



What is gravity?

Book band: Gold

This book explores what gravity is, including how our weight would be different on different planets and how certain things overcome the pull of gravity.

Skills focus

- 1a Draw on knowledge of vocabulary to understand texts
- 1b Identify / explain key aspects of fiction and non-fiction texts, such as characters, events, titles and information
- 1d Make inferences from texts
- Monitoring understanding

Guided reading session

You will need

- Multiple copies of Collins Big Cat *What is gravity?*
- Reading Journals

Tune in

Ask children to look at the front cover and to read the title.

Ask: What do you think gravity is?

Explore children's existing knowledge and understanding of gravity.

Ask the following questions:

- Why do you think there is an astronaut on the cover?
- What sort of book do you think this is? (*non-fiction*)
- What features do you think it might have? (*contents, glossary, index, captions*)

Ask children to read the back cover blurb.

Ask them to find the contents page.

Discuss what a contents page is and how it is organised.

Ask them to find the section 'What is gravity?'

Read pages 2 and 3 aloud.

Ask them to point out the heading.

Ask the following questions:

- What do you think the photograph is showing us about gravity?
- Why are the words 'force' and 'attracts' in bold? (*They are in the glossary.*)

Challenge them to use the contents to find the glossary and to read the entries for 'force' and 'attracts'.

Ask the following questions:

- What is a glossary? (*a list of words with explanations*)
- How is a glossary organised? (*alphabetically*)

Focus on the index.

Ask the following questions:

- What do you use an index for? (*to find information in a book*)
- How is an index organised? (*alphabetically*)

Turn to and read pages 4 and 5.

Ask: What is keeping you on Earth? (*the gravitational pull between you and Earth*)

Ask children to look up the words in bold in the glossary.

Heads together

Ask children to read pages 6 and 7 and to prepare an explanation, in their Reading Journals, of what they have read.

They can then use the index to look up the International Space Station, read that page (page 8) and again prepare a brief explanation of the information.

Wrap up

Ask children to read their explanations.

Use these to monitor their understanding of what they have read.

Ask: What is the most interesting thing you have learnt so far?

Vocabulary boost session

You will need

- Multiple copies of Collins Big Cat *What is gravity?*
- Flipchart or whiteboard

Vocabulary table

Focus word	Child-friendly explanation	Example sentence	Tell me...
overcome	If you overcome something, you defeat it.	The man has overcome his fear of flying.	Tell me about something that you have overcome.
hover	If something hovers, it hangs in the air.	The bee was hovering over the flowers.	Tell me about something that could hover.
appear	If something appears to do something, it looks as if it is happening.	The parents appear to be enjoying the school play.	Tell me about something that appears to be happening.

Tune in

Ask children to remind you what the book is about.

Ask: What have you learnt about gravity so far?

Read pages 10 to 12, briefly explaining the meaning of the focus words as you read them. You may wish to use the information in the Vocabulary table above to help you.

Ask children to explain how rockets overcome gravity.

Ask: What do you think is happening in the photograph on page 12?

On the flipchart or whiteboard, write up the focus words, explanations and example sentences.

Ask children to read these.

Heads together

Use the 'Tell me' prompts in the Vocabulary table above to develop children's understanding of the focus words.

As they respond, ask further questions to build on their knowledge of the words and their meanings.

Wrap up

Challenge children to create their own sentences that contain the focus words.

Ask them to choose one of the focus words as their word of the week. Challenge them to use it as often as they can – both at home and at school.

Follow-up independent sessions

You will need

- Multiple copies of Collins Big Cat *What is gravity?*
- Reading Journals
- Multiple copies of Resource sheet: Quiz

Ask children to read pages 14 to 17.

They can discuss with their Reading Partner what life would be like on Jupiter.

They can record their ideas in their Reading Journals.

Ask children to read pages 18 to 20.

They can discuss with their Reading Partner what life would be like on the Moon.

They can record their ideas in their Reading Journals.

Ask children to look at pages 22 and 23 and talk with their Reading Partner about the information that is given.

Children can then do the quiz on Resource sheet: Quiz.

Resource sheet



Name: _____

Quiz

1. On which page can you find out about Isaac Newton?

2. Is gravity the strongest force?

3. How does an apple stalk overcome gravity?

4. How high above Earth is the ISS?

5. Does the Moon have stronger or weaker gravity than Earth?



Quiz answers

1. page 14

2. no

3. by holding the apple on the tree

4. 400 kilometres

5. weaker