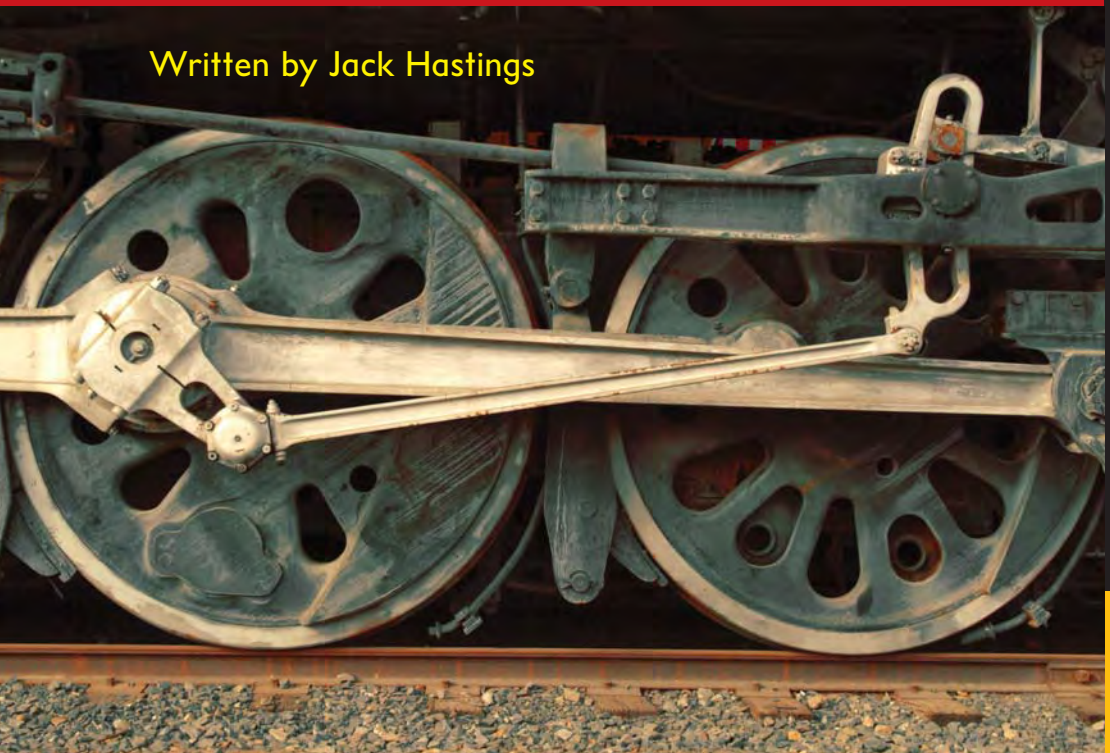
Teacher Edition

alphakids

Trains

Written by Jack Hastings



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How to use this book

The Alphakids Plus teacher editions support teachers as they guide children's reading and thinking during one or more guided reading sessions. Teachers can observe children as they read and choose from the given suggestions to suit individual needs.

Before reading

Setting the context, front cover and title page:

The suggestions help teachers to set the scene and prepare children for reading the book. Prompts help to determine children's prior knowledge. Where necessary, background information is provided. Teachers are encouraged to check that children understand the vocabulary listed and to discuss the meanings and/or the structures of these words. Previous experiences with similar text types may also be discussed.

During reading

Predict, Read, Reflect:

Questions encourage children to engage with the text by making predictions. They then read a section of the text and reflect on what they have read. The focus is on the content, language and text features of the book.

Observe and support:

Prompts help teachers to focus on the strategies children use as they read. Teachers can then select from and adapt the suggestions according to the needs of the individual child. The suggestions aim to develop a child's reading abilities. Interruptions to the child's reading should be minimal.

After reading

A selection of reading and writing activities:

The last pages of the teacher edition provide follow-up activities and include the assessment focus.

Selected text features

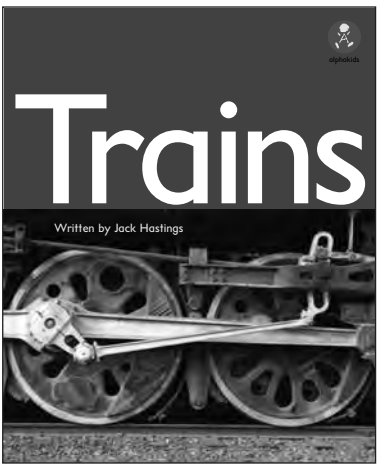
- A contents page is provided
- Colour photographs of a wide range of trains are provided

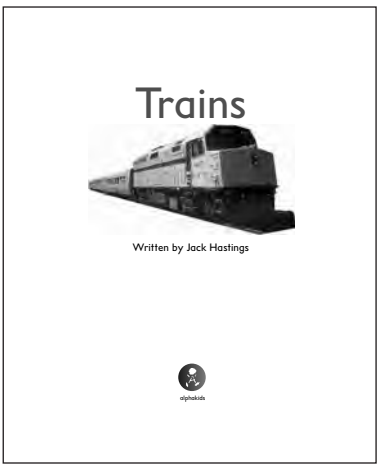
Vocabulary

attached, diesel, electric, engine, freight, Japanese, kilometres, maglev, magnetic, monorails, passenger

Setting the context

Have you ever been on a train? What was it like?
Have you ever been on a steam train? What was that like?
How was it different to the trains we usually travel in today?
What other kinds of trains are there?
List the children's suggestions on the board.





Front cover and title page

What kind of book do you think this is?
Why do you think that?
Ask children to discuss the photograph on the front cover of the book.
What does this picture show?
Now ask them to read the title.
This book tells us about how trains have changed over time.

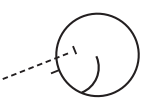
Predict

This is the contents page. What does it tell us? What do you expect to find out about in each section of this book?

Read to the end of page 3.

Reflect

What section would you like to read about first and why? What are the main headings?
Point out to children that the subheadings under 'Modern trains' are tabbed in so that they can easily be identified.



Observe and support

Can the child explain the purpose of a table of contents?
What is this page called? What is it for? Can you tell me where I would find the chapter on magnetic trains?

Contents

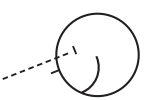
Predict

These first two sections are titled 'The first railways' and 'Steam trains'. What do you think the first railways were like? Do you think that they would have been comfortable to travel on?
How do you think steam trains work?

Read to the end of page 5.

Reflect

What was special about the first railways?
When was the first steam train built?
What do you think it would be like to travel on a steam train?



Observe and support

Ask one child to read aloud to you while the others are reading silently and check for phrased and fluent reading.
Can the child read the text with fluency?
Can you read this smoothly?
Assist children by modelling fluent reading for them if necessary.

The first railways

The very first railways did not have trains. Horses pulled wagons along tracks.

The tracks helped the wagon wheels run smoothly so the horses did not have to work so hard.

Horses pulling a wagon along tracks

Steam trains

The first steam engine to pull a passenger train was built nearly 200 years ago. It took two hours to travel 40 kilometres.

The early steam trains burned coal to boil water and make steam. The steam pushed rods attached to the wheels to make the train move along the tracks.

A steam engine

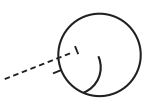
Predict

How do you think that modern trains are different to steam trains?
What do you think that trains carry?

Read to the end of page 8.

Reflect

What types of power do trains use?
What sorts of things do freight trains carry?
Why do freight trains use diesel fuel?



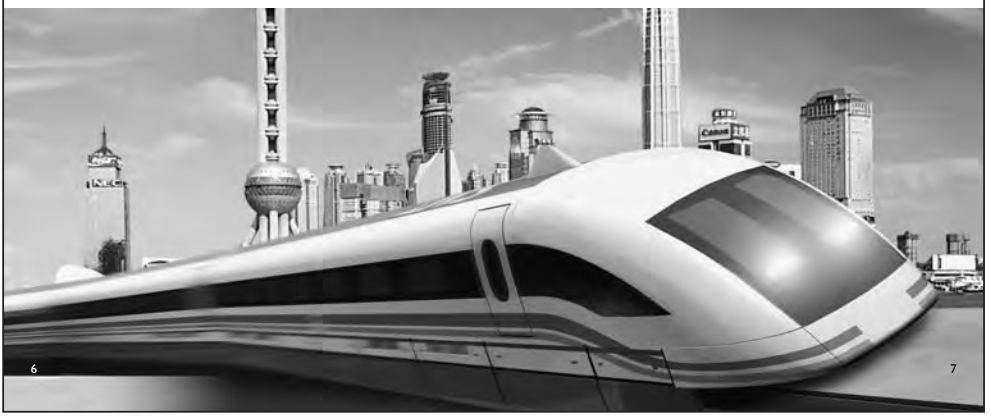
Observe and support

Can the child support their understanding of the text with direct evidence from the page?
What do freight trains carry? Show me where you found this information. This information can be found in the text and the pictures.

Modern trains

Trains have changed a lot over time.

They use different sorts of power to help them travel faster and use less fuel. Some trains use diesel fuel, some use electricity and some even use magnets.



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Diesel trains

Many trains use diesel fuel.

Trains that use diesel fuel have large, heavy engines that use less fuel than other engines.

Freight trains carry huge loads over long distances. They transport all sorts of things, like grain, steel, cars and timber. They often use diesel fuel.

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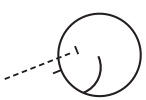
Predict

Look at the pictures on pages 10 and 11.
Where might you find electric trains? Do you think that these trains would travel faster than steam trains? Why?

Read to the end of page 13.

Reflect

How do electric trains get the electricity they need?
What are monorails?
What is the fastest train in the world?



Observe and support

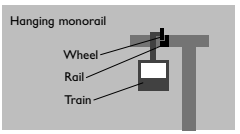
Can the child interpret the information to compare local trains with the trains in the book?
In what ways are your local trains the same as these trains? How are they different?

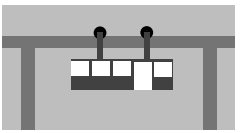
Electric trains

In many cities, passenger trains run on electricity.

The electricity comes from overhead wires or from an extra rail along the train tracks.

Some electric trains run underground through tunnels.





Some electric trains run high above the ground on only one rail. They are called monorails.

Some monorails have their wheels on the roof of the train instead of underneath. They hang from the tracks rather than running on top of them.

One of the fastest trains in the world is called the bullet train. It is a Japanese electric train.

It can travel at 300 kilometres per hour. It can carry more than 1000 passengers.

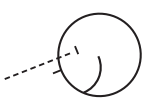
Predict

How do you think magnetic trains work?
What conclusion can you draw about trains and how they have changed?

Read to the end of page 16.

Reflect

What is a maglev train?
What do you think a ride on a maglev train would be like?
Who do you think would enjoy reading this book and why?



Observe and support

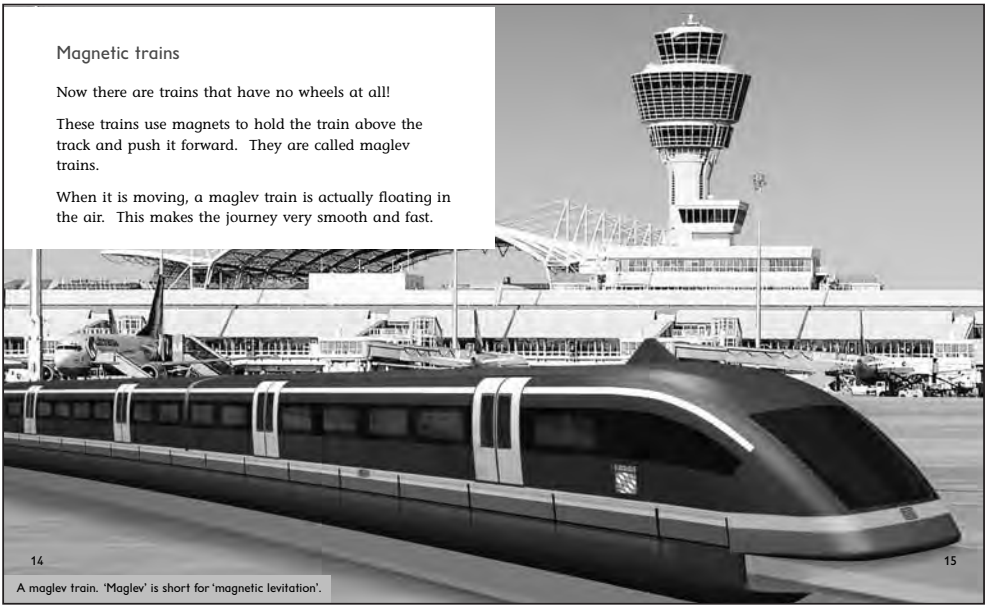
Can the child explain what they have learned by reading the book?
What do you know about trains from reading this book?

Magnetic trains

Now there are trains that have no wheels at all!

These trains use magnets to hold the train above the track and push it forward. They are called maglev trains.

When it is moving, a maglev train is actually floating in the air. This makes the journey very smooth and fast.



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A maglev train. 'Maglev' is short for 'magnetic levitation'.

Conclusion

Trains have changed a lot in 200 years.

In 200 years' time, they will probably have changed even more.

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After reading

Being a meaning maker

Encourage children to support their answers with evidence from the book as they discuss these questions:

What were the first trains like? How were they powered?
What types of trains are used today?
What are they used for?
Why do people need trains?

Being a code breaker

Explore the following language feature:

• the rhyme 'ain': brain, chain, drain, grain, main, pain, rain, strain, stain, vain

Being a text user

What did you learn about trains by reading this book?
Turn to the contents page.
What is this page called? What do we use it for?
What is on page 5?
Where would you look to find out about diesel trains?
Turn to the conclusion on page 16.
What do the yellow boxes beside the photographs tell us?

Being a text critic

Why did the author choose to write about this topic?
What did the author need to know to write the book? How might he have found this out?

Responding to text

Children could work in pairs to design their own futuristic train. Encourage the use of labels and signs to show the features of these trains. Provide cardboard, boxes, tape, pipe cleaners, craft sticks, plasticine, etc., for children to use.

Children could make a simple timeline showing how trains have changed over time. They could add a sentence to describe each train and its special features.

Make list of the technical words about trains from the book, e.g. steam engine, rods. Children could then illustrate each word to show its meaning.

Writing links

Shared writing

Ask children to re-read the section on modern trains. *What are the different types of trains?* Now ask children to work as a group to write about modern trains in their own words. *What are the differences between these trains? How can we say that?*

Independent writing

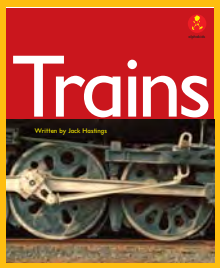
Discuss with children what today's trains are like. Ask them to imagine what trains may be like in the future. Children could divide their page into two and write about 'Trains now' on one side and 'Trains in the future' on the other. Children could then draw a picture of each train. Share these with the class.

Possible assessment focus

Can the child:

- say how local trains are the same as the trains in the book and how they are different?
- explain what they have learned by reading the book?
- say who they think would enjoy reading the book and why?

whole text activity sentence activity word activity



Teacher Edition

Topic: Trains
Curriculum link: SOSE
Text type: Report
Reading level: 21
Word count: 339
Vocabulary: attached, diesel, electric, engine, freight, Japanese, kilometres, maglev, magnetic, monorails, passenger

Possible literacy focus

Understanding the text at an interpretative level to compare local trains with the trains in the book. Understanding the literal meaning of the text.

Summary

This book is about the history and development of trains and railways. It compares and contrasts the first trains with modern trains.

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Other books at this level