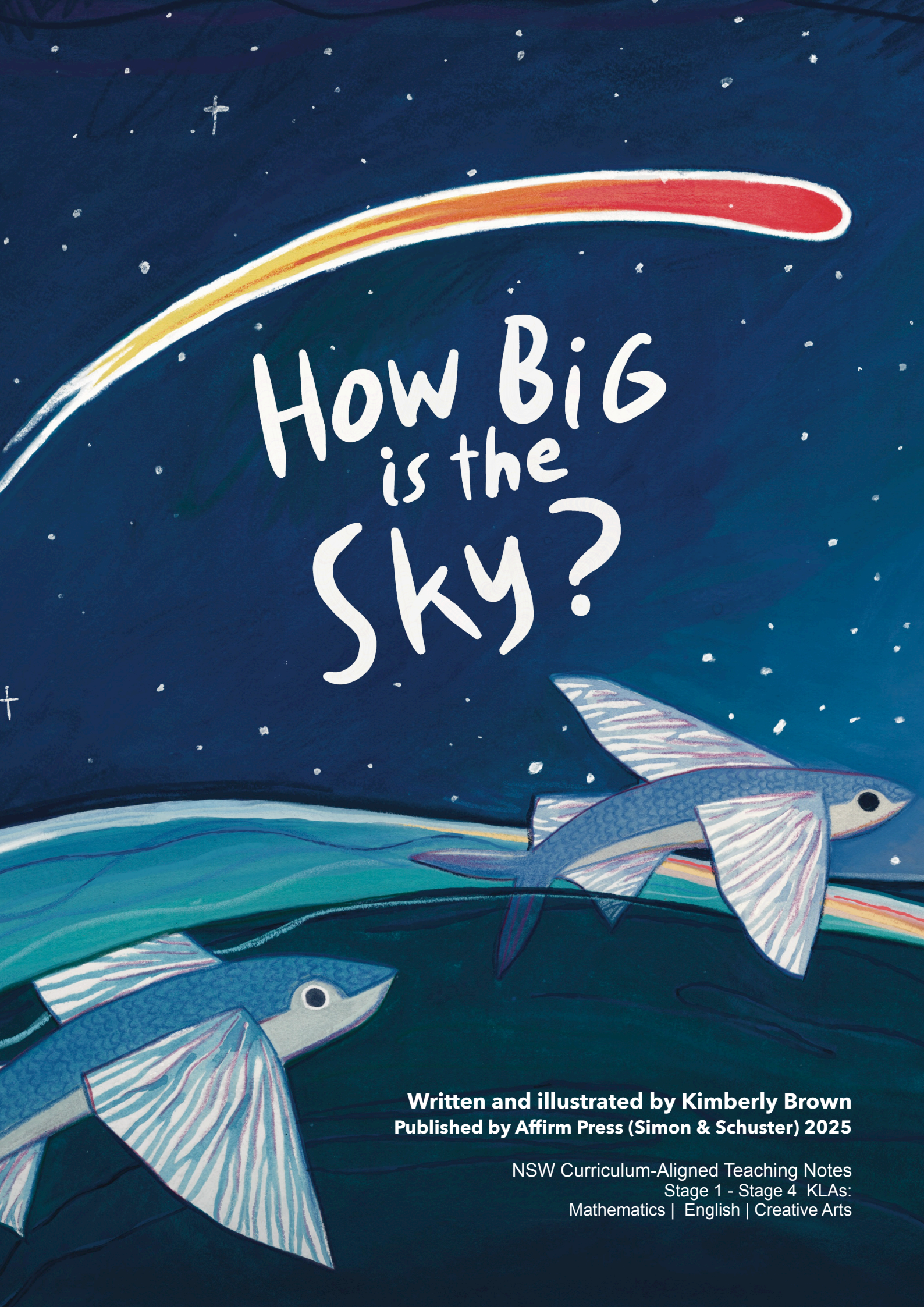


Written and illustrated by Kimberly Brown

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NSW Curriculum-Aligned Teaching Notes
Stage 1 - Stage 4 KLAs:
Mathematics | English | Creative Arts

TEACHING NOTES

Insights from the author and ideas for teachers & educators



How to use these notes (for teachers)

As a teacher myself I wanted to make a resource that was easy to grab and apply straight away. I want to give you the inside scoop and for your students to feel like they're getting a genuine view from the otherside of the book-making process. You can find links to other resources through my website at **https://www.kimberlybrown.com.au/resources**

Before I forget, thank you for choosing to teach my book. It means the world, not just because it is a practical way to support my work, but because I believe that the ideas in it are integral to building a perspective that will make a better world possible.

AUTHOR:

Hi! I'm Kimberly Brown and I wrote and illustrated ***How Big is the Sky?***, which was published in 2025. I was born in Canada quite some time ago and moved to Australia part way through my University degree. You might be surprised to find that I studied science and engineering before switching to a degree in English literature and Visual Arts.
I became a highschool teacher and artist while living near Newcastle, NSW, Australia.

I love nature, camping and being outside. I still use my science learning to discover new things and make art. I like doing experiments and making all kinds of things: oil paint landscapes, big murals and drawings. Sometimes I go into the bush to collect my own materials, pigments or clay.

The idea:

I first had the idea for this picture book while talking to my two year-old son who asked me the question, "How big is the sky?" I realised that I had no good answer for this. For the next few days I kept thinking about other things that could not be measured either and I had a feeling that this idea could make a good illustrated book.

I had read quite a few picture books in my life and had taught them to my highschool classes. I was inspired by many illustrators and authors who I studied closely for inspiration. I had to make a lot of practice drawings and drafted the book many times. When it came time to make the book an editor helped me to make even more changes that made the book far better than it would have been if I'd done it all on my own.

Get curious:

1. Where is Kimberly from and where does she live now? How do you think her location influenced the pictures in the book?

2. Kimberly loves science, stories and art. Can you think of ways that you've seen science and art combined?

3. Where did Kimberly get the idea for her book? Can you answer the question, "How big is the sky?" What other things can you think of that cannot be measured?

4. Do you have a favourite picture book or artist? Have you ever tried to draw or paint one of their pictures? When you're ready, try to draw your own subject using elements you've observed from their style.

5. How do you think Kimberly's educational background influenced the ideas explored within the book?



PRE-READING

Activity ideas:

1. Collect and display a wide range of measurement tools (ruler, scales, measuring tape, measuring cup, teaspoons, thermometer, barometer, stopwatch, etc.). Get creative. Give students a chance to explore them, choosing one to tell the class about.

Ask: What do these items have in common?
What is the tool you're holding? What can it measure?
Introduce: Ideas about quantity and measurement, comparative and relative size, and units of measurement. *For older students ideas about empirical, abstract and intuitive methods of gathering information, quantitative vs qualitative data and notions of objective and subjective*.
*You could effectively preempt introducing the book with maths lessons introducing concepts of measurement.

2. Have students brainstorm things that cannot be measured with a tool. Use think-pair-share and brainstorm on the board/large paper.

Ask: Can you think of something that is considered better because it is bigger?
Can you think of anything in your experience that cannot be measured using an instrument? Why do you think this is beyond measurement?
Introduce: Plant the seed for the philosophical idea that not all things can or should be measured and that this is especially true for the most profound and meaningful things in our lives.

3. Have students write a short recount or story about a recent adventure or experience of trying something new or frightening.

Ask: *Can you think of the last time you tried something new or challenging? What was it like? How did did you feel in the time leading up to it? How did you feel afterwards? What did you learn about yourself?*

4. Cover study.

Ask: What can you tell about the book from the cover? What do you notice? How would you describe the colours the artist has used? How does it make you feel? What questions does the title, 'How Big is the Sky?' raise? Is 'big', in this case, something to be measured?
Introduce: Visual literacy tools like colour and gaze/leading lines. Talk about how colour choices impact the way a viewer feels.

READING

When the book introduces measurement tools and scientific concepts:

- What is being measured here? What unit or tool is being used?
- Can you think of something even larger (or heavier, or deeper) than what is shown?
- Why might scientists and mathematicians need to measure these things

When the book transitions to 'immeasurable' things:

- The book now shifts. What changes? How do you feel reading this part compared to the first section about measurement?
- What language technique (piece of punctuation) is used frequently in the second half of the book? How does this make you feel?
- What word or phrase in this section surprises you most?
- Is the illustrator's style or use of colour different in this section? What do you notice?

Notice what the pictures and words are doing:

- Is the text or the illustrations telling the story boy going out on the boat?
- Can you put into words what is happening and how the protagonist feels throughout the story? How do you know these things? Can you match the following emotions with an picture from the book: awe, excitement, boredom, fear, bravery, pride, wonder, belonging, love. Choose one of these words - how would you draw a picture to show it?
- Throughout the book the pictures are arranged in various ways. Find a page that uses panels to separate an image - why would the author illustrate it like that?
- There is one double-page spread with no words at all. Why do you think the author chose to do that?
- Can you identify examples of figurative language (metaphors, sensory imagery, etc.) - phrases that use a comparison to help you imagine something in a new way?

Comprehension & Reflection

- Create a word wall or vocabulary list as you move through the book including mathematical terms or concepts that come up in the discussion of the book.
- Draw and label three things from the book that CAN be measured. Draw three things that CANNOT be measured.
- Complete sentence frames such as: 'You can measure _____ with a _____.' / 'You cannot measure _____ because _____.
- Create a T-chart: Measurable vs. Immeasurable. Students populate it independently, then share and justify.
- Respond in writing: What do you think is the most important thing in your life? Is it measurable? Explain your thinking.

A CLOSER LOOK

Structure:

The book is structured into TWO distinct parts - the beginning which is about concrete mathematical concepts of measurement and comparitive size, and the second half which raises more philosophical questions. It moves from **empirical** to **abstract**, from **objective** to **subjective**. Ultimately, the book is one concerned with where we find value, what is important in life and where we, as humans, derive our notions of fulfillment and worth.

I hope that every person who reads this book is reminded that many of the most important and wondrous things in our world cannot be measured at all.

Let's look at language and visual techniques that have been used to communicate the difference between the two sections of the book:

First half:

- Empirical statements - "This is a measuring tape."
- Several panels which deliver information concisely and quickly. The pace picks up as we become more confident with the idea of measurement.
- Find examples of "Fig." notations. Show students examples of where these would typically be used - in scientific diagrams. There is an element of irony to the way they are used.

Transition page:

- Double page spread showing examples of instruments and tools serves to slow down the narrative.
- Begins with another statement "There are ways to measure everything."
- The single word "Almost" signals the shift by introducing **ambiguity**.

Second half:

- Two part statements with a contrasting metaphor, "not the warmth that laughter brings."
- Double page spreads to create a slower, more contemplative pace.
- Subjective questions - "How do you measure...?"
- Panels are also used, but notice how they depict a **single** moment or composition, dwelling longer on a piece of visual information rather than moving quickly through.
- Compositions and angles place more salience on the child's experience and emotions.



"The best and most beautiful things in the world cannot be seen or even touched - they must be felt with the heart."

- Helen Keller (1891)

As a mother of a child with a disability, Helen Keller's advocacy and this quote are tremendously significant to me. This quote is a good way to get students thinking about the things we judge as being more valuable than others, including people.

TEACHING AREAS
For Primary School Educators

Besides the obvious (literacy), this book allows (and even calls) for cross curricular integration with Mathematics and Visual Art. While these outcomes are aligned with the NSW Syllabus (as of 2025), the topics are applicable regardless of location and stage.

MATHEMATICS - Measurement & Space:

The structure of the book makes for a seamless segue into deas about quantity and measurement, comparative and relative size, and units of measurement. For older students, there is also opportunity to explore ideas about empirical, abstract and intuitive methods of gathering information, quantitative vs qualitative data and notions of objective and subjective.

I suggest beginning with the mathematics and using the book as a bridge into the more philosophical ideas that relate well to the arts.

MA1-GM-02	Stage 1 (Yrs 1–2)	*measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres*
MA1-3DS-02	Stage 1 (Yrs 1–2)	*measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units*
MA1-NSM-01	Stage 1 (Yrs 1–2)	*measures, records, compares and estimates the masses of objects using uniform informal units*
MA2-GM-02	Stage 2 (Yrs 3–4)	*measures and estimates lengths in metres, centimetres and millimetres*
MA2-3DS-02	Stage 2 (Yrs 3–4)	*estimates, measures and compares capacities (internal volumes) using litres, millilitres and volumes using cubic centimetres*
MA2-NSM-01	Stage 2 (Yrs 3–4)	*estimates, measures and compares the masses of objects using kilograms and grams*
MA3-GM-02	Stage 3 (Yrs 5–6)	*selects and uses the appropriate unit to estimate, measure and calculate lengths, distances and perimeters*
MA3-3DS-02	Stage 3 (Yrs 5–6)	*selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities*
MAO-WM-01	All Stages	*develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly*

Stage 1: Measuring and Comparing

- Using informal units (e.g., hand spans, feet, blocks), measure classroom objects and record in a table. Discuss what makes a 'good' unit of measure.
- Water in containers: Use informal units to measure capacity. How many cups fill this bottle? How could we make this more accurate?
- Mass exploration: Use a balance scale to compare the masses of familiar objects. Order from lightest to heaviest.
- Link to book: 'In the book, we see very big things being measured. In our classroom, what large objects could we try to measure with our rulers or measuring tapes?'

Stage 2: Standard Units and Estimation

- Measurement stations: Length (measuring with rulers and metre rulers in cm and mm), Mass (using kitchen scales in kg/g), Capacity (measuring liquids in ml and L). Record, compare, and estimate.
- Sky challenge: What would it look like to measure the sky? What units would scientists use for very large distances? Introduce the concept of kilometres and beyond (light years as an extension).
- Create a 'Measurement Book': Students design their own pages modelled on the book—selecting a large-scale thing (ocean depth, mountain height) and researching its measurement.

Stage 3 (and beyond): Choosing Appropriate Units and Problem Solving

- Investigation: If you were going to measure the sky, what instrument would you use? What unit? Research altimeters, satellites, and telescopes as measurement tools.
- Problem solving: Present scenarios (e.g., 'An ocean is 11km deep at its deepest point. How many times deeper is it than your school building is tall?'). Students solve and explain reasoning.
- Connect mathematics to philosophy: Can all things be assigned a number? Introduce the concept of quantifying wellbeing in society (happiness indices, quality of life measures)—can data capture everything?



ENGLISH - Literacy:

I have included notes about structure of this narrative and the use of images to tell a story that the text does not. There is lots of opportunity here for students to engage in their own creative writing and visual representation to express their own values and lived experiences.

EN1-RECOM-01	Stage 1 (Yrs 1–2)	*reads and comprehends texts for wide purposes using knowledge of text structures and language, and by monitoring comprehension*
EN1-UARL-01	Stage 1 (Yrs 1–2)	*understands and responds to literature by creating texts using similar structures, intentional language choices and features appropriate to audience and purpose*
EN1-OLC-01	Stage 1 (Yrs 1–2)	*communicates with familiar audiences for social and learning purposes, by interacting, understanding and presenting*
EN2-RECOM-01	Stage 2 (Yrs 3–4)	*reads and comprehends texts for wide purposes using knowledge of text structures and language, and by monitoring comprehension*
EN2-UARL-01	Stage 2 (Yrs 3–4)	*understands and responds to literature by creating texts using similar structures, intentional language choices and features appropriate to audience and purpose*
EN2-VOCAB-01	Stage 2 (Yrs 3–4)	*builds knowledge and use of Tier 1, Tier 2 and Tier 3 vocabulary through interacting, wide reading and writing, and by defining and analysing words*
EN3-RECOM-01	Stage 3 (Yrs 5–6)	*comprehends independently read texts that require sustained reading by activating background and word knowledge, connecting and understanding sentences and whole text, and monitoring for meaning*
EN3-UARL-01	Stage 3 (Yrs 5–6)	*identifies and describes how ideas are represented in literature and strategically uses similar representations when creating texts*
EN3-CWT-01	Stage 3 (Yrs 5–6)	*plans, creates and revises texts written for different purposes, including paragraphs, using knowledge of vocabulary, text features and sentence structure*

Stage 1: Responding to Literature

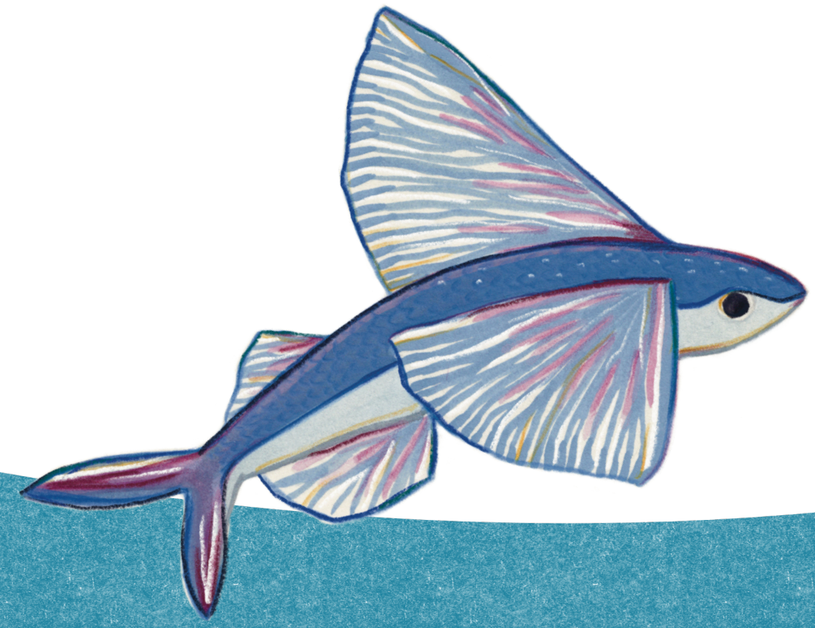
- Shared retelling: Use pictures from the book to sequence and retell the story using key vocabulary.
- Innovate on the text: ‘How big is my school?’ / ‘How heavy is my dog?’ Students write and illustrate their own pages using the book’s structure as a scaffold.
- Oral language: Circle time discussion—‘Tell a partner about something important to you that you cannot measure.’

Stage 2: Text Structure and Language

- Text analysis: Identify how the author organises the book in two sections. Label the turning point. How does the language change?
- Figurative language hunt: Find examples of simile, metaphor, and sensory language. Create a class anthology of favourite lines.
- Creative writing: ‘My Book of Immeasurable Things’. Students write 3–5 entries using figurative language and descriptive vocabulary inspired by the book’s style.

Stage 3 (and beyond): Critical and Creative Response

- Author’s craft: Examine how Kimberly Brown uses the dual role of author-illustrator. How do the images extend or deepen the meaning of the words?
- Philosophical writing: Respond to the prompt ‘Is science enough? What does it leave out?’ Students write a structured argument or reflective essay.
- Persuasive writing: Students respond to a statement such as "The most important things in life cannot be measured." OR "The biggest and most impressive things are always the most important." Agree or disagree.
- Intertextual connections: Compare this book to other texts that explore big questions (e.g., *The Dot* by Peter H. Reynolds, *The Giving Tree* by Shel Silverstein, *What is Love?* by Mac Barnett. How do different authors treat unmeasurable things? What is the difference between unmeasurable and immeasurable?
- Write a poem (which is how Kimberly Brown's manuscript began) in two parts: a series of statements, then a series of questions.



CREATIVE ARTS - Visual Art:

I have included notes on visual features of the text as well as technical notes on materials and the process of how things were made. Giving students the opportunity to visually represent an "immeasurable" personal experience let's them explore their own values and reflect on the text as a whole.

VAS1.1	Stage 1 (Yrs 1–2)	*represents the qualities of experiences and things that are interesting or beautiful by selecting and using the forms*
VAS1.2	Stage 1 (Yrs 1–2)	*uses the forms to make artworks according to varying requirements*
VAS1.3	Stage 1 (Yrs 1–2)	*acknowledges that artists make artworks for different reasons and that various interpretations are possible*
VAS1.4	Stage 1 (Yrs 1–2)	*begins to interpret the meaning of artworks, acknowledging the roles of artist and audience*
VAS2.1	Stage 2 (Yrs 3–4)	*explores the properties of experience and things (subject matter) and different ways these can be represented in the forms*
VAS2.2	Stage 2 (Yrs 3–4)	*uses the forms of visual arts to express a range of ideas, making considered aesthetic choices*
VAS2.3	Stage 2 (Yrs 3–4)	*identifies connections between subject matter in artworks and what they refer to*
VAS2.4	Stage 2 (Yrs 3–4)	*interprets the meaning and artists' use of symbolism in artworks*
VAS3.1	Stage 3 (Yrs 5–6)	*investigates subject matter in an attempt to represent likenesses of things in the world*
VAS3.2	Stage 3 (Yrs 5–6)	*makes artworks for different audiences, assembling materials in a variety of ways*
VAS3.3	Stage 3 (Yrs 5–6)	*acknowledges that audiences respond in different ways to artworks and that there are different opinions about the value of artworks*
VAS3.4	Stage 3 (Yrs 5–6)	*communicates about the ways in which subject matter is represented in artworks*

Stage 1: Making Artworks

- Artmaking: Students create a two-part illustration—one side showing something that CAN be measured (with a tool included in the image), the other showing something they love that CANNOT be measured.
- Colour exploration: Experiment with warm and cool colours to create different moods (e.g., the vastness of the sky vs. the warmth of love).
- Critical response: Share artworks with a partner. 'What did the artist choose to show? How did they show it?
- Build coral reefs by gluing dyed pasta shapes onto a base.

Stage 2: Subject Matter and Representation

- Investigate: How do artists represent scale and vastness? Look at landscape artists (e.g., Arthur Boyd, Fred Williams, Albert Namatjira or Shaun Tan's landscapes) who work with the Australian sky and land.
- Artmaking: Create a landscape artwork that captures something immeasurable—a sense of space, openness, or peace. Experiment with mixed media.
- Critical response: Write an artist's statement explaining what was chosen as subject matter and why, and how artistic choices (colour, composition, line) communicate the idea.
- Use clay or recycled materials to create coral reef compositions.

Stage 3 (and beyond): Artmaking and Critical Analysis

- Investigate the picture book as an art form: How is the picture book a gallery of ideas and beauty, as Kimberly Brown describes it? Analyse two double-page spreads for composition, use of space, and visual language.
- Artmaking: Produce a series of three connected artworks exploring the contrast between the measurable and immeasurable in personal life. Students select their own media and justify their choices.
- Critical study: Present a verbal or written analysis of one illustration from the book, discussing how the artwork communicates meaning to its audience. Consider: artist intent, viewer response, and symbolism.
- Create an exhibition of large-scale artworks that integrate and express mathematical measurements and/or scientific notation.



OTHER CONNECTIONS

Science and Technology Links

- What instruments do scientists use to measure very large or very small things? (Telescopes, microscopes, altimeters, seismographs.)
- What are the international units of measurement? (SI units: metre, kilogram, litre.) Why do we need standard units?

PDHPE Links

- Wellbeing discussion: The book suggests love and belonging cannot be measured. In health class, how do we talk about wellbeing? Can happiness be measured? (Connect to positive psychology, the PERMAH framework.)

HSIE / Geography Links

- Map the journey: The book follows a child on an ocean adventure. Use maps to trace possible routes. Measure distances using map scales.
- Explore the ocean: Link to a study of the Earth's ocean environments - both the extreme depths as well as coral reef ecosystems. How does ocean depth impact zones of light and life? How do we know how deep the ocean is? What tools are used?



SECONDARY SCHOOL

Some notes for high school educators

I love teaching picture books and there are so many beautiful and sophisticated titles to choose from. This is a good book to introduce Stage 4 students to the picture book form and structure in particular - the way the pictures and words don't say the same thing, but work together to create something bigger than their parts. The use of both visual and figurative language, including sentence structure and hypothetical questions are an obvious example of how students can work to construct their own stories and meaning through the form.

I encourage students to play with format and style as tools to convey their message. Avoid a series of flat illustrations from the same perspective each time (though artists like Jon Klassen do this with scathing effectiveness, but it can be argued that this allows for a significant amount of psychological tension and nuanced audience interpretation).

I read the advice that, *if the composition is perfect before the text, then it's not a perfect composition*. If they are working on making their own picture books have them think about text font, style, size and placement.

However you go about it you can assure them that YES, the authors *did* think about it and they most likely did it on purpose after a whole lot of consultation with their editor, at times even having to assert their ideas to a committee of publishers who may have wanted to cut elements of the text.

In addition, several of the activity ideas listed suggested for Stage 3 could easily be adapted for Stage 4. Despite being a book marketted to young children, the message is far more pertinent the older the reader is.

Thank you again for choosing to share this book and its message with the young people in your care. We are all responsible for building a future filled with humans who value the biggest and deepest things.

With immeasurable gratitude;

Kimberly Brown