

SATURDAY 13 MAY 2017

SAT 19:00 Nature's Great Events (b00hn4hs)
The Great Melt

The summer melt of Arctic ice, opening up nearly three million square miles of ocean and land, provides opportunities for millions of animals, including beluga whales, families of arctic foxes, vast colonies of seabirds and the fabled arctic unicorn, the narwhal.

For polar bears, however, it is the toughest time of year. Why? How will they survive?

A mother polar bear and her cub make their first journey together onto the sea ice. They are looking for ringed seals, their favourite prey. It is a serious business, but the cub just wants to play. The melting ice makes it harder for them to hunt and threatens their survival.

In a unique aerial sequence, the migration of narwhal with their distinctive unicorn-like tusks is filmed for the first time. The whales' journey is risky as they travel along giant cracks in the ice. If the ice were to close above them, they would drown.

Hundreds of beluga whales gather in the river shallows. They rub themselves on smooth pebbles in one of the most bizarre summer spectacles.

Guillemot chicks take their first flights from precipitous sea cliff nests to the sea 300 metres below. They attempt to glide to safety, but many miss their target. Their loss is a bonus for the hungry arctic fox family waiting below.

As the melt comes to an end, the bears gather, waiting for the sea to freeze again. Two 400kg males square up to each other to spar.

In the final ten-minute diary, Quest for Ice Whales, the crew show how they managed to capture footage of the elusive narwhal on their annual journey through the ice.

SAT 20:00 Masters of the Pacific Coast: The Tribes of the American Northwest (b07m772h)
Arrival

Two-part documentary in which archaeologist Dr Jago Cooper explores the extraordinary and resilient culture of the American north west, revealing one of the most inspiring stories in human history.

1,400 miles of rugged, windswept and rocky coastline in what is now the Alaskan panhandle, British Columbia and Washington state have been home to hundreds of distinct communities for over 10,000 years. Theirs is the longest continuing culture to be found anywhere in the Americas. They mastered a tough environment to create unique and complex communities that have redefined how human societies develop. They produced art infused with meaning that ranks alongside any other major civilisation on earth. And they were very nearly wiped out - by foreign disease, oppression and theft of their lands. But a deep connection to the environment lies at the heart of their endurance and, unlike many indigenous cultures annihilated following European contact, their culture sustains and has much to offer the rest of the world today.

Jago sees how a complex society developed without agriculture. The answer lies in the extraordinary way in which the people understood and mastered their environment, which in turn is reflected in their identity and social structures. He reveals the hidden significance in totem poles, canoes and intricate textiles, arguing that the peoples of the north west coast achieved the highest levels of cultural achievement.

SAT 21:00 Hinterland (b08qh07f)
Series 3 (BBC Four)

Episode 2

The body of a young woman is found recently buried by some night-time poachers. DCI Mathias and DI Rhys learn that she has been reported missing by her boyfriend having not returned from a trip to visit friends in Manchester. Meanwhile, DS Owens tells Chief Superintendent Prosser that there has been a sighting of Iwan Thomas's car at Devil's Bridge.

In Welsh and English with English subtitles.

SAT 22:25 Top of the Pops (b08q2w97)

David Jensen and John Peel present the pop chart programme, first broadcast on 10 November 1983. Features Musical Youth, Adam Ant, Eurythmics, Limahl, The Cure and Billy Joel.

SAT 23:00 Top of the Pops (b08q2wc7)

Simon Bates and Richard Skinner present the pop chart

programme, first broadcast on 24 November 1983. Featuring Paul Young, Tina Turner, The Smiths, Marilyn, Simple Minds, The Style Council and Billy Joel.

SAT 23:35 The Kate Bush Story: Running Up That Hill (b04dzswb)

Documentary exploring Kate Bush's career and music, from January 1978's Wuthering Heights to her 2011 album 50 Words for Snow, through the testimony of some of her key collaborators and those she has inspired.

Contributors include the guitarist who discovered her (Pink Floyd's David Gilmour), the choreographer who taught her to dance (Lindsay Kemp) and the musician who she said 'opened her doors' (Peter Gabriel), as well as her engineer and ex-partner (Del Palmer) and several other collaborators (Elton John, Stephen Fry and Nigel Kennedy).

Also exploring their abiding fascination with Kate are fans (John Lydon, Sidi Larbi Cherkaoui) and musicians who have been influenced by her (St Vincent's Annie Clark, Natasha Khan (aka Bat for Lashes), Tori Amos, Outkast's Big Boi, Guy Garvey and Tricky), as well as writers and comedians who admire her (Jo Brand, Steve Coogan and Neil Gaiman).

SAT 00:35 Kate Bush at the BBC (b04f86xk)

Between 1978 and 1994, Kate Bush appeared on a variety of BBC programmes, including Saturday Night at the Mill, Ask Aspel, the Leo Sayer Show, Wogan and Top of the Pops. This compilation showcases her performances of hit songs such as Wuthering Heights, Babooshka, Running up That Hill and Hounds of Love, alongside other intriguing and lesser-known material in the BBC studios.

SAT 01:35 Singer-Songwriters at the BBC (b016300t)
Series 2

Episode 4

The celebration of the singing songwriting troubadours of the 1960s and 70s concludes with a further trawl through the BBC archives for timeless and classic performances.

Starting things off, a 23-year-old Bob Dylan performing on the BBC's Tonight programme in 1964. On It's Lulu from 1971, 'Bisto Kid' lookalike singer-songwriter Gilbert O'Sullivan, while from a concert in 1970 buddies Graham Nash and David Crosby perform Nash's Marrakesh Express. Londoner Labi Siffre makes an appearance from the archives, as does fellow English songwriter Michael Chapman.

From the Old Grey Whistle Test in 1976, Gil Scott-Heron performs alongside his band and life-long collaborator Brian Jackson, and the musician's musician Roy Harper performs One of Those Days in England with a full band on The Old Grey Whistle Test. Grammy award winner Janis Ian performs Tea and Sympathy and, to round things off, a rare sighting of Kate Bush performing on The Leo Sayer Show in 1978.

SAT 02:35 The Kate Bush Story: Running Up That Hill (b04dzswb)

[Repeat of broadcast at 23:35 today]

SUNDAY 14 MAY 2017

SUN 19:00 The Birth of British Music (b00kt738)
Haydn

In the third of four programmes exploring the development of British music, conductor Charles Hazlewood looks at the fascinating two-way relationship the great composer Haydn had with Britain.

Since Haydn was an astute businessman, it was no coincidence that he chose London as the place to make his personal fortune, taking advantage of the increasing demand for subscription concerts and the lucrative domestic market.

On a visit to the Royal Institution of Great Britain and to William Herschel's house in Bath, Charles explores how Haydn's fascination with musical form and structure in music ran alongside his great interest in science, including the structure of the universe. He also travels to Austria to visit the stunning Esterhazy Palace near Vienna where Haydn worked for over three decades, and to Scotland to investigate Haydn's rather curious association with some of our most famous Scottish folk songs.

SUN 20:00 Timeshift (b06csy8c)
Series 15

The Engine that Powers the World

The surprising story of the hidden powerhouse behind the globalised world, the diesel engine, a 19th-century invention that has become indispensable to the 21st century. It's a tortoise-versus-hare tale in which the diesel engine races the petrol engine in a competition to replace ageing steam technology, a race eventually won hands down by diesel.

Splendidly, car enthusiast presenter Mark Evans gets excitedly hands-on with some of the many applications of Mr Diesel's - yes, there was one - original creation, from vintage submarines and tractors to locomotive trains and container ships. You'll never feel the same about that humble old diesel family car again.

SUN 21:00 Storyville (b08qlj6)
OJ: Made in America

Part 1

Five-part series and winner of the 2017 Academy Award for Best Documentary chronicling the rise and fall of OJ Simpson.

To many observers, the story of the crime of the century is a story that began the night Nicole Brown Simpson and Ronald Goldman were brutally murdered outside her Brentwood condominium. But as the first episode lays bare, to truly grasp the significance of what happened not just that night, but the epic chronicle to follow, one has to travel back to points in time long before that.

To generations prior, when African-Americans began migrating to California en masse, trying desperately - and fruitlessly - to outrun the racism that had defined their lives. To the late 1960s, when in the heart of Los Angeles, OJ Simpson rose to instant fame as an unstoppable running back for the USC Trojans. To the early 1970s, when he expanded that fame in the NFL, becoming the first player ever to rush for 2,000 yards in a season, and emerging as one of the most visible faces in sports. And to a few years after that, when with his celebrity transcending the game, Simpson retired from American football and returned to Los Angeles - his acting, advertising, and broadcasting careers in ascendance. It was also then that he fell madly in love - with a young, beautiful woman named Nicole Brown.

SUN 22:30 Storyville (b062xfv0)
Circus Elephant Rampage

The gripping and emotionally-charged story of Tyke, a circus elephant who went on a rampage in Honolulu, Hawaii, in 1994, killed her trainer in front of thousands of spectators and died in a hail of gunfire.

Her break for freedom - filmed from start to tragic end - traumatised a city and ignited a global battle over the use of animals in the entertainment industry. Looking at what made Tyke snap, the film goes back to meet the people who knew her and were affected by her death - former trainers and handlers, circus industry insiders, witnesses to her rampage, and animal rights activists for whom Tyke became a global rallying cry.

Tyke is the central protagonist in this tragic but redemptive tale that combines trauma, outrage, insight and compassion. This moving documentary raises fundamental questions about our deep and mysterious connection to other species.

SUN 23:25 Timeshift (b06pm5vf)
Series 15

How Britain Won the Space Race: The Story of Bernard Lovell and Jodrell Bank

The unlikely story of how one man with some ex-WWII army equipment eventually turned a muddy field in Cheshire into a key site in the space race. That man was Bernard Lovell, and his telescope at Jodrell Bank would be used at the height of the Cold War by both the Americans and the Russians to track their competing spacecraft. It also put Britain at the forefront of radio astronomy, a new science which transformed our knowledge of space and provided the key to understanding the most mind-bending theory of the beginnings of the universe - the Big Bang.

SUN 00:25 Horizon (b01rbynt)
2012-2013

The Creative Brain: How Insight Works

It is a feeling we all know - the moment when a light goes on in your head. In a sudden flash of inspiration, a new idea is born.

Today, scientists are using some unusual techniques to try to work out how these moments of creativity - whether big, small or life-changing - come about. They have devised a series of puzzles and brainteasers to draw out our creative behaviour,

while the very latest neuroimaging technology means researchers can actually peer inside our brains and witness the creative spark as it happens. What they are discovering could have the power to make every one of us more creative.

SUN 01:25 Nature's Great Events (b00hn4hs)

[Repeat of broadcast at 19:00 on Saturday]

SUN 02:25 Michael Palin's Quest for Artemisia (b06t3w73)

Curious about a powerful but violent painting that caught his eye, Michael Palin sets off on a quest to discover the astonishing story of the forgotten female artist who painted it over 400 years ago. Travelling to Italy in search of Artemisia Gentileschi's tale, Michael encounters her work in Florence, Rome and Naples.

Michael unearths not only her paintings but a complex life which included her rape as a teenager and the ensuing indignity of a full trial, her life as a working mother and her ultimate success against all odds as one of the greatest painters of the Baroque age who transformed the way women were depicted in art and who was sought after in many courts across 17th-century Europe.

MONDAY 15 MAY 2017

MON 19:00 100 Days+ (b08qgzg9)

Series 1

15/05/2017

Katty Kay in Washington and Christian Fraser in London report on the events that are shaping our world.

MON 19:30 Insect Worlds (b01r9097)

Them and Us

Steve Backshall explores the connections and relationship that we have with insects and other arthropods. In Kenya, huge armies of driver ants give houses a five-star clean-up, and in China, we discover how silkworm caterpillars have shaped our culture and distribution. While locusts devastate crops in Africa, bees and beetles across the world provide a key link in our food chains. Many of us perceive these animals merely as creepy crawlies and nothing more than a nuisance, but as Steve reveals, we couldn't live without them.

MON 20:00 Mud, Sweat and Tractors: The Story of Agriculture (b00jzjs4)

Fruit and Veg

A look at the changes in the way fruit and veg was grown, picked and sold, told through three of the staples in the British landscape - apples, strawberries and tomatoes.

Home movies and archive footage reveal the extent of the revolution in how the fruit was picked and the impact supermarkets had on the fortunes of the small- and medium-sized growers.

MON 21:00 An Art Lovers' Guide (b08qkvqc)

Series 1

St Petersburg

In the final episode of their entertaining series of cultural city breaks, Dr Janina Ramirez and Alastair Sooke explore St Petersburg through its dazzling art and architecture. They want to see how art has been used to enhance prestige and power in this city, ever since it was founded by Tsar Peter the Great.

Surrounded by vast palaces, gilded domes and imposing Soviet monuments, Janina and Alastair make a flying visit to their personal selection of imperial, communist and modern-day sights. They discover a city where art has always taken centre stage, from the intoxicating beauty of the state rooms at the Winter Palace to the bejewelled confections of Faberge, and from the dark tunnels where curators guarded precious artefacts during the deadly siege of the city in the Second World War to the apartment piled high with protest art painted by the outspoken 'dissident babushka'.

MON 22:00 Storyville (b08rb30l)

OJ: Made in America

Part 2

Five-part series and winner of the 2017 Academy Award for Best Documentary chronicling the rise and fall of OJ Simpson.

There was never one Los Angeles, California. There were

always two. One was the world inhabited by OJ Simpson - wealthy, privileged, and predominantly white. A world where celebrity was power, and where OJ - race be damned - was one of the most popular figures around, cultivating the perfect image, even if it hardly lined up with what lay beneath. Then there was the other LA, just a few miles away from Brentwood and his Rockingham estate, a place where millions of other black people lived an entirely different reality at the hands of the Los Angeles Police Department.

It was in that 'other' Los Angeles where riots erupted in 1992, and more than 50 people died with thousands more injured. The city burned for nearly a week that spring, laying bare all the anger, and all the alienation, that black people in Los Angeles felt towards the police. For his part, back in Brentwood, OJ Simpson had other concerns.

MON 23:35 Harlots, Housewives and Heroines: A 17th Century History for Girls (b01jmt5t)

Act Three: At Work and At Play

Lucy Worsley explores the lives of some of the most remarkable women of the age, including writers, actresses, travellers and scientists.

Against a backdrop of religious and political turmoil, the rise of print culture, the rapid growth of London, the burgeoning scientific revolution and the country's flourishing trading empire, she meets a host of female mavericks who took advantage of the extraordinary changes afoot to challenge the traditional male bastions of society.

Women like Nell Gwyn, the most famous of a new generation of actresses; Aphra Behn, the first professional female writer; and Christian Davies, who disguised herself as a man to fight as a soldier - all of them gained notoriety and celebrity, challenging the inequalities of the age. As Lucy discovers, these women's attitudes, ambitions and achievements were surprisingly modern.

MON 00:35 Botany: A Blooming History (b0122k8y)

Hidden World

For 10,000 years or more, humans created new plant varieties for food by trial and error and a touch of serendipity. Then 150 years ago, a new era began. Pioneer botanists unlocked the patterns found in different types of plants and opened the door to a new branch of science - plant genetics. They discovered what controlled the random colours of snapdragon petals and the strange colours found in wild maize.

This was vital information. Some botanists even gave their lives to protect their collection of seeds. American wheat farmer Norman Borlaug was awarded the Nobel peace prize after he bred a new strain of wheat that lifted millions of people around the world out of starvation. Today, botanists believe advances in plant genetics hold the key to feeding the world's growing population.

MON 01:35 Timeshift (b06esy8c)

[Repeat of broadcast at 20:00 on Sunday]

MON 02:35 An Art Lovers' Guide (b08qkvqc)

[Repeat of broadcast at 21:00 today]

TUESDAY 16 MAY 2017

TUE 19:00 100 Days+ (b08qgzgg)

Series 1

16/05/2017

Katty Kay in Washington and Christian Fraser in London report on the events that are shaping our world.

TUE 19:30 Insect Worlds (b01rd374)

Making Worlds

Steve Backshall reveals the incredible influence that insects and their close relatives have on Earth's many ecosystems. In the grasslands of South America, the landscape has been created almost solely by one team of insects - grass-cutter ants. Across the world's oceans one tiny creature plays such a key role that, without it, the largest animal on our planet, the blue whale, could not exist. And in East Africa the savannah would quickly be swamped in dung were it not for the activities of a certain beetle. Yet the greatest influence of all comes from a group of insects that have ultimately changed the colour and diversity of our planet.

TUE 20:00 Burma, My Father and the Forgotten Army

(b036x83s)

Apart from a few fragmentary stories, Griff Rhys Jones's father never talked about his war. Yet as a medical officer to a West African division he travelled 15,000 miles from Wales to Ghana and the jungles of Burma. He and his men were part of an army of a million raised in Africa and Asia to fight the Japanese. To understand their story Griff travels first to Ghana and then, accompanied by 90-year-old veteran Joshua, he goes to jungles of Burma. It is known as the forgotten war, but Griff discovers how it transformed these West Africans from children of the British Empire into masters of their own destiny.

TUE 21:00 Dan Snow on Lloyd George: My Great-Great-Grandfather (b08411s9)

At the end of the First World War, Britain's prime minister David Lloyd George was a national hero, hailed as 'the man who won the war'. A hundred years after he became PM, Lloyd George's great-great-grandson Dan Snow explores his famous forebear's life and asks why he's not better remembered, why he's not as famous a wartime leader as his friend and protégé Winston Churchill. It's a tale of sex and scandal, success and failure, with Dan discovering some home truths from his family's history.

Dan's journey starts in north Wales in the village of Llanystumdwy, where Lloyd George was raised by his uncle after his father's death. It's an area Dan knows well from childhood holidays visiting his grandmother. He climbs Moel y Gest, a rocky outcrop overlooking the sea, a view virtually unchanged since Lloyd George's day. Taking the Ffestiniog railway up into the mountains Dan travels in Lloyd George's own railway carriage, reputedly a place when he would enjoy some private time with his secretary.

Like Lloyd George, Dan journeys from Wales to Parliament, filming in the House of Commons where his ancestor made such an impact. Initially Lloyd George was a radical Liberal, causing outrage by opposing the Boer War in 1899, but ten years later he was chancellor of the exchequer, introducing some of the most important legislation of the early 20th century. His budget of 1909 brought in national insurance and old age pensions and, as his biographer Roy Hattersley tells Dan, laid the foundations of the welfare state.

When Britain went to war in August 1914, Lloyd George was a pivotal member of the cabinet. Historian Margaret Macmillan, an expert on the First World War and another descendant of Lloyd George, points out that if he'd come out against the war the Liberal government would have fallen. Once war was declared Lloyd George was important in recruiting the new citizen's army, making speeches across the country. But in private he was making sure his sons didn't volunteer straightaway, another example of Lloyd George's double dealing.

Lloyd George's private life is as famous as his politics. Before the war he had a string of affairs, but by 1914 he was involved with his secretary Frances Stevenson. Half his age, she was a pioneering female civil servant and a constant companion during the First World War. Meeting her biographer John Campbell, Dan discovers some shocking secrets about their relationship during the war years.

Lloyd George's most significant work in the early years of the war was in munitions production. Britain, like all the other warring countries, was running out of shells. He revolutionised the war economy, creating a huge workforce, including many women, to produce the vast numbers of guns and ammunition needed to wage total war. Dan visits an engineering works in north Wales which in 1917 was turned over to armaments production.

But Lloyd George's dynamism wasn't reflected in the rest of the government, especially the prime minister Herbert Asquith. At the end of 1916 after the failure of the Somme, matters came to a head and Asquith was forced to resign to be replaced by Lloyd George. He was the first man from such humble origins to become prime minister.

In spring 1918, the Germans broke through and almost reached Paris, but the Allies fought back. This is when Lloyd George's war machine came into the effect - the huge amount of munitions he helped create, along with the newly arrived American troops, forced the German army into retreat, finally signing the Armistice on 11 November 1918.

In 1918, Lloyd George was wildly popular and re-elected by a landslide, but his postwar career was less successful. Dan visits the Hall of Mirrors at the Palace of Versailles where Lloyd George signed the famous treaty, but many think that this fuelled German resentment and led to the Second World War 20 years later. At home, the 'land fit for heroes' which Lloyd George had promised didn't materialise and there was a postwar slump. When it was revealed that he'd sold honours to fund his Liberal Party his days were numbered, and he was finally ousted by his Conservative coalition partners in 1922.

Until his death in 1945 Lloyd George was a figure in the

wilderness, never returned to power and further damaging his reputation with an ill-advised visit to Hitler in 1936. He was, as Dan concludes, a flawed hero, but one from whom he's proud to be descended.

TUE 22:00 Storyville (b08rb4wh)
OJ: Made in America

Part 3

Five-part series and winner of the 2017 Academy Award for Best Documentary chronicling the rise and fall of OJ Simpson.

The police arrived at the condo on Bundy Drive at 4:25 a.m. on June 13th, 1994. It was a gruesome murder scene, clearly the result of a violent confrontation that had left two people dead - one of whom, they'd quickly discover, was the estranged wife of OJ Simpson. It was just the start of a chapter of American history like none other, one that would lay bare the realities of race, power, the legal system, the media, and so much more in Los Angeles, California and far beyond.

Two decades later, the disagreements between the figures at the centre of investigating the case are still palpable. The events of June 17th 1994 are nearly as unfathomable as they were as they unfolded. And the beginnings of the battle in the courtroom are just as fascinating - the defence's strategy, just as unambiguous. OJ Simpson had spent his entire life running from the colour of his skin. Now, in so many ways, he was going to depend on it to avoid spending the rest of his life in prison.

TUE 23:35 Timewatch (b00785y5)
2008-2009

The Real Bonnie and Clyde

Hollywood portrayed them as the most glamorous outlaws in American history, but the reality of life on the run for Bonnie and Clyde was one of violence, hardship and danger.

With unprecedented access to gang members' memoirs, family archives and recently released police records, Timewatch takes an epic road trip through the heart of Depression-era America, in search of the true story of Bonnie and Clyde.

TUE 00:30 Storyville (b062xfv0)
[Repeat of broadcast at 22:30 on Sunday]

TUE 01:30 The Story of Scottish Art (b06myf12)
Episode 4

The climactic episode of the series explores how, over the last 100 years, Scottish art has wrestled as never before with questions of identity and exploded like a visual firecracker of different ideas and styles. During the last century, Scottish artists embroiled themselves with some of the most exciting and dynamic art movements ever seen - provoking, participating and creating stimulating works of art that have left an extraordinary legacy.

Lachlan Goudie discovers how artists such as William McCance attempted to bring about a Scottish renaissance in the visual arts, while a creative diaspora of artists such as Alan Davie and William Gear would court controversy and play vital roles in the revolutions of postwar art.

Long before the 'Glasgow Miracle', the Glasgow School of Art was responsible for upholding a very different kind of tradition, of which Lachlan's father was proud to be a part. He discovers how artists such as Joan Eardley helped to bring the city to life, just as John Bellany did for the fishing villages of the east coast. Rebels such as Bruce McLean help explain how conceptual art would come to play such a large role in the Scottish art of today, and Lachlan meets one of the world's most expensive living artists, Peter Doig, to delve into the complexities of what it actually means to be a Scottish artist in today's market-dominated art world. He finishes his epic journey on the Isle of Lewis with a powerful call to arms for the continued relevance of Scottish art today.

TUE 02:30 Dan Snow on Lloyd George: My Great-Great-Grandfather (b08411s9)
[Repeat of broadcast at 21:00 today]

WEDNESDAY 17 MAY 2017

WED 19:00 100 Days+ (b08qgzzm)
Series 1

17/05/2017

Katty Kay in Washington and Christian Fraser in London report

on the events that are shaping our world.

WED 19:30 Insect Worlds (b01rk1x9)
Insect Worlds

Totalling an estimated 10 million species, the insects and their close relatives are the most abundant and diverse group of animals in the world, so what is the secret of their success? Their hard external skeleton provides strength and protection and their small size allows them to exploit many microhabitats. In Yellowstone, Steve Backshall reveals how teamwork allows a colony of bees to scare off a hungry bear, and in Australia this same teamwork allows a colony of ants to beat the rising tide. But to unlock the real secret of their success Steve takes us to the Swiss Alps, where an incredible relationship exists between the ant, the wasp and the butterfly.

WED 20:00 Dreaming the Impossible: Unbuilt Britain (b038rj1b)
Making Connections

Using her skills to uncover long-forgotten and abandoned plans, architectural investigator Dr Olivia Horsfall Turner explores the fascinating and dramatic stories behind some of the grandest designs that were never built. In this episode she looks at two of the most radical civil engineering projects proposed in the last century and explores how international politics and vested interests both drove, and derailed, plans to better connect Britain to the continent.

In the early 1900s Britain was anticipating the threat of war. As concern grew about Germany expanding its naval fleet and investing in its infrastructure, there were calls to find a way for Britain's navy to be able to react swiftly to protect our waters. The solution proposed was to create a ship canal big enough for warships to cross from the Firth of Clyde on the west of Scotland to the Firth of Forth on the east. This enormous civil engineering endeavour would have completely changed the central belt of Scotland - the favoured route was through Loch Lomond, now considered one of the most treasured wilderness areas in the country.

There was huge support for the building of the canal, not least from members of parliament who recognised the potential for creating jobs and wealth in their constituencies. The debate over whether to invest £50m of the public purse in building the canal dragged on for years in both the House of Commons and Lords, with opinion split on whether it really was a strategic imperative. In the end, technology decided the fate of the canal. By 1918, all of the naval fleet was fuelled by oil rather than coal and so instead of a canal an oil pipeline was built from the mouth of the Clyde to Grangemouth on the east, and Royal Navy destroyers never did - and never will - sail up Loch Lomond.

Fifty years later, instead of seeking to protect Britain from attacks from the continent, thoughts had turned to how to connect our island to the rest of Europe. There had been talk of building a channel tunnel between England and France for centuries. In contrast with the Mid-Scotland Canal, where strategic advantages stimulated building, it was national security concerns that cut short the first proposal for a Channel Tunnel. The idea was presented to the British by Napoleon in 1802, but was rejected over concerns that the French had covert plans to invade England.

But 170 years later, the idea was to become a reality. Britain had finally joined mainland Europe through her membership of the Common Market in 1973, and both the French and British governments agreed it made sense build a tunnel together. But in 1975, construction was again abandoned because the British prime minister, Harold Wilson, had to look for economies in a financial crisis caused by dramatically rising world oil prices. Once more, the bid to connect with the continent had failed.

The idea was resurrected yet again in the early 1980s, with several competing schemes for consideration. The boldest of these, sponsored by British Steel, was a vast structure combing a double-decker bridge and tunnel, linked to an artificial island in the middle of the English Channel. The materials for the construction of this vast project would keep the steel mills of England and Scotland busy for a decade - but the politicians chose in favour of the Eurotunnel bid and British industry lost out.

Both these grandiose schemes defined how Britain saw its relationship with Europe. In an age when the headline 'Fog in Channel - Europe Isolated' made sense, a naval ship canal that would protect our island fortress from continental rivals was considered to be in the national interest. But just 60 years later, the fog had lifted and securing Britain's national interests became dependent on a physical connection with countries previously regarded as hostile. However, both plans foundered on the conflict of politics and vested interest.

WED 21:00 Michael Mosley vs The Superbugs (b08qkz77)

More and more bacterial infections are becoming resistant to antibiotics. Not just MRSA but also TB, pneumonia and e-coli. In Britain, hundreds die of these infections - mainly the very young or the frail and elderly. Health experts warn, unless we crack the problem, that by 2050 we will be facing a pathogenic apocalypse with over 10 million people dying of resistant bacterial infection worldwide every year.

Michael Mosley goes in search of the causes of this crisis and possible solutions to overcome it. At the heart of the film is an unprecedented experiment to create a life-size clone of Michael in agar and then grow bacteria on it taken from all over his body. This is 'Microbial Michael', a living bacterial sculpture that offers new insights into what happens when we hit our body - and our bacteria - with a broad spectrum antibiotic.

Michael finds that he has some resistant bacteria. But how has this happened and how do bacteria acquire resistance to antibiotics? In a cave in New Mexico, Michael discovers that it is a natural process, which has been going on for millennia, long before the discovery of penicillin. Our overuse of antibiotics in medicine and farming accelerates the development of resistance among bacteria, but evolution ensures that bacteria will gradually overcome the antibiotics we use to defeat them.

So, we desperately need new antibiotics, or ways to make our existing antibiotics work effectively again. In a trip that goes to the US, to Poland and to research labs around the UK, we meet the 'resistance hunters' - scientists who are trying to find new ways of beating resistant bacteria. And in a finale to the 'Microbial Michael' experiment, some of Michael's agar body parts - his face and his hands - are infected with superbugs. Can any of the new treatments get rid of them?

WED 22:00 Storyville (b08rb6f2)
OJ: Made in America

Part 4

Five-part series and winner of the 2017 Academy Award for Best Documentary chronicling the rise and fall of OJ Simpson.

In January 1995, the trial of the century took place. It would be like nothing before it, nor anything that's come since, and reshape the landscape of the media and, truly, American culture along the way. Over the better part of ten months, there would be dozens of dramatic twists and turns, revelations and surprises, accusations and betrayals. The recollections of so many of the case's protagonists make for section after section of riveting film, all bringing back to life a trial that somehow evolved into a phenomenon that left the brutal murders of two people deep in forgotten shadows.

Nothing, though, proved larger than the context - of everything that came before in the Los Angeles that OJ Simpson never knew. And in the trial's closing arguments, the dividing line of race - in Los Angeles, and America - was never starker.

WED 23:30 Catching History's Criminals: The Forensics Story (p0214pjs)
A Question of Identity

Sherlock has his mind palace, Morse his music - every detective has an edge. For most, it's forensic science. This three-part series provides a rare and fascinating insight into the secret history of catching murderers, charting two centuries of the breakthroughs that have changed the course of justice. Surgeon and writer Gabriel Weston explores this rich history through some of the most absorbing, and often gruesome, stories in the forensic casebook - and looks ahead to how forensics will continue to solve the murders of the future.

The first episode looks at the difficulty of identifying the body in a murder case. The question of identity is a crucial start to the investigation. From charred bones to bodies completely dissolved in acid, with each horrific new case science has had to adapt to identify both the victim and the murderer. Investigating four breakthrough cases, Gabriel reveals the scientific innovations that tipped the scales of justice in favour of the detective - and caught the killers.

Firstly, Gabriel investigates the use of teeth and bite marks to identify a victim or murderer, starting with a problematic case at Harvard Medical School in 1849. Next, she traces the use of entomology (the study of insects) to pinpoint the time of death - a crucial piece of evidence that helped identify both the killer and his victims when a gruesome collection of unidentifiable body parts was discovered in a river in Moffat in 1935.

Gabriel meets Professor Sir Alec Jeffreys, the geneticist who pioneered the technique of DNA profiling. Initially used to establish paternity in an immigration dispute, the application of this revolutionary discovery to the field of criminal investigation was soon established. In 1986 it led to a world first - a person caught and convicted solely on the basis of DNA evidence.

Taking us right to the cutting edge of forensics, Gabriel then experiments with a new technique in development - molecular face fitting, which uses only a person's DNA to create an image of their face.

WED 00:35 Mud, Sweat and Tractors: The Story of Agriculture (b00jzjs4)

[Repeat of broadcast at 20:00 on Monday]

WED 01:35 Timeshift (b06pm5vf)

[Repeat of broadcast at 23:25 on Sunday]

WED 02:35 Michael Mosley vs The Superbugs (b08qkz77)

[Repeat of broadcast at 21:00 today]

THURSDAY 18 MAY 2017

THU 19:00 100 Days+ (b08rbvj)

Series 1

18/05/2017

Katty Kay in Washington and Christian Fraser in London report on the events that are shaping our world.

THU 19:30 Top of the Pops (b08qkzj5)

Mike Read and Tommy Vance present the pop chart programme, first broadcast on 8 December 1983. Featuring Thompson Twins, Billy Joel, Tears for Fears, Howard Jones, Culture Club and The Flying Pickets.

THU 20:00 Fossil Wonderlands: Nature's Hidden Treasures (b03xsfrq)

Weird Wonders

Professor Richard Fortey journeys high in the Rocky Mountains to explore a 520 million-year-old fossilised seabed containing bizarre and experimental life forms that have revolutionised our understanding about the beginnings of complex life. Among the amazing finds he uncovers are marine creatures with five eyes and a proboscis, filter-feeders shaped like tulips, worm-like scavengers covered in spikes but with no identifiable head or anus, and a metre-long predator resembling a giant shrimp.

THU 21:00 Scotland's First Oil Rush (b07cb31r)

Scotland witnessed the world's first true 'oil rush', when inventor James 'Paraffin' Young first refined lighting fuel from a shale rock known as torbanite in 1851. There followed more than a century of the shale oil industry, which employed thousands and whose fortunes ebbed and flowed with industrialisation and two world wars.

Presented by geologist Professor Iain Stewart, this film tells the story of shale, its lasting impact on one Scottish community - West Lothian - and the massive and unique landmarks still visible today.

THU 22:00 Storyville (b08rb6zx)

OJ: Made in America

Part 5

Five-part series and winner of the 2017 Academy Award for Best Documentary chronicling the rise and fall of OJ Simpson.

On the morning of October 3rd 1995, it was announced that OJ Simpson had been found not guilty of all charges. To many Americans, it was a stunning, almost explicable miscarriage of justice; a tragedy; a disturbing example of what money and power could buy in America. But to another group, it was an historic victory - payback for all the losses and all the injustice that they'd incurred over generations of history.

As black America rejoiced, OJ went home, beginning what would become the strange, next phase of his life, a life lived in a form of celebratory purgatory - in many quarters shunned, scorned, and mocked, but in others, welcomed as a character in the circus that his saga had undeniably helped to create.

From running from a guilty verdict in a wrongful death suit to working on a book that was a 'hypothetical conviction', his existence became more and more outlandish, until it all came crashing down on a night in 2007 in Las Vegas, a night that left Simpson where he is today, in prison for perhaps the rest of his life.

THU 23:40 Top of the Pops (b08qkzj5)

[Repeat of broadcast at 19:30 today]

THU 00:15 Sound of Cinema: The Music That Made the Movies (b03b45h4)

The Big Score

In a series celebrating the art of the cinema soundtrack, Neil Brand explores the work of the great movie composers and demonstrates their techniques. Neil begins by looking at how the classic orchestral film score emerged and why it's still going strong today.

Neil traces how in the 1930s, European-born composers such as Max Steiner and Erich Wolfgang Korngold brought their Viennese training to play in stirring, romantic scores for Hollywood masterpieces like King Kong and The Adventures of Robin Hood. But it took a home-grown American talent, Bernard Herrmann, to bring a darker, more modern sound to some of cinema's finest films, with his scores for Citizen Kane, Psycho and Taxi Driver.

Among those Neil meets are leading film-makers and composers who discuss their work, including Martin Scorsese and Hans Zimmer, composer of blockbusters like Gladiator and Inception.

THU 01:15 Animals Through the Night: Sleepover at the Zoo (b03x3yff)

In a never-before-attempted sleep experiment, Bristol Zoo has been rigged with cameras and sensors and Liz Bonnin and sleep expert Bryson Voirin stay up all night to see what the animals get up to when they think no-one is watching. From red pandas and lions to meerkats and tapirs, for the first time a whole range of animal sleep behaviours is compared and contrasted across the course of a single night.

The programme delves into the extraordinary world of animal sleep, looking at not only what science has already discovered, but the questions which remain to be answered. From dolphins, which have come up with ingenious solutions to allow them to sleep while swimming, through to ants that have developed complex behavioural patterns which ensure that the colony sleeps undisturbed, to meerkats, who keep an ear open for danger during sleep, and flamingos, which arrange themselves in order to keep a wary eye out for night-time predators.

THU 02:45 Dreaming the Impossible: Unbuilt Britain (b038rj1b)

[Repeat of broadcast at 20:00 on Wednesday]

FRIDAY 19 MAY 2017

FRI 19:00 World News Today (b08qgzj4)

The latest national and international news, exploring the day's events from a global perspective.

FRI 19:30 Top of the Pops (b08qkzst)

Simon Bates and Janice Long present the pop chart programme, first broadcast on 15 December 1983. Featuring Status Quo, UB40, Slade, The Pretenders, Kenny Rogers & Dolly Parton, and The Flying Pickets.

FRI 20:00 The Good Old Days (b08qkzsw)

Leonard Sachs chairs the old-time music hall programme, first broadcast on 25 January 1979. Guests include Norman Vaughan, Maryetta Midgley, Keith Harris, Pat Mooney, Benny Garcia, Rosa Michelle, and performers from the Players' Theatre.

FRI 20:50 Sounds of the Seventies (b08r3xc9)

Shorts

T. Rex, Mott The Hoople, Alvin Stardust and Suzi Quatro

Another mouth-watering madeleine of musical morsels bound to get the memories going. T. Rex perform Hot Love, Mott The Hoople perform Roll Away the Stone, Alvin Stardust has a Jealous Mind and Suzi Quatro comes alive at Devil Gate Drive.

FRI 21:00 Roy Orbison: One of the Lonely Ones (b06t3vb9)

Biography of iconic rock balladeer Roy Orbison told through his own voice, casting new light on the triumphs and tragedies that beset his career. Using previously unseen performances, home movies and interviews with many who have never spoken before, the film reveals Orbison's remote Texas childhood, his battles to get his voice heard, and how he created lasting hits like Only the Lonely and Crying.

The film follows Roy's rollercoaster life, often reflected in the dark lyrics of his songs, from success to rejection to rediscovery in the 80s with The Traveling Wilburys supergroup. It uncovers the man behind the shades, including interviews with his sons, many close friends and collaborators like Jeff

Lynne, T Bone Burnett, Bobby Goldsboro and Marianne Faithfull.

FRI 22:00 Roy Orbison and Friends: A Black and White Night (b00g6349)

First broadcast in 1988 and filmed in black and white (hence the title!), this TV concert classic features Roy Orbison performing his classic songs with friends like Bruce Springsteen, Tom Waits, Elvis Costello, Jackson Browne, kd lang, Jennifer Warnes and Bonnie Raitt.

The TCB Band which backs all featured artists was Elvis Presley's band till his death in 1977 and includes James Burton, Glen D Hardin, Jerry Scheff and Ronnie Tutt with musical director T Bone Burnett.

Filmed at the Coconut Grove nightclub in Los Angeles, the show was first broadcast on HBO in 1988, the year of Roy Orbison's death.

FRI 23:00 The Everly Brothers: Harmonies from Heaven (b077x1fh)

Documentary which celebrates, over the period covering the end of the 1950s and the beginning of the 60s, the phenomenon of The Everly Brothers, arguably the greatest harmony duo the world has witnessed, who directly influenced the greatest and most successful bands of the 60s and 70s - The Beatles, The Stones, The Beach Boys and Simon & Garfunkel to name but a few.

Don and Phil Everly's love of music began as children, encouraged by their father Ike. Little Donnie and Baby Boy Phil sang on Ike's early morning radio shows in Iowa.

After leaving school, the brothers moved to Nashville where, under the wing of Ike Everly's friend, the highly talented musician Chet Atkins, Don and Phil signed with Cadence Records. They exploded onto the music scene in 1957 with Bye Bye Love, written by Boudleaux and Felice Bryant.

After Bye Bye Love came other hits, notably Wake Up Little Susie, followed by the worldwide smash hit All I Have to Do Is Dream and a long string of other great songs which also became hits.

By 1960, however, the brothers were lured away from Cadence to Warner Bros with a \$1,000,000 contract. Their biggest hit followed, the self-penned Cathy's Clown, which sold 8 million copies. Remaining at Warner Bros for most of the 60s, they had further success with Walk Right Back, So Sad and the King/Greenfield-penned track Crying in the Rain.

FRI 00:00 Top of the Pops (b08qkzst)

[Repeat of broadcast at 19:30 today]

FRI 00:35 Roy Orbison: One of the Lonely Ones (b06t3vb9)

[Repeat of broadcast at 21:00 today]

FRI 01:35 Roy Orbison and Friends: A Black and White Night (b00g6349)

[Repeat of broadcast at 22:00 today]

FRI 02:35 The Everly Brothers: Harmonies from Heaven (b077x1fh)

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