



Teacher Edition

AlphaWorld

# Pushing and Pulling

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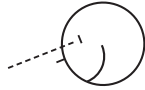
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## How to use this book



### Before reading: Talkthrough

Talk through the book with the children. Encourage them to predict the text from the cover and the pictures, and to think about the information provided. Direct the children's attention to aspects of the text that may challenge them. Support the children as they deal with these challenges by asking the *Talkthrough* questions on each page.



### During reading: Observe and support

Observe the children as they read and encourage them to monitor their own reading. Help the children to use reading strategies and cues to respond to reading challenges that arise in the text. Interruptions to the child's reading should be minimal and focused on a specific learning need.



### After reading: A range of comprehension and response activities

To develop children's understanding of the text, select from the activities found on page 12 and the inside back cover. These whole text, sentence and word level activities reinforce the teaching focus of this book. Assessment ideas are provided to assist with further teaching plans.

## Selected text features

- Contents page
- Introduction
- Colour photographs support the text
- Pictorial summary chart
- Index

## Vocabulary

caravan, carriages, cart, engines, heavy, light, pulling, pushing, trolley, tugboat, wheels

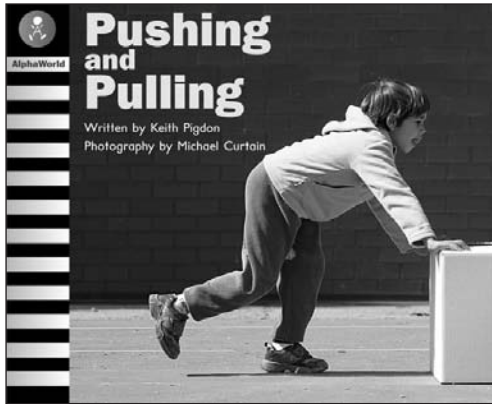
## Setting the context

Bring in a big box. Show it to the children and say:

*Imagine this box is full of books.*

*Would you be able to lift it?*

*How could you move the box of books into the next room?*



### Front cover

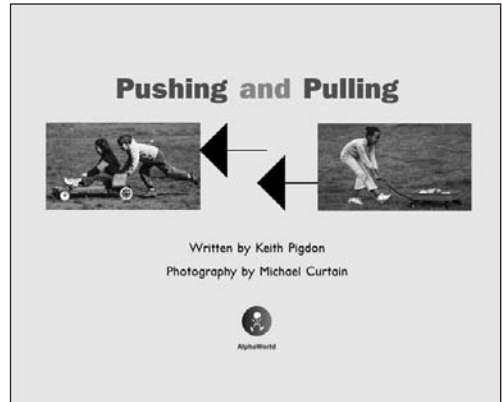
Show the front cover.

*This book is called Pushing and Pulling.*

*What is being pushed in the photo?*

*Does it look easy to push?*

*What could make it easier to push?*



### Title page

Turn to the title page.

*What information does the title page give us?*

*What do the arrows show us?*



## **Talkthrough**

Turn to the contents page.

*This is the contents page. It tells us what information will be in the book.*

Read the section headings.

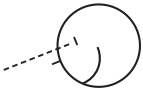
*What helps you push and pull things?*

Turn to pages 4–5

*These girls are pushing another girl in a billycart.*

*Would the girls be able to push the billycart if it had no wheels?*

*This is a simple diagram. Can you explain what it means?*



## **Observe and support**

Can the children use their understanding of letter-sound relationships to support their reading?

If any of the children cannot read a word, for example ‘heavy’, you might say:

*What letter does the word start with?*

*What sound might it make?*

*Check the end of the word.*

*Can you think of a word starting with the /h/ sound that would fit here?*

## Contents

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## Introduction

We move things by pushing them or by pulling them.

Heavy things are hard to move.

We can make it easier to move heavy things.





### **Talkthrough**

Turn to pages 6–7

*Do you think this box is light or heavy? Why?*

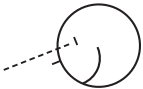
*If it was too heavy for the boy to push, what could be done to help him?*

Turn to pages 8–9

*Wheels make it easier to push things.*

*Would this girl be able to lift all of the things in her trolley?*

*What makes it possible for the girl to push this trolley?*



### **Observe and support**

Can the children read the text fluently?

Ask a child having difficulty to read aloud.

*Can you read the text so that it sounds like you are talking?*

*This will make it easy for me to understand the information you are reading.*

You might need to model reading the text fluently.

## Pushing things

Sometimes when we want to move things we push them.

When we push things, we move them away from us.

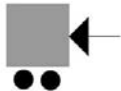
Most light things are easy to push.  
Most heavy things are hard to push.



## Pushing things with wheels

Wheels make it easier to push heavy things.

A shopping trolley has wheels. The wheels make it easier to push the trolley. The trolley would be too hard to push if it did not have wheels.



A cart would be too hard to push if it did not have wheels.





## **Talkthrough**

Turn to pages 10–11

*This boat has an engine and is pushing a heavy load through the water.*

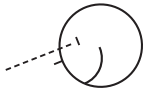
*What makes it possible for this boat to push such a big load?*

*What are the other machines in these photos doing?*

Turn to pages 12–13

*Here, the adult is pulling the child along. Why can't the child pull the adult?*

*How would it be possible for the child to pull the adult?*



## **Observe and support**

Can the children use the text and the photographs to gain information?

*What do all of the things in these photos have in common?*

*What makes it easier for these machines to push their loads?*

*What do the bulldozer and the train have that the boat doesn't have?*

*Why doesn't the boat need wheels?*



## Pushing things with engines

Engines help to push very big, very heavy things.

Many boats have engines. Engines help boats push heavy things through the water.



Bulldozers have engines and wheels. Engines and wheels help bulldozers push dirt and rocks.



Trains also have engines and wheels. They can push heavy loads.

## Pulling things

Sometimes when we want to move things we pull them.

When we pull things, we move them toward us.

Most light things are easy to pull.  
Most heavy things are hard to pull.





## **Talkthrough**

Turn to pages 14–15

*This cart has wheels. Wheels make it easier to pull things.*

*What is pulling this wagon?*

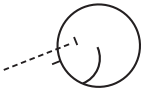
*Could the horse pull the wagon if it didn't have wheels?*

Turn to pages 16–17

*This section is called 'Pulling things with engines'.*

*These machines have engines. They can pull heavy things. What are these machines pulling?*

*Would they be able to pull these things if they didn't have engines?*



## **Observe and support**

Do the children use a range of strategies to work out new words such as 'carriages'?

*How did you work out the word 'carriages'?*

*What did you check?*

*What did you think about?*

If any of the children are having difficulty, you might say:

*Look at the picture.*

*Look at the beginning of the word. What sound might it make?*

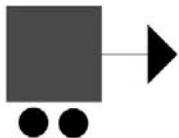
*What sort of word do we need here?*

*What would make sense?*

## Pulling things with wheels

Wheels make it easier to pull heavy things.

A cart has wheels. The wheels make it easier to pull the cart. The cart would be too hard to pull if it did not have wheels.



A wagon would be too hard to pull if it did not have wheels.



## Pulling things with engines

Engines help to pull very big, very heavy things.

Tugboats have engines. Engines help tugboats pull ships out to sea.



Trucks have engines and wheels. Engines and wheels help trucks pull heavy loads.



Trains also have engines and wheels. They can pull very heavy carriages.

Caravans have wheels. Cars have engines and wheels.





## **Talkthrough**

Turn to pages 18–19

*This is called a 'Summary chart'. It is a summary of the information in the book.*

*How has the author sorted the pictures?*

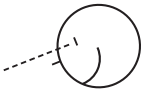
*What pictures are under each heading?*

*Can you think of another picture for each heading?*

Turn to page 20

*This is the index. An index helps us find information in the book.*

*An index lists the words in alphabetical order so that they are easy to find.*



## **Observe and support**

Can the children explain the purpose of an index? Are they able to use the index?

*What do the numbers next to the words in the index mean?*

*Why do some words have more than one page number next to them?*

*What would I do if I wanted to find information about ships?*

*Where would I find out about engines?*

## Summary chart

### Pushing



### Pulling

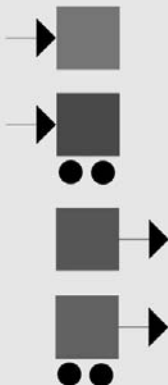


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11

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wagons 15  
water 10  
wheels 8, 11, 14, 15, 17



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## Pushing and Pulling



### After reading

#### Being a meaning maker

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

*What makes things easier to push?*

*What makes things easier to pull?*

*How do wheels make things easier to push? Can you give me an example?*

*How do wheels make things easier to pull? Can you give me an example?*

*What are some machines with engines that push things?*

*What are some machines with engines that pull things?*

*What is the difference between pushing and pulling?*

#### Being a code breaker

Explore the following language features:

- Words with the suffix 'ing': pushing, pulling, shopping
- Word families: 'ight' – fight, night, sight; 'ull' as in pull – bull, full
- Punctuation: capital letters, commas, full stops

- Compound words: bulldozer, sometimes, tugboat

#### Being a text user

*What sort of text is this?*

*What do you learn by reading it?*

*Is this a book you would recommend to someone else? Why or why not?*


#### Being a text critic

*What would the author have needed to know to write this book?*


*Does this book tell us about all things that are pushed or pulled?*


*How could you find out more about this topic?*

## Responding to text

 The children could work in groups to look through magazines for pictures to paste and/or draw things in the appropriate columns on a chart:

Pushing with the help of wheels	Pushing with the help of an engine	Pulling with the help of wheels	Pulling with the help of an engine

 Ask the children to look at the summary chart on pages 18–19. They could write a sentence under each of the headings to explain what the summary chart tells us.

 The children could list words from the book ending with 'ing'. They could then add to their list by looking through other familiar books.

## Writing links

After reading the book, use the children's ideas to construct a concept map showing all the things they know about pushing and pulling.

Read the following scenario to the children: *You have been given a big, heavy box that you need to get from school to your home. How would you do it?*


The children could write an instructional piece explaining how the box could be moved. Encourage them to use labelled drawings to help with their explanation.

## Possible assessment focus


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Can the children:

- compare the information in the book about pushing and pulling?
- use an index?
- share extra information gained from the pictures?
- interpret information from the summary chart?

 whole text activity

 sentence activity

 word activity

# Pushing and Pulling

**Topic:** Force/ Science

**Curriculum link:** Physical Science

**Text type:** Report/ Description

**Reading level:** 13

**Word count:** 291

**Vocabulary:** caravan, carriages, cart, engines, heavy, light, pulling, pushing, trolley, tugboat, wheels

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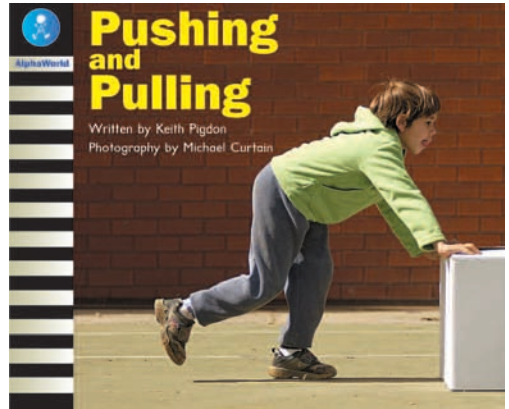
## Possible literacy focus:

- Comparing the different ways in which things can be pushed or pulled.
- Gaining extra information from the pictures to support understanding of the topic.
- Identifying and using words with the ending 'ing'.
- Interpreting information from the summary chart.
- Using an index.

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## ESL possibilities:

- Shadow read the text to focus on correct phrasing and attention to commas and full stops.
- Discuss the subtlety of meaning between 'easy' and 'easier'.



## Summary

This book describes and explains how we move things by either pushing them or pulling them. Wheels and engines make it much easier for us to push and pull things.

**AlphaWorld**



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