

APPLIED LITERACY, LANGUAGE AND
NUMERACY RESOURCE

INITIAL DIAGNOSTIC ASSESSMENT

SAMPLE

Student Name:	
Course/Programme:	
Date:	

Content

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Read to Understand Assessment and Questions (Text B)

Writing Assessment

Numeracy

Make Sense of Number to Solve Problems

Reason Statistically

Measurement Assessment A

Measurement Assessment B

Note to the Learner

The purpose of this assessment task is to help your tutor/trainer find out about your language, literacy and numeracy skills that are relevant to your course/programme.

This will help your tutor/trainer get a good idea of your strengths and needs in order to improve your goals and objectives.

Literacy

Read to Understand Assessment

Date: _____

Student Name: _____

Text A

Read the following text and answer the questions on the following pages.

WARNING

**Lose your focus. Lose your finger.
Concentrate at work and you can keep your
fingers.**



Be safe...be alert...be careful

Comprehension

1. Why would someone need to read this poster?

2. Did you have any difficulty reading any of the words? If so, which words?

3. What items/words in this poster would you say are the most important and why?

4. What strategies do you use to understand what you read?

5. What do you do when your understanding breaks down?

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Reading Critically

6. Why do you think this poster was made?

7. What has the writer done to make their message clear to the reader?

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Language and Text Features

8. Find a *phrase* in the poster and write it below.

9. What is a phrase?

10. Find a sentence in the poster and write it below.

11. What is a sentence?

12. Find a sentence in the poster that is a compound sentence – a sentence that is made from two smaller sentences. Underline the conjunction (or joining word).

13. Do you think the writing in the poster gets the message across? Why?

Text B

Read the following text and answer the questions on the following pages.

Health and Safety in Employment Act 1992

The Health and Safety in Employment (HSE) Act 1992 and its subsequent Amendment Act 2002 is the legislation that sets out health and safety rights and responsibilities. Their main objective is to prevent harm to anyone in the workplace. This includes not only employees, but also employers, contractors, sub-contractors, visitors and anyone else who may be in the workplace.

Employees are the business's most valuable asset. Therefore, it is essential that everything is done to ensure their health and safety. A safe and healthy workplace means improved productivity, less time lost and money. It also creates an environment where people want to come to and work in because they feel valued.

According to the Health and Safety Act, the key responsibility of all employers is to "take all practicable steps to ensure the safety of employees while at work". According to the Act, an employer is required to take all steps that are. **Practicable** refers to something that is possible, feasible, or capable of being done.

How do I decide if something is reasonably practicable?

When you are trying to determine whether a step is reasonably practicable, ask yourself the following questions:

- How likely is an injury or harm to occur?
- What type of injury or harm might occur?
- How severe would the injury or harm be?
- How much do we know about the hazard and ways of eliminating, isolating or minimising it?
- What safeguards are available and how much will they cost?

Comprehension

1. What were the most important points in the text you have just read?

2. Have you read any articles or attended any *health and safety* training events before? Explain how that information helped you understand this text?

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Reading Critically

3. Who do you think wrote this text?

4. Why do you think the author wrote this text?

5. How does the **language** they use suit their purpose?

SAMPLES

Language and Text Features

6. Scan your eyes over the whole text. Look at how it is laid out, the length, the different parts and the sequence of paragraphs. How would you describe a piece of writing like this?

7. How do bullet points and bold type in any type of text help the reader?

8. Sentences can be simple or complex. Find examples of both in the text and write them below.

Simple:

Complex:

9. Summarise the information in each paragraph.

10. How do the paragraphs link?

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Decoding

There may have been some words you had difficulty reading.

A difficult word is a word that we have to break into syllables and sound out each part so we can understand what the word is.

Write down the words below you had difficulty reading.

Underline the parts of the words you were having difficulty with, e.g. employees.

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Vocabulary

Place these words in your own sentences to show you understand the meaning.

their	
main	
safety	
improved	
prevent	
responsibilities	
eliminating	
reasonably	
feasible	
subsequent	

SAMPLE

Write to Communicate Assessment

Date: _____

Student Name: _____

The purpose of this assessment is to find out how well you write.

Write at least three paragraphs about:

- ✓ why you are enrolled on this programme or course
- ✓ how it will help you
- ✓ your current and future work plans

You can plan your writing on this page using mind maps and brainstorms.

You can use a dictionary and thesaurus.

Use the following page for your writing.

Good luck.

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Handwriting practice lines consisting of 20 horizontal lines. A large, diagonal watermark reading "SAMPLE" is overlaid across the middle of the page.

Now revise and edit your work.

Numeracy

Make Sense of Number to Solve Problems Assessment

Additive Strategies (including subtraction)

Step	Question	Answer (Please show your working out)
1	What is $8 + 5$?	
2	You have \$27 and are given \$9 more. How much do you have now? You have \$42 and spend \$8. How much do you have left?	
3	You have \$610 and spend \$98 of it. How much do you have left?	
4	You have \$47 and are given \$25 more. How much do you have now?	
5	James ran 100 metres in 14.52 seconds. Ben took 0.9 seconds longer to run the same distance. How long did it take Ben to run 100 metres? Gordy ran 400 metres in 66.72 seconds. James was 8.34 seconds faster. How long did James take to run the same distance?	
6	Tania and Harry buy two pizzas. Harry eats $\frac{3}{4}$ of a pizza and Tania eats $\frac{7}{8}$ of a pizza. How much pizza is left over altogether? Without calculating, which of the following four equations gives the largest answer? Explain why. a) $\frac{1}{10} + \frac{2}{3}$ b) $\frac{4}{5} + \frac{3}{4}$ c) $\frac{9}{10} - \frac{1}{8}$ d) $\frac{2}{5} + \frac{2}{7}$	

Multiplicative Strategies (including division)

Step	Question	Answer (Please show your working out)
1	Robert has six \$5 notes in his wallet. How much money does he have in total?	
2	Mary has 8 \$2 coins. How much money does she have in total?	
3	Simone knows that $8 \times 8 = 64$. How could she use this fact to work out what 72 divided by 8 equals?	
4	A stall has 6 trays of eggs for sale. There are 24 eggs in each tray. How many eggs are there in total?	
5	A netball uniform costs \$55. How much will 21 new uniforms cost the club? What is 870×102 ? Why is that answer reasonable?	
6	Sue used a calculator and found that: $49 \div 0.098 = 500$ Explain why the answer is reasonable. The full cost of a bag of potatoes is \$4.50. This week there is 10% off the cost. What is the cost of potatoes this week?	

Proportional Reasoning Strategies

Step	Question	Answer (Please show your working out)
2	There are 12 cans of drink. You are given $\frac{1}{3}$ of them. How many cans are you given?	
4	What is $\frac{1}{4}$ of 64?	
5	Jeans cost \$70. If they are reduced by 15%, how much do you save? What is $\frac{2}{3}$ of 330?	
6	An item that used to sell for \$50 now costs \$76. What percentage increase is this? A car travels 150 kilometres on 10 litres of petrol. How many litres of petrol does it take to travel 60 kilometres?	

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Number Sequence

Step	Question	Answer (Please show your working out)
1	What number is one more than 9? What number is one less than 16?	
2	What number is one more than 89? What number is one less than 50? Continue this pattern: 5, 10, 15	
3	What number is ten more than 499? What number is ten less than 843?	
4	Put these fractions in order from the smallest to the largest? $\frac{2}{6}$, $\frac{5}{6}$, $\frac{1}{6}$ What number is one more than 989,999 What number is one less than 603,000? Put these fractions in order from the smallest to the largest. $\frac{1}{10}$, $\frac{1}{2}$, $\frac{1}{5}$	
5	Put these in order from smallest to largest. 20%, 0.259, $\frac{1}{4}$, 0.21	

Place Value

Step	Question	Answer (Please show your working out)
2	A CD player costs \$80. How many \$10 notes do you need to pay for it?	
3	A TV costs \$470. How many \$10 notes do you need to pay for it?	
4	A car costs \$45,400. How many \$100 notes do you need to pay for it?	
5	Write a number that lies between 7.59 and 7.6 What is 135% as a decimal? $10^3 =$	

SAMPLE

Number Facts

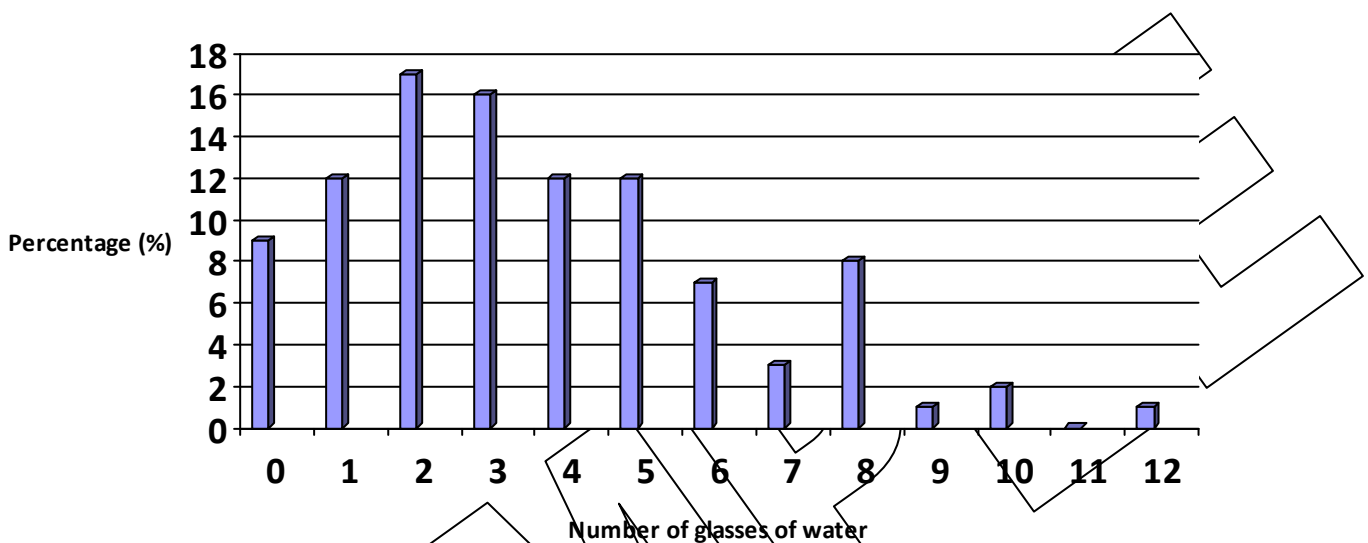
Step	Question	Answer (Please show your working out)
1	$2 + 3 =$ $10 - 6 =$ $50 + 7 =$	
2	$9 + 9 =$ $13 - 7 =$	
3	$6 \times 4 =$ $8 \times 7 =$ $27 \div 3 =$	
4	$200 \times 80 =$ $5 \text{ million} \div 10 =$	
5	$2^3 =$ What is $\frac{3}{4}$ as a %? What factors do 18 and 30 have in common?	

Reason Statistically Assessment

This strand is all about how we create, read and make conclusions about data.

Two hundred (200) people were stopped at a supermarket and asked how many glasses of water they drank in a day, to find out if New Zealanders drink the recommended eight glasses of water per day. This graph shows what was found.

How many glasses of water do people drink each day?



Analysing Data for Interpretation

1. What percentage of people drink 5 glasses of water per day?

2. What does this graph tell you about how many glasses of water most people drink per day?

3. About where do you think the median number of glasses of water is?

4. How would you actually calculate the median?

Interpreting Data to Predict and Conclude

1. Do you think that the people surveyed drink the recommended 8 glasses of water per day? Why?

2. The survey wanted to find out if New Zealanders drink the recommended 8 glasses of water per day. Can you conclude this from the data? Why or why not?

3. If you surveyed another 20 people and plotted their data on a new graph, would it look the same as the first graph?

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Preparing Data for Analysis

There was a workplace survey on how many days employees took off sick. Use this data below to create a table of data, a pictograph and a bar graph.

January 3, February 3, March 4, April 7, May 10, June 13, July 19, August 25, September 17, October 12, November 8, December 5.

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Probability

Probability is how we describe the likelihood or chance of something happening.

1. If I have red, blue and green marbles in my pocket what are the possible outcomes if I placed my hand in to take one of them out?

2. Look at these outcomes:

- a. Certain to get a blue marble
- b. Very likely to get a blue marble
- c. Probably get a blue marble
- d. Impossible to get a blue marble

If I reach into my pocket, without looking, that contains 10 blue marbles and 1 red one, which of the above statements best describes my chance of selecting a blue marble

3. What is the chance of getting a 6 if you roll a standard six-sided dice?

4. If I roll the dice and get a 3, what chance do I have of getting a 3 again? Do I have the:

- a. same chance
- b. better chance
- c. worse chance

5. Here is a table that shows results of a transport survey that asked 100 workers how they travelled to work.

Transport Method Used	Number of Workers
Walk	5
Car (passenger)	15
Car (driver)	30
Bus	40
Cycle	10

6. How likely do you think it is that the next worker to be surveyed travelled by car or bus?
- a. A certain chance
 - b. A likely chance
 - c. An unlikely chance

Measurement

Activity A - Estimate and measure the length and weight of a book

Resources
You will need: a telephone directory a ruler a calculator measuring scales

1. Pick up the directory.

Estimate the width of the directory. Write it in the box below.

2. Using the ruler, measure the width of the book as accurately as possible.

Write the measurement in the box below.

Object and Criteria for Measurement	Learner's Estimation	Learner's Measurement
Width of telephone directory		

3. If your measurement was in millimetres (mm) convert it to centimetres (cm).

If your measurement was in centimetres (cm) convert it to millimetres (mm).

Write the conversion in the box below.

Measurement (mm)	Measurement (cm)

4. Pick up the directory and estimate how heavy you think it is.

Write your estimation in the box below.

5. Using the scales, weigh the directory as accurately as possible.

Write your measurement in the box below.

Object and Criteria for Measurement	Learner's Estimation	Learner's Measurement
Weight of telephone directory		

6. If your measurement was in grams (g) convert it to kilograms (kg).

If your measurement was in kilograms (kg) convert it to grams (g).

Write the conversion in the box below.

Measurement (g)	Measurement (kg)

7. **Describe** what the perimeter of the front cover of the directory is? Measure it and write the answer below.

8. Convert the perimeter into metres and kilometres.

Measurement (cm)	Measurement (m)	Measurement (km)

9. What is the area of the front cover of the directory?

Show your working.

10. What is the volume of the directory?

Show your working

Activity B - Estimate and measure the dimensions of a glass or jar.

<p>Resources</p> <p>You will need:</p> <p>a straight-sided glass or jar (450ml)</p> <p>a measuring device marked in millilitres (ml)</p> <p>a ruler</p> <p>a calculator</p>
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1. Pick up the glass jar and estimate how much water it contains.

Write your estimate in the box below.

2. Use the measuring device to find out how much water the glass jar contains.

Write your measurement in the box below.

Object and Criteria for Measurement	Learner's Estimation	Learner's Measurement
Capacity of glass jar		

3. If your measurement was in millilitres (ml) convert it to litres (l).

If your measurement was in litres (l) convert it to millilitres (ml).

Write the conversion in the box below.

Measurement (ml)	Measurement (l)

4. The top of a glass is a circle. Measure its diameter.

5. Work out the radius?

6. Calculate the area of the circle. $A = \pi r^2$ (Pi = 3.14)

7. Calculate the circumference (distance around the outside) of the circle. $C = \pi d$ (Pi = 3.14)

8. What is the volume of the glass? $V = \text{Area of base} \times \text{height}$

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