



## RICH MATHS THROUGH PICTURE STORY BOOKS





#### Marissa Cashmore

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### A LITTLE ABOUT ME...

Primary school teacher.

Primary maths specialist and consultant.

Mum

Two fur children

Interests: bushwalking, the beach, being outside, basketball and of course mathematical education

Ex maths anxious student









## WHY USE PICTURE STORY BOOKS?

- Allows you to create authentic connections to mathematics
- An engaging and motivating hook
  Natural problems and connections arise from stories
- Allows all students to enter the lesson
- Integrating curriculum areas





# SOMEWHERE IN AUSTRALIA

Marcello Pennacchio





### STUDENT TASK

Launch: Read 'Somewhere in Austalia' by Marcello Pennacchio

Ask the students to think about how many animals where in the story altogether. Then ask them to turn and talk and estimate how many - how to they know.

Ask - how can we find out? List some strategies and bring out materials for students to use to help them.





#### EXPLORE

Students work individually to begin with and use anything in the room to help them to find out how many animals there were in total.

Enabler (after struggle time) - have some images from the text available or ask students to work in pairs.

Extender: In the burrows of Emerald Lake lived an echidna and her eleven puggles. Students can add a possum and wombat to the mix too













#### OTHER TASKS...

How many legs?

How many animals might come along on the 20th day?

Maths300 Spiders and Ants or Heads and Legs







#### BOOKS WITH SIMILAR PROBLEMS



The Waterhole by Graeme Base

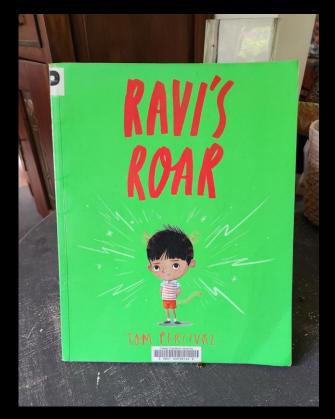
How Many Legs? by Kes Gray





## RAVI'S ROAR

By Tom Percival

















MAV24 CONFERENCE

### PLANNING A MATHS TASK

- Launch Find/create the problem in the story.
- Explore How will you allow the students to investigate. What
  materials will be available? What enablers and extenders could you
  use? What concept are you wanting to focus on? Are there any
  cross concepts? What questions will you use?
- Anticipate Student response, misconceptions, extensions, materials needed to support, look at the task from a student lens.
- Summarise How will you bring the lesson together? What explicit teaching moments will you look for? Where might these come about? What will you reflect on?



#### CONCEPTUAL PLAYWORLD PLANNING

- Selecting the story Lots of action and a good plot!!
- Designing the Playworld Space Entering and Exiting the space -getting into character, music, themes - engaging the students.
- Planning the problem/inquiry
- Educator role

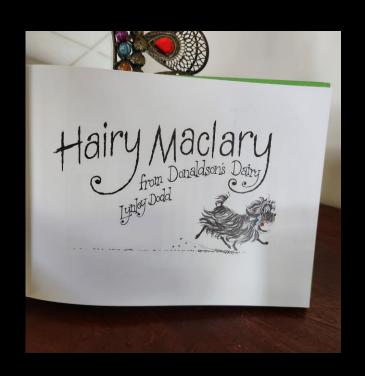




## HAIRY MCLARY FROM DONALDSON'S DAIRY

By Lynley Dodd









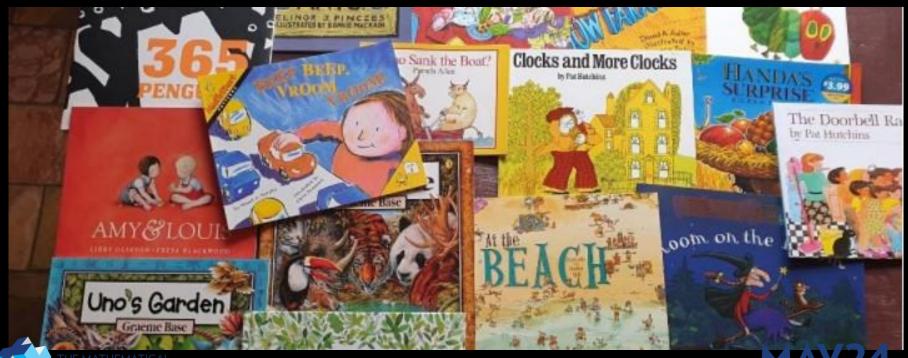
### PLANNING A RICH TASK THROUGH PSB

- Launch A new estate is being built up the road and the council are looking for new and innovative ways to number their houses. They have asked for our help.
- Explore: Students to create a system of new streets, with house numbers that are non-typical.
- Anticipate: thoughts?
- Summarise: Sharing and discussing number sequences.





## OVER TO YOU



CONFERENCE



#### PROFESSIONAL DEVELOPMENT

#### FLEER'S CONCEPTUAL PLAYWORLDS

A NEW AND EFFECTIVE WAY OF TEACHING STEM TO YOUNG CHILDREN THROUGH PLAY

- . 2 HOURS
- . DELIVERED VIA ZOOM
- . CERTIFICATE OF ATTENDANCE
- GROUP BOOKING (UP TO 20 EARLY CHILDHOOD PROFESSIONALS)

(PD HOURS CAN BE USED FOR VIT REGISTRATION RENEWAL)

CONCEPTUAL PLAYLAB
AUSTRALIA'S LARGEST EVER STUDY IN STEM
AND EARLY CHILDHOOD EDUCATION:
AUSTRALIA'S FIRST RESEARCH-BASED MODEL
FOR TEACHING STEM.



conceptualplaylab@monash.edu (for registration) Facebook: Conceptual PlayWorlds for Educators





#### THANK YOU

#### Marissa Cashmore



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- Open for 2025 bookings
  In house Consulting/coaching
  Whole and half curriculum days
  - After school PD

#### **MORE INFO**





TO SUCCEED

