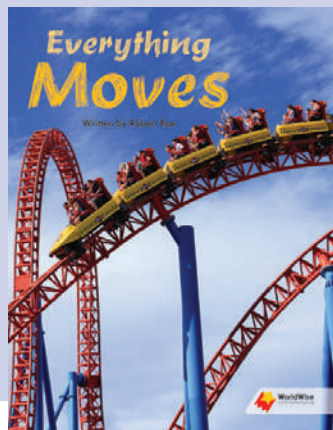


Lesson Plan

Advanced Fluent
reading stage
Level R



Everything Moves explores how the laws of motion are seen in everyday events such as kicking a ball, sledding, sailing and roller-coasting. The book focuses on how contact and non-contact forces lead to movement and how this movement interacts with the force of gravity and the effects of friction. It also introduces magnetism.

Informative text types:
Explanation/Report

Science Curriculum links

Australia

- **PS (ACSSU76)** Forces can be exerted by one object on another
- **PS (ACSSU76)** Effect of friction on different surfaces
- **PS (ACUSSU76)** Effect of forces on the behaviour of an object

New Zealand

- **PW:** The patterns associated with physical phenomena found in everyday situations involving movement, forces, electricity and magnetism, light, sound, waves and heat
- **PW:** The effect of forces (contact and non-contact) on the motion of objects

Key concepts

- All movement happens because of the application of a force
- Gravity is a force that exists between all things
- Pushes and pulls must overcome gravity and friction to move objects

Content vocabulary

acting, cancel, combined, energy, exert, forces, friction, glide, gravity, hulls, invisible, laws of nature, movement, plunge, pull, push, rubbing, sledding, slide, smooth, suspense

Text features

- Text boxes, captions, sidebar, glossary

Reading strategy

- Using a range of word-solving strategies

First reading session

Getting started

Introducing the book

Support the students in activating their prior knowledge. Ask: *What do you know about what makes things move? If you drop a ball, why does it fall?* Give each student a copy of the book *Everything Moves*. Direct them to pay attention to the cover, and the title and contents pages. Have the students browse through the book. Say: *As you browse through the book, think about what you know about this topic. What connections are you making?* Have the students discuss their thinking with the group.

Exploring vocabulary

Ask: *What words or phrases would you expect to see in a book about why things move the way they do?* Have the students work with a partner and record their words on a notepad. Say: *When you are finished, share your list with another pair. Talk about where you think you would find these words used.* If some words or phrases are not known to all in the group, have the student who recorded the word explain what it means.

Introducing the reading strategy focus

Say: *When reading books about science, it is not unusual to find words you haven't met before or words that have a meaning that is new to you. Knowing how to work out these words is important to getting the meaning from the book.* Ask the students to suggest strategies that they can use. List these on a table. Discuss how each strategy is used and why the students find it helpful.

Reading with teacher support

Say: *Read the introduction and chapter 1 to yourself. As you read, look for any words that are new to you or used in a way you did not expect. When you have finished reading, be ready to discuss your thinking with your partner.* Monitor the students as they read and support them where necessary. Have students share their thinking with the group. Ask: *What is a law? How might a rule of nature be the same as a classroom rule? How might it be different? How does thinking about this help you to understand what a law of nature is?*

Guide the students in filling out their Graphic Organiser. Say: *This Graphic Organiser will help you with your thinking. Think about the words you have read that are new or used in an unexpected way. Note these words on the Graphic Organiser. Use one or more word-solving strategies to work out what each word means, then check the strategy you used to solve the word on your page.*

Second reading session

Building understanding

Choose to have students either read independently or, if they need more support, to meet with you in a small group

Independent and partner work

Have the students read chapters 2 and 3 independently.

Say: *When you have finished reading, talk about your thinking with your partner, and then add to your Graphic Organiser. Share your Graphic Organiser with your partner.* On completion, have the students reread the whole book in preparation for the final reading session. Say: *Be ready to talk about your thinking and to discuss your questions and wonderings with the group.*

Reading with teacher support

Say: *Get yourself ready to read by thinking about what you have already read about how the laws of nature apply to how things move.* Have the students read chapters 2 and 3 to themselves. Invite the students to ask questions about what they have read.

Say: *Read chapter 2 to yourself. When you have finished, discuss your thinking with your partner.* Ask: *What have you learned about the laws of nature? What forces act on you when you run down a hill? What helps you to move? What helps you to stop? How does running down a snow-covered hill change this?*

Have the students read the rest of the book and complete their Graphic Organiser. On completion, have the students reread the whole book in preparation for the final reading session. Say: *Be ready to talk about your thinking and to discuss your questions and wonderings with the group.*

Reflecting on the reading strategy

Encourage the students to talk about what they did to help themselves as readers. Ask: *What words did you come across that were unfamiliar to you? What strategies did you use to work out what they meant?*

Final reading session

Bringing it all together

Have students talk about the whole book. Use a range of questions to promote discussion and higher-level thinking. Where appropriate, have the students lead the discussion.

In space, there is hardly any gravity or air friction. How would this affect your movements? What would happen to a ball thrown from a spaceship? (Inferential)

What forces work on a bird flying through the air? What forces act on a fish swimming up a river? How does understanding the way in which gravity and friction affects objects help you to move things? (Synthesising)

What purpose did the writers have when they wrote this book? How do you know? The writers used examples such as roller-coaster rides and sailing. Do you think these were good choices? Why? (Critical)

Invite students to ask their own questions.

Going beyond the book

Have students demonstrate their understandings by choosing one or more of the following tasks. The tasks can be completed independently, in pairs or in a small group.

Speaking and listening

Have students demonstrate a situation, not covered in the book, where motion happens e.g. sliding a book across the table. They then explain why the book behaves as it does according to the laws of nature.

Vocabulary

Have students return to their Graphic Organiser and check the words they recorded against dictionary definitions. How accurate were their word-solving attempts? Have the students write these words in sentences of their own.

Visual literacy

Have students discuss the use of arrows throughout the book. Why were these included? Do they add meaning to the text? Does this visual device work well? Why or why not?

Writing

Have the students write an explanation, using the prompt: *It's all about gravity*. Provide the students with a template detailing how to plan and write an explanation. Say: *Explanations answer questions a reader may have. Think about the questions a reader may have about how gravity affects the way things move. Think about what you will need to explain about other forces such as friction and pushes and pulls. What would be an interesting movement to explain?*

Planning to write an explanation

Name: _____

Getting started

What is my topic? _____

What do I want to explain? _____

Who am I writing for? _____

Where will I find information? _____

Planning my explanation

1. General statement

What am I explaining? _____

2. Explanation of the process

First _____

Next _____

Then _____

Finally _____

 **Hint:** Explanations tell *how* and *why* things happen. They use words like *as*, *because* and *result*. They use phrases that describe time.

Additional features I could use

- ☐ Maps to show location
- ☐ Text boxes to provide additional information
- ☐ Photographs and diagrams to support text
- ☐ Captions and labels to explain photographs and diagrams
- ☐ Time line to show history of key events

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WorldWiseReading.com.au/teacherresources

Download the template at

www.WorldWiseReading.com.au/teacherresources

Encourage the students to talk about their ideas with a partner. Use the template to remind the students about the structure of an explanation. Say: *You will need to make a general statement about the laws of nature. Then introduce each force's action in a logical order.*

Graphic Organiser: Unlocking words

Name/s: _____

As you read, notice any words that you don't know, are unsure of, or need to think about. Practise using word-solving strategies to learn these words.

After reading, check the word's meaning in a dictionary.

Word-solving strategies I used (check one or more)						
Word I didn't know or was unsure of	Reread and/or summarised	Thought about what would make sense	Checked the letters or letter chunks	Used glossary, pictures or other information on the page	Linked to a word I knew (list the word)	Other (list what you did)

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