# Measurements About YOU!

Teacher's Guide

tzman



This Teacher's Guide includes access to modifiable and PDF line masters.

To access these Mathology Little Book Line Masters, please log in at Pearson Places, www.pearsonplaces.com.au and select "View More" under the Mathology Little Books icon.

Lalie Harcourt and Rick Wor

If the icon doesn't appear or if you are new to Pearson Places, please contact our digital helpdesk at help@pearson.com.au and we will set up a teacher account for you.

Once you have your Pearson Places account details you can record them below for reference.

Log-in Name

You can use these log-in details to access all your Pearson Places titles.



# Mathology Little Books

This series recognizes that children's understanding of maths concepts develops over time, and so the series allows you to choose the book that best matches a child's or group's level of mathematical understanding. The books engage children at just the right level in a wide range of mathematical ideas, thinking, and activities in a variety of real world and imaginary contexts.

*Measurements About YOU!* engages children in conversations, investigations, and activities that help to develop their understanding of the big maths idea that "Units can be used to measure and compare attributes."

| Big Idea: Units can be used to measure and compare attributes<br>(Measurement concepts and strategies) |  |   |   |   |  |  |
|--|--|---|---|---|--|--|
| TITLE  | KEY MATHS<br>Focus   | MATHS SKILLS  | STRATEGIES  | ADDITIONAL<br>FOCUS   |  |  |
| Animal<br>Measures<br>Premere<br>Premere<br>Premere  | Estimate and measure<br>length<br>Compare measures<br>according to length  | Describe measures (e.g. longer,<br>longest)<br>Select and use appropriate<br>measures   | Use a baseline  | Count by 5s   |  |  |
| Gretting Ready<br>in School  | Estimate and measure<br>length, duration, and<br>distance around<br>Compare, order, and<br>describe measures     | Estimate and measure length,<br>distance, and time<br>Compare and order objects<br>according to length, distance,<br>and time<br>Use relative terms to describe<br>length, distance around, and time  | Use personal and familiar<br>referents to estimate<br>measures<br>Select and use<br>appropriate measuring<br>tools  | Duration of time (1 min)<br>Addition and subtraction story problems<br>Create a tally<br>Days of the week<br>Compare and order numbers                          |  |  |
| The Discovery<br>2 2 2 2 2<br>Manual Antonio<br>Restored   | Estimate and measure<br>length, perimeter, and<br>area<br>Compare and describe<br>length, perimeter, and<br>area | Select and use appropriate<br>measuring tools<br>Compare and order objects<br>according to length, perimeter,<br>and area<br>Uses relative terms to describe<br>length, perimeter, and area   | Use personal referents<br>and benchmarks<br>Skip count by 5s and 10s<br>Use repeated addition   | Identify symmetry in the environment<br>Estimate how many is in a group (to<br>100)   |  |  |
| The Burny<br>Challenge   | Estimate, measure and<br>compare area<br>Estimate, measure and<br>compare perimeter                              | Select and use non-standard units<br>to estimate, measure, compare<br>and order area<br>Select and use standard units to<br>estimate, measure, compare and<br>order area and perimeter<br>Convert between standard units<br>when measuring perimeter. | Guess and check.<br>Direct comparison.<br>Repeated addition/<br>multiplication Repeated<br>subtraction/ division<br>Using grid paper to<br>measure<br>Split irregular shapes to<br>measure area | Repeated subtraction (Division)<br>Repeated addition (Multiplication)<br>Quadrilaterals<br>Collecting and organizing data<br>Identifying and extending patterns |  |  |
| Measurements<br>About YOU!   | Estimate, measure<br>and compare<br>attributes<br>Identify and relate<br>measures                                | Use familiar referents<br>(e.g. body parts) and<br>benchmarks to estimate<br>measurements<br>Use previous measurements to<br>inform estimates<br>Direct comparison  | Addition and<br>subtraction<br>Estimate quantity<br>Skip-count<br>Solve number problems   | Addition and subtraction<br>Displaying data and graphing<br>Estimation<br>Operational sense<br>Solving Problems   |  |  |

# *Measurements About YOU!*: Planning Guide

This series offers a variety of options to support different groupings with varied maths focuses. This helps to promote differentiated learning.

**LARGE GROUP OPTIONS** are lessons that engage a large group (perhaps the whole class) in an investigation that can be continued and revisited another time. Such experiences can help to establish a community of learners who share vocabulary and practices.

**SMALL GROUP OPTIONS** offer you the chance to listen more deeply to children's thinking and to observe, up-close, how they can demonstrate their learning. You can probe children's thinking and understanding; model strategies and language; and encourage learners.

**INDEPENDENT OPTIONS** present five activities. These options offer children the opportunity to practise and consolidate their learning independently while you meet with small groups or individuals.

**Note:** After introducing and working on any one of these options, you may decide to introduce another to the same group, or to reorganize the group before introducing a new option. Your choices depend on your curriculum, your children's learning needs, and resources on hand.

#### KEY MATHS FOCUS Estimate, Measure, and Compare Attributes

- Use familiar referents to estimate measures
- Estimate, measure, and compare length
- Estimate, measure, and compare mass
- Estimate, measure, and compare capacity
- Estimate, measure, and compare area

## Identify and Relate Measures

- Select appropriate units for measuring
- Compare and relate linear measures
- Relate millilitres to litres
- · Relate grams to kilograms

| KEY MATHS FOCUS   | LARGE GROUP   | SMALL GROUP<br>OPTIONS  | INDEPENDENT<br>OPTIONS  |
|---|---|---|---|
| <ul> <li>estimate, measure, and compare attributes</li> <li>identify and relate measures</li> </ul> | <ul> <li>Comparing Body<br/>Lengths, page 30</li> <li>Comparing Capacity,<br/>page 31</li> <li>Comparing Area,<br/>page 32</li> </ul> | <ul> <li>Measuring Length,<br/>page 33</li> <li>That's 1 Litre!,<br/>page 34</li> <li>Kilograms and Grams,<br/>page 35</li> </ul> | <ul> <li>Measure and Describe<br/>It, page 36</li> <li>Measurements About<br/>ME!, page 37</li> <li>Make a Metre, page 36</li> <li>What's the Measure?,<br/>page 37</li> <li>Technology (Online)</li> </ul> |
|   |   |   | Activity): How Long?,<br>page 37  |

## **ACTIVITY OPTIONS**

## **Line Masters**

Customizable line masters (LMs) are available on Pearson Places (see title page or page 40 for access details). For reference, thumbnails of all line masters are shown on page 40 of this Teacher's Guide. Every Teacher's Guide includes an Assessment Master (LM 1) and a Connecting Home and School Letter Template (LM 2).

# **First Read**

## **Introducing the Book**

Whether you are working with a large group, a small group, or an individual child, the first step is to simply enjoy the story.

To introduce *Measurements About YOU!*, read the title and discuss the cover. You might ask:

- What measurements do you know that can help to describe you? Where and when are you measured?
- What tools are used for measuring things? What kinds of measuring tools have been used to measure you?
- What measurements do you expect this book might include? What type of measurements would you include in a *Measurements About ME!* book?

Depending on children's prior experiences with measurement, you might offer different measuring tools for them to explore before introducing the book further.

After reading the introduction (pages 2–5) you might consider the Table of Contents (page 6) to decide whether to read the book linearly or by interest. You may also choose to read sections that relate to a specific type of measurement (e.g., linear), introduce related activities, and then return to the book to focus on another aspect of measurement (e.g., capacity).

# After First Read

## You might:

Return to the story and initiate conversations by selecting appropriate prompts from those suggested (pages 5–28).

- Engage children in representing the story using the Maths Mat on the inside back cover (see **Representing the story**, page 29 of this guide).
- Choose an investigation or activity from the large or small group options (pages 30–35).
- Introduce and provide any materials needed for children to work independently (pages 36–37).
- 🔙 Make the story available for interested children to revisit.
- Send the book home, along with a family letter to communicate the mathematics underway in class (see suggestions on page 38 and LM 2).

## **Reading Level**

Guided Reading Level M. The text should be accessible for most children. Before reading, consider exploring the glossary with children, and explaining that words defined in the Glossary appear in blue in the text. During the first reading, you might point out the correct pronunciation of words such as *saliva* and *femur* and the meaning of *organ*.

## **Audio Recording**

For further support, children can listen to the online audio recording. See the QR code or URL on the back cover of the Little Book.

# **Maths Conversations**

Measurements About YOU! offers opportunities for children to estimate, measure, and compare attributes (length, mass, capacity, and area) and to identify and relate measures, and prompts are clustered under those headings. Select prompts based on which will best meet the needs of the group you are working with, and initiate worthwhile conversations. The extent of the conversation will depend on the children's abilities and interests, the group's dynamics, and your instructional and assessment goals. Please remember that these prompts are options for you to select from, and it is actually the children's responses that will guide the most powerful and appropriate conversations.



## **Identifying measures**

- What unit of measure does the narrator use to tell how long she was at birth? *(centimetres)*
- What units of measure does the narrator use to tell about her birth weight? (grams and kilograms)



#### **CONNECTING TO NUMBER**

Relating Numbers: Children can tell about themselves using numbers. They can follow the narrator's lead and tell what they know about their height and weight now, or even at birth. Encourage them to think of other personal numbers (e.g., address, number of siblings, shoe size, age in years and months, the times they go to sleep and wake up).