

TEACHER INFORMATION

myJEMM+data Student Workbook

The provision of a Junior Elementary Math Mastery+ (JEMM+) student workbook bestows distinct advantages from both educational and practicality viewpoints. Delivering a particularly strong educational component, the workbook slots in perfectly with the Australian Curriculum Sub-strand, Data Representation and Interpretation. Each day students record, summarise and represent their own personal data thereby enhancing their engagement with the learning process in the most positive way. Student employment of various forms of data representation enables them to map their performance, while also serving as a subtle, yet powerful, learning adjunct. The entire workbook flows with the JEMM+ program so as to maximise time-efficiency.

From a teacher viewpoint the workbook is an invaluable diagnostic tool and assessment record.

If you are new to the JEMM+ program, before proceeding you will need to read Junior Elementary Math Mastery+ **pages i–xv** (2016 Rhonda Farkota).

Workbook components

Daily Data: Daily, students record and summarise their own data. For incorrect responses, classified as Bugs, students shade the BugKey in the corresponding row on the BugBoard. This allows teachers to continually monitor progress and determine whether remediation is needed.

For example, see myJEMM+data pages 2–9.

Visual representation: This provides foundational knowledge and daily practice in reading and interpreting data to prepare students for the Round task.

For example, see myJEMM+data pages 2–9.

Round task: JEMM+ is structured into 24 rounds each consisting of 5 lessons. At the end of each round students read, interpret and complete tables and graphs building on the Visual representation foundational knowledge.

For example, see myJEMM+data pages 10–11.

Self-evaluation: After every 4 rounds (20 lessons) students self-evaluate and reflect on their growth in knowledge, understanding and achievement. They record their feelings, providing teachers with an insight into their thoughts, and the opportunity to comment. (Thanks to Kevin Duffy, Principal WA, for his valuable input here.)

For example, see myJEMM+data pages 12–13.

JEMM+athon: For implementation details see pages 114.

JEMM+athons are restructured lessons that enable students to demonstrate their BugFree status. JEMM+athons affirm fluency, further enhance self-efficacy, and assess how well students have consolidated their knowledge and understanding.

For example, see myJEMM+data pages 14–15.

JEMM+athon to BugFree: Students convert their scores to percentages to determine their BugFree status. This encourages students to concentrate on personal growth rather than comparison with other students. Conversions should be performed either after each JEMM+athon, or after each Marathon.

See myJEMM+data pages 44–47; 90–93.

Challenge: This is designed to stimulate the thinking process requiring students to reflect on what they have learned. It is ideally implemented at the end of the JEMM+ program.

See myJEMM+data pages 94–97.

Awards: These motivate and reward students by emphasising growth, effort and completion of tasks.

Club BugFree Award: These are for students who score all correct responses over a number of consecutive lessons. The recommended benchmark for this award is 20 consecutive lessons. Twelve awards are provided allowing teachers to lower the benchmark at their discretion.

See myJEMM+data pages 99–103.

Optional awards: These should be assessed in 20 lesson blocks.

See myJEMM+data pages 105–111.

Pretest

Before beginning the program, Lesson 95 and/or Lesson 120 may be used as a pretest. Once Lesson 95 has been completed the results can be compared to the pretest. (Thanks to Far North Queensland Region, Education Queensland, for this suggestion.)

A suggested introductory script for using the Student Workbook

1. *Write on board, Lesson 1 and today's date.*
2. *SAY: Open your Student Workbook to page 3 and find Lesson 1. You are going to write your answers to Lesson 1 in this column. Write the DATE above Lesson 1.*
3. *SAY: Now look at page 2 and find the Lesson 1 Workspace. Use this space for working you cannot do in your head.*
4. *Follow the Junior Elementary Math Mastery+ Lesson 1 script pages 2–5 up to the corrections.*
5. *SAY: Over the coming lessons I may decide to make an award for accurate marking.*
6. *Correct all questions, see Junior Elementary Math Mastery+ (page x).*
7. *After corrections and before debugging SAY: Look at page 3 and find the word BugBoard. A Bug is an incorrect response where you are unable to understand why you are wrong. Look at the BugBoard. For those incorrect responses classified as Bugs shade the BugKey on the corresponding row under the column headed one.*
8. *DEBUG see Junior Elementary Math Mastery+ (page x).*
9. *After debugging SAY: Look at page 2 and find the arrow at the bottom of the page. The arrow is pointing to the Visual representation images. I'll read what it says. You follow: For each Lesson the whole of my data is represented in a bar made of 15 rectangles. From the baseline, I summarise my data by shading the number of rectangles equal to my score. You can see the bar under Lesson 1. From the baseline, shade the number of rectangles equal to your score.*
10. *Observe and check students have followed correctly.*

Note: At the end of Lesson 5, introduce the first Round task. *SAY: Look at page 3 and find the arrow at the bottom of the page. The arrow is pointing forward. I'll read what it says. You follow: After recording and summarising my data for these 5 lessons, I go to page 10 and complete my Task for this Round. Everyone turn to page 10 and complete the Round 1 Task.*

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Implementation incorporating JEMM+athon - Farkota Math Mastery Series:

- Junior Elementary Math Mastery+ (JEMM+) ISBN 978-0-98-079054-2

JEMM+athon

After students have self-evaluated their first group of 20 lessons (myJEMM+data page 12), teachers are advised to run a JEMM+athon.

A JEMM+athon is made up of 5 Marathons. A Marathon consists of 2 lessons from the previous 10, where the teacher presents the entire 30 questions without any teacher modelling.

The first Marathon (myJEMM+data page 14, coded M01 in the plan below) revisits Lessons 11 and 12 (coded L11–L12) where only the question is presented. The second Marathon (M02) revisits Lessons 13 and 14 (L13–L14) etc. After the first JEMM+athon is completed, teachers return to the program presenting Lessons 21–40 as per the JEMM+ script.

After students have self-evaluated their second group of 20 lessons (myJEMM+data page 26), teachers run a second JEMM+athon (myJEMM+data page 28), then return to the program, and so on. Each of the darker shaded sections below denote a JEMM+athon round. A JEMM+athon round consists of 10 lessons restructured into 5, effectively adding 30 sessions to the JEMM+ program.

JEMM+ L01–L20	JEMM+ L21–L40	JEMM+ L41–L60	JEMM+ L61–L80	JEMM+ L81–L100	JEMM+ L101–L120
Self-evaluation M01 L11–L12 M02 L13–L14 M03 L15–L16 M04 L17–L18 M05 L19–L20 JEMM+athon 1	Self-evaluation M06 L31–L32 M07 L33–L34 M08 L35–L36 M09 L37–L38 M10 L39–L40 JEMM+athon 2	Self-evaluation M11 L51–L52 M12 L53–L54 M13 L55–L56 M14 L57–L58 M15 L59–L60 JEMM+athon 3	Self-evaluation M16 L71–L72 M17 L73–L74 M18 L75–L76 M19 L77–L78 M20 L79–L80 JEMM+athon 4	Self-evaluation M21 L91–L92 M22 L93–L94 M23 L95–L96 M24 L97–L98 M25 L99–L100 JEMM+athon 5	Self-evaluation M26 L111–L112 M27 L113–L114 M28 L115–L116 M29 L117–L118 M30 L119–L120 JEMM+athon 6

Teachers may consider commencing JEMM+athons later in the program or adapting them in some other way that better befits the ability of their students. For example, a Marathon could consist of a set of 4 lessons from the previous 20. See pages 120–121 for JEMM+athon300 optional template.

JEMM+athon Visual Delivery Resources – Free download

<https://shop.acer.edu.au/math-mastery-series>

JEMM+athon to BugFree

JEMM+athons provide students with the opportunity to demonstrate they are BugFree; they affirm fluency and further enhance self-efficacy. Following the first JEMM+athon students should complete JEMM+athon 1 Task, myJEMM+data page 44, and then go to page 46 and convert their own JEMM+athon 1 scores to BugFree levels. Conversions should be performed after each JEMM+athon.

Sessions Required to Complete the Math Mastery Series

	Number of sessions to complete MMS			
	EMM	JEMM+	JEMM	TOTAL
Teacher delivered scripted lessons	160	120	80	360
Student Self-evaluations	8	6	4	18
Marathons	40	30	20	90
EMM/JEMM+/JEMM+athon tasks	8	6	4	18
Round tasks	24	18	12	54
Challenges	4	4	4	12
TOTAL number of sessions required	244	184	124	552