Section 2: Teacher Assessed Mathematics – Year 3 and Year 5 Only

Introduction

The Teacher Assessed Mathematics Task measures the students' performance against CSF outcomes from Levels 2 to 4 in the Space strand.

In the Teacher Assessed Mathematics Task, the areas for Year 3 and Year 5 cover drawing and identifying two-dimensional and three-dimensional shapes, grid references, locating key features on a map, and using 'left' and 'right' to follow described paths on simple maps. Year 5 students also have a set of questions designed to test students' ability to locate coordinate points on graph paper and draw two-dimensional shapes.

- Prior to administering the 2005 Teacher Assessed Mathematics Task, if the teacher believes that students may benefit from some revision of shapes, grids and location, then the teacher demonstration which accompanied the AIM 2002 Teacher Assessed Mathematics task can be given to or adapted for the class a few days before the 2005 Teacher Assessed Mathematics Task is administered. This demonstration can be found in the 2002 Guide for Principals and Teachers on the VCAA website: **www.vcaa.vic. edu.au/prep10/aim/teachers/index.htm**
- The teacher assesses the students' work using the marking guide (see pages 28–29). A practice example is included on pages 30–31 for teachers to use as a trial assessment before assessing students' work. Marks given and the reasons for assigning them can be found on page 32.
- Scores for each student should be recorded on the sheet provided (see page 33) and then transferred to the student details pages of the Centrally Assessed Test booklets after they have been distributed by the Principal. Please note that scores are recorded by shading bubbles. Explanations are provided on page 23.

Both Year 3 and Year 5 students perform similar tasks. The first three pages are the same for both year levels. Year 5 students have an additional page to complete.

Preparation

Before administering the task, teachers should:

- **Check** that there are sufficient materials
- **Read** the administrative instructions
- **Become** familiar with the task
- **Read** and become familiar with the marking guide
- **Photocopy** or adapt the class record sheet
- **Ensure** that each student has sufficient working space, a spare piece of paper, a pencil and a ruler. An eraser and a sharpener may also be required, and coloured pencils may be used.

Timing

The Teacher Assessed Mathematics Task has a time allocation of 30 minutes for Year 3 and 40 minutes for Year 5.

Assistance

All work done by the students on this task must be completed at school. Students should be encouraged to complete the task independently. Teachers should not impose rules or comment on the accuracy or adequacy of the performance during the task. Teachers are able to help the students if they forget what they have to do.

Student Task

Each student will need:
- a grey lead pencil and a ruler
- an eraser and sharpener (optional)
- a spare piece of paper for working
- a student worksheet, and
- another activity to do if they finish early .
- **Distribute** the worksheets to the students. You will need a few extra copies of the worksheet for any student who needs to use another one.
- **SAY**

> **Look at the front page of your test worksheet and find where you need to write your name. Print your first name and your last name on the line. Please put your pencil down.**
>
> **Now I will read through the worksheet while you follow on your copy.**

- **READ** through all of the worksheet.
  NOTE: YEAR 3 STUDENTS MUST COMPLETE ONLY THE FIRST THREE PAGES OF THE WORKSHEET.
  YEAR 5 STUDENTS MUST COMPLETE ALL FOUR PAGES OF THE WORKSHEET.

- **ASK** students if they have any questions.
  Do not provide answers for the student task other than by reading the appropriate instructions on the worksheet.
- **SAY**

> **If you make a mistake rub it out or cross it out and try again. Always make sure that your work is easy for me to understand.**
>
> **While you are working I will be able to help you if you forget what to do. I will also be able to help you with words, but I cannot tell you the answers.**
>
> **If you finish early, I want you to do some quiet work. You will have 30 minutes (Year 3) or 40 minutes (Year 5) to complete as much of the work as you can.**
>
> **You may start now.**

- **WAIT** for the students to finish. They do not have to finish the task, but rather do as much as they can in the allocated time.

After the task

- **Collect** the students' worksheets.
- **Mark** the students' work using the marking guide provided. The same marking scheme is to be applied to both Year 3 and Year 5 students for the first section. If Year 3 students attempt the Year 5 section, do NOT record a mark for Score 4. As teachers mark each student's work they can record the mark for each activity on the class record sheet provided.

Once teachers have marked and checked all the students' work, these marks must be transferred to the student details page of the appropriate student's Centrally Assessed Test booklet.

- **Record** each student's scores from the class record sheet onto the front page of the Centrally Assessed Test booklet by shading in the appropriate bubbles.

Explanation of the expected range of marks and the bubbles for each year level is shown below. Please note that a separate bubble is recorded for each score (derived from a page activity).

Year 3 – Students attempt:

Mathematics	Did NOT do this task ○							
	0	1	2	3	4	5	6	7
Score 1 (0–6)	○	○	○	○	○	○	○	
Score 2 (0–4)	○	○	○	○	○			
Score 3 (0–7)	○	○	○	○	○	○	○	○

- Page 1 – possible score 6
- Page 2 – possible score 4
- Page 3 – possible score 7

Year 5 – Students attempt:

Mathematics	Did NOT do this task ○							
	0	1	2	3	4	5	6	7
Score 1 (0–6)	○	○	○	○	○	○	○	
Score 2 (0–4)	○	○	○	○	○			
Score 3 (0–7)	○	○	○	○	○	○	○	○
Score 4 (0–6)	○	○	○	○	○	○	○	

- Page 1 – possible score 6
- Page 2 – possible score 4
- Page 3 – possible score 7
- Page 4 – possible score 6

Name: _____

(i) Draw a robot in the box below, following these directions.

The robot has a triangle for a head and a square body. It has two legs and two arms. Each leg is a rectangle and each arm is made of three circles. You may give your robot some feet and a face if you wish.

!&
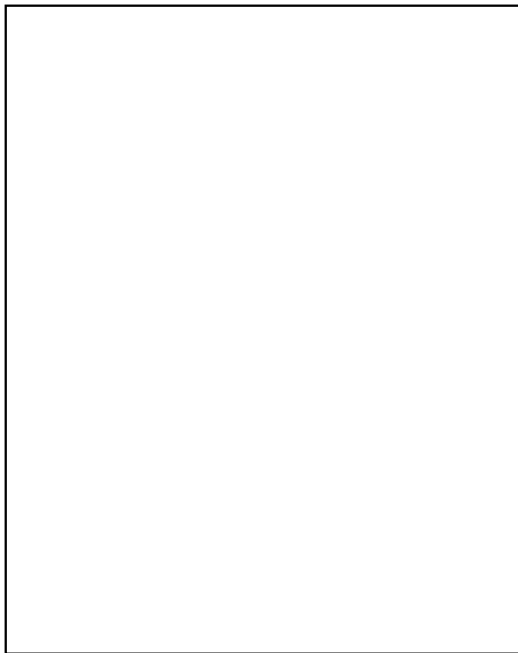
(ii) Count the 3-dimensional shapes and complete the table.
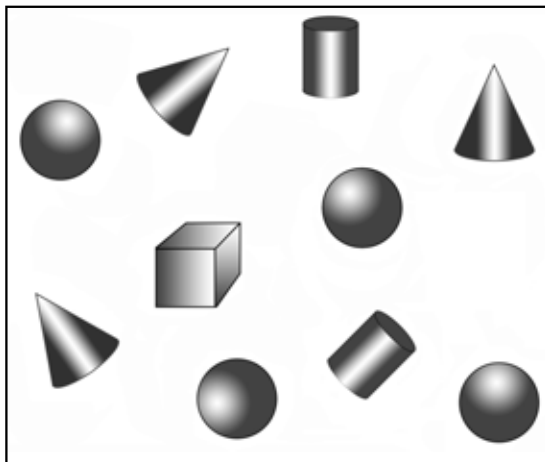
3-D Shape	Number
cone	
cube	
sphere	
cylinder	

!S

BSYₗW#

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BSd

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4Sd

5SXW

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7^_ EfdWW

3 4 5 6 7 8 9 : ; <
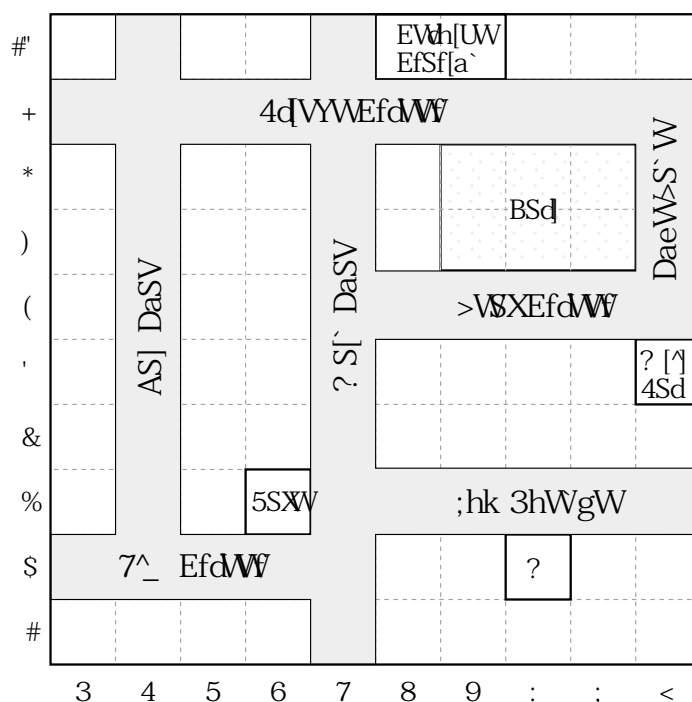
(i)   What is the grid reference for the Cafe? [   ]   !#

(ii) There is a pizza shop at F7.

Label the shop with [B]   !#

(iii) The Service Station covers grid squares [   ] and [   ]   !#

(iv) Rob lives on the corner of Main Road and Bridge Street
diagonally opposite the Service Station.

Label his house with [D]   !#

BSYW$

EUadW, !&

% Look at the **Town Map** on Page 2.

(i) Draw a tree in one square anywhere in the park.

What is the grid reference of your tree? [   ] !$

(ii) Matt lives at H2.

His house is labelled with [?]

Matt takes his dog for a walk. He leaves home, turns left and walks along Ivy Avenue to Main Road. He turns left into Main Road, right into Elm Street, then right into Oak Road and right again into Bridge Street. He walks along Bridge Street and then across the park to the Milk Bar.

Draw the path he takes on the map. !%

(iii) Tina lives opposite the park and next to the Milk Bar.

Label her house with [F] !#

(iv) Tina leaves home, turns left and walks along Leaf Street. She turns left and then into the next street on her right.

The name of this street is

[   ] !#

BSYW%

EUadW%   !)

KVSd' a`´k
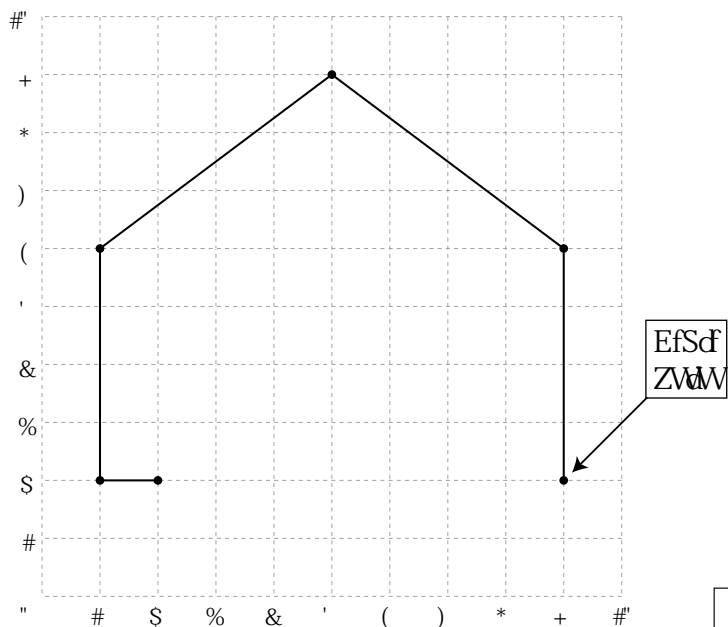
& (i) Complete the drawing of a house on the grid below by joining the points.

(9, 2) to (4, 2)

(4, 2) to (4, 5)

(4, 5) to (2, 5)

(2, 5) to (2, 2)

EfSd
ZWW

!%

(ii) Draw a rectangular window for the house on the grid lines.   !#

(iii) Give the coordinates of the corners of your window.

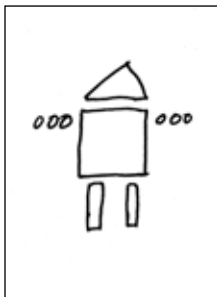| , |
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EUadW& !(

Mathematics Marking Guide

Activity 1 (Total of 6 marks may be given)

(i)   4 marks: 1 mark for each shape.

NOTE: One arm must have 3 circles. Allow 2–4 circles for the other arm for the 1 mark. Students should not be penalised for arranging the body in unexpected ways.

3 marks for one error.
2 marks for two errors.
1 mark for three errors.   **(MAX: 4 MARKS)**

(ii) 2 marks for writing 3, 1, 4 and 2 in the correct places in the table. There are 3 cones, 1 cube, 4 spheres and 2 cylinders.

1 mark for any two or three of the above correct.   **(MAX: 2 MARKS)**

Activity 2 (Total of 4 marks may be given)

(i) D3 or 3D   **(MAX: 1 MARK)**

(ii) 1 mark for P (or pizza shop) in correct location.   **(MAX: 1 MARK)**

(iii) 1 mark for both F10 (or 10F) and G10 (or 10G) in correct locations. **(MAX: 1 MARK)**

(iv) 1 mark for R (or Rob) in correct location (D8).   **(MAX: 1 MARK)**

Activity 3 (Total of 7 marks may be given)

(i) 1 mark for a tree in any one of G7, H7, I7, G8, H8 or I8.
1 mark for the correct grid reference.
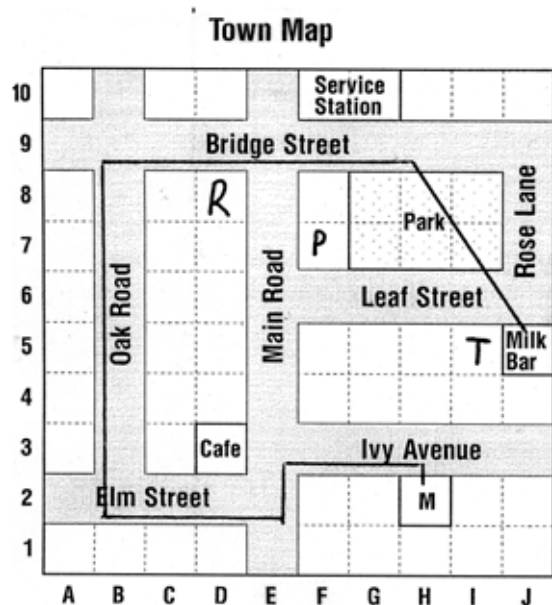
NOTE: The tree may be on the edge of the park, as long as the neighbouring grid reference is written down.
                                        (MAX: 2 MARKS)

(ii) 1 mark for turning into Main Road (left or right).

1 mark for turning right into Elm Street, right into Oak Road and right into Bridge Street.

1 mark for crossing the park to the Milk Bar.
                                        (MAX: 3 MARKS)

Activity 3 (continued)

(iii) 1 mark for T (or Tina) in correct location.   **(MAX: 1 MARK)**

(iv) 1 mark for Elm Street (or Elm St or Elm).   **(MAX: 1 MARK)**

Activity 4 (Total of 6 marks may be given)

(i) 3 marks for correct drawing.

   2 marks for one error.

   1 mark for two errors.   **(MAX: 3 MARKS)**
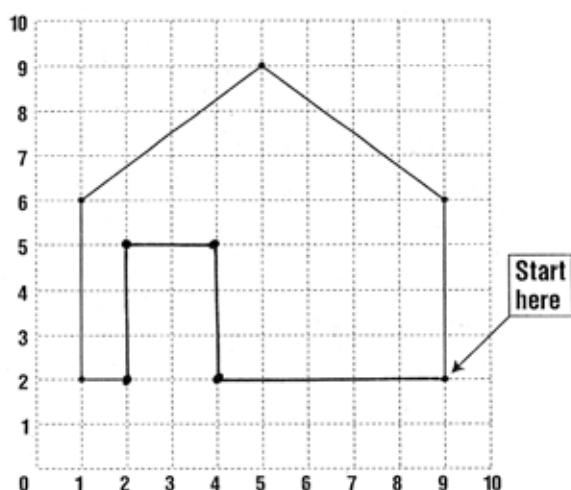
(ii) 1 mark for rectangular window on the grid lines.

NOTE: Students should not be penalised for placing the window in an unexpected place, provided it is still within the outline of the house.   **(MAX: 1 MARK)**

(iii) 2 marks for correct set of coordinates in correct coordinate order (horizontal coordinate first).

   1 mark for appropriate set of coordinates in reverse order.   **(MAX: 2 MARKS)**

Practice Example

Here is a practice example for you to work on. The Practice Example Marking Guide is shown on page 32.

NOTE: Each page has been printed at approximately 50% actual size.

Page 2 — Town Map

Service Station, Bridge Street, Park, Leaf Street, Rose Lane, Milk Bar, Ivy Avenue, Main Road, Oak Road, Elm Street, Cafe

(i) What is the grid reference for the Cafe? **3 D** /1

(ii) There is a pizza shop at F7.
Label the shop with **P** /1

(iii) The Service Station covers grid squares **10 F** and **9 F** /1

(iv) Rob lives on the corner of Main Road and Bridge Street diagonally opposite the Service Station.
Label his house with **R** /1

Score 2: /4

AIM 2005 YEAR 3 AND YEAR 5
Student Worksheet – Mathematics

Name: _____

1 (i) Draw a robot in the box below, following these directions.

The robot has a triangle for a head and a square body. It has two legs and two arms. Each leg is a rectangle and each arm is made of three circles. You may give your robot some feet and a face if you wish. /4

(ii) Count the 3-dimensional shapes and complete the table. /2

3-D Shape	Number
cone	2
cube	1
sphere	4
cylinder	2

Page 1   Score 1: /6

Year 5 only

4 (i) Complete the drawing of a house on the grid below by joining the points.

$(9, 2)$ to $(4, 2)$

$(4, 2)$ to $(4, 5)$

$(4, 5)$ to $(2, 5)$

$(2, 5)$ to $(2, 2)$

Start here

/3

(ii) Draw a rectangular window for the house on the grid lines.

/1

(iii) Give the coordinates of the corners of your window.

| 4 , 8 |
| 6 , 8 |
| 6 , 6 |
| 4 , 6 |

/2

Page 4

Score 4: /6

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3 Look at the **Town Map** on Page 2.

(i) Draw a tree in one square anywhere in the park.

What is the grid reference of your tree? [8 I]

/2

(ii) Matt lives at H2.

His house is labelled with [M]

Matt takes his dog for a walk. He leaves home, turns left and walks along Ivy Avenue to Main Road. He turns left into Main Road, right into Elm Street, then right into Oak Road and right again into Bridge Street. He walks along Bridge Street and then across the park to the Milk Bar.

Draw the path he takes on the map.

/3

(iii) Tina lives opposite the park and next to the Milk Bar.

Label her house with [T]

/1

(iv) Tina leaves home, turns left and walks along Leaf Street. She turns left and then into the next street on her right.

The name of this street is

[ELM]

/1

Page 3

Score 3: /7

Practice Example Marking Guide

Score 1

| 4 |

Part (i): legs are not rectangles, body is close enough to a square (3 marks)

Part (ii): cone entry incorrect (1 mark)

Score 2

| 1 |

Part (i): correct (1 mark)

Part (ii): not marked on map (0 marks)

Part (iii): second reference incorrect (0 marks)

Part (iv): incorrect location (0 marks)

Score 3

| 6 |

Part (i): tree on boundary of park, in square I8 (2 marks)

Part (ii): turns right at Main Road and crosses park to Milk Bar (2 marks)

Part (iii): correct (1 mark)

Part (iv): correct (1 mark)

Score 4

| 4 |

Part (i): one error in drawing door (second line) (2 marks)

Part (ii): square window – correct (1 mark)

Part (iii): relevant set of points, but incorrect coordinate order (1 mark)

Record Sheet – Mathematics

Name	Score for Activities				Comments
	1 (0–6)	2 (0–4)	3 (0–7)	4* (0–6)	

* Reported for Year 5 only.