Lovereading4kids.co.uk is a book website created for parents and children to make choosing books easy and fun

Opening extract from

Football School: Where Football Explains The World

Written by

Alex Bellos & Ben Lyttleton

Illustrated by

Spike Gerrell

Published by

Walker Books Ltd

All Text is Copyright © of the Author and/or Illustrator

Please print off and read at your leisure.

Lovereading4kids.co.uk

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

To Maya, midfield marvel – A.B.

To ABC, with love – B.L.

First published 2016 by Walker Books Ltd
87 Vauxhall Walk, London SE11 5HJ

2 4 6 8 10 9 7 5 3 1

Text © 2016 Alex Bellos and Ben Lyttleton
Illustrations © 2016 Spike Gerrell

The right of Alex Bellos and Ben Lyttleton, and Spike Gerrell
to be identified as authors and illustrator respectively of this work has been
asserted by them in accordance with the
Copyright, Designs and Patents Act 1988

This book has been typeset in Palatino

Printed and bound in Great Britain by Clays Ltd, St Ives plc

All rights reserved. No part of this book may be reproduced, transmitted or stored
in an information retrieval system in any form or by any means, graphic, electronic
or mechanical, including photocopying, taping and recording, without prior
written permission from the publisher.

British Library Cataloguing in Publication Data:
a catalogue record for this book is available from the British Library

ISBN 978-1-4063-6724-9

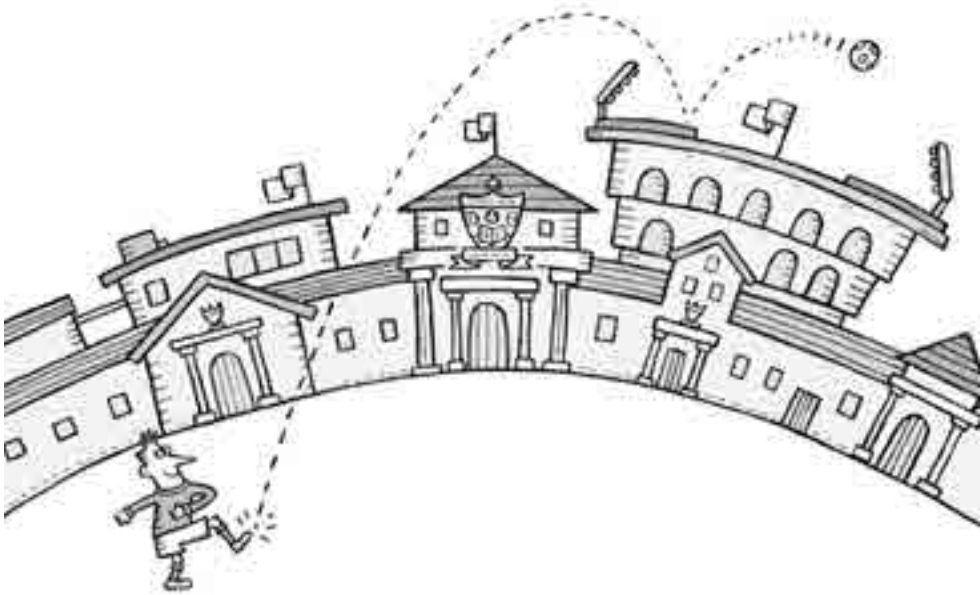
WALKER BOOKS

www.walker.co.uk

FOOTBALL SCHOOL

WHERE FOOTBALL ~~EXPLAINS~~ RULES THE WORLD

ALEX BELLOS & BEN LYTTLETON



Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

Welcome to Football School!

It's really great to meet you. I'm Alex.

And I'm Ben. We're your teachers.

But you can call us coaches – because this is not a normal school.

That's right! Every lesson here is about football.

The best kind of lesson! Because football is a great way to learn about the world.

You will learn stuff even your friends and parents don't know.

Like why geography makes Brazilians the most skilful players!

And how psychology can make you take the perfect penalty.

We'll give you a sniff of the biology of footballers' poo.

And show that sports photography is more than just clicking a button.

You're going to discover:

The art behind some of football's most famous kits.

The science of playing football on Mars.

And the mathematics of football deaths!

We have spoken to football experts: players, coaches, doctors ...

And a live eagle!

... in order to find the most fantastic facts and sensational stories.

Each subject has its own star pupil. They have unbelievable talent!

We've put a quiz at the end of each lesson. Go to the top of the class by answering the questions. But be warned – some of them are rather tricky! So keep your eye on the ball.

We hope that studying at our school will make you a better footballer.

And if not, we promise you this:

You'll definitely be a smarter one!

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

MEET YOUR COACHES

ALEX "BELLINHOS" BELLOS

"Tudo bem, amigo?"

coach stats

Birthplace: Oxford
Countries lived in: UK, Brazil
Home: London
Siblings: Two little sisters
First football memory: Scotland qualifying for the 1978 World Cup
Favourite football memory: Being in Rio de Janeiro when Brazil won the 2002 World Cup
Position: Right midfield
Real job: Writes books about maths, puzzles and Brazilian football
Dream job: Explorer
Supports: Paysandu Sport Club (Brazil)
Footballer pal: Pelé
Trick: Really good at calculating times tables. And league tables. And goal difference...

BEN "THE PEN" LYTTLETON

coach stats

Birthplace: London
Home: London
Siblings: One older brother
First football memory: Finishing my first Panini sticker album in 1981
Greatest football moment: Scoring a penalty in front of 25,000 fans
Favourite kit: Roma away, 2014–2015
Position: Left midfield
Real job: Football writer and pundit. Also a penalty expert
Dream job: Footballer
Supports: Littleton FC (Midland League Division One)
Footballer pal: Antonin Panenka
Trick: Never misses a penalty

"Penalty, ref!"

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

TIMETABLE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
REGISTRATION			8.30–8.40AM		
LESSON 1	BIOLOGY 10–19	ZOOLOGY 42–53	DESIGN TECHNOLOGY 88–97	PHOTOGRAPHY 132–143	POLITICS 174–185
LESSON 2	ENGLISH 20–31	PHSE 54–65		BUSINESS STUDIES 144–153	
LESSON 3		HISTORY 66–77	GEOGRAPHY 98–109	FASHION 154–163	MUSIC 186–195
LESSON 4	MATHS 32–41		DRAMA 110–119		
LUNCH			1.00–2.00PM		
LESSON 5	MATHS	PSYCHOLOGY 78–87	PHILOSOPHY 120–131	COMPUTER SCIENCE 164–173	PHYSICS 196–203

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

Monday
Lesson 1

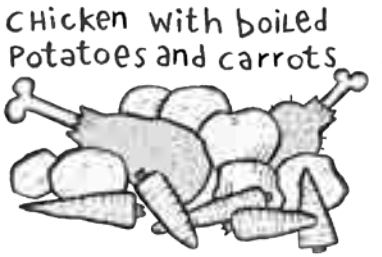
BIOLOGY

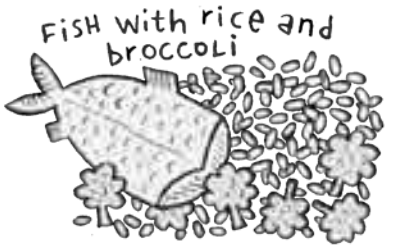
Welcome to the first lesson of the week at Football School. We're going to begin with the wonderful – and whiffy! – subject of poo.

Footballers take their digestive systems very seriously. Not only do they need to eat the right food so they stay fit and healthy, they also need to think about their poo. No one wants to be caught out in the middle of a game, as you can't rush to the toilet with 50,000 fans watching you. So top footballers plan when to go to the loo.

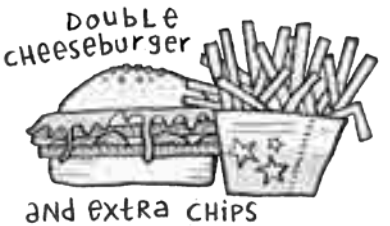
FARE PLAY

There are two parts to planning a poo. You need to eat the right sort of food, and you need to eat it at the right time. Footballers have special food doctors – called nutritionists – who make sure they eat properly. Here are two main meals often served before a match:





And here are two meals that would never be served before a match:



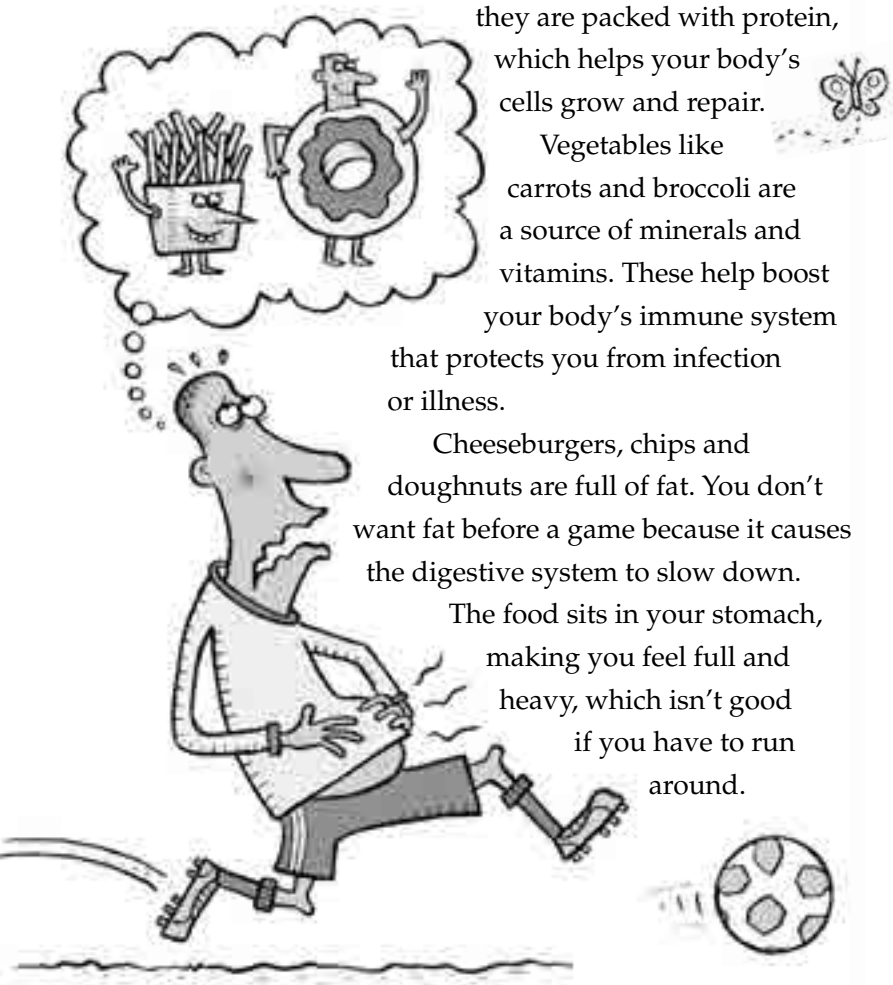
Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

Food gives you the energy and the nutrients you need to survive. Potatoes and rice are served before matches because they contain lots of carbohydrates, which give you energy. Since you need lots of energy to run around for 90 minutes chasing a ball, footballers will have extra large helpings of potatoes and rice.

Footballers also eat lots of chicken and fish because they are packed with protein, which helps your body's cells grow and repair.

Vegetables like carrots and broccoli are a source of minerals and vitamins. These help boost your body's immune system that protects you from infection or illness.

Cheeseburgers, chips and doughnuts are full of fat. You don't want fat before a game because it causes the digestive system to slow down. The food sits in your stomach, making you feel full and heavy, which isn't good if you have to run around.

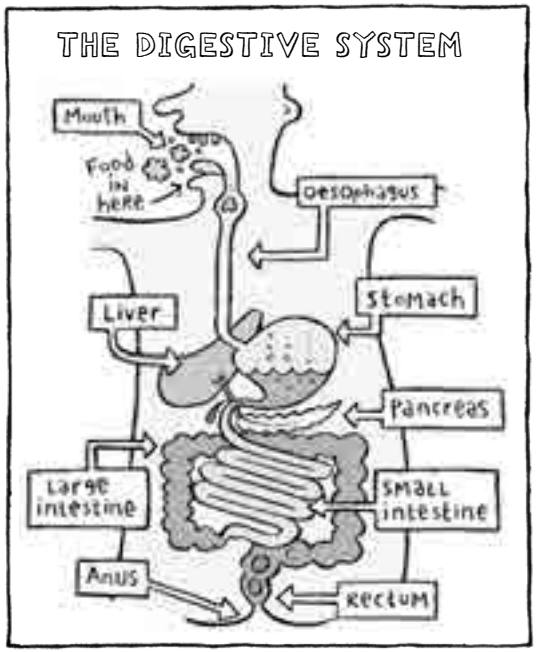


TOILET TIMINGS

In order to perfectly time a poo you need to plan when you eat. Clubs make sure their players eat a meal THREE HOURS before a game. This allows plenty of time for the food to pass through the digestive system.

The digestive system is the part of your body that takes in food, breaks it down, absorbs the nutrients and, last but not least, makes poo.

The journey starts with food entering the **mouth**. After you give it a good chew, the mashed-up food plummets down a long tube, called the **oesophagus**, to the **stomach**. There it is churned around and chemicals in the stomach break down the food, with the help of other organs such as the **liver** and **pancreas**. The final stage is the **small** and **large intestines**, where the nutrients are absorbed into the blood and what remains is expelled through your **rectum** and **anus** (your bum) as poo. In an adult, the oesophagus, stomach and intestines – what we call our gut, or **alimentary canal** – is about nine metres long.

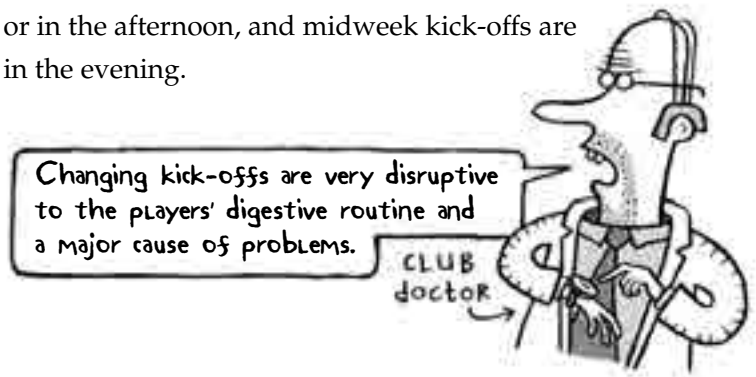


Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

GET IT ALL OUT

By the time it's kick-off, a footballer's meal will have been completely broken down and any waste food will be ready to poo out. At one of the biggest clubs in the Premier League, there is a secret, malodorous ritual before a game starts. The players have a pooing procedure. They go to the toilet cubicles in a pre-determined order, partly based on seniority in the team. The most senior person poos first – for obvious, smell-related reasons! Then with empty stomachs they are ready for the game.

But it can be difficult to fix mealtimes (and pooing times) for footballers because kick-offs are spread throughout the day. Weekend kick-offs are at lunchtime or in the afternoon, and midweek kick-offs are in the evening.



TUMMY TERROR

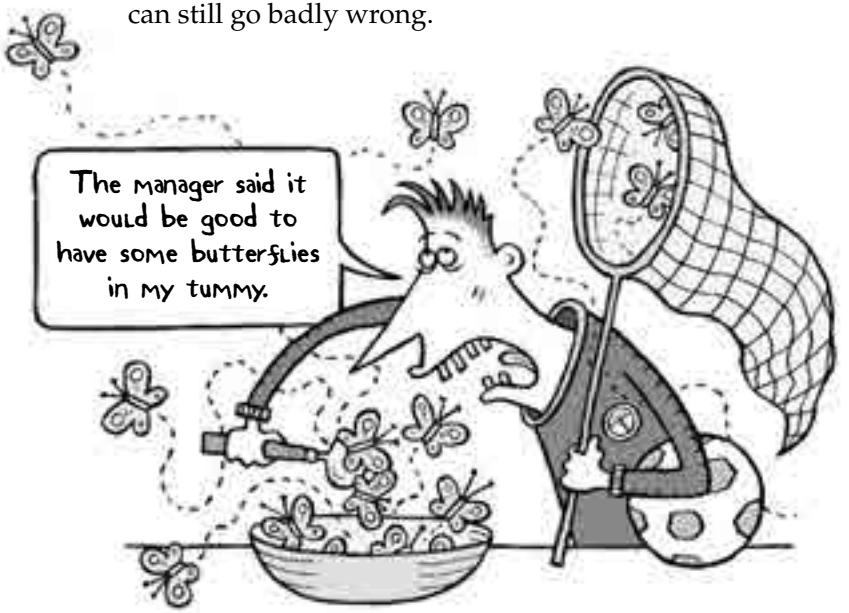
There's another reason why footballers tend to poo just before games, no matter what food they have eaten: fear.

When you get really, really scared, you want to poo. And just before a big match, a footballer will be full of fear. They will be scared of playing badly and losing.

Fear triggers funny feelings in our bellies because of an inbuilt survival system common to all animals. Imagine you are an animal minding your own business and all of a sudden another, bigger, nasty-looking animal appears in your path. You need to make an instant decision about whether to fight it or to run away. In either case – fight or flight – your muscles must be ready, so the body will start diverting blood to them.

Whenever humans sense danger and get scared, like a footballer before a game or a student before an exam, we respond in the same way. Blood is diverted to our muscles, we produce a chemical called adrenaline and the chemistry of our body is altered, making it feel extra sensitive. This also causes tension in our gut, which is what gives us that butterfly sensation, and can make us flee ... to the loo.

Remember, anyone can get butterflies in their stomachs – even the most famous footballers in the world. And sometimes, despite all this pre-match planning, pooing can still go badly wrong.



Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

HAVE WE GOT POOS FOR YOU

WIPE

Gary Lineker was one of England's best ever strikers. At the 1986 World Cup, he scored six goals and won the prize, known as the Golden Boot, for top scorer. But the 1990 World Cup started quite, well, poo-rly for him. "I tried to tackle someone, stretched and relaxed myself and erm..." Lineker said of the moment he pooed himself on the pitch against the Republic of Ireland in England's first game of the tournament. "I was not very well, I was poorly at half-time. I was very fortunate that it rained that night so I could do something about it, but it was messy. You can see myself rubbing the ground like a dog trying to clean it. It was the most horrendous experience of my life." There was some good news: the Irish players did not want to get too close to him. "I have never found so much space after that in my life," he laughed.

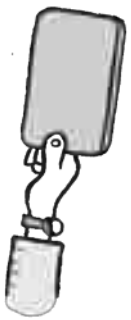
FOUL

Mexico were drawing 1–1 with local rivals the USA in 2011 and there were just a few minutes left to play when Mexican midfielder Omar Arellano bent down to adjust his socks. As the TV cameras panned in for a close-up, there was a surprise for viewers: a suspicious-looking

brown stain on the back of his white shorts, which was aired around the world.

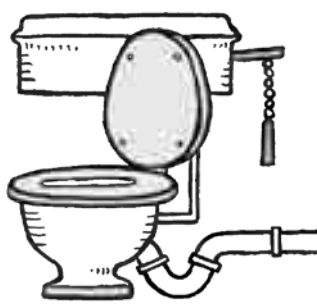
YUK

"I was on two lots of antibiotics at the time for a kick on my leg, which resulted in an upset stomach," said Welsh midfielder Robbie Savage about the day his Leicester City team played Aston Villa in the Premier League in April 2002. "I had a bad case of diarrhoea on the day of the game, so had to go there and then, and the nearest place was the referee's toilet." It was an expensive decision: the referee, Graham Poll, reported him to the Football Association for "improper conduct" and Savage had to pay a £10,000 fine.



CHEEK

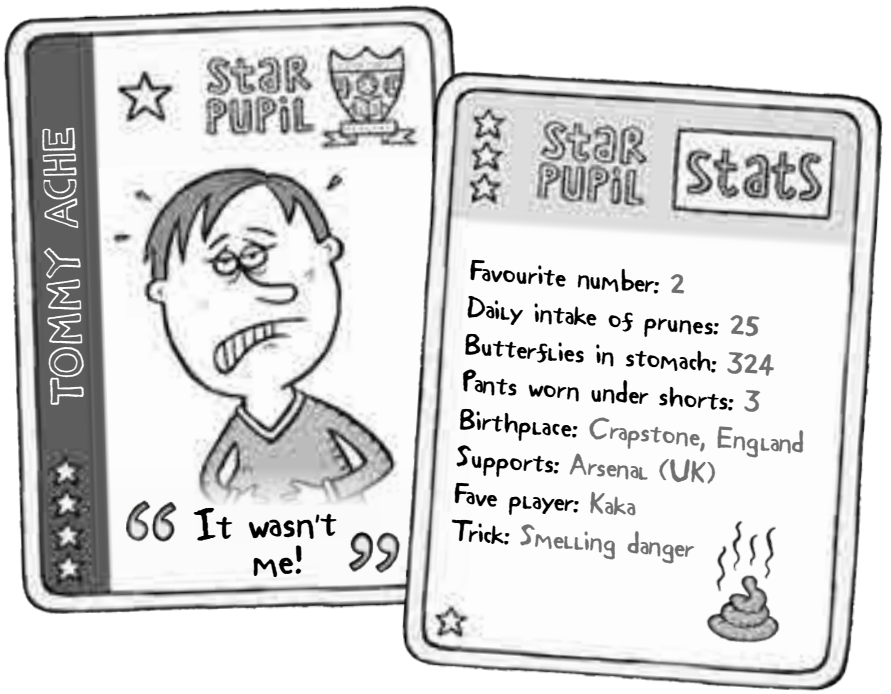
English winger Jason Puncheon ran off the pitch in the middle of the second half during a Premier League game for Southampton against Everton in 2013. He returned a few minutes later with a grin on his face and the fans chanting a song that suggested he had gone for a poo. Puncheon appeared to confirm their suspicions when he celebrated scoring his next goal a couple of weeks later: he ran to the corner flag, bent down and pretended to wipe his bum.



Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

DOGGIE DOO

Football is not the only sport where poo is better out than in. In greyhound racing, it is said that the dog who does a poo just before the start will win the race. Fans like to keep a close eye on the dogs just in case any of them start to squat…



BIOLOGY QUIZ

1. Which of the following is NOT part of the digestive system?

a) Oesophagus
b) Stomach
c) Liver
d) Nose

2. If an adult stretched out his or her intestines they would be as long as:

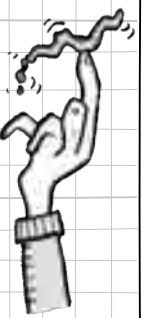
a) the height of a goal post.
b) the width of a goal.
c) the width of a football pitch.
d) the distance from the centre circle to the nearest toilet.

3. How many times will a person fart on average every 100 minutes?

a) 0 times
b) 1 time
c) 10 times
d) 100 times

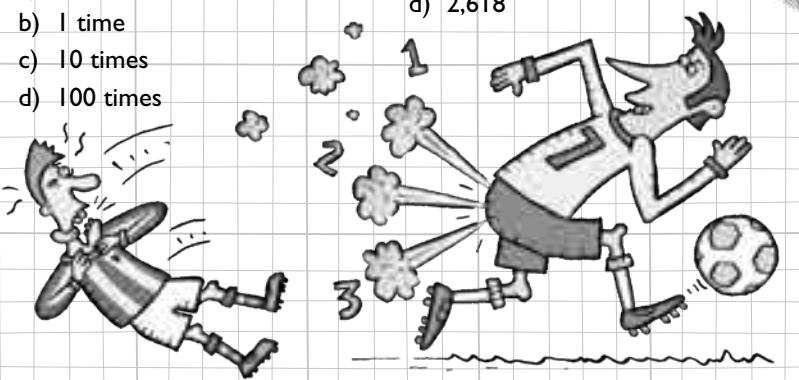
4. What was Brazilian striker Ronaldo caught doing while playing in a match at the 1996 Olympic Games?

a) Eating his bogey
b) Farting in an opponent's face
c) Weeing out of the side of his shorts
d) Burping at the referee



5. Wembley Stadium has more toilets than any other stadium in the world. How many does it have?

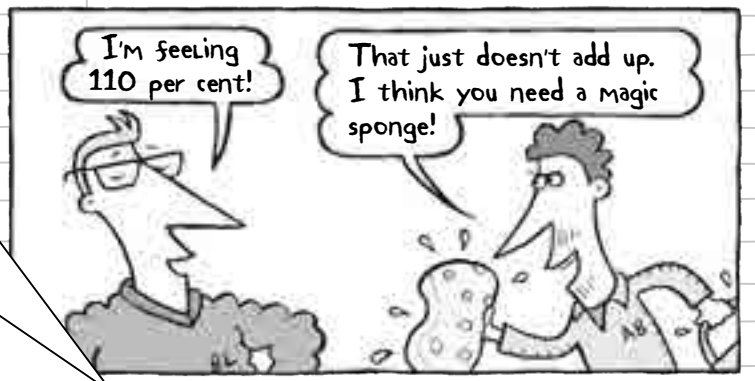
a) 418
b) 818
c) 1,318
d) 2,618



Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

Monday
Lesson 2+3

ENGLISH



This lesson is about the language of football. In order to enjoy the game, you need to be able to talk the talk. Can you tell the difference between a howler and a screamer? No, it's not about the noise they make.

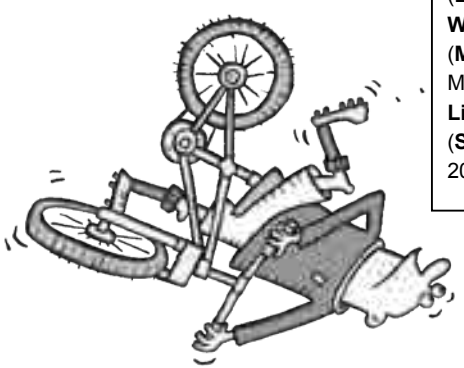
Football language is famous for its **clichés**, which are expressions that are used so much they become completely unoriginal things to say. An example is "it's a funny old game". You may have spotted a few in our cartoon.

Today we are looking at the *ABCD*, which is short for *Alex and Ben's Classroom Dictionary*. It is full of football **jargon**, which is the special language that is not understood by outsiders. We explain some of the intriguing origins of these words and phrases. The vocabulary will help you understand the game at a deeper level. It will also mean that when you listen to commentators or professional players, you will be able to understand the words they are using – even if they are talking nonsense, which they often are!

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.

4-4-2 • a tactical formation that refers to four defenders, four midfielders and two attacking players in the starting eleven. Goalkeepers are not mentioned as everyone knows they are there. 4-4-2 has traditionally been the most common formation in English football, although today's teams often play with four defenders, two defensive midfielders, three attacking midfielders and one centre-forward. This formation is called a 4-2-3-1.

the beautiful game • a phrase often used to describe football. It's an English translation of the Portuguese phrase "o jogo bonito", which was made famous by Alex's mate, the Brazilian footballer Pelé.



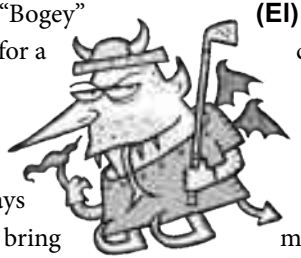
bicycle kick • a kick where the player jumps and swings one foot to kick the ball over their head while their body is horizontal. At the moment of the kick it looks like the player is riding an imaginary bicycle in the air. The bicycle kick is not to be confused with the overhead kick, which is when the player hangs vertically upside down to kick the ball.

Key players

➤ Famous bicycle kicks

Mark Hughes
(**Wales** v. Spain, 1985)
Jean-Pierre Papin
(**France** v. Belgium, 1992)
Peter Crouch
(**Liverpool** v. Galatasaray, 2006)
Wayne Rooney
(**Manchester United** v. Manchester City, 2011)
Lisa De Vanna
(**Sky Blue** v. Boston Breakers, 2013)

bogey team • "Bogey" is an old word for a ghost, goblin or evil spirit. A bogey team is one you always lose to, or who bring you bad luck. In golf the word is also linked to bad luck: a bogey is a score of one more than the expected score, or par, for a hole. In neither case are bogeys related to the green stuff that comes out your nose.



brace • when two goals are scored by the same player in the same match, it is called a brace. This comes from the French word for arms ("bras"), of which we have two.

catenaccio • a system of defensive play invented in Italy that uses an extra player behind the defence to ensure all attacks on the goal are blocked. When the strategy works, the attacking side cannot get through. "Catenaccio" is Italian for "doorbolt".

(El) Clásico • most commonly used to mean a match between Spanish clubs Real Madrid and Barcelona. It can also mean any match between two rival teams, usually from the same area, in Spanish-speaking countries such as Argentina or Mexico.

clean sheet • when a team doesn't let in any goals in a match. In America, this is known as a shutout.

derby *(pronounced **"darby"**)* • a match between two teams from the same area. The word comes from the 12th Earl of Derby, who founded a famous horse race in 1780 at Epsom, near London, which is still held

Copyright © 07/2016 Walker Books Ltd. 87 Vauxhall Walk, London SE11 5HJ. All rights reserved.