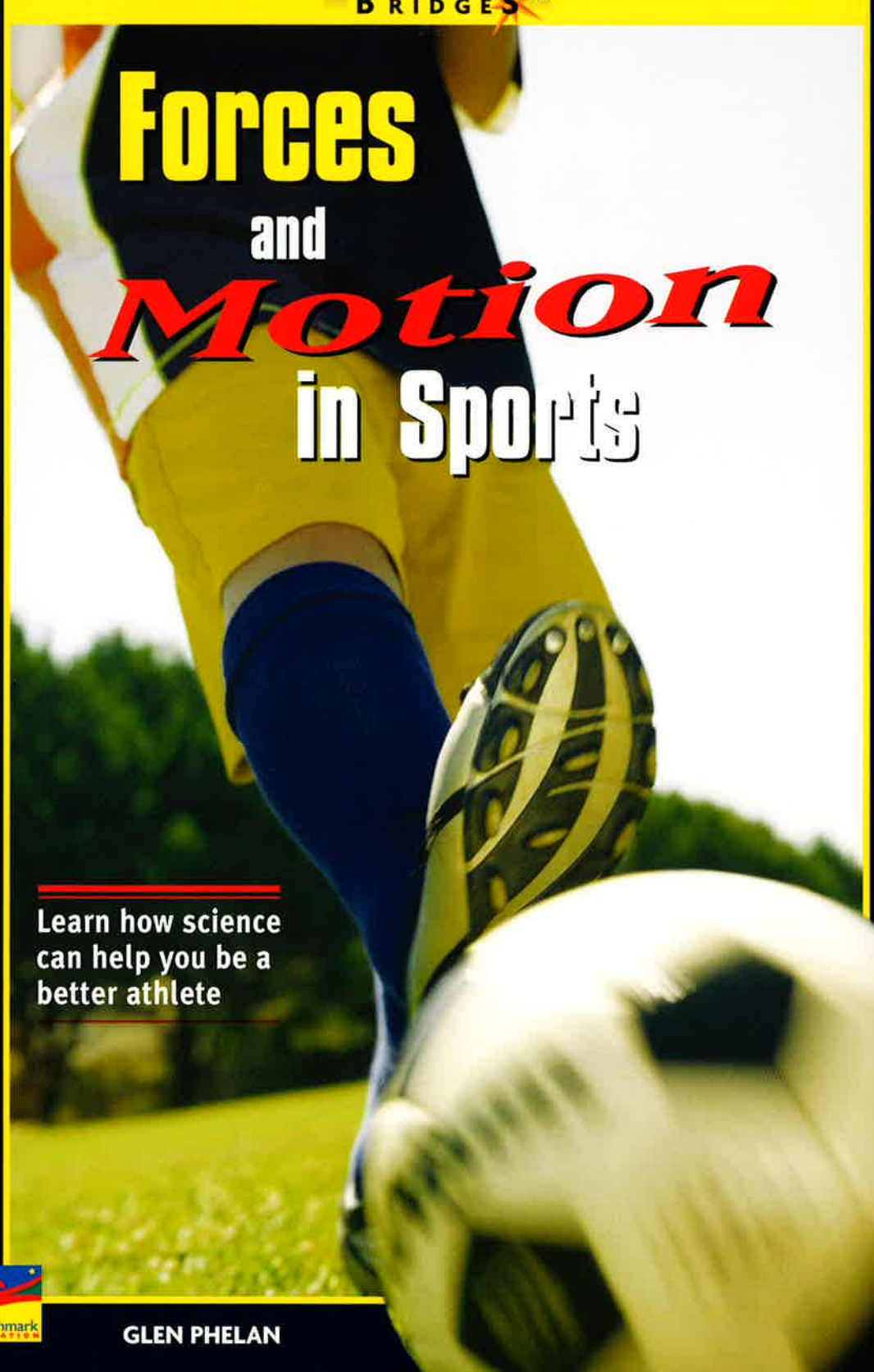
BRIDGES™

Forces and Motion in Sports



Learn how science can help you be a better athlete

GLEN PHELAN

Benchmark EDUCATION

SCIENCE
Forces and Motion
Level 40 Q

For teachers' inspection ONLY

READING

Comprehension Skill:
Analyze Text Structure and Organization

As you read, look for signal words that help you determine text structures such as compare and contrast, descriptions, sequence of events, and cause and effect.

Phonics/Word Study:
Long **e** digraph

As you read, look for words with a long **e** digraph like **hockey**. This sound in a syllable rhymes with the word **we**.

Look for these text and graphic features.

Text Features

- Table of Contents
- Introduction
- Sidebars
- Conclusion
- Glossary
- Index
- Information about the author
- Vocabulary words in boldfaced type
- Captions for photos, diagrams, and illustrations
- Bulleted lists. Pages 6, 22,
- Checkpoints. Check yourself to see that you understand what you have read. Pages 20, 29

Graphic Features

- Photographs
- Labeled Diagram. Page 11
- Table. Page 6
- Graph. Page 7
- Experiments. Pages 6, 22

SCIENCE

The Big Idea:

This book describes how forces and motion affect the way different sports are played. It tells how understanding forces and motion can help you be a better athlete.

Look for these special information features.

Content Sidebars

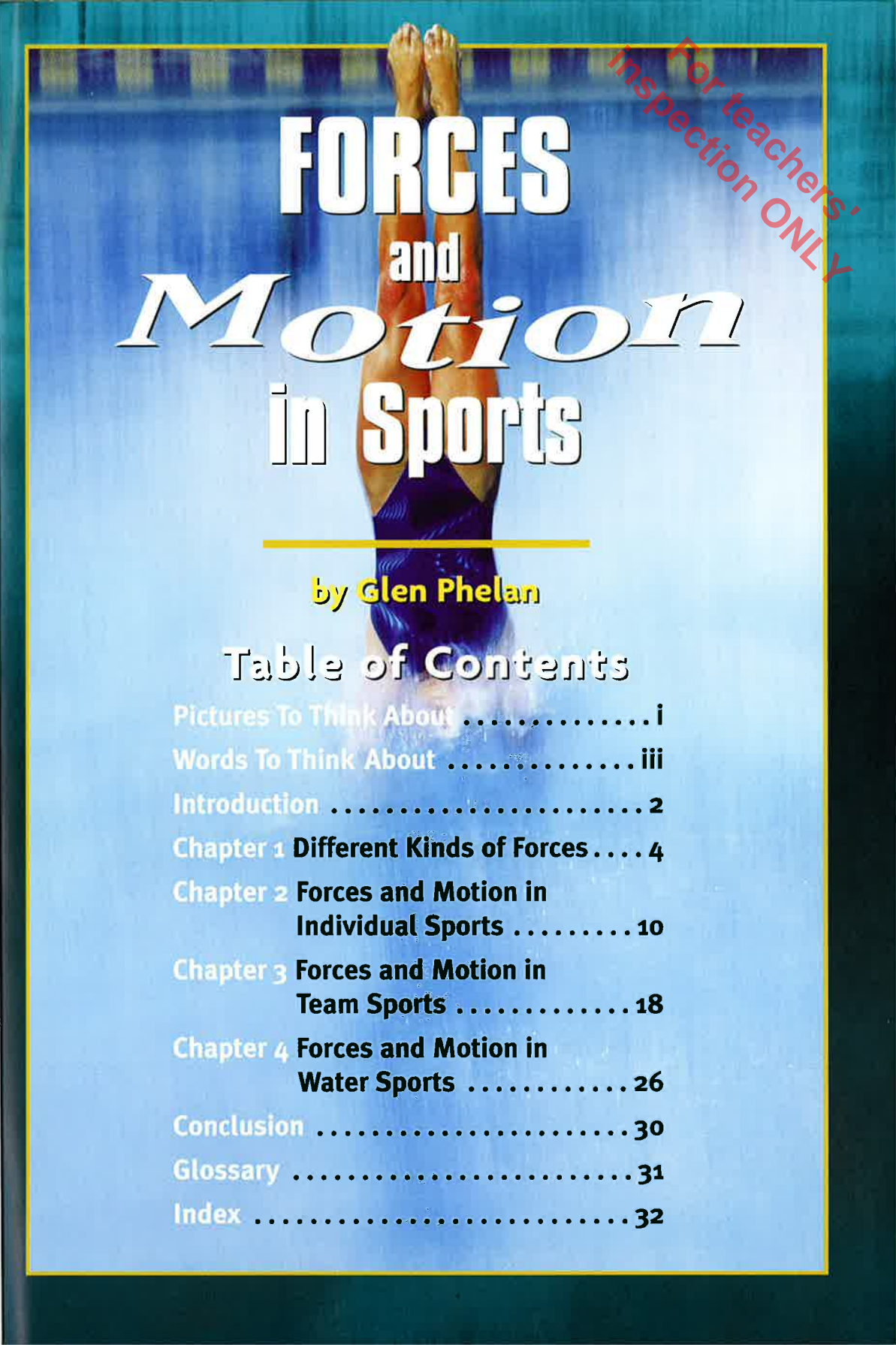
- It's a Fact. Interesting facts about forces and motion in sports. Pages 5, 9, 17, 27
- Solve This. Solve these math problems to learn more about forces and motion in sports. Pages 7, 12, 19
- Careers in Science. Learn about jobs for people interested in forces and motion in sports. Page 29
- They Made a Difference. Meet people who are important to forces and motion in sports. Page 17

Content Vocabulary

air resistance	gravity	motion	speed
balanced forces	inertia	muscle	unbalanced forc
force	mass	projectile	velocity
friction	momentum		

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ISBN: 978-1-4108-7657-7

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FORCES and Motion in Sports

For teachers' Inspection ONLY

by Glen Phelan

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Pictures To Think About

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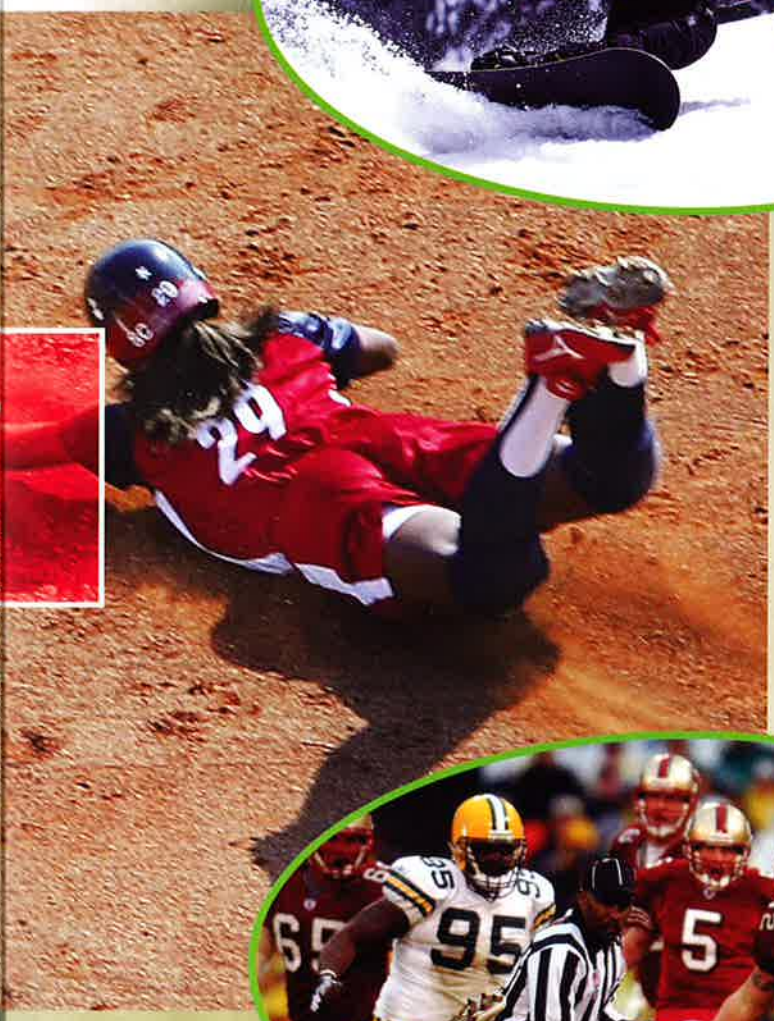






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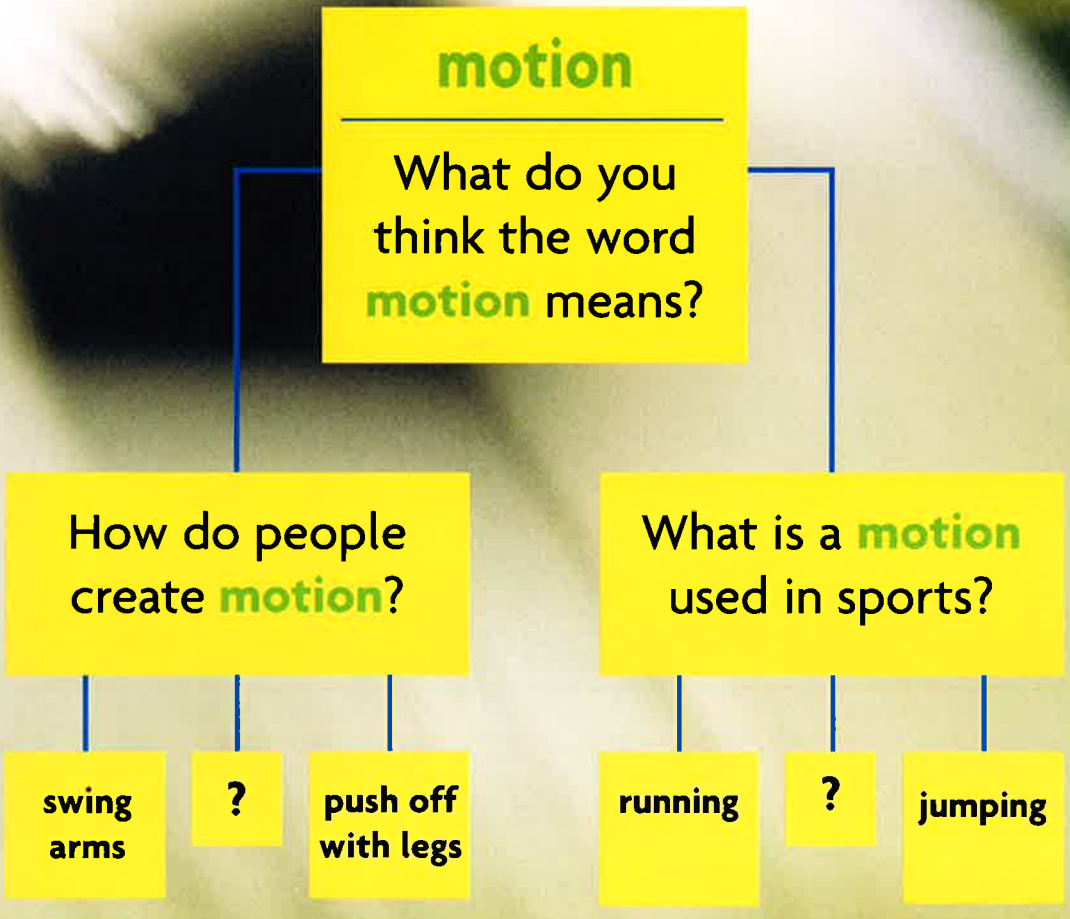
Words To Think About

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Read for More Clues
force, page 2
motion, page 2
velocity, page 14

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Introduction

WHUMP! The Broncos hit the volleyball over the net. It looks like a sure point for the Broncos. Then a Pirates player dives for the ball. He bumps it up into the air and a teammate punches it back over the net. What a save!

Volleyball is a game of **forces** (FORS-uz) and **motion** (MOH-shun). A force is a push or a pull. Forces make things move. The players use force to move the ball. The players also use force to move their own bodies. The players use force to create motion. Motion is any change in an object's position. Volleyball players know how to use forces and motion to play their best.

Do you play a sport? Do you want to be a better player? Then find out more about forces and motion. This book will show you how forces and motion work in sports.



▲ The defender (left) pushes against the floor to leap high into the air.