avoid spending beyond one's means.
- Talk about the importance of education funds, education insurance, unit trusts, and others for their future.


## SOLVE IT

James records his savings. What is the total?

| Month | June | July |
| :---: | :---: | :---: |
| Saving | RM27.50 | RM51.80 |

RM27.50 + RM5I. $80=\square$
Method I

| 1 |
| ---: |
| $R M 27.50$ |
| $+R M 51.80$ |
| $R M 79.30$ |

Method 2


Amount of money in notes: RM78.00 Amount of money in coins: + RM I. 30 Total:

$$
\text { RM27.50 + RM5I. } 80 \text { = RM79.30 }
$$

James' total savings is RM79.30.
2. Ana's sister has RM90. She buys a cake and a gift as shown in the picture. Find her balance.

Has: RM90


RM54.60


Buys cake: RM54.60
Buys gift: RM27

RM90 - RM54.60-RM27 = $\square$

Subtract successively to find the balance of money.

| 89100 | 215 |
| :---: | :---: |
| RM90.00 | RM 3,5.40 |
| -RM 54.60 | -RM 27.00 |
| RM 35.40 | RM 8.40 |

RM90 - RM54.60 - RM27 = RM8.40

Her balance is RM8.40.


- Carry out simulation using play money to solve problems involving


The payment for washing a car is RM9. How much is the payment for washing 5 cars?
Wash I $\rightarrow$ RM9
Wash $5 \rightarrow 5 \times$ RM9

$$
5 \times \mathrm{RM} 9=\square
$$

Method I


The total payment is RM45.
4. The profit for selling drinks is RMI8. Nancy and Kavita share it equally. How much does each person get? RMI $\div 2=\square$

Method

$$
\begin{array}{r}
R M 9 \\
2 \begin{array}{r}
\text { RMI8 } \\
-\quad 18 \\
\hline 0
\end{array}
\end{array}
$$



RMI $\div 2=$ RM9
Each person gets RM9.

## LET'S ANSWER

Solve the problems.

1. Rozana has RM35.70. Her father gives her RM45 more. Find the total amount of money Rozana has.

2 Zain wants to buy a toy car as in the picture. He has RMIOO. What is his balance?


3 The picture shows the price of a pair of slippers and trousers.
> a Mother buys 3 pairs of trousers. Find the total amount she pays.
(b) Calculate the cost of 2 pairs of slippers.


4 RM48 is divided equally among 6 people. How much money does each person get?

5 Look at the picture. What is the combination of money that Zami's mother may use to pay the amount?

Falisa has 7 pieces of RM5 notes
and 6 pieces of RMIO notes. Is
her money more than RMIOO?
Falisa has 7 pieces of RM5 notes
and 6 pieces of RMIO notes. Is
her money more than RMIOO?
Falisa has 7 pieces of RM5 notes
and 6 pieces of RMIO notes. Is
her money more than RMIOO? Explain.

The total cost is RM53, madam.


Materials/
Resources
task cards, table of tasks, scissors, glue, goods brochure

## Method

Pick one task card and read it.
2. Complete the task in the table of task.

3 Present your group work.

## Examples of task cards

Find
2 items with a total price of less than RMIO.

Find 2 items with the price difference of more than RMI2.

The price for I item is RM5. Find the total price for 5 items.

## Example of table of task

| No. | Task | Answer | Calculate |
| :--- | :--- | :--- | :--- | :--- |
|  | Find 2 items <br> I <br> with a total <br> price of less <br> than RMIO. |  | RM3.99 <br> RM5.90 |

## TIME



Oh, these are minute graduations.


- Ask pupils to talk about their background knowledge related to the topic of time learnt in Year I.
- Discuss the characteristics of an analogue and a digital clock.


a


2 Complete these.
a 40 graduations is $\square$ minutes.
(b) When the minute hand moves from 12 to 7 it means
$\square$ minutes.

C $\square$ minutes is when the minute hand moves from 12 to II.


We usually say it as



## 2l LET'S ANSWER

## 1 Say the time.

a

(b)

C


2 Convert the time into numerals.
a Eleven twenty
(b) A quarter past two

3 Convert the time into words.
a)

b

C


- Emphasise the correct writing of time in multiples of 5 minutes.
- Carry out activities to convert time from numerals to words using flash cards, analogue, and digital clock models.
- Inculcate the attitude of spending time with beneficial activities.


## RECORD THE TIME



| Time | Activity |
| :---: | :---: |
| $7: 45$ in the morning | Exercise |
|  | Blow balloons |
| 12:00 in the afternoon |  |
| $3: 25$ in the afternoon |  |
|  |  |
|  | Treasure hunt |

Record the times and the activities for Sunday.


- Ask pupils to talk about and record their daily activities in school and after school.
- Discuss pupils' sequence of events during weekends or school holidays.


## LET'S ANSWER

## CHILDREN'S DAY

Look at the Children's Day activities in the pictures. Complete the table.


## Example

## Family Day

## LET'S EXPLORE

## Plan an activity. <br> 2. Record the time and activity.

3 Talk about your activity.

| Time | Activity |
| :---: | :---: |
| $8: 45$ in the morning | Exercrise |
| $9: 00$ in the morning | Blow and burst <br> balloons |
| $9: 30$ in the morning |  |
| Three-legged <br> race |  |

- Prepare tables in MS Word and guide pupils to record time in the table such as their class time table, Teacher's Day celebration, school sports day, television programmes, and family day.
- Carry out Let's Explore activity in pairs.


## RELATIONSHIP IN TIME



## 2 Day and Hour

## I complete circle of the hour hand is 12 hours.




When Alex arrived at school, the minute hand showed 4. What time did he arrive?



The time he arrived

Alex arrived at his school at 7:20 in the morning.
2 Naveena and her family arrived at a banquet hall at 8:00 in the evening. Dinner started 25 minutes later. State the time the dinner started.

## Method



Dinner started at 8:25 in the evening.

3 The clock shows the start of a storytelling activity.
The activity was carried out for an hour.


## Start

a State in words the time the activity started.
The activity started at two o'clock.
(b) At what time did the activity end?

Method
I hour is I complete circle of the minute hand.


The activity ended at 3 o'clock. End

## LET'S ANSWER

## Solve the problems.

1 The gotong-royong started at $9: 30$ in the morning. State the time in words.

2


A chess game started at 4:00 in the afternoon. When it ended, the minute hand was pointing at number 8 . What is the time?


Nani participated in a colouring competition which took I hour. How many minutes is that?
(4) A group of Year 2 pupils visited Mega Aquaria. They entered at a quarter past three in the afternoon. Write the time in numerals.


## Participants

2 to 3 pupils per group

## Method

Use the clock face cards for the activities as in the examples shown.

## Clock face card

## Activity 1

Pupil A moves the minute hand.
Pupil B states how many minutes.
10 minutes.

## Activity 3

Pupil A states the time.
Pupil B moves the hour hand. Pupil C moves the minute hand.

## mine

## Activity 4

Pupil A shows the time.
Pupil B writes the time in numerals. Pupil C writes the time in words.

# 6 LENGTH, MASS, AND VOLUME OF LIQUID 



# RECOGNISE UNITS OF CENTIMETRE AND METRE 

## I centimetre


2

The length of the nail and the width of the finger is I centimetre.

## This is a 15 -centimetre ruler.

 Each graduation is I centimetre.This is a metre ruler. Its length is equal to 100 centimetres.

## I centimetre

## b

I metre is written as 1 m .


## ET'S ANSWER

1 State the most suitable unit of length, cm or m .

25 $\square$
5


2 Write the symbol for each unit of length.
a 2 centimetres
C 3 metres
b 57 centimetres
d 40 metres

- Discuss the use of the unit metre in daily life which involves height, width, distance, and others.
- Emphasise that the unit metre is used to measure length of longer objects. Carry out simulations to observe graduations of a measuring tape.


Which is the correct method to measure the paper above? Discuss.

- Guide pupils to measure the length of objects around them using rulers or measuring tapes. Emphasise measuring lengths in cm or m without involving decimals.
- Ask pupils to record the length of objects, such as the height of a plant one week after germination of its seed.
Surf http://www.mathworksheets4kids.com/length/object-ruler-cml.pdf


The width of the classroom door is $\mathbf{1 2 8} \mathbf{c m}$.


The length of the mural is 2 m .

The length of the frame is $\square$ m.

- Guide pupils to measure lengths and mark distances of objects around the school in cm and m .
- Carry out activities in groups and ask group leaders to record their findings.

Mark dots at 0 and 30 .

Join the two dots Write 30 cm . with a ruler.


Draw the length of a comb as a straight line on a paper. Measure the length of the straight line.


## LET'S ANSWER

1 State the length of the pen.


2 Draw a straight line:
(a) 9 cm . (b) 2 m .

## ESTIMATE LENGTH OF OBJECTS




Name other objects that measure less than 15 cm .

## LET'S EXPLORE

## Method

Measure the length of a pencil.

2 Use the pencil to estimate the length of an exercise book.


4 Use the pencil to estimate the length of otherobjects.

5 Measure the objects. Record the actual length.
6. Compare both lengths.

| Object | Estimated <br> length/height | Actual <br> length/height |
| :--- | :---: | :---: |
| Length of exercise book | cm | cm |
| Height of bottle | $\square \mathrm{cm}$ | $\square \mathrm{cm}$ |
| Length of watch | $\square \mathrm{cm}$ | cm |

## LET'S ANSWER

Estimate the length of each object.
$\square$
$\square$


[^1]

## 3 a



Each graduation is 50 g .

## (b)



Each graduation is 100 g .


Each graduation is $\square$
d


## 24 LET'S ANSWER

1 State a suitable mass unit, g or kg .


2


$300 \square$
C


2 Write the symbol for the mass unit below.
$\begin{array}{lll}\text { a } 100 \text { grams } & \text { (b) } 700 \text { grams } & \text { (c) } 3 \text { kilograms }\end{array}$


- Guide pupils to read values of graduations for different weighing scales.
- Emphasise that I000 grams is equal to I kilogram.


## WETGH THE MASS OF OBJECTS



Which has more mass, biscuits or cotton?

## OILET'S ANSWER

Say the mass of each object.


## ESTIMATE THE MASS OF OBJECTS




The mass of plasticine to make an elephant model is 300 g .

Estimate the mass of this elephant model.


The mass of the elephant model is 200 g .

## LET'S EXPLORE

## Method

1. Weigh a big 2 Estimate the mass 3 Weigh the small marble. of a small marble.
 marble to find its actual mass.

2. Use the big marble's mass to estimate the mass of other objects.
5 Weigh the objects. Record the actual mass.
6 Compare both mass.

| Object | Estimated mass | Actual mass |
| :--- | :---: | :---: |
| Small marble | $\square \mathrm{g}$ | $\square \mathrm{g}$ |
| Aluminium can |  | g |
| Magazine | $\square \mathrm{g}$ | $\square$ |

## LET'S ANSWER

Estimate the mass of each object.



10 kg

$\square \mathrm{kg}$

- Guide pupils to estimate and weigh mass of objects in groups.
- Emphasise using suitable weighing tools in estimating mass and finding actual mass in g and kg .
- Discuss with pupils the importance of estimating the mass of objects in their daily lives.


## RECOGNISE UNITS OF MILLILITRE and LITRE

The volume of milk is I litre.


350 millilitres is written as $350 \mathrm{~m} \ell$. $I$ litre is written as $\boldsymbol{\ell} \ell$.

The symbol for millilitre is $\mathrm{m} \ell$.


The symbol for litre is $\ell$.



Say the volume of liquid in $\mathrm{m} \ell$ or $\ell$.


- Discuss the volume of liquid, in millilitre and litre, found in daily life. Ask pupils to look at the size of containers and their volumes.

(b)

(1) State a suitable volume unit, $\mathrm{m} \ell$ or $\ell$.


2 Write the symbol for the volume units below.
a 200 millilitres
b 600 millilitres
C 4 litres
d 9 litres

This is al $\ell$ measuring cylinder. Each graduation is $\square \mathrm{m} \ell$.

d

## MEASURE VOLUME OF LIQUID




The volume of water is $500 \mathrm{~m} \ell$.



- Guide pupils to measure the volume of liquid using suitable measuring tools. Instil moral values such as cautiousness in taking


2 litres of milk is to be filled into 2 containers as shown in the picture. What is the volume of milk in each container?

## 2l LET'S ANSWER

## What is the volume of liquid in each container?



C


## ESTIMATE VOLUME OF LIQUID

## 1

The volume of this water may be 500 me .

> I estimate it is less than $700 \mathrm{~m} \ell$. $\begin{aligned} & \text { Our estimation is } \\ & \text { almost exact. }\end{aligned}$

Correct, Ikram. Its volume is $600 \mathrm{~m} \ell$.



I estimate the volume of the juice in this water container is more than $1 \ell$.

[^2]
## LET'S EXPLORE

## Method

1 Prepare the liquid as shown in the picture.


2 Estimate the volume of the red liquid.
Record it.


3 Measure the actual volume of the red liquid. Record it.
4. Repeat steps 2 and 3 for the green liquid.

5 Compare the two volumes.

| Liquid | Estima |
| :--- | :--- |
| Red liquid |  |
| Green liquid |  |
|  |  |
| LET'S ANSWER |  |

Estimate the volume of the liquid.
a


## SOLVE IT

1. Sarina uses 8 cm of red thread. She also uses 10 cm of blue thread. State which thread is longer.

## Method



10 cm is longer than 8 cm .
The blue thread is longer.


Mark the volume of the medicine to be taken. State its volume.

Method


The volume of the medicine is $10 \mathrm{~m} \ell$.

| Adult | RM20 |
| :--- | :---: |
| Child | RMI5 |
| Child <br> (less than 90 cm tall) | Free |

Kamal's height is I m. His younger brother does not need to pay. Estimate his brother's height.

## Method



His brother's height is about 80 cm .


Nisha's mass is more than Julia's. Her mass is less than Saiful's. What could be Nisha's mass?


Julia


Nisha's mass
Nisha's mass could be $\mathbf{2 8} \mathbf{~ k g}$ or $\mathbf{2 9} \mathbf{~ k g}$.

5 Sue Chin wants to clean her bicycle. Choose the container she should use. Why?
Method


Sue Chin should use an $8 \ell$ container because it holds more water.


Solve the problems.

1. Mother measures the objects shown in the table.

| Object | Wire | Coloured tape | Ribbon |
| :---: | :---: | :---: | :---: |
| Length | 5 cm | 18 cm | 30 cm |

Draw a straight line for the length of each object.
2 The picture shows the mass of grapes bought by Erma's father. State the mass of the grapes.


I want to drink $350 \mathrm{~m} \ell$ of apple juice.

I want to make
 $2 \ell$ of apple juice.


State which container they should use.

## a


d

4. The height of a lorry is 3 m . Can the lorry pass through the tunnel shown in the picture? Give a reason.


## Match Me

Materials/
Resources
glue, scissors, triangle diagram, A4 paper

## Participants 2 pupils per group

## Method

1. Make copies of the triangle diagram below.
2. Cut the triangle into 9 pieces.
3. Join the matching pieces of each measurement.
4 The first group that matches the pieces correctly is the winner.

## SHAPES

## Shapes Song

Let us learn the 3-D shapes 3-D shapes, 3-D shapes Cuboid, cube, and pyramid Cone and cylinder too


Twelve sides lengths are all the same Six faces sizes all the same We can see these in dice A cube, we call its name

A cuboid has a different shape Six faces sizes not the same Has squares and also rectangles Has twelve sides too


Scan
me

## IDENIIFY 3-D SHAPES

Has 6 flat surfaces.
All faces are the same size. Has 8 vertices. Has 12 edges.
The dice has a cube shape.


| Characteristics | Object | Shape |
| :---: | :---: | :---: |
| - 6 flat square faces <br> - 8 vertices <br> -12 straight edges | $\vdots$ |  |
| - 6 flat rectangular <br> faces <br> - 8 vertices <br> -12 straight edges |  | Cube |



## IDENTIFY BASTC SHAPES



| 3-D shape | Name | Basic shape | Number |
| :---: | :---: | :---: | :---: |
|  | Cube | $\square$ | 6 |
|  |  | $\square$ | 4 |
|  |  | Pyramid | $\square$ |

## State the basic shapes for each 3-D shape.



- Carry out group activities to make various patterns using basic shapes and ask pupils to talk about them.


## RECOGNISE NETS OF 3-D SHAPES



2


This cuboid net has
4 rectangles. Another 2 are squares.



Try to make other nets of a cube and a cuboid. Talk about it. Carry out simulations to relate it to basic shapes to enhance pupil's understanding.

- Prepare a variety of cube and cuboid nets. Ask pupils to talk about the nets.




## 4 Cone net



## 5 Cylinder net




Join the rectangle together.


This is a cylinder.

## LET'S ANSWER

Name the 3-D shape for each net below.

e


## IDENTIFY 2-D SHAPES



- Emphasise that 2-D shapes are found on the surfaces of 3-D objects in daily life.

| Characteristics |  |  | Shape | Name of <br> shapes |
| :---: | :---: | :---: | :---: | :---: |
| Number of <br> straight sides | Number of <br> curved sides | Number of <br> corners | Shape |  |
| 4 | 0 | 4 |  |  |
|  | 0 | 4 |  | Rectangle |
| 3 |  | 3 |  |  |
| 0 | 1 |  | 0 | Circle |

## LET'S ANSWER

What is the 2-D shape for the given characteristics?

No straight sides



How many squares, rectangles, and triangles are there in the diagram above?

## DRAW 2-D SHAPES



## LET'S EXPLORE

## Materials/Resources

Microsoft Word

## Participants

2 pupils per group

## Method

## I. Open Microsoft Word.

2 Click Insert and Shapes.
Choose a rectangle from Basic Shapes and click.
3 Draw a rectangle.
4 Click on the rectangle. Click Format and Shape Fill. Choose colour and click.
5 Type name of shape.
6 Repeat steps 2 to 5 for other 2-D shapes.


## LET'S ANSWER

Join the dots according to the sequence of the letters. Use a ruler. Name the shape.


- Carry out activities to draw and name 2-D shapes from paper foldings and dot paper.
- Carry out a contest to build as many 2-D shapes as possible using geoboards.


## SOLVE IT

1. Sarjit uses recycled materials to make a money box. He pastes coloured paper on six flat faces of the same size. What is the shape of the money box?

## Method Guess and check.



The money box is a cube.

2 Liza draws a pattern. She draws a 2-D shape with one curved side. What shape has she drawn?

## Method

A triangle has no curved side.

A rectangle has no curved side.

A circle has a curved side.


The shape drawn is a circle.

[^3]3 Rini unfolds a 3-D shape. She gets 2 circles and I rectangle. What is the 3-D shape?


The 3-D shape is a cylinder.

## LET'S ANSWER

## Solve the problem.

(1) The picture shows 6 faces traced from a $3-D$ shape. What is the 3-D shape?


2 Mother sells jelly in a container. The container has 2 flat faces. It also has I curved face. Name the $3-D$ shape of the container.

## My Money Box

Materials/Resources net card, stickers of shapes, scissors, glue, sticky tape

## Method

1 Prepare the materials.


3 Fold and join the net using sticky tape.


5 Paste the stickers to decorate the money box.


## 2 Cut the net.



4 Remove the stickers.


6 Display it at the mathematics corner.


## DATA

## COLLECT DATA



2 Group the flowers according to their colours.


| Flower <br> colour | Tally | Number |
| :---: | :---: | :---: |
| Red | HHYHIII | 12 |
| Blue | HHIII | 7 |
| Yellow | HH IIII | 9 |

This is how we collect data on colours of flowers.
 Count
the
squares.
Yellow
has 9.


## LEE'S ANSWER

Collect data on the sports houses of your classmates. Complete the table.

| Sports house | Tally | Number |
| :---: | :--- | :--- |
| Red |  |  |
| Blue |  |  |
| Green |  |  |
| Yellow |  |  |

[^4]
## RECOGNISE BAR CHARTS

1. This is a bar chart on the favourite toys of a group of pupils.


## Vertical axis


a 6 pupils like robots.
b 4 pupils like dolls.
C $\square$ pupils like toy cars.
d The most favoured toy is $\square$

- Carry out question and answer activity on what pupils can see


## 2 Bar chart of favourite juices.


a The four types of juices are pineapple juice, guavajuice, orange juice, and $\square$
(b) The number of pupils who like to drink: i. pineapple juice 5 ii. guava juice 3 iii. orange juice $\square$ iv. watermelon juice $\square$
C The most favoured juice is $\square$

I Launch Google Chrome.
2 Type bar chart. Press Enter.


3 Click Images. Select bar chart.
4 Write down information related to the bar chart.

## LET'S ANSWER

Look at the bar chart. Answer the questions below.

a Write the number of pupils who eat:
i. biscuits.
ii. bread.
iii. nasi lemak.
iv. fried noodles.
b Name the most favoured food.
C What is the least favoured food?

Favourite Games


This bar chart is incomplete. Spinning top is the second favoured game. How many pupils like to play spinning top?

## SOLVE IT

The table shows the favourite television programmes of a group of pupils.


| Programme | Cartoon | Entertainment | Horror | Sports |
| :---: | :---: | :---: | :---: | :---: |
| Tally | HH HH <br> HH \||| | HH HH <br> I\| | \||| | HH \|| |

a How many pupils like to watch sports?
(b) What is the most favoured programme?

## Method

Look at the table.
a 7 pupils like to watch sports.

(b)

픈First, add up the tally.


The most favoured programme is cartoons.
2. Bar chart on books read by 5 pupils.

a How many books did Stacy read?
(b) Who read the same number of books? How many?

C Who read the most books?

## Method

Look at the chart.
a Stacy read 6 books.
b Ramesh and Zain read the same number of books. 5 books.

C Vinod read the most books.

## LET'S ANSWER

Solve the problems.
1 Look at the table on shoe sizes of Year 2 Zuhal pupils.
Answer the questions below.

| Shoe size | 28 | 29 | 30 | 31 | 32 | 33 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tally | HH | HH I | IIII | HHTH | III | II |

a) State the number of pupils for each shoe size.
b Which shoe size is worn the most?
2 Look at the bar chart on the ambitions of a group of pupils. Solve it.
a) How many pupils want to be policemen?
(b) Which ambition is the favoured?

## How Do We Go to School?

## Materials/Resources Go to School chart, name cards, glue

## Method

Collect data on how your classmates go to school.
2 Paste the name cards in the boxes of the Go to School chart.

Go to School Chart

3. Collect data in a table.

| Ways to <br> school | Number <br> of pupils |
| :---: | :---: |
| School bus | 5 |
| Car | 4 |
| Bicycle | 1 |
| Walk |  |

## 4 Display the chart at the mathematics corner.

- Prepare the Go to School chart. Guide pupils to paste their names.
- Ask pupils to carry out question and answer activity on the data above

Dengan ini, SAYA BERJANJI akan menjaga buku ini dengan baik dan bertanggungjawab atas kehilangannya, serta mengembalikannya kepada pihak sekolah pada tarikh yang ditetapkan.

| Skim Pinjaman Buku Teks <br> Sekolah |  |  |  |
| :--- | :--- | :--- | :--- |
| Tahun | Darjah | Nama Penerima | Tarikh <br> Terima |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Nombor Perolehan: $\qquad$
Tarikh Penerimaan: $\qquad$


[^0]:    - Carry out buying and selling activities in the classroom. Guide pupils to add the value of money in notes and coins.
    - Train pupils to add using the 'counting on' method and abacus.
    - Emphasise that the decimal point between the ringgit and sen must be kept in line.

[^1]:    Guide pupils to carry out Let's Explore in groups. Ask a representative from each group to present their group's work.

    - Carry out activities to estimate lengths of objects in metres based on the length of a I-metre ruler.

[^2]:    - Guide pupils to estimate the volume of liquid in $\mathrm{m} \ell$ and $\ell$ in different containers.
    - Ask pupils to make conclusions using more or less.
    - Surf http://www.mathworksheets4kids.com/capacity/jug-lliter-I.pdf
    - Surf http://www.mathworksheets4kids.com/capacity/more-less-

[^3]:    - Use various strategies such as drawing a diagram and simulation to solve the problems given.
    - Emphasise to pupils to read the problems carefully and to underline important information.

[^4]:    - Compare methods of collecting data and ask pupils to determine the easiest method.
    - Carry out suitable data collection activities outside the classroom such as on colours and types of cars.

