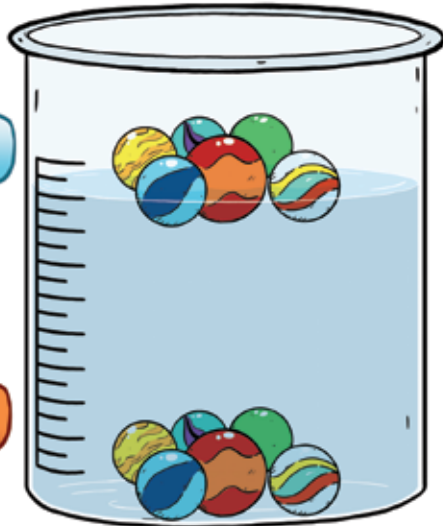




Things that float and sink

Physical Sciences

Float?
or
Sink?



Written for the Australian Curriculum: Science

Sienna Osborne | Randall Hall | Richard John

AUSTRALIAN CURRICULUM: SCIENCE

Strand:	Science Inquiry Skills, Science Understanding
Sub-strand:	Physical Sciences
Descriptor:	Pose and respond to questions, and make predictions about familiar objects and events Participate in guided investigations and make observations using the senses The way objects move depends on a variety of factors

SCIENCE WORDS

Float, sink, dense, metal, plastic, wood, glass

INFORMATION FOR PARENTS OR CAREGIVER

Helping your child learn to read is a rewarding and enjoyable experience for both you and your child. Here are some ways you can help your child with their reading.

BEFORE READING

- Introduce the book; read the title and look at the picture on the front cover. Ask what the book might be about.
- Ask your child if they know of any things that float or sink?
- Refer to the science words. Discuss each word and its meaning. These words will appear in the book.

DURING READING

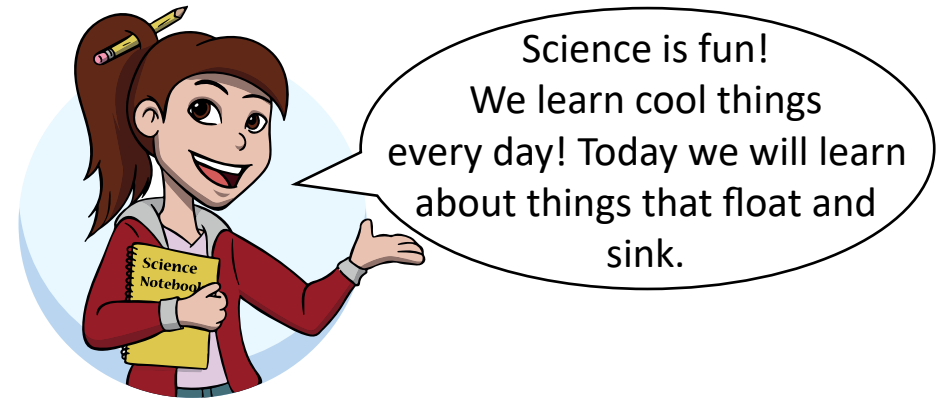
- Ensure the book is being held correctly and your child is tracking the words from left to right across the page.
- Encourage your child to look at the pictures for clues if they are unsure of a word.
- Should your child need help to decode a word, break it down into its individual sounds, and blend them together from left to right.

SCIENCE CONCEPTS IN THIS BOOK

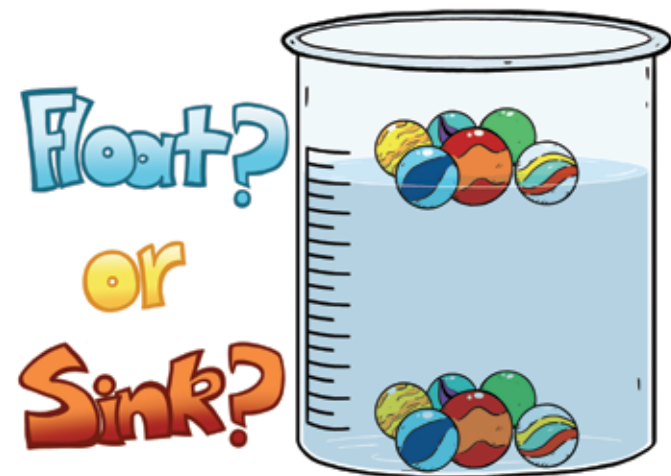
From the early stages of the *Australian Curriculum: Science* students are encouraged to ask and respond to questions about familiar objects and events. They are also asked to make predictions based on their prior knowledge and current understandings.

In this book, the reader is asked to predict whether some familiar objects will float or sink in water. It is common for children at this age to have misconceptions about floating and sinking. The most common misconception is that heavy things will sink and light things will float. We only have to think of a heavy log to understand this is not the case.

An object will float in water if its **density** is less than that of water. The density of an object is related to both its mass (or weight) **and** its overall volume. A heavy ship made of steel can still float because the overall volume of the hull of the ship is large. A tiny ball bearing (with a small mass) will sink in water because it has a relatively large mass compared to its volume. The relationship $D = m/v$ is used to quantify density, where **D** is the **density** of an object and **m** and **v** are its **mass** and **volume** respectively.



Things that float and sink



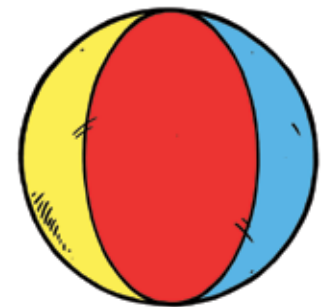
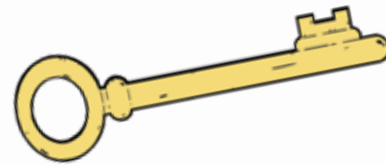
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Some things float in water.

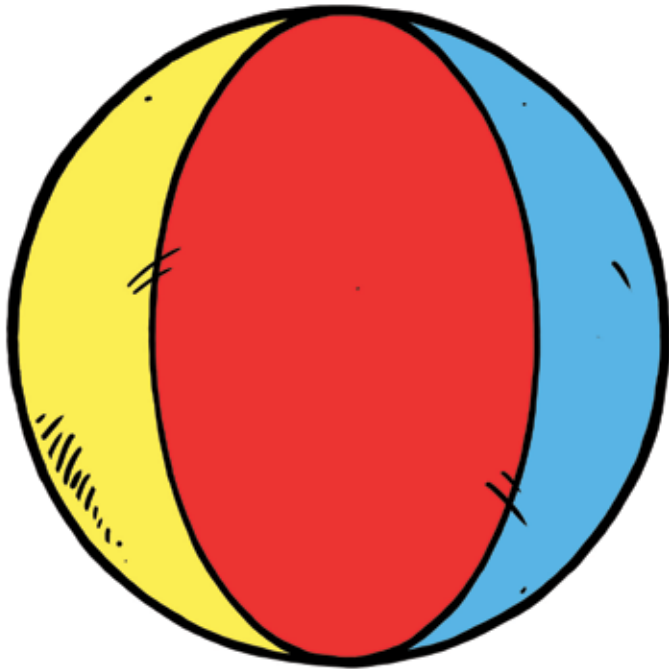
Some things sink in water.

Can you guess what floats and sinks?



The ball is made of rubber.










The ball is filled with air.

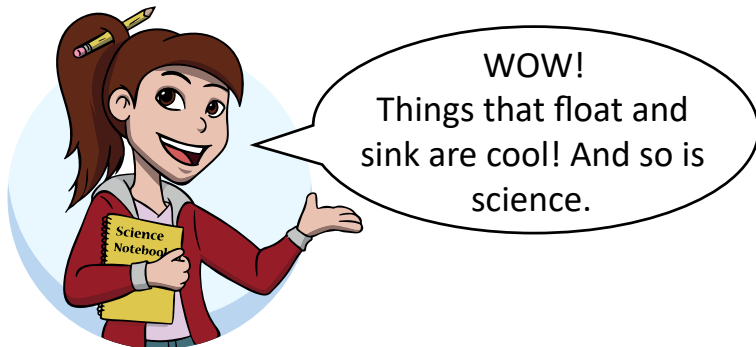


Will the ball float or sink?



Data Table: Things that sink

Object	Floats in water?	Sinks in water?
		
		
		



AFTER READING

Ask your child what the book was about and encourage them to re-tell it in the order in which it appeared.

Discuss the following with your child to assist in understanding the content of the book:

- Did the metal objects float or sink?
- Do you think a metal pipe would float or sink?
- What about a ship made of metal? Does it float or sink? Why?
- What toys do you have that you think will float? What toys do you have that you think will sink?

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Things that float and sink

Physical Sciences

In this book Suzie the Scientist helps us learn about the differences between things that float and sink. We learn that irrespective of size and weight some things will float and some things will sink. Suzie also helps us make predictions about common objects and events and reports the results in a data table.

Australian Curriculum: All books in the 'Suzie the Scientist' series are written for the *Australian Curriculum: Science* and align directly to what children learn in the classroom. This book addresses several learning outcomes from the Science Inquiry Skills and Science Understanding strands using the Physical Sciences sub-strand as the context.



WOW! Things that float and sink are cool! And so is science.

PARENTS, READ ALONG WITH SUZIE!

Throughout this book Suzie the Scientist tells us interesting scientific facts. Use these pages to encourage further interest and discussion about **things that float and sink** with your child.

Suggested Reading Level:



PM 7-9, Fountas & Pinnell E-F



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