



Football At Altitude

High in the Andes mountains of South America are the world's highest football grounds. The highest of them all is in Peru. It is 4380m above sea level. That is over three times higher than the highest mountain of the United Kingdom (Ben Nevis) and 26 times higher than any of the Premier League grounds! In second and third place are two stadiums in Bolivia. They are both over 3,500m above sea level. Playing football in these mountain kingdoms is challenging. Some people worry that it is unfair or even dangerous.

Football is very popular in South America. Brazil, Argentina or Uruguay have won 9 out of the 21 World Cups. Bolivia, on the other hand, has been less successful. It has only qualified for three World Cups, has never progressed beyond the first round and has only scored one goal in the tournament but in 2009, Bolivia beat Argentina in a World Cup qualifier by 6 goals to 1. They have also triumphed against Brazil and Uruguay. However, all of these victories took place when the match was held at Bolivia's national stadium in La Paz. This stadium is 3637 metres above sea level. In fact, when Brazil have played Bolivia in La Paz, they have never won and Argentina have only managed to win once in five games. Those are some surprising statistics. Why is one of the weakest teams in South America defeating the giants of South American football when they play at home?

Many teams have an advantage when they play at home. There are various reasons for this: they do not have to travel; they have the best dressing room; and they have the support of their home crowds. But Bolivia have an extra advantage when they play at home. They are acclimatised to life at over 3000 metres and their opponents are not. At high altitude, the air is thinner and there is less oxygen to breathe. Even walking can feel hard work if you are not used to it. Now imagine playing an important football match! To make matters worse, the ball moves faster in the thinner air. This makes it harder for players not used to the conditions to judge their passes, shots or saves.

In 2007, FIFA introduced a ban on international matches being played at



altitudes above 2500 metres. They decided it unfair and potentially harmful to players' health to have to cope with the thin air. This ruling stopped matches being played in stadiums in Bolivia, Ecuador and Colombia. Many people thought that this was unfair. They argued that other stadiums can have challenging conditions too. For example, some places have very hot or cold temperatures or polluted air. They said that professional players should be prepared to face all of these challenges, including playing at high altitude.

In the end, the ban on playing at high altitude was reversed. For now, the Andes will continue to host top-flight football.

VOCABULARY FOCUS

1. What does 'altitude' mean?
2. What does 'acclimatised' mean?
3. What word means *the team you are playing against*?
4. Which word tells us the ban on high altitude football was cancelled?
5. What is meant by *top-flight football*?

VIPERS QUESTIONS

R

Where is the world's highest football ground?

E

Why does the writer compare the football grounds with Ben Nevis?

R

Which South American teams are the most successful?

S

Why was it surprising when Bolivia beat Argentina?

I

Which other three teams besides Bolivia might have an altitude advantage over Brazil and Argentina when playing at home?



Hiram Bingham's rediscovery of Machu Picchu

24th July 1911.

Dear Diary,

I feel like I have trekked to another world today. I am exhausted but must commit my experiences to paper whilst they are still fresh. Otherwise, I fear I may begin to doubt them myself by the time morning comes.

As the day dawned, rain was falling steadily. The cloud hung like a veil concealing everything from view. Our spirits matched the weather. All of us were dreaming of our homes far away in America. However, we had met a farmer named Melchor Arteaga. He said he could lead us to ruins up the mountain which he called 'Machu Picchu'. I knew I could not turn down this opportunity, however hopeless it felt. Not if I was to find The Lost City of the Incas. So, despite our dejected moods, we set off.

The rain had turned the trail into a quagmire. Mud clung to our boots, weighing them down like lead. It felt as if every arduous step forward was rewarded by a miserable slide backwards. This truly was an unforgiving mountain. However, as we emerged into a clearing, I was shocked to find a hut. A family of farmers stared wide-eyed at me. People were living up here!

I'm not sure if I was relieved or dismayed when Arteaga succeeded in recruiting the farmer's son to lead us the rest of the way to the ruins. It appeared that our day was far from over. The young lad led us yet further up the mountain. My heart was bursting from my chest with the effort of it. By the time our guide signalled that we could stop, I felt as if all the breath had been squeezed from me. Then, as I looked up, the sight in front of me snatched the last gasp from my lungs completely.

My eyes could not take in the scale of it. Through the thick blanket of vegetation, I could make out layer upon layer of granite terraces jutting from the slopes of the mountain.



I instantly found a new burst of energy. We wondered amongst the walls. The boy showed me the entrance to a cave lined with finely-carved stonework. A tower rose up above it – a temple surely. I could only marvel at the way the stones interlocked perfectly. Despite its size, the whole structure seemed to flow gracefully and in perfect symmetry. It is as if it had grown from the mountain itself. I can only imagine how magnificent it will be once excavated, cleared and cleaned up. I am determined to return to complete the work and discover what other secrets and artefacts we can uncover. But first, sleep is calling me - I will dream of wonders I am sure.

INFERENCE FOCUS

1. Why was Hiram Bingham shocked when he came across the hut?
2. How do you think the farmers felt when they saw Hiram Bingham? Why?
3. Why was Hiram Bingham unsure whether he was relieved or dismayed when the boy agreed to take them up the mountain?
4. How can we tell that the Incas, who built Machu Picchu, were skilled builders and craftsmen?
5. How does Hiram Bingham's mood change throughout the day?

VIPERS QUESTIONS

R

What was Hiram Bingham looking for?

V

What is a quagmire?

V

What does *arduous* mean?

E

Which phrase or phrases show how the mood changed when the expedition arrived at the ruins?

P

What do you predict that the boy who took the explorers to the ruins made of Hiram Bingham's reaction?



The Andes

The Andes, in South America, is the longest mountain range in the world. It runs from north to south and passes through seven different countries. It starts in the Caribbean rainforest in the north and ends in the ice and snow of the south. It is the highest mountain range outside Asia and has the highest mountain in the Americas (Aconcagua). It also has the tallest active volcano in the world (Ojos del Salado). As if that was not enough, it has the highest lake in the world (Lake Titicaca) and the largest salt flat too (Salar de Uyuni). What a record-breaker!

The Andes range was formed by the movement of the Earth's tectonic plates. These plates are pieces of the Earth's crust. They float on the liquid mantle underneath. When two plates move towards each other, one plate is forced under the other. The land is pushed and folded upwards over millions of years. This results in mountain ranges like the Andes. It also causes earthquakes and volcanoes. Earthquakes are common for people living close to the Andes. Most are small and do not cause much damage. Others can be very destructive.

The Andes are divided into three sections. Each has a different climate, different landscapes and different living things. The Tropical Andes has warm, wet conditions. Rainforests cover the lower slopes. Higher up are cloud forests. As the name suggests, they are often covered in cloud. Up higher still, the mountain peaks are covered in snow. In the central part of the Andes, the climate is much dryer. In fact, this area is close to the Atacama Desert which is the driest place on Earth. NASA uses it to try and prepare for what Mars might be like! The southern part of the Andes is wet and cold. There are wild and rugged mountains, ice fields, lakes and rivers.

Humans have made their home in the mountains for thousands of years. The Incan Empire was one of the most successful of these civilisations. They ruled across modern-day Ecuador, Peru, Bolivia and part of Chile. They were expert builders and architects. The magnificent Machu Picchu still stands today. Trekking the Inca trail to Macchu Picchu is on many travellers'



wish list. The Incan empire collapsed when the Spanish arrived in South America. However, the descendants of the Inca still live in the Andes. There are many small farming communities keeping ancient traditions alive. There are larger towns and cities too. The capital of Colombia – Bogotá - has over seven million inhabitants. It is a modern and buzzing city. Bolivia's capital La Paz is the highest capital in the world.

RETRIEVAL FOCUS

1. True or false:

The Andes are the longest mountain range in the world?

The Andes are the highest mountain range in the world?

Aconcagua is the highest mountain in the world?

2. What is the name of the highest active volcano in the world?

3. Which section of the Andes has a dry climate?

4. Which civilisation built Machu Picchu?

5. What is the capital of Colombia?

VIPERS QUESTIONS

E

How does the writer grab the reader's attention in the first paragraph?

S

In your own words, summarise how the Andes formed.

I

How can we tell that the Atacama Desert would be a challenging environment?

V

What does 'rugged' mean?

V

What does the word 'buzzing' suggest about Bogotá?

The Cholita Climbers

Lidia tightens the strap of her helmet and bends down to attach her crampons firmly to her boots. Aconcagua, the highest mountain in South America at 6961m, towers over her. She and her fellow climbers (Dora, Cecilia, Elena and Ana) are ready to go. This won't be the first Andean peak they have summited. They know these mountains well and have worked in them all their lives as porters or cooks. Even so, they have to fight to be taken seriously here. For one thing, they don't look like typical climbers. All of the women are wearing the traditional dress of the Aymara along with their climbing gear. Lidia adjusts her brightly-coloured woven shawl and checks it is held in place with her broach. Her distinctive wide padded skirt is like a splash of paint on the icy slopes. The women don't care that they stand out. They want to climb as themselves. They want to show people what Andean women can do. Their clothing is a statement of their pride in their culture.

'Cholita' was originally used as an insulting term for Aymara women. However, the women claimed the name and wear it, like their clothes, proudly. The Aymara are an indigenous people. This means that they are descended from people who have lived in the Andes for hundreds (and some say thousands) of years. They have stayed here even as the Incas, then the Spanish, invaded these places. Now the mountains are part of Bolivia and Peru. Across all of these changes, the Aymara have kept their old language and culture alive. The Aymara are traditionally a farming people. Today however, Aymara men and women serve in the country's parliament and media and one Aymara (Evo Morales) was the former president of Bolivia. The Aymara have a deep love and respect for the mountains. Before setting off, the Cholita climbers make an offering to Pachamama – the 'Mother Earth' Goddess. Then they begin climbing, encouraging each other upwards further and further.

'Women can't climb,' was the response they heard a lot when they started. The idea of climbing in traditional Aymara dress was even more outlandish. Indeed, it did pose some challenges. They have to make sure that they take small steps to avoid catching their skirts on the crampons. Fortunately, this is ideal for saving energy. It means that they climb efficiently on challenging terrain. The thick skirts also helped the women stay warm in the mountains. Meanwhile, their days spent doing tough, physical menial work means they are already well-prepared for the altitude.

'A woman should never be left dreaming,' Lidia has argued, 'rather she should achieve her dream.' Lidia and her friends achieved their dream of climbing Aconcagua, on 23rd January 2019 after a week of climbing. They have inspired other Aymara women to think about their own dreams and what is possible. As for the Cholita climbers, they are now trying to raise the funds for another adventure.



VOCABULARY FOCUS

1. What does 'summitted' mean?
2. Find and copy a word in the first paragraph which means normal or usual.
3. What does the word 'distinctive' tell us about Lidia's skirt?
4. What word in the third paragraph tells us that people found it strange that the women wanted to climb?
5. What does menial tell us about the sort of work the Cholitas do in the camps?

VIPERS QUESTIONS

R

Where does the name 'Cholita climbers' come from?

S

What advantages do the Cholita Climbers have compared to some other climbers?

I

Why might it be surprising that the Aymara culture has survived till today?

R

How long did it take to climb Anconcagua?

I

What evidence is there to suggest that the Cholita Climbers are not wealthy?

The Humble Spud

Ahh the potato – whether boiled, baked, fried or roasted, they are the perfect accompaniment to any meal. They are the understated superstar of our plates and the food which powers a nation. What could be more British than the crispy roast potato in a Sunday Roast; the fat, salty chips in a seaside fish ‘n’ chip lunch; or the mash in your bangers and mash?

Ahem.

Yes, can I help you?

It’s just that..well...

Come on, spit it out.

..they’re from South America.

What?! Preposterous. I’ve got them in my garden. Dug them up myself.

Oh yes, I wouldn’t doubt it for a second but let’s just say that they didn’t exactly originate from Britain.

Potatoes are from South America?

They reckon the first potatoes were from Lake Titicaca in the Andes.

You’ve made that up. Lake Titicaca?! Is that anywhere near Narnia? South of Neverland, perhaps? Due west from Hogwarts?

Nope – it’s definitely a real place. It’s the highest lake in the world in fact. It is up in the Andes between Peru and Bolivia. They’ve had potatoes there for thousands of years believe it or not. They started domesticating them about 7000 years ago or thereabouts.

You’re making that up. You domesticate cats or horses - not plants. Can I just enjoy my bag of crisps in peace now?

Some plants are domesticated actually. Let’s just say it means they are farmed or cultivated. The hunter gatherers in the Andes started farming them in the mountains. The Incan civilisation was pretty much built on potatoes – as in, they ate a lot of them...not, you know, used them to build with.

The Incas?

Yes – the vast empire that ruled over a big part of South America from about 1400 to 1533. They lasted up until the Spanish came along looking for gold, land and riches. They got potatoes added to the bargain – not that they appreciated them much at first.



Really? What's not to love?

Well, the Spanish were a bit suspicious of the nobbly little tubers. They mostly just left them for the locals to eat until they realised how useful they'd be to feed sailors on the long voyages back to Spain. They store well and have lots of vitamin C which helped prevent scurvy you see. When they got to Europe, people started trying to grow them. They were a bit of a disaster at first however.

They came good in the end though?

By the 19th century, they were a staple crop for millions. They were calorie-dense and filled you up very cheaply which was great for poor farmers. Of course, when a potato disease affected the crops, it was devastating to all those people who depended on potatoes to survive. That was what happened in Ireland in the 1840s. Around one million people died and around two million people were forced to leave the country because there wasn't enough food.

That's terrible.

It didn't help that only one variety of potato was grown in Ireland. It meant that they were all affected by the same disease. Worldwide, there are 4000 species of potato to choose from, many of them still only found in the Andes.

The humble spud is pretty exotic then really, and pretty diverse too.

Sure is. Enjoy your crisps.

EXPLANATION FOCUS

1. What phrase is used to show that scientists aren't completely sure where the first potatoes originated?
2. What word shows that the date of domesticating potatoes is not precise?
3. What examples of informal language can you find?
4. Why does the writer use informal language?
5. Do you think it is effective having the history of the potato shown as a dialogue. Why? Why not?

VIPERS QUESTIONS

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| I | 'You've made that up. Lake Titicaca?! Is that anywhere near Narnia, south of Neverland, perhaps? Due west from Hogwarts? What is the tone of this section of text? |
| V | What does <i>understated</i> mean? |
| R | When were potatoes first domesticated? |
| R | What made potatoes a good food for voyages? |
| I | How does the attitude of the first speaker change over the course of the text? |

Answers - Football At Altitude:

1. Height above sea/ground level. Elevation.
2. Used to, adjusted (to a condition/climate)
3. Opponents
4. Reversed
5. The highest levels of football, the best football matches – like international competitions.

R: Peru

E: To give a more familiar comparison and to help the reader appreciate just how high the ground is.

R: Argentina, Brazil and Uruguay.

S: Argentina are a top team with world cup wins whereas Bolivia have a poor record in international football.

I: Peru, Ecuador, Colombia: all three are mentioned as having high altitude grounds.

Answers - Hiram Bingham's rediscovery of Machu Picchu:

1. He found the terrain challenging and so was surprised that people lived up there.
2. They were shocked/surprised (they were wide-eyed). They probably don't get many visitors up there and certainly not ones like Hiram Bingham.
3. Relieved because he wanted to see the ruins and the boy was going to help; dismayed because he was already exhausted by the climb and so would have to climb further.
4. The finely-carved stonework, the interlocking stones, the way how the structure flows and is symmetrical.
5. At the beginning, he is dejected and not very hopeful. As he climbs he becomes exhausted. When he finds the ruins, he finds his energy again and is full of enthusiasm and excitement.

R: The Lost City of the Incas.

V: Tiring, strenuous, physically challenging

V: Wet, muddy ground that you sink into.

E: the sight in front of me snatched the last gasp from my lungs completely; My eyes could not take in the scale of it; I instantly found a new burst of energy.

P: Accept sensible answers which could include: pride that the visitor had been so impressed by the ruins; bewilderment or confusion because the ruins are totally familiar to them and yet the explorers thought they were very special; concern that the men might take over the ruins and disrupt their farming with all the excavation.

Answers - The Andes:

1. True, false, false
2. Ojos del Salado
3. The Central Andes
4. The Incas
5. Bogotá

E: By giving lots of impressive facts about the ways in which the Andes breaks records eg. the longest mountain range, the tallest active volcano.

S: The Andes were formed where one plate was pushed underneath another and the land was pushed up into mountains.

I: It is the driest place on Earth and NASA consider it similar to Mars.

V: Rocky, uneven, challenging terrain.

V: It suggests it is lively, vibrant, exciting, full of activity.

Answers - The Choluta Climbers:

1. Reach the summit or top of a mountain.
2. Typical
3. It was recognisable because it was different and unique.
4. Outlandish
5. It is low-skilled, boring and badly-paid.

R: It used to be an insulting name for Ayamara women but then they claimed the name for themselves.

S: They are used to the mountains and experienced at climbing; their work in the mountains is physical and so they are prepared physically for the climb; their clothing keeps them warm and means they have to take small steps which is more efficient.

I: They have been conquered or ruled over by several other civilisations or nations.

R: One week.

I: Their work is described as 'menial' so they are unlikely to be well-paid and the text tells us they have to find ways to fund future expeditions which suggests they do not have sufficient money.

Answers - The Humble Spud:

1. 'They reckon'
2. 'thereabouts'
3. Various examples from: Ahh, well, you see, nope, you know, sure is, as in, they came good, spud. Also accept reference to the use of contractions.
4. To make it sound like a natural conversation/dialogue.
5. References could include allowing the writer to show some of the misconceptions about potatoes and to give opportunities for humour (e.g. likening Lake Titicaca to Neverland). Alternatively, answers may point out that the facts are less clear or detailed in the dialogue form.

I: Sarcastic, mocking

V: Low-key, not showy or showing off

R: About 7000 years ago.

R: They store well and have lots of vitamin C which helped prevent scurvy

I: At the beginning, they are rude and dismissive but then they become more open and accepting.