Written in NZ for NZ
Helo Me ont MOME Series

## Curriculum Strand

## Worksheets

## A Teacher's resource supplied as PHOTOCOPY MASTERS


Book 1b

This resource contains

## 40 Curriculum Strand Worksheets


which covers Level 1 of the achievement objectives as outlined in the Mathematics in the New Zealand Curriculum for the strands ... Number \& Algebra, Measurement \& Geometry and Statistics.

This resource is to be used in conjunction with Book 1a and supports the Numeracy Professional Development Project Stages 1 to 3


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## Note from the author:

About this resource ...

## Help Me at Home Curriculum Strand Worksheets - Book 1b (Code: AH1b)

is one of a series of TWO sets of 8 resources and has been written to cover the achievement objectives as outlined in the Mathematics in the New Zealand Curriculum (2007 revised edition) document for the teaching areas or strands of ... Number \& Algebra, Measurement \& Geometry and Statistics.

Resource Book 1b is to be used in conjunction with a second resource, Book 1a.

## Help Me at Home Number Knowledge Worksheets - Book 1a (Code: AH1a)

Book 1a has been written to support the Numeracy Professional Development Project currently being implemented within many New Zealand schools.

## Background Information:

The Numeracy Professional Development Project being implemented in many schools involves a knowledge section and a strategy section.
The knowledge section introduces and revises the key number knowledge facts required.
The strategy section describes the mental processes students employ to estimate answers and solve problems involving the four operations of addition, subtraction, multiplication and division.

The strategy stages are listed in this table.
The aim of this project is to equip students with various strategies that allow them to be successful at Mathematics

In order for this to occur, it is essential for students to be confident with number knowledge.

| Ex, | Strategy Stages |
| :---: | :---: |
| 0 | Emergent |
| 1 | One-to-one Counting |
| 2 | Counting from One on Materials |
| 3 | Counting from One by Imaging |
| 4 | Advanced Counting (Counting On) |
| 5 | Early Additive Part-Whole |
| 6 | Advanced Additive Part-Whole |
| 7 | Advanced Multiplicative Part-Whole |
| 8 | Advanced Proportional Part-Whole |

Without the 'knowledge', that is, knowing the basic numeracy facts, it is difficult for a student to progress through the strategy stages. Students move through the strategy stages at different rates and may be working at different stages given a certain problem. This is often a result of gaps in key knowledge, hence it CANNOT be stressed enough the importance of learning the numeracy facts. How children learn the numeracy facts is not as important as knowing them. These resources are designed to systematically introduce and revise the key numeracy facts.

## How to use these resources:

There are $\mathbf{2}$ sets of 8 resources in this series.
The table opposite shows the suggested Year Group each book can be used at, but this is only a suggestion.
Example: 1-2-3 means it is likely to be used at Year 2, the bold underlined number.

| Book | Resource Code | Suggested <br> Year Group <br> (underlined) | Strategy Stages covered | Curriculum Level |
| :---: | :---: | :---: | :---: | :---: |
| 1a/1b | AH1a \& AH1b | 1-2-3 | 1 to 3 | 1 |
| 2a/2b | AH2a \& AH2b | 2-3-4 | 4 | $1 / 2$ |
| 3a/3b | AH3a \& AH3b | 3-4-5 | 4 \& 5 | 2 |
| 4a / 4b | AH4a \& AH4b | 4- $\underline{\text { - }-6 ~}$ | 5 \& 6 | 2 / 3 |
| 5a/5b | AH5a \& AH5b | 5-6-7 | 6 \& 7 | 3 |
| 6a / 6b | AH6a \& AH6b | 6-7-8 | 6 \& 7 | $3 / 4$ |
| 7a/7b | AH7a \& AH7b | 7-8-9 | 6 to 8 | 4 |
| 8a/8b | AH8a \& AH8b | 8- $\underline{\text { - }} 10$ | 6 to 8 | 5 |

## Why so many resources?

## A note for Teachers



There are 2 sets of 8 resources in this series to allow you to have a different book available each year for classes which are made up of mixed year groups. This will stop the problem of a student saying "We used this book last year!". Which book you use for your class is up to your professional judgement, taking into account which resource classes above or below your class might use.

## How to use these TWO resources - Book 1a \& Book 1b

# Book AH1a 40x Number Knowledge 

 Worksheets- This resource systematically introduces and revises the number knowledge, presented in various formats.
- Designed to reinforce the Numeracy Professional Development Project, it is intended that one worksheet per week is completed in order from worksheet 1 to worksheet 40.
- One worksheet per week is to be done in conjunction with one worksheet selected from the Curriculum Strand Worksheet resource (Book 1b).
- Book 1a covers the Strategy Stages 1 to 3.

Select ONE worksheet from each book to make up your homework worksheet

## Book AHib <br> 40x Curriculum Strand Worksheets

- The $\mathbf{4 0}$ worksheets in this resource cover the Achievement Objectives as outlined in Mathematics in the New Zealand Curriculum for Number \& Algebra, Measurement \& Geometry and Statistics.
- These worksheets can be completed in any order.
- One worksheet is selected per week to be done in conjunction with one worksheet from the Number Knowledge Worksheet resource (Book 1a).
- The worksheet selected per week relates to the topic being covered at school or as revision.
- Book 1b covers Level 1 of the Curriculum.

Note to Teachers:

- The aim of these TWO resources (AH1a \& AH1b) are to provide the classroom teacher with a systematic and comprehensive series of worksheets, which form the basis of your mathematics homework.
Worksheets from Book 1a:
Photocopy weekly and sequentially in order, a Number Knowledge worksheet from Book 1a. On the Number Knowledge worksheet, pupils can record their Name, Term, Week and the Curriculum Strand Worksheet that is also to be done that week.

Worksheets from Book 1b:

- Select and photocopy the appropriate Curriculum Strand Worksheet required, as determined by what you are currently teaching in class or a topic you are revising. In the table on the next page, record the curriculum worksheet being used each week.


## Extension Activity for Parents:

- Each Curriculum Strand Worksheet has an AT HOME activity as an extension activity for parents or caregivers.
- Success in mathematics is greatly enhanced by having a good understanding of Number Knowledge. That is, from being able to add, subtract, multiply and divide with confidence, .... with success .... comes enjoyment.
- Either staple the two worksheets together or create a double sided homework sheet.

Book la (AHla) - Number Knowledge Worksheets

| Number Knowledge Worksheet | Term Enter | \& Week etails below | Curriculum Strand Worksheet Enter the worksheet number ssued each week | Number Knowledge Worksheet | Term \& Week Enter details below | Curriculum Strand Worksheet Enter the worksheet number issued each week |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Term: | Week: |  | 21 | Term: Week: |  |
| 2 | Term: | Week: |  | $2$ | Term: Week: |  |
| 3 | Term: | Week: |  | 23 | Term: Week: |  |
| 4 | Term: | Week: |  | 24 | Term: Week: |  |
| 5 | Term: | Week: |  | 25 | Term: Week: |  |
| 6 | Term: | Week: |  | 26 | Term: Week: |  |
| 7 | Term: | Week: |  | 27 | Term: Week |  |
| 8 | Term: | Week: |  | 28 | Term: Wee |  |
| 9 | Term: | Week: |  | 29 | Term: Week: |  |
| 10 | Term: | Week: |  | 30 | Term: Week: |  |
| 11 | Term: |  |  | 3 | Term: Week: |  |
| 12 | Term: | eek: |  | $32$ | Term: Week: |  |
| 13 | Term: | Week: |  | 33 | Term: Week: |  |
| 14 | Term | Week: |  | 3 | Term: Week: |  |
| 15 | Term: | Week: |  | 35 | Term: Week: |  |
| 16 | Term: | Week: |  | 36 | Term: Week: |  |
| 17 | Term | Veek: |  | 37 | Term: Week: |  |
| 18 | Term: | Week: |  | 38 | Term: Week: |  |
| 19 | Term: | Week: |  | 39 | Term: Week: |  |
| 20 | Term: | Week: |  | 40 | Term: Week: |  |

## Book 1b (AH1b) - Curriculum Strand Worksheets

(Tick next to worksheet as each ONE worksheet is issued per week)

| 1 | Identifying numerals and number words | Tick | 21 | Analogue time | Tick |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Counting / colouring in up to 10 shapes |  | 22 | More analogue time |  |
| 3 | Identifying numerals and number words |  | 23 | Digital time |  |
| 4 | Counting / colouring in 11 to 20 shapes |  | 24 | 2-Dimensional shapes |  |
| 5 | Counting in 1's up to 50 |  | 25 | Sorting 2-Dimensional shapes |  |
| 6 | Counting in 1's up to 100 |  | 26 | Pathways and instructions |  |
| 7 | Ordering numbers up to 100 |  | 27 | Movement words |  |
| 8 | Adding black dots / Writing equations |  | 28 | Turning / Rotation |  |
| 9 | Subtracting black dots / Writing equations |  | 29 | Flipping/Reflections |  |
| 10 | Grouping in 5's or 10's |  | 30 | Sliding / Translation |  |
| 11 | Adding and subtracting revision - sums up to 10 |  | 31 | Sorting into groups |  |
| 12 | Skip counting in 2's |  | 32 | Understanding and using tables |  |
| 13 | Can I have a half |  | 33 | Understanding tally charts |  |
| 14 | Can I have a quarter? |  | 34 | Creating tally charts |  |
| 15 | Introducing length |  | $35$ | Understanding and drawing pictograms |  |
| 16 | Unconventional units for measuring length |  | 36 | Understanding and drawing column graphs |  |
| 17 | Introducing weight |  | 37 | Probability words |  |
| 18 | Introducing volume |  | 38 | Ordering events / Probability scales |  |
| 19 | Days of the week and months of the year |  | 39 | Finding possible outcomes |  |
| 20 | Understanding calendars |  | 40 | Simple probability |  |



## Curriculum Strand Worksheets Section

## (Level 1)

## Number \& Algebra,

## Measurement \& Geometry,

## and Statistics

## Worksheets

Select ONE Curriculum Strand Worksheet per week from this book (AH1b) to be completed in conjunction with ONE Number Knowledge Worksheet, selected from Book 1a (AH1a).

Record your selection in the table at the front of this resource.

1 Numerals and number words
"Is that the number one or four?" asked Jane.
(1) Write in the missing numerals, English or Maori number words

1, 2, 3, 4,
5, 6, 7, 8,
9, 10

| Numeral_ English_ Maori |  |
| :---: | :---: | :---: |
| 1 | (ko)tahi |
| 3 | two |
| 6 | wha |
| 6 |  |

whitu
(2) Write in the missing numerals as you count from 1 to 10.

(3) Write in the missing numerals as you count from 10 to 1.

(4) Write the number that comes after


7 $\qquad$ 6 $\qquad$

8, $\qquad$ 2, $\qquad$
(5) Write the number that comes before ...

8 $\qquad$ 4 $\qquad$ 10 2 $\qquad$ 9 5
 The aim of this activity sheet is to learn to recognise the numerals 1 to 10 and the matching Maori and English . number words, plus count from 1 to 10 .

## Suggested HOME activity:

Create some numeral and number word cards for the numbers on this worksheet. Mix the cards up and ask your child to match numeral cards with number word cards. Select a card at random and ask your child to say the number and then find the matching card.
Repeat exercises as above until your child can successfully count from 1 to 10 and say the number that comes after / before a given number.

Sign when
completed:

2 Count / colour in up to 10 shapes
Count the number of each picture.
Write your answer in each box.
(2)


(3)

(4)

## [in $\frac{1}{2}$


(6)

(7)
$\longrightarrow$
(5)

(8)
(9)



(10)
n m m

Colour in 3


Colour in seven 8


Colour in six $\Delta$
Colour in 4


Colour in eight
(13)

## Colour in 2 \%

Colour in five
(14)

Colour in 1 飛
Colour in nine

colour in ten
Colour in 0
$\hat{\hbar} \hat{\imath} \hat{\imath} \hat{\forall}$ $\hat{\Delta} \hat{y} \hat{y} \hat{y}$


The aim of this activity sheet is to learn to count up to 10 by counting pictures and by colouring in up to 10 shapes.

## Suggested HOME activity:

Have a selection of up to 10 objects from around the house. Place a given number of them in front of your child and ask them to count how many. Give them all 10 objects and ask them to give you a certain number back.
Example: How many blocks is this? Can I have seven blocks?
Sign when
completed:

3 Numerals and number words
"Is that the number twelve or twenty?" asked Jane.
(1) Write in the missing numerals or number words in this table.

11, 12, 13, $14,15,16,17$.

18, 19, 20
eleven, twelve, thirteen fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty

(2) Write in the missing numerals as you count from 11 to 20.

(3) Write in the missing numerals as you count from 20 to 11.

(4) Write the number that comes after

| 12, | $18, \ldots$ | 15, |
| :--- | :--- | :--- |
| 14, | 16, | 19, |

(5) Write the number that comes before ...

13

16 $\qquad$ 12 20

?The aim of this activity sheet is to learn to recognise the numerals 11 to 20 and the matching number words, plus d count from 11 to 20 .

## Suggested HOME activity:

Create some numeral and number word cards for the numbers on this worksheet. Mix the cards up and ask your child to match numeral cards with number word cards. Select a card at random and ask your child to say the number and then find the matching card.
Repeat exercises as above until your child can successfully count from 11 to 20 and say the number that comes after / before a given number.

Sign when
completed:

## AWS

Count the number of each picture．
Write your answer in each box．

## 

（1）

（2）
（3）

（4）

$\infty$近 近


## Colour in nineteen


$\square$

正The aim of this activity sheet is to learn to count up to 20 by counting pictures and by colouring in 11 to 20 shapes．

## Suggested HOME activity：

Have a selection of up to 20 objects from around the house．Place a given number of them in front of your child and ask them to count how many．Give them all 20 objects and ask them to give you a certain number back．
Example：How many blocks is this？Can I have seventeen blocks？
Sign when
completed：
Join the dots as you count
(12 1 's from 1 to 50 .
(1) Write in the missing numerals as you count from 1 to 100.

(2) Write the number that comes after
56 $\qquad$ 37, $\qquad$ 88 49, 73,
66, $\qquad$ 14
(3) Write the number that comes before.

| 58 | 70 |
| :---: | :---: |
| 66 | 32 |

(4) Write the number that is between ...


55 $\qquad$ 57

12, 14

86 $\qquad$ 88 60, $\qquad$ 62

73, $\qquad$ 75 91, $91, \ldots, 93$

49 $\qquad$ 51

34, 36


The aim of this activity sheet is to learn to count in 1's from 1 to 100.

## Suggested HOME activity:

Point to any number between 1 and 100 on this page and ask your child to say that number. Draw your own $10 \times 10$ table and ask your child to write in the numerals 1 to 100.
Make up similar questions as above involving finding the numbers that are after or before a given number or between two numbers.
Sign when
completed:

Write these whole numbers in order of smallest to largest.


(2)

(3)
(4) If you write these numbers in order from smallest to largest,

| 10 | 6 | 2 | 7 | 9 |
| :--- | :--- | :--- | :--- | :--- |

... which number is first?
... which number is last?
... which number is in the middle?

Write these whole numbers in order of largest to smallest.
(5)

(7) If you write these numbers in order from largest to smallest,

| 18 | 8 | 20 | 11 | 15 |
| :--- | :--- | :--- | :--- | :--- |

... which number is first? $\qquad$
... which number is last? $\qquad$
... which number is
in the middle?
(8) Write these whole numbers in order of smallest to largest.


Harry counted the number of blocks he used to make 5 models ( $A$ to $E$ ).


| Model | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> blocks used | 23 | 34 | 19 | 27 | 31 |

(9) Which model used the least number of blocks?
(10) Which model used the most number of blocks?
(11) Write the number of blocks used in order of most number of blocks used to least number of blocks used.


## Suggested HOME activity:

Create some cards with numbers ranging from 1 to 100 . Select 5,6 , 7 or more cards and ask your child to place them in order from smallest to largest or largest to smallest. Select pairs such as 23, 32 to make sure your child is not transposing the digits.
Make up similar word questions as above involving ordering numbers.

Sign when
completed:

Add these 2 black dots and 1 black dot.


We can write this as $2+1=3$
This is called an equation.
Add the black dots only and write the answer in the box. Write the equation in the space below each question.
(1)

(2)

(3)

$=$
(4)

(5)
(6)

(7)

$+$
$=$

Ben has 4 apples and eats 3.
How many apples does he have left?


We can write this as 4 subtract $3=1$ or $4-3=1$. This is called an equation.

Counting the black dots only, work out each subtraction. Write the equation in the space below each question.
(1)

(2)

(3)

(4)

(5)

(6)

(7)

$=$

Subtract these numbers.
(Model each question with blocks if needed.)

(16)

(19)

9

(18)
(20)

8
Write in the missing numbers.
(Model each question with blocks if needed.)


## Suggested HOME activity:

Have a supply of objects, such as blocks, available so that you can model each subtraction shown on this sheet.
Example: If I subtract 4 blocks from this pile of 5 blocks, how many blocks do I have left?
Ask your child to write and say an equation for each problem.

## Sign when

completed:

10 Grouping in 5's or 10's
How many black dots?


Add $2+3=5$ first, then $5+1=6$
There are 6 black dots altogether.
Add the black dots only, looking for the two groups that add to 5 first. Write in the missing numbers for each equation.
(1)

(2)

(3)

Example:
( $3+2=5$ )
Example:
$\qquad$ $+1=5)$

(4)

)
 $+$ $=5$ )
$5+$
(6)

$\qquad$

## 11 Adding and subtracting revision

Let's test your skills ... how quickly can you add or subtract these numbers?
(1)
$3+2=$

$\qquad$
$\qquad$
$\qquad$

Find half of or double of each number.
(26) Half of 4 is $\qquad$ ?

(27)


Double 4 is $\qquad$ $?$
(28)

Half of 6 is $\qquad$

(29)


Double 5 is $\qquad$ $?$
(30) Half of 8 is $\qquad$ ?


Double 3 is $\qquad$
(32) Half of 10 is $\qquad$ ?


Word problems.
(33) If you have 5 plums and 3 pears, how many pieces of fruit do you have altogether?
$\qquad$ $=$ $\qquad$


If you have \$9 and spend $\$ 6$, how much money do you have left?
 - $\qquad$ $=$

(35) If you have 4 carrots and 4 onions, how many vegetables do you have altogether?
$\qquad$ $+$ $\qquad$ $=$ $\qquad$
(36) If you have \$10 and spend $\$ 7$, how much money do you have left?
 - $\qquad$ $=$ $\qquad$


The aim of this activity sheet is to revise all addition and subtraction combinations for numbers up to 10, quickly s and accurately.

## Suggested HOME activity:

Have a supply of objects, such as blocks, available so that you can model the additions and subtractions if required.
Make up some more questions to practise all combinations for additions up to 10 and their subtraction opposites. Knowing the basic numeracy facts, forms the foundations for future success!

Sign when
completed:

12 Skip counting in 2 's
(1) Join the dots as you skip count in
2 's up to 50 .


## 13 Can I have a half?

Name:
AWS
This apple has been cut into two equal pieces.


Each piece is called a half, written as $\frac{1}{2}$.
Colour in one half of each shape.
(1)

(5)

(2)

(6)

(3)
(4)

(8)


Colour in $\frac{1}{2}$ of each group of shapes.
(9)
 (12)

(10)

(14)

(11)

(15) Is half of this shape shaded in?

(16) Is $\frac{1}{2}$ of this group of shapes shaded in?
(17) Jim has four apples. If he eats half of the apples, how many apples did he eat?
(18)


If Kate is to have $\frac{1}{2}$ of these six milk cartons, how many does she get?


Willie has $\$ 10.00$ and spends half. How much does he have left?


Hannah has $\$ 8.00$ and spends $\frac{1}{2}$. How much does she spend?


The aim of this activity sheet is to find a half of a shape, a group of shapes or a whole number. One half means 'one - out of two' and has the symbol $1 / 2$.

## Suggested HOME activity:

Find a collection of objects from around the house and ask your child to find a half of each group. Draw shapes that can be divided equally in half. Use money totals that can be divided in half.
The idea of sharing can be introduced, an important skill when it comes time to learn division.

Sign when
completed:

## 14 Can I have a quarter?

This pie has been cut into four equal pieces.


Each piece is called a quarter and is written as $\frac{1}{4}$.

Colour in one quarter of each shape.
(1)

(5)

(2)

(6)

(3)

(7)
(8)


Colour in $\frac{1}{4}$ of each group of shapes.
(9)


(10)

(14)

(15) Has a quarter of this shape been shaded in?

(16) Is $\frac{1}{4}$ of this group of shapes shaded in?
(17) Jim has four apples. If he eats $\frac{1}{4}$ of the apples, how many apples did he eat?

(18)


If Sarah is to have a quarter of these 8 milk cartons, how many does she get?
(19) Willie has $\$ 8.00$ and spends $\frac{1}{4}$. How much does he spend?

(20)


Hannah has \$4.00 and spends $a \frac{1}{4}$. How much does she have left?

- quarter means 'one out of four' and has the symbol $1 / 4$.


## Suggested HOME activity:

Find a collection of objects from around the house and ask your child to find a quarter of each group. Draw shapes that can be divided equally into four. Use money totals that can be divided into quarters. The idea of sharing can be introduced, an important skill when it comes time to learn division.

Sign when
completed:

## 15 Introducing length

Use the words long, longer and longest in these sentences.

(1) Line $F$ is $\qquad$ than Line H .
(2) Line $E$ is $\qquad$ but Line G is the $\qquad$ .
(3) Order the lines E to H from longest to shortest.
$\qquad$
$\qquad$ ,

(4) Draw a line longer than Line $X$.

## Line X

Use the words short, shorter and shortest in these sentences.

(5)

Mary is $\qquad$ than Joe.
(6) Ben is $\qquad$ but Jane is the $\qquad$ .
(7) Order this family from shortest to tallest.


Use the words tall, taller and tallest in these sentences.

(9) Tree B is the $\qquad$ tree.
(10) Tree D is $\qquad$ than tree $C$.
(11) Tree E is
 but tree B is the $\qquad$ .
(12) Order the trees $A$ to $E$ from tallest to shortest.
(13) Draw a tree shorter than this tree.

The aim of this activity sheet is to introduce words that describe length and use these words to describe / compare lines and objects of various lengths.

## Suggested HOME activity:

Collect items from around your house and have your child sort, order or describe these items using the words used in this activity sheet. Example: Which is the longest piece of string? Order these tins of food from shortest tin to tallest tin.

Sign when
completed:

Sarah measured how long each line was by using her pencils. How long were they?


C
D

Jack measured the distance from his bed to the desk in his bedroom, using his feet. This is shown below.

(10) How far is Jack's bed from his desk? feet

Measure the distance between two other 'things' in your room using your feet.
(11) I measured from the
to the $\qquad$


It was
 feet long.
(12) I measured from the
to the $\qquad$ .
It was
 feet long.

Have someone else in your family measure the same distances using their feet.
(13) Are distances the same number of feet? $\qquad$ .
Talk about why the answers may not be the same. the 'standard' unit for measuring how long something is or to distance between two points.

## Suggested HOME activity:

Select items or two points around your house.
Example: Use a drinking straw to measure the height of a table. Use your feet and your child's feet to measure the distance between two points.
Talk about why answers vary, because of different sized feet and hence the need for a standard unit for length, such as the 'metre'.

Sign when completed:

On these two scales are three different toys ... a teddy, a doll and a lion.

Use the words light, lighter and lightest in these sentences.
(1) The lion is $\qquad$ than the teddy.
(2) The doll is $\qquad$ but the lion is the $\qquad$ .
(3) Order these toys from lightest to heaviest. (teddy, lion and doll)


Use the words heavy, heavier and heaviest in these sentences.
(4) The ball $B$ is $\qquad$ than the ball $C$.
(5) Ball B is $\qquad$ but Ball $A$ is the $\qquad$ _.
(6) Order these balls from heaviest to lightest. (ball A, ball B and ball C)
"Which object is heavier?" asked Sam. Sam held one object in each hand.
(7) Find 4 objects around your house you can pick up with one hand.
Name these 4 objects.
(1)

(3)
(4)
(8) Pick up these objects in pairs. Which object in each pair is heavier ...
(1) or (2)
(1) or (3)?
(1) or (4) ?
(2) or (3) ?
(2) or (4) ?
(3) or (4) ?
(9) Order these objects from lightest to heaviest.


## Suggested HOME activity:

Select more items from around your house that can be picked up. Example: A toy truck, a bag of marbles, a stuffed toy, etc.
Using the method above, have your child work out which are the heaviest and lightest objects and place the objects in order from lightest to heaviest.

Sign when completed:

## 18 Introducing volume

"If you can fill it, it has volume," said Sophie.

(1) Bottle $\mathbf{A}$ is $\qquad$
(2) Bottle B is $\qquad$
(3) Bottle $\boldsymbol{C}$ is $\qquad$

Ann filled three boxes with marbles.


Box A


Box C
(4) How many marbles in Box A?
(5) How many marbles in Box B?
(6) How many marbles in Box C?
(7) List the boxes in order of which holds least to which holds most.


AWS

"Which container holds more?" asked Sophie.

(8) Find 4 containers around your house you can fill with water, rice or sand.
Name these 4 containers.
(1)
(2)

(3)
(4)

(9) Fill each pair of containers to work out which one holds more.
(1) or (2) ?
(1) or (3) ?
(1) or (4) ?
(2) or (3) ?
(2) or (4) ?
(3) or (4) ?
(10) List your containers in order of which holds least to which holds most.

[^0](1) Find the days of the week


| $W$ | $e$ | $d$ | $n$ | $e$ | $s$ | $d$ | $a$ | $y$ | $r$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $W$ | $e$ | $r$ | $a$ | $s$ | $t$ | $y$ | $c$ | $r$ | $M$ |
| $e$ | $a$ | $T$ | $h$ | $u$ | $r$ | $s$ | $d$ | $a$ | $y$ |
| $g$ | $T$ | $u$ | $e$ | $s$ | $d$ | $a$ | $y$ | $F$ | $r$ |
| $j$ | $T$ | $M$ | $o$ | $n$ | $d$ | $a$ | $y$ | $n$ | $e$ |
| $e$ | $e$ | $F$ | $r$ | $i$ | $d$ | $a$ | $y$ | $u$ | $W$ |
| $T$ | $s$ | $s$ | $F$ | $h$ | $r$ | $i$ | $d$ | $n$ | $y$ |
| $s$ | $a$ | $t$ | $u$ | $r$ | $d$ | $a$ | $y$ | $e$ | $u$ |
| $s$ | $y$ | $h$ | $W$ | $u$ | $e$ | $d$ | $e$ | $y$ | $e$ |
| $u$ | $d$ | $a$ | $s$ | $u$ | $n$ | $d$ | $a$ | $y$ | $g$ |

(2) Write the days of the week in order in the spaces below. Timansar

S

## M

T

W

T

F
S
(3) On what day of the week is your birthday this year?
(4) What comes three days after Tuesday?
(5) What two days make up the weekend?

(6) In which month of the year is your birthday?
(7) Find the months of the year in this wordsearch.

| $e$ | $a$ | $N$ | $o$ | $v$ | $e$ | $m$ | $b$ | $e$ | $r$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $r$ | $J$ | $a$ | $n$ | $u$ | $a$ | $r$ | $y$ | $w$ | $r$ |
| $s$ | $e$ | $p$ | $t$ | $e$ | $m$ | $b$ | $e$ | $r$ | $u$ |
| $r$ | $M$ | $a$ | $r$ | $c$ | $h$ | $k$ | $m$ | $a$ | $q$ |
| $u$ | $D$ | $e$ | $c$ | $e$ | $m$ | $b$ | $e$ | $r$ | $d$ |
| 0 | $c$ | $t$ | 0 | $b$ | $e$ | $r$ | $t$ | $h$ | $j$ |
| $s$ | $a$ | $F$ | $e$ | $b$ | $r$ | $u$ | $a$ | $r$ | $y$ |
| $J$ | $u$ | $n$ | $e$ | $r$ | $A$ | $p$ | $r$ | $i$ | $l$ |
| $A$ | $u$ | $g$ | $u$ | $s$ | $t$ | $t$ | $g$ | $h$ | $k$ |
| $e$ | $w$ | $M$ | $a$ | $y$ | $d$ | $J$ | $u$ | $l$ | $y$ |

(8) Write the months of the year in order in the spaces below.


The aim of this activity sheet is to learn the days of the
week and the months of the year.

## Suggested HOME activity:

Write the days of the week and months of the year on some cards. Shuffle the cards and ask your child to place the cards in order, starting with Sunday and January. Replay the game, but this time start with a different day or month.
Ask questions such as, "If today is Monday, what day will it be in 5 days?" Repeat with similar questions concerning the months of the year.

Sign when
completed:

## 20 Understanding calendars

"Mum ... why have you circled July 6th on the calendar?" asked Tony.
"I have a hair cut that day," she replied.


| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |  |  |

(1) Colour in October 17th.
(2) What day of the week is October 17th?
(3) Colour in October 28th.
(4) What day of the week is October 28th?
(5) What day of the week is 5 days after October 20th?
(6) What is the date of the third Monday in October?
(7) What is the date of the second Friday in October?
(8) What is the date of the last Saturday in October? $\qquad$

On a calendar, it can be useful to write up-coming events.
(9) What is happening on Wednesday December 7th?
(10) On what day and date are we meeting for lunch?
(11) On which two days are we going to the movies?
(12) Why is December 25th circled?


| Sun Mon | Tue | Wed | Thu |  | Fri | Sat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 |  |
| 4 | 5 | 6 | haircut <br> at 3 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | movies <br> at 6 |
| lunch at <br> 12 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | movies <br> at 6 | 30 | 31 |

[^1]Have your child make their own calendar and write important dates to remember on it.
Example: Birthdays, school holidays, Easter holiday etc.

Sign when
completed:
"What time is Ben coming around?" asked Alex.

What is the time on each of these clocks?


Draw these times on the clock faces.

(10) 10 o' clock
(12) 5 o'clock

Kate has been shopping for 2 hours. If she started shopping at 9 o'clock, what time is it now?

(14) John played soccer for 2 hours. If he started playing at 1 o'clock, what time is it now?

(15) A three hour bus trip finished at 12 o'clock. At what time did the bus trip start?

\% The aim of this activity sheet is to learn to tell the time on an analogue clock face. The time is restricted to ? o'clock time only, such as 8 o'clock, 12 o'clock etc.

## Suggested HOME activity:

Draw a circle on some card and have your child draw and label a clock face on it. Using pencils as clock hands, repeat similar exercises as outlined on this page.
Example: Place the pencils to show 6 o'clock, etc.
Given a starting time, ask your child what the time will be in 3 hours, 5 hours, 10 hours etc. or what the time was 4 hours ago etc.

Sign when
completed:
"It's nearly half past 6. Time for tea," said dad.


What is the time on each of these clocks?


Draw these times on the clock faces.

(13) Jack has been skate-boarding for $2 \frac{1}{2}$ hours. If he started at 12 o' clock, what time is it now?

(14) Jane has been on the phone for $1 \frac{1}{2}$ hours. If the time is now 10 o'clock, at what time did she start talking?

(15) A three hour beach visit finished at half past 4. At what time did it start?


[^2]
## 23 Digital time

AWS

Not all clocks have hands. Some clocks use only numbers to tell the time.
Example: 7 o'clock would be ... $7: 00$
half past 7 would be ... 7.30
Clocks that use numbers only are called digital clocks.

Show these times on the digital clocks.
(1)
$4 o^{\prime}$ clock $=$

(2)

$$
12 \text { o' clock = }
$$

(3)

7 o'clock $^{\prime}$

10 o' clock =
half past $3=$
(6)
half past $9=$
half past $11=$
(8)

$$
\text { half past } 6=
$$



Draw these digital times as hands on the clock faces.


What is the new time?

(13)


- 5 hours

+4 hours

(15) A roast turkey takes $3 \frac{1}{2}$ hours to cook. If it went into the oven at $4: 30$, when will it be ready?
(16) If a 2 hour TV programme finished at 1:30, at what time did it start?
 The aim of this activity sheet is to learn how to convert
between analogue and digital time and to add on or take
off time from a given starting time.
Suggested HOME activity:
Draw an analogue or digital clock face and repeat similar exercises as outlined on this page.
Example: On the microwave it says 12:30. How would that time appear on an analogue clock face?
Given a starting time, ask your child what the time will be in 3 hours, 5 hours, 10 hours etc. or what the time was 4 hours ago etc.

Sign when
completed:

## 24 2-Dimensional shapes

Look at this picture drawn below using some 2D shapes.

(1) What shapes have been used to draw this picture? Fill in the table.

(5) Name the shape that has 3 sides.

Name the shapes that have 4 sides.
Colour in 2 squares.
Colour in 3 rectangles.
Colour in 4 triangles.
Colour in 3 circles.
Colour in 1 oval.


[^3]Name the shapes that do not have straight sides.

Below are pictures of 2D shapes, labelled A to L.


How can these shapes be sorted or grouped?

$\qquad$ are
(1) Shapes $\qquad$ and both squares.
(2) The 3 shapes,
 and
$\qquad$ are all shaded the same.
(3) Shapes $\qquad$ and all have three corners.
(4) Why can shapes $D$ and $L$ be grouped together?
(5) Why can shapes $A$ and $K$ be grouped together?
(6) Why can shapes D, F, J and L be grouped together?
(7) Talk about other ways to sort these shapes.

## What shape am I?

Write the name of the shape that matches each set of clues.
Shape words: circle, oval, triangle, square, rectangle (oblong), diamond, pentagon, hexagon.

(11) Talk about how you would describe a rectangle and an oval.
The aim of this activity sheet is to sort 2D shapes by their
characteristics, such as size, shading pattern, number of
sides etc.

Have you ever walked through a maze? It's easy to get lost

(1) Draw the path through this maze as you go through each letter in order.

$$
A, E, Q, R, S, N, M, Y, X, Z
$$

List the letters you could use for other paths going through this maze.
(2) A path that goes through only letters.
(3) A path that goes through only 5 letters.
$\qquad$

(4) A path that goes through only 7 letters.

(5) A path that goes through only 9 letters.
$\qquad$ , $\qquad$ , , $\qquad$ , $\qquad$ ,
$\qquad$ , —. , $\underline{\square}$

Look at this map of Tim's room.

(6) Draw the path Tim walks as he ... - enters the room through the door, - pats the dog on the right,

- turns on the lamp on the left,
- goes to play with the boxes,
- answers the phone on the table,
- turns on the T.V.
- sits in the chair,
pats the dog and then takes him outside to play.
(7)

Create your own pathway around this room.


The aim of this activity sheet is to follow directional instructions to find or create pathways.

## Suggested HOME activity:

Draw a maze or a map of your home, inside or outside. Create a series of instructions that create pathways that can be drawn on your maze or map or create instructions that your child can physically follow as they walk around your home.
Example: Starting at this tree, take 4 steps towards the shed, turn anti -clockwise a $1 / 4$ turn then take 6 more steps ... etc.

Sign when
completed:

Use the words above, below, left and right in these sentences.
(1) This arrow is pointing to the $\qquad$ .

(2) The triangle is $\qquad$ the line.
(3) The circle is $\qquad$
 the line.
(4) This arrow is pointing to the $\qquad$ .



(5) Colour in letter $\boldsymbol{A}$ above this box.
(6) Colour in letter $B$ on the left.
(7) Colour in letter $C$ below this box.
(8) Colour in letter $D$ on the right.

Use the letter $C=$ clockwise and A = anti-clockwise to describe which way each arrow is turning?


Stand up and move your body a quarter turn or half turn, in a clockwise or anti-clockwise direction until you understand each movement. Use the words quarter and half in these sentences.

(13) Letter $M$ has been moved to $M$.

A $\qquad$
turn clockwise.

(14) Letter $F$ has been moved to $F$.

A
turn anti-clockwise.

Use the words quarter, half and the letters $C=$ clockwise and $A=$ anti-clockwise in these sentences.
(15) Letter $X$ has been moved to $X$.

A turn $\qquad$ .

(16) Letter B has been moved to $B$.

A
turn $\qquad$ .


The aim of this activity sheet is to understand words involving direction and movement, such as, above, below, left, right, clockwise, anti-clockwise, $1 / 4$ and $1 / 2$ turns.

## Suggested HOME activity:

Looking around your home, ask your child to point to or pick up various objects.
Example: What is left of the T.V? What is above the picture?
Demonstrate the above rotations and make up similar questions involving 'turning'.

Sign when
completed:

The arrow on this spinner is pointing to the letter A.

The arrow can spin around clockwise or anticlockwise.

(1) If the arrow turns a quarter turn left, what letter is it pointing at?
(2) If the arrow turns a quarter turn right, what letter is it pointing at?
(3) If the arrow turns a half turn left or right, what letter is it pointing at?
(4) If the arrow turns a quarter turn anti-clockwise, what letter is it pointing at?
(5) If the arrow turns a quarter turn clockwise, what letter is it pointing at?

Look around the room you are in.
(6) What do you see if you do a quarter turn right?
(7) What do you see if you do a quarter turn left?
(8) What do you see if you do a halfturn right or left?

Draw which way the pencil will be pointing after it has been turned or rotated.
(9)
quarter turn clockwise
quarter turn anti-clockwise

Some alphabet cards have been used to create these patterns.
Talk about how each pattern was created. Draw the next 2 letters for each pattern.
(11)

(12)

$\square$

(13)

$\square$
$\square$

Make up your own pattern using letter $\boldsymbol{M}$.
(14)


$\square$
$\square$
$\square$

[^4]When you look in a mirror, you see your reflection. Everything looks the same, except it looks back to front.
Example:


To reflect this picture, the mirror would be placed on the arrowed line.

Draw a line to show where the mirror would go to reflect these pictures.
(1)

(2)

There are also mirror lines on many letters.

Draw the mirror lines on these letters.


Half of these letters are missing. The arrow is where the mirror line is.
Draw each letter as if you had a mirror.
(5)
(8)

(9)

(11) This pattern has been drawn using the arrow as the mirror line. Draw two reflection patterns of your own.

mirror line

(\%) The aim of this activity sheet is to introduce reflection, using a mirror to demonstrate where the mirror line would be, then create patterns that use reflection.

## Suggested HOME activity:

Looking around your home, ask your child to point out where the mirror line would be on objects that demonstrate reflection. These objects are said to have symmetry about this imaginary mirror line.
Example: A rectangular window or door, wall-paper designs etc. Draw various patterns that involve reflection.

Sign when
completed:

This milk carton has been moved by sliding it along a table top.

The milk carton has not been turned around or flipped over.
Each group of objects has been lined up to make a pattern.
Circle yes if the objects have been moved by sliding. No, if they have not.
(1)

(2)

(3)
(4)

yes / no
(5)

(6)

(8) Talk about how the object patterns above were created if it was not by sliding. Was it by turning (rotation) or flipping (reflection)?

Kate coloured in three squares to make a pattern. She then copied the design 3 times to create this design.

(9) Translate each pattern on the left into the squares on the right, without turning the pattern around or over.

(10) Draw your own pattern in the left side and copy the pattern into the right squares, as above.


The aim of this activity sheet is to introduce translation.
This involves moving an object by sliding it from one
position to another, without involving turning or flipping.

## Suggested HOME activity:

Looking around your home, ask your child to point out groups of objects that demonstrate translation.
Example: A picket fence, strips of wallpaper, a line of bottles in a row, chairs all pointing in the same direction etc.
Draw various patterns that involve sliding or translation.
Sign when
completed:

Look at these pictures below ...



There are many ways these animals can be grouped.

(1) Draw the letter $\boldsymbol{A}$ next to the animals that can fly.
(2) Draw the letter B next to the animals that live in the water.
(3) Draw the letter C next to the animals that live on a farm.
(4) Draw the letter $D$ next to the animals that make good pets.
(5) Talk about other ways you could sort these animals into groups.

Look at these pictures below ...

(6) Draw the letter E next to the cars.
(7) Draw the letter F next to the boats.
(8) Draw the letter $G$ next to the vehicles that can fly.
(9) Draw the letter H next to the vehicles that can be used on a farm.
(10) Talk about other ways you could sort these vehicles into groups.
\%


## Suggested HOME activity:

Gather a collection of objects from around your house that can be sorted more than one way.
Example: Sort different sized blocks by their size or by their colour. Ask your child to come up with different ways the objects can be sorted.

## 32 Understanding and using tables

Pupils in Room 2 were asked what meat they ate for dinner last night． This table shows the results．

| Meat |  | （s）ms | 会恕 | ab |
| :---: | :---: | :---: | :---: | :---: |
| Number of pupils | 2 | 6 | 8 | 4 |

（1）How many pupils had sausages（ ）？
（2）How many pupils had fish（1）？
（3）How many pupils had beef（ $\mathrm{m}_{\mathrm{s}}$ ）？
（4）How many pupils had chicken（ ）？
（5）How many pupils in Room 2？

Pupils in Room 8 were asked what pets they have at home． This table shows the results．

（6）How many pupils have a pet goat（x）？
（7）How many pupils have a pet sheep（ $\square$ ）？
（8）How many pupils have a pet cat（6）？
（9）How many pupils have a pet horse（rim）？
（10）How many pupils have a pet pig（ $\$$ s）？
（11）How many pupils in Room 8 have pets？

Billy has been collecting picture cards ．．．

（12）Count how many there are of each different card and write your answers in the table．

| Card | Total |
| :---: | :---: |
| 的情䨗 |  |
| \％ |  |
| \%os |  |
|  |  |


（13）How many cards are
there altogether？ $\qquad$
$\%$


## Suggested HOME activity：

Collect information that can be presented in a table．This may require you to ask extended family or friends to answer some questions to collect the data．Then ask your child questions that relate to the data． Example：A table showing favourite foods your family／friends eat． Create your own tables with made up data and then ask your child to talk about the data in the table．

Sign when completed：

## 33 Understanding tally charts

A tally chart looks like a table，but has an extra column called a tally column．

In the tally column， marks are drawn as the objects are sorted and counted．

| Colour | Tally | Total |
| :---: | :---: | :---: |
| blue | IIII | 4 |
| red | IIII | 3 |
| black | HII I | 6 |

Each mark means one and HH means five．
Example：HH III means $5+3=8$
The marks are added up and the total is written in the total column．

Look at each tally chart．
Write in the total column numbers．
（1）

| Fruit | Tally | Total |
| :---: | :---: | :---: |
| apple | II |  |
| banana | IIII |  |
| pear | III |  |

（2）

| Vegetable | Tally | Total |
| :---: | :---: | :---: |
| carrot | HII |  |
| pea | H⿻卄一 1 II |  |
| potato | H⿻卄一 |  |
| leek | \＃\＃IIII |  |

－

| Pet | Tally | Total |
| :---: | :---: | :---: |
| cat | HIII III |  |
| dog | HII IIII |  |
| rabbit | \＃\＃H |  |
| horse | IIII |  |

（3）

（8）What is the least popular toy？
（9）What is the most popular pet？

The aim of this activity sheet is to understand how to use a tally chart．A tally chart is a way of recording data in a systematic way to avoid leaving data out．

## Suggested HOME activity：

Data can be collected around your home
Example：How many doors and windows in your house？What coins are in your wallet or piggy bank？
Create tally charts as you collect this data，making sure your child counts in 5＇s as shown in this worksheet．This makes it easier to add up large totals by counting 5，10，15， 20 etc．

Sign when
completed：
(1) Use the tally chart below to work out how many there are of each picture.


| Toys | Tally | Total |
| :---: | :---: | :---: |
|  |  |  |
| ${ }^{+}$ |  |  |


(2) Use the tally chart below to work out how many there are of each picture.

(3) Use the tally chart below to work out how many there are of each picture.


| Toys | Tally | Total |
| :---: | :---: | :---: |
| 県 |  |  |
| $\checkmark$ |  |  |
| ${ }^{4} 0$ |  |  |

(4) Use the tally chart below to work out how many there are of each picture.

(5) How many क's in question 1?
(6) How many s in question 2?
(7) How many 's in question 1?
(8) How many 's in question 4?
(9) How many 's in question 3?
(10) How many fue's in question 4?
,
The aim of this activity sheet is to record data in a
systematic way using a tally chart, therefore avoiding
leaving data out. Remember to mark off in 5's.

## Suggested HOME activity:

Data can be collected around your home.
Example: How many chairs and tables in your house? What are your family's favourite TV programmes?
Create tally charts as you collect this data, making sure your child counts in 5's as shown in this worksheet. This makes it easier to add up large totals by counting $5,10,15,20$ etc.

Sign when
completed:

35 Pictograms
Name:
AWS
Look at each of these pictograms. Each picture equals one.

This pictogram below shows the number of pieces of fruit Sam ate in a week.
pears:

apples:

(1) How many pears did Sam eat?
(2) Which fruit did he eat 3 of?
(3) How many apples did

Sam eat?
(4) How many pieces of
fruit did Sam eat?

This pictogram below shows the pets that Room 4 pupils have.

(5) How many pupils have a pet sheep?
(6) Which pet did 3 pupils have?
(7) How many pupils have a pet dog?
(8) Which pet did 8 pupils have?
(9) How many pets do the Room 4 pupils have?

Use the numbers in each table to draw a pictogram. Each picture equals one.

| (10) | This table shows | Total |
| :---: | :---: | :---: |
|  | the number of | 6 |
|  | a group. | 5 |

girls:
boys:
(11) This table shows the number of books read by Jane and Alex.

| Sane | Total |
| :---: | :---: |
| Jane | 7 |
| Alex | 9 |

Jane:
Alex:
(12) This table shows the number of hours spent playing on a computer.

| James | Total |
| :---: | :---: |
| Jannah | 8 |
| Hannh | 6 |
| Jack | 6 |

James:
Hannah:
Jack:

## The aim of this activity sheet is to interpret data presented in a pictogram. Each pictogram represents a certain number of items or objects etc.

## Suggested HOME activity:

Using data collected from around your home or the information in the tally charts in Worksheet 34, have your child create some pictograms. If the data contains large numbers, to avoid drawing lots of pictures, make each picture worth more than one.
Example: If there were 30 items, by making each picture worth 5, only 6 pictures would be drawn.

Sign when
completed:

Look at each of these column graphs.
This column graph below shows the number of pieces of fruit Sam ate in a week.

(1) How many pears did Sam eat?
(2) Which fruit did he eat 3 of?
(3) How many oranges did Sam eat?
(4) How many pieces of fruit did Sam eat?

This column graph below shows the pets that Room 4 pupils have.

(5) How many pupils have a pet sheep?
(6) Which pet did 3 pupils have?
(7) How many pupils have a pet dog?
(8) Which pet did 10 pupils have?
(9) How many pets do the Room 4 pupils have?

Use the numbers in each table to draw a column graph.
(10) This table shows the number of boys and girls in a group.

| __ | Total |
| :---: | :---: |
| girls | 5 |
| boys | 3 |

(11) This fable shows the number of hours spent playing on a computer.

| Ja_ | Total |
| :---: | :---: |
| James | 7 |
| Hannah | 8 |
| Jack | 6 |


8. The aim of this activits sheet is to interpret data presented

## Suggested HOME activity:

Using data collected from around your home or the information in the tally charts in Worksheet 34, have your child create some column graphs. Remember to have a scale up the side of the graph.
Example: How many hours each person in your home watches TV per night.

Sign when completed:

37 Probability words
Different words can have the same meaning.
Look at the words in the table below.

| yes | maybe | can |
| :---: | :---: | :---: |
| no | always | can't |
| might | will | won't |
| never | sometimes | could |

(1) Under the words certain, possible and impossible, write the words above in the boxes below which mean the same.


In these sentences, write a word that means the same as certain.
(2) $\qquad$ is the answer to your question.
(3) Jackie is $\qquad$ late to school.

## (4) On Saturday I

 be going to the movies.In these sentences, write a word that means the same as possible.
is the answer to your question.
(6) Jackie is $\qquad$ late to school.
On Saturday I be going to the movies.

In these sentences, write a word that means the same as impossible.

(8)
 is the answer to your question.
(9) Jackie is $\qquad$ late to school.
(10) On Saturday I $\qquad$ be going to the movies.

## Suggested HOME activity:

Come up with a list of activities or events. Ask your child to describe the likelihood of each event occurring using the probability words on this sheet.
Example: Will you be going to school on Saturday? Will it rain tomorrow? Will we be going to the movies on Saturday?

Sign when
completed:

Which is more likely
... the sun will rise tomorrow or it will snow tomorrow?

Answer: The sun will rise is certain, but it may not snow.


Read each group of the sentences below.
(1)

A If today is Wednesday,
B You have a pet snake.

C It is going to rain tomorrow.
D You have a pet cat or dog.
E
Your class is going on a school trip this term.
Order these sentences ( $A$ to $E$ ) above, starting with the impossible.
(2)


F Tomorrow you will eat an apple.
There are twelve months in a year.
This week you might go to the movies.

I A triangle has four sides.
J Tomorrow it will be very hot.
Order these sentences ( $F$ to $J$ ) above, starting with the certain.

(3) Talk about other events and order them from certain to impossible.

Sophie asked, "If today is Monday, is tomorrow Tuesday?"


Mark an A on the scale where the answer to Sophie's question would go.

Read each sentence $A$ to $C$.
(4)

A
Your teacher will be sick this week.

B
If today is Monday, tomorrow is Tuesday.

C There are only 23 hours in one
Mark each letter on the scale below where you think it would go.


Read each sentence $D$ to $F$.
(5)

D There are 60 minutes in 1 hour.
E This week you will go to the movies.
F If this month is May, last month was June.

Mark each letter on the scale below where you think it would go.
The aim of this activity sheet is to order events based on
the likelihood of each event occurring, noting that there
may be more that one correct order. A simple probability
Suggested HOME activity:
Create a list of up to 5 events that can be ordered. Ask your child to
place the events in order, based on their likelihood of occurring, from
certain to impossible or vice versa.
Create some more events that your child can order and display this
order on simple probability scales.
Sign when
completed:

A coin is tossed in the air.
When it lands, what could be showing on the coin?
Answer: It could show heads or it could show tails.

April placed these 3 letter cards face down on the table.

B

(1) If she turns over one card, what letter picture could it be?
(2) If she turns over any two cards at the same time, what two letters could be on these cards?

Martin placed these 3 picture cards face down on the table.

(3) If he turns over one card, what animal picture could it be?
(4) If he turns over any two cards at the same time, which animal pictures could be on these cards?

Name:
AWS
At playtime, Lisa has a choice of either an apple or an orange and a choice of either a drink of milk or juice.

(5) Use this table to work out what Lisa can eat at playtime. (Write letters only)


For lunch, Lisa has a choice of either a hot dog or a hamburger and a choice of either a kiwifruit or a banana.
(6) Use this table to work out what Lisa can eat at lunchtime. (Write letters only)

|  | Kiwifruit <br> (K) | Banana <br> (B) |
| :---: | :---: | :---: |
| Hotdog <br> (Ho) |  |  |
| Hamburger <br> (Ha) |  |  |

,


## Suggested HOME activity:

Model each question to help your child work out the outcomes.
Come up with events from around the home for which your child can name all possible outcomes.
Using a table, as above, can be a good way to make sure all outcomes can be found.

Carol places 3 white marbles and 1 black marble in a paper bag. How many marbles are in the bag? Answer: 4 marbles.
If she picks out one marble from the bag, what is the chance that it is a black marble?
Answer: 1 out of 4 chances.
These picture cards are going to be turned over, to play a game of memory.


Look at these cards for another game of memory.

(7) How many zebra picture cards are there?
(8) How many monkey picture cards are there?
(9) How many bear picture cards are there?
(10) How many picture cards are there altogether?
(11) What is the chance of turning over an elephant picture card?

$\qquad$
(12) What is the chance of turning over a bear picture card?
out of $\qquad$
(13) What is the chance of turning over a monkey picture card?
out of $\qquad$
(14) Why do you have less chance of turning over an elephant picture card than a bear picture card?

[^5]


[^0]:    The aim of this activity sheet is to introduce the concept of
    volume or capacity. "If you can fill it, it has volume."

    ## Suggested HOME activity:

    Select items from around your house that can be filled.
    Example: A tall glass, a flat shaped bowl, a tin or bottle etc.
    Ask your child to 'guess' which shape would hold the most or the least. Check their estimations by filling one container, then pouring the contents into another container. If it overflows, it holds less. If it is not full, it holds more.

    Sign when completed:

[^1]:    The aim of this activity sheet is to introduce calendars and understand how they can best be used.

    ## Suggested HOME activity:

[^2]:    The aim of this activity sheet is to learn how to tell the time on an analogue clock face. The time is restricted to 'half d past time only, such as half past 2, half past 11 etc.

    ## Suggested HOME activity:

    Draw a circle on some card and have your child draw and label a clock face on it. Using pencils as clock hands, repeat similar exercises as outlined on this page.
    Example: Place the pencils to show half past 4 o'clock, etc.
    Given a starting time, ask your child what the time will be in 3 hours, 5 hours, 10 hours etc. or what the time was 4 hours ago etc.

    ## Sign when

    completed:

[^3]:    
    The aim of this activity sheet is to be able to recognise,
    Suggested HOME activity:
    Look around your home and have your child name various 2D shapes.
    Example: windows are rectangles, this plate is a circle etc.
    Using the method above, have your child draw designs using a
    collection of 2D shapes.
    Sign when
    completed:

[^4]:    ## Suggested HOME activity:

    Make up a series of instructions, involving the directional words used on this worksheet, to create pathways through your home or outside. Example: Take 4 steps straight ahead, then do a half turn left etc.
    Create repeating patterns as above using letters or a design that your child makes up themselves.

    Sign when
    completed:

[^5]:    The aim of this activity sheet is to investigate simple probability, working out the chance of something
    happening. Probability can be expressed as a fraction, such as $1 / 4$, which means one out of four.

    ## Suggested HOME activity:

    Create similar questions as on this activity sheet to reinforce simple probability.
    Example: Place 5 red, 3 green and 2 white blocks in a bag.
    Ask your child to select a particular coloured block and describe the chance of selecting that block ... 2 out of 10 chances (white block).

    Sign when
    completed:

