

SATURDAY 05 JANUARY 2019

SAT 19:00 Hidden Kingdoms (b03qkcs)
Under Open Skies

This is the story of two young animals forced to grow up fast.

In Africa's savannah, a baby elephant shrew learns how speed is the secret to survival amongst the largest animals on earth. And in America, a young grasshopper mouse confronts the Wild West's deadliest creatures to stake a claim of his own.

SAT 20:00 Wild Arabia (p013mr18)
Sand, Wind and Stars

Few places on earth evoke more mystery and romance than Arabia. This series enters the forbidding wilderness and reveals a magical cast of characters, from the snow-white oryx that inspired the myth of the unicorn to the long-legged jerboa leaping ten times its own body length through the star-filled Arabian nights. Horned vipers hunt glow-in-the-dark scorpions, while Bedouin nomads race their camels across the largest sand desert in the world.

SAT 21:00 Black Lake (m0001wm9)
Series 2

Episode 3

The circumstances around the woman who vanished from the island appear all the more mysterious. Minnie is determined to gain access to room 5 to seek answers for what happened last year, and she is not the only one who is interested. Uno puts more pressure on Johan which frustrates Johan's desire to leave the island and complete the business deal his father wants him to sign. In Swedish with English subtitles.

SAT 21:45 Black Lake (m0001wmc)
Series 2

Episode 4

Minnie's increasingly intimate relationship with Uno becomes more complicated - she and Johan find evidence of Uno withholding dark secrets from the past. When the group sets out on a hiking expedition the intrigues between the participants escalate over what happened last year, with serious consequences. In Swedish with English subtitles.

SAT 22:30 Licence to Thrill: Paul Hollywood Meets Aston Martin (b06gy53j)
A meeting of two great British stars: baker Paul Hollywood and Aston Martin cars.

Paul drives some priceless and exclusive Aston cars - the DB10, the new James Bond car from Spectre, the DBR1, the 1959 World Championship-winning racing car, and the DB5, the stunt car used in Goldfinger.

Ever since he was given a toy model of the Goldfinger car at the age of five, Paul Hollywood has been a passionate fan of Aston Martin. Now, four decades on, Paul gets to fulfil his dream and find out first-hand about the company.

Despite huge success, Aston Martin has never made much money. So Paul meets new boss Andy Palmer to hear about his plan to turn the company around.

To find out just what these cars can do, Paul also trains up to race and joins one of the Aston teams. If he can get his licence upgrade, he will even be able to compete at the world-famous Le Mans race festival in France.

SAT 23:30 Top of the Pops (m0001wds)
The Story of 1987

1987 – a year marked by triumph and disaster. As Mrs Thatcher secured a third term as PM, the Channel Tunnel began construction and Wall Street's movie representative Gordon Gecko purred 'Greed is good' – Britain was battered by the Great Storm, despaired at Black Monday and was horrified by the sinking of The Herald of Free Enterprise and the King's Cross fire.

And while epic events unfolded in the outside world, the Top of the Pops studio provided a haven for those who wanted to escape. With a new groundbreaking twin show broadcast from the USA, Top of the Pops could sidestep the videos of MTV and bring the very biggest names to UK audiences. In Television Centre, Stock, Aitken and Waterman provided the floor-fillers as hip-hop and rap made their mark on the chart along with home-grown house. From the rock aristocracy to pure pop hits and the irresistible new funk grooves, the youth could pick their own soundtrack and pump up the volume.

Terence Trent D'Arby, Curiosity Killed the Cat, PWL stablemates Rick Astley and Kim Appleby, Andy Bell, Carol Decker and Belinda Carlisle lead us through a smorgasbord year in music.

SAT 00:30 Top of the Pops (m0001wdv)
1987 - Big Hits

As BBC Four's weekly repeats of Top of the Pops reach 1987, we celebrate this high watermark of hits with some classic TOTP performances from this spectacular year. The programme includes studio appearances from Rick Astley with Never Gonna Give You Up to the godfather of punk, Iggy Pop, whose unforgettable appearance on the show is one not to be missed!

The programme also honours Manchester's finest, New Order, and Scottish soft rockers Wet Wet Wet, along with pop royalty Whitney Houston, Curiosity Killed the Cat, Boy George, The Bee Gees, The Pogues and a rare TOTP sighting of Eric B & Rakim. Pepsi and Shirlie, and many more are also poured into the mix, providing that perfect measure of definitive 80s pop.

SAT 01:30 Wild Arabia (p013mr18)
[Repeat of broadcast at 20:00 today]

SAT 02:30 Hidden Kingdoms (b03qkcs)
[Repeat of broadcast at 19:00 today]

SUNDAY 06 JANUARY 2019

SUN 19:00 The Eagle Has Landed (b00glr88)
All-action World War II adventure. On the morning of 6 November 1943, the military authorities in Berlin receive a simple message - 'The Eagle Has Landed'. In a daring kidnap attempt, a small force of crack German paratroopers are poised to snatch Winston Churchill and return with him to Germany. If they succeed in their mission, it could alter the course of the war. Who can stop them?

SUN 21:10 A Very British Deterrent (b07v3vzz)
With Trident renewed for another generation, A Very British Deterrent tells the story of the remarkable events, eye-watering costs, power relationships and secret deals done half a century ago to secure Britain's very first submarine-launched nuclear missiles.

In today's turbulent world, it is a story that is more relevant than ever. At the height of the Cold War, a series of political and technical crises came close to leaving Britain without a nuclear weapon of its own. In a time of unprecedented international tension and with the world locked in a terrifying nuclear arms race, one small loch in Scotland became a crucial bargaining chip to keep Britain in the nuclear game.

Using the personal letters of prime ministers and presidents, eye-witness accounts and once-secret documents, this film explores how the British prime minister Harold Macmillan seized every opportunity to further Britain's nuclear ambitions, was prepared to trade a Scottish base for a new American weapon, and even jeopardised the crucial Anglo-American relationship to keep Britain an independent nuclear power.

SUN 22:10 How to Build... a Nuclear Submarine (b00sy11w)
Fourteen years in the making and costing over a billion pounds, the Astute nuclear submarine is one of the most technologically advanced machines in the world, and for over a year the BBC filmed its construction inside one of the most secure and secret places in the country.

An amazing piece of British engineering or a controversial waste of tax payers' money? This documentary allows viewers to make up their own minds.

Among many of the workers, the film features Erin Browne, a 19-year-old apprentice electrician who wires up the boat; Commander Paul Knight, responsible for the safety of the nuclear reactor; and Derek Parker, whose job involves moving massive pieces of the submarine that weigh hundreds of tons into position before the welding team join them together.

Amazing computer graphics take us inside the construction of the submarine itself, giving a blueprint of the design, the life support systems and the weaponry, and help illustrate the areas that national security precluded filming in.

The story also takes a dramatic turn when an unforeseen event means the submarine has to sail into the open sea - for the first time - during one of the wettest and windiest weekends of the year.

SUN 23:10 Blackadder (p00bf6vt)
Blackadder Goes Forth

Plan E - General Hospital

Melchett orders Blackadder to unmask a spy working in the hospital where George is recovering from a bomb blast. Edmund sets to work, interrogating Darling, seducing a nurse and asking Baldrick to keep an eye on a patient with a pronounced German accent.

SUN 23:40 Blackadder (b0078nrn)
Blackadder Goes Forth

Plan F - Goodbye

Sitcom set in the trenches of the First World War. When Blackadder, George and Baldrick are told they are going over the top the next day, Blackadder decides to feign madness.

SUN 00:10 Treasures of the Indus (p02qvb6j)
Pakistan Unveiled

This is the story of the Indian subcontinent told through the treasures of three very different people, places and dynasties that have shaped the modern Indian world.

All too often, Pakistan is portrayed as a country of bombs, beards and burkhas. The view of it as a monolithic Muslim state is even embodied in the name of the country, 'the Islamic Republic of Pakistan'.

Yet, as Sona Datta shows, it used to be the meeting point for many different faiths from around the world and has an intriguing multicultural past - a past about which it is to some extent in denial. It also produced some extraordinary and little-known works of art which Sona, from her work as a curator at the British Museum, explores and explains.

SUN 01:10 Return to Betjemanland (b04gb6nl)

In 1984, Sir John Betjeman died and was buried at St Enodoc Church, close to the village of Tribetherick in north Cornwall.

Writer, critic and biographer of Betjeman, AN Wilson, visits the real and imagined places that shaped his life to reveal the life and work of the poet and broadcaster.

Wilson explores how Betjeman came to speak to, and for, the nation in a remarkable way. As a poet Betjeman was writing popular verse for the many, not the few. With his brilliant documentaries for television, Betjeman entertained millions with infectious enthusiasm as he explained his many passions and bugbears.

As a campaigner to preserve the national heritage, Betjeman was tireless in his devotion to conservation and preservation, fighting the planners, politicians and developers - railing against their abuse of power and money.

Wilson investigates this by visiting locations in London, Oxford, Cornwall, Somerset and Berkshire. He travels through a landscape of beautiful houses and churches, beaches and seaside piers - a place that Wilson calls Betjemanland.

In doing so he also reveals the complexity and contradictions of Betjeman - how Betjeman, the snob with a love of aristocrats and their country houses, is the same person who is thrilled by the more proletarian pleasures of the Great British seaside; how the poetry of Betjeman shows us that he is haunted by childhood memory, has religious faith but also doubt and is in thrall to love and infatuation; and how the man his friends called Betjeman was full of joie de vivre, but also suffered great melancholy and guilt whilst living an agonised double life.

SUN 02:10 A Very British Deterrent (b07v3vzz)
[Repeat of broadcast at 21:10 today]

MONDAY 07 JANUARY 2019

MON 19:00 Beyond 100 Days (b0bxbvsv)
Series 1

07/01/2019

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

MON 19:30 Weird Nature (b0078h4b)
Marvellous Motion

Series looking at strange animal behaviour reveals nature's quirkiest movers and shakers. From dancing sea slugs to

cartwheeling caterpillars this is nature at its most weird and wonderful.

In a series of magical sequences, crocodiles gallop, salamanders transform into wheels and bushbabies bounce like rubber balls. Lizards and frogs stage an extraordinary air show, the Mexican jumping bean reveals its fidgety secrets, lemurs pogo and two-legged lizards hunt like dinosaurs. Using new filming techniques and some extraordinary special FX, this is nature as never seen before.

MON 20:00 Fake or Fortune? (b012fvfh)

Series 1

Van Meegeren

The art world can prove a bear pit, with a myriad of tricksters at work. Experts estimate that anything between 20%-40% of works of art on the market are faked. And they can turn up in the most unexpected places.

Hanging in one of the most prestigious and respected art institutes in London is a picture Philip has heard of, which may hold the key to unlocking the story of the most audacious forger of all time. A man who dared to fake the work of Old Masters and made millions from his deception, until he was caught in 1945: Han Van Meegeren.

But a mystery remains to this day, as Van Meegeren died before a complete record of his fakes was made. How did he pull off faking Old Master paintings, duping important art galleries in to making purchases of works apparently by Vermeer, even foxing Goering in to buying one of his works during the war?

Philip and Fiona get to work on the London picture which, legend has it, hung in Van Meegeren's studio on the day he was arrested. Was it his last work? And by testing it, can we prove how he out-foxed some of the most eminent minds in the art world?

MON 21:00 The Truth About... (b09qj7d)

Getting Fit

By the middle of January many people struggle to keep up their resolutions to be more active. The result is that the UK wastes nearly £600 million a year on unused gym memberships.

But new science has the answers.

Medical journalist Michael Mosley teams up with scientists whose latest research is turning common knowledge about fitness on its head.

They reveal why 10,000 steps is just a marketing ploy and that two minutes of exercise is all a person needs each week. They discover how to get people to stick to their fitness plans and what exercise can actually make everyone more intelligent. Whether it is for couch potatoes who hate the thought of exercise, someone too busy to consider the gym, or even for fitness fanatics who are desperate to do more - science can help everyone exercise better.

MON 22:00 Storyville (b0b9zrhh)

John Curry: The Ice King

One of the greatest ice skaters of all time, John Curry transformed a dated sport into an art form and made history by becoming the first openly gay Olympian in a time when homosexuality was not fully legal.

Directed by James Erskine, this is a searing documentary about a lost cultural icon - a story of art, sport, sexuality and rebellion. Featuring incredible unseen footage of some of Curry's most remarkable performances and with access to his letters, archive interviews, and interviews with his family, friends and collaborators, this is a portrait of the man who turned ice skating from a dated sport into an exalted art form.

MON 23:25 Premium Bond with Mark Gatiss and Matthew Sweet (p02sx893)

In impeccable evening dress, Mark Gatiss and Matthew Sweet ponder the Bonds we've seen on screen since Dr No in 1962 and ask - which 007 is the best? To date, six actors have portrayed British Secret Service agent James Bond. Was Sean Connery impossible to surpass? Was George Lazenby really that bad? Was Live and Let Die really a blaxploitation movie in disguise? Gatiss and Sweet consider these and many other questions, and raise a martini in honour of their premium Bond.

MON 00:20 Timeshift (b04z23k9)

Series 14

Battle for the Himalayas: The Fight to Film Everest

Between the 1920s and the 1960s the world's great powers sent vast military-style expeditions to conquer the peaks of the Himalayas, with Everest at their head. This was a great game played - camera in hand - by Imperial Britain, Nazi Germany and superpower America. As a result, Himalayan mountaineering's most iconic, epic and tragic moments didn't just go down in history, but were caught on film - from the deaths of Mallory and Irvine on Everest in 1924, to Everest's final conquest in 1953 by Hillary and Tensing. Using footage never before seen on British television, this is the story how of how film-makers turned the great peaks into great propaganda.

MON 01:20 Natural World (b00tj7j4)

2010-2011

The Himalayas

Documentary looking at the wildlife of the most stunning mountain range in the world, home to snow leopards, Himalayan wolves and Tibetan bears.

Snow leopards stalk their prey among the highest peaks. Concealed by snowfall, the chase is watched by golden eagles circling above. On the harsh plains of the Tibetan plateau live extraordinary bears and square-faced foxes hunting small rodents to survive. In the alpine forests, dancing pheasants have even influenced rival border guards in their ritualistic displays. Valleys carved by glacial waters lead to hillsides covered by paddy fields containing the lifeline to the east, rice. In this world of extremes, the Himalayas reveal not only snow-capped mountains and fascinating animals but also a vital lifeline for humanity.

MON 02:20 The Truth About... (b09qj7d)

[Repeat of broadcast at 21:00 today]

TUESDAY 08 JANUARY 2019

TUE 19:00 Beyond 100 Days (b0bxqk8h)

Series 1

08/01/2019

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

TUE 19:30 Weird Nature (b0078h7z)

Devious Defences

Series exploring bizarre behaviour in the animal kingdom looks at creatures that employ camouflage, armour and other methods to ward off predators. Discover skunks that handstand, crabs that dress up and fish that are slime monsters. Meet an armadillo that can roll into an impregnable ball, owls and frogs that puff themselves up and a cobra that spits venom. There are fish that can copy a chequered board, octopus that shape-shift and creatures that can turn inside out. There are even birds that use projectile vomit or repulsive missiles and creatures that turn playing dead into a performance to die for. Using new filming techniques and some extraordinary special FX, this is nature as never seen before.

TUE 20:00 The Incredible Human Journey (b00kfqps)

Out of Africa

Dr Alice Roberts travels the globe to discover the incredible story of how humans left Africa to colonise the world - overcoming hostile terrain, extreme weather and other species of human. She pieces together precious fragments of bone, stone and new DNA evidence and discovers how this journey changed these African ancestors into the people of today.

Alice travels to Africa in search of the birthplace of the first people. They were so few in number and so vulnerable that today they would probably be considered an endangered species. So what allowed them to survive at all? The Bushmen of the Kalahari have some answers - the unique design of the human body made them efficient hunters and the ancient click language of the Bushmen points to an early ability to organise and plan.

Humans survived there, but Africa was to all intents and purposes a sealed continent. So how and by what route did humans make it out of Africa? Astonishing genetic evidence reveals that everyone alive today who is not African descends from just one successful, tiny group which left the continent in a single crossing, an event that may have happened around 70,000 years ago. But how did they do it? Alice goes searching for clues in the remote Arabian Desert.

TUE 21:00 Rome Unpacked (b09164hq)

Series 1

Episode 1

To really understand Rome, you must understand its people - or the mob, as they were known in ancient times. As Giorgio Locatelli and Andrew Graham-Dixon explore Italy's iconic capital, they are in search of the generations of ordinary Romans who have left their mark on the city's culture and gastronomy.

Giorgio insists that they travel, in true Roman style, by moped. They start their journey at the Trevi fountain, immortalised in Fellini's La Dolce Vita - which itself featured countless locals as extras to capture the real faces of Rome. Giorgio leads Andrew to some of his personal favourite districts, including Garbatella, Italy's first garden suburb, with its vibrant market stalls and village architecture, and introduces him to the simplest Roman food - 'the true food of the people'. He also insists on showing him how spaghetti carbonara should really be made - 'add cream and I'll kill you'.

In turn, Andrew introduces Giorgio to some of the most moving pictures by Caravaggio, 'the painter of the people', in what was once the city's foremost church for poor pilgrims - and they set out together to enjoy one of the great erotic masterpieces of Baroque painting. La Dolce Vita still exists, you just have to know where to find it.

TUE 22:00 Wild West - America's Great Frontier (b07zc4gg)

Desert Heartlands

This legendary land of red rocks and vast canyons, outlaws and gunslingers is a brutally tough place to live. But nature has found some extraordinary ways to win through, forging a pioneering spirit found nowhere else on earth.

Discover the amazing ways that mustangs and coyotes, Hopi farmers and even desert tortoises have found to survive in this extremely testing land.

TUE 23:00 The Plantagenets (b03yr973)

Series 1

The Devil's Brood

Professor Robert Bartlett tells the extraordinary story of England's most dysfunctional, yet longest-ruling, royal dynasty. Henry II forges a mighty empire encompassing England and much of France. His sons, Richard the Lionheart and John, then turn on their father and each other, bringing the dynasty to the edge of annihilation.

TUE 00:00 Metalworks! (b01fhhmp)

The Golden Age of Silver

Dan Cruickshank visits Britain's finest country houses, museums and factories as he uncovers the 18th- and 19th-century fascination with silver. Delving into an unsurpassed era of shimmering opulence, heady indulgence and conspicuous consumption, Dan discovers the Georgian and Victorian obsession with this tantalising precious metal which represented status, wealth and excellent taste. He gives us a glimpse of some of the most extensive collections and exquisite pieces of silverware to have ever been made on British shores.

TUE 01:00 An Art Lovers' Guide (b0b0g5cj)

Series 2

Baku

In the final episode of the series, Janina Ramirez and Alastair Sooke set off on their most adventurous trip yet - to Baku, capital of Azerbaijan.

A former Soviet state, bordering the Caspian Sea, Baku offers a tantalising mix of the ancient and modern - at the crossroads of east meets west, on the ancient silk trading route. It is also an authoritarian state, where cultural life is tightly controlled. So, not their regular city break...

But it is a city looking westwards, eager to turn itself into a tourist destination. They discover a city for which oil has been both a blessing and a curse. The profits from oil transformed its architecture twice - first in the late nineteenth century, and again in the twentieth.

As a result, Baku is full of buildings that feel like 19th-century Paris, but also gleaming new structures by architectural stars like Zaha Hadid. And all around, the traces of Soviet rule offer other surprising clashes of art and architecture.

Nina and Alastair pick their way through this maze of influences and travel back in time, seeking the roots of Azerbaijani identity. Alastair visits the world's first museum

devoted entirely to rugs while Nina marvels at stunning prehistoric rock art on the city's outskirts. Together they wander the medieval old city, discovering the early impact of Islamic culture.

And in the stunning Heydar Aliyev Centre designed by Zaha Hadid, they discover an exhibition devoted to Heydar Aliyev, president of Azerbaijan, whose government exerts a strong influence on the city's art and culture. But Alistair also meets Sabina Shikhinskaya, an artist with a truly independent voice.

As night falls they discover why Azerbaijan is known as the 'Land of Fire' when they visit Yanar Dag, a spectacular 10-metre long natural gas fire which blazes continuously. And they end their visit to Baku with a performance of Maugham, Azerbaijan's ancient, haunting folk music as they reflect on their time in a city that has fascinated and surprised them both.

TUE 02:00 The Incredible Human Journey (b00kfqps)
[Repeat of broadcast at 20:00 today]

TUE 03:00 Rome Unpacked (b09164hq)
[Repeat of broadcast at 21:00 today]

WEDNESDAY 09 JANUARY 2019

WED 19:00 Beyond 100 Days (b0bxql9k)
Series 1

09/01/2019

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

WED 19:30 Weird Nature (b0078hcf)
Bizarre Breeding

Discover dancing scorpions, courting birds that give trinkets as gifts, mice that mate themselves to death and a mantis that eats its partner in an exploration of strange behaviour in nature's bizarre breeding rituals.

Meet frogs that rear their young under their skin, fish that leap from the water to lay eggs on leaves and a bullfrog father that becomes lifeguard to his offspring. There are fish that change sex, others that bubble-wrap their young, male hamsters that act as midwives and even a male that becomes pregnant. And, in this weird world, discover a shrew that creates a living daisy chain of its own young.

WED 20:00 Armada: 12 Days to Save England (p02pkxkm)
Series 1

Episode 1

In the first part of a major three-part drama documentary series, Anita Dobson stars as Elizabeth I, and Dan Snow takes to the sea to tell the story of how England came within a whisker of disaster in summer 1588. Newly discovered documents take us right inside the Spanish Armada for the very first time and reveal a missed opportunity that could have spelled the end of Tudor England.

WED 21:00 New Forest: A Year in the Wild Wood (m0001y84)

Writer and environmentalist Peter Owen-Jones spends a year in the enchanting landscapes of the New Forest, exploring its wildlife, history and meeting the Commoners, the people whose ancient way of life has helped shaped the land since Neolithic times.

'The New Forest is a timeless place - there are no fences and the animals roam free. I've always wondered how the forest and the commoning way of life have survived in the middle of southern England for so long. It's been an incredible experience finding out.' - Peter Owen-Jones.

Over the year, with its dramatic seasonal changes, Owen-Jones ventures out into the forest and immerses himself in the lives of the Commoners, a group of around 700 people who have retained grazing rights for their animals, which date back to medieval times. From the first foals born in spring to the release of the stallions and the annual herding of the ponies, he discovers a hardy people who, despite the urban development around them, and the pressures on the landscape of 13 million visitors a year, retain a deep love of the land and a determination to see their way of life survive.

The New Forest National Park covers an area of 566 square kilometres. It extends from the edge of Salisbury Plain through ancient forest, wild heathland and acid bog, down to the open sea. Here, Owen-Jones discovers hidden wildlife treasures. The

rolling heathland is home to dazzling lizards, our largest dragonfly and carnivorous plants. And deep in the ancient woods, he finds goshawks that stalk their prey between the trees and an explosion of rare fungi. To his surprise, he discovers that many of the trees were planted by man to build battleships for the British Empire.

Owen-Jones delves into the history of the Commoners. He discovers how their pastoral way of life evolved from the practices of Neolithic herders and he reveals how the brutal Forest Laws imposed by William the Conqueror were used to crush them in order to preserve the forest as a royal hunting ground. Yet it was these same laws that inadvertently helped protect the New Forest that exists today. The Commoners now face perhaps their greatest threat. As the cost of property spirals and rents increase, their way of life, is under threat.

'This has been an incredible year... I've met people who, against all odds, have retained this ancient way of life and a deep connection to and love of the land. It's what shapes and defines this extraordinary place.' - Peter Owen-Jones

Peter Owen-Jones is a passionate author and environmentalist. He started life as a farm labourer, became an advertising executive, and then gave it all up to become an Anglican priest. Peter has presented a number of BBC programs, including *Extreme Pilgrim* and *Around the World in 80 Faiths*. *South Downs: England's Mountains Green* was one of BBC4's most watched films. Recent books include *Pathlands: 21 Tranquil Walks Among the Villages of Britain* and *Letters from an Extreme Pilgrim: Reflections on Life, Love and the Soul*. Peter is deeply committed to and knowledgeable about the British countryside and its traditions.

The New Forest became a National Park in 2005. It is one of the largest remaining tracts of unenclosed pasture land, heathland and forest in southern England.

WED 22:00 Tutankhamun: The Truth Uncovered (b04n6scp)

What killed King Tutankhamun? Ever since his spectacular tomb was discovered, the boy king has been the most famous pharaoh of all ancient Egypt. But his mysterious death, at just 19 years old, has never been explained.

Dallas Campbell reports on new scientific research being carried out on his fragile remains in an attempt to get to the truth. Using CT scan data, the programme creates the first scientifically accurate image of the king's corpse. DNA analysis uncovers a secret about Tutankhamun's family background, and the genetic trail of clues leads to a new theory to explain his death.

This is an epic detective story that uncovers the extraordinary truth of the boy behind the golden mask.

WED 23:00 Immortal Egypt with Joann Fletcher (b06vpc9y)

The Road to the Pyramids

In the first episode, Professor Joann Fletcher goes in search of the building blocks of Egyptian civilisation and finds out what made ancient Egypt the incredible civilisation that it was.

Joann sees how people here changed, in just a few centuries, from primitive farmers to pyramid builders and finds the early evidence for Egypt's amazing gods and obsession with death and the afterlife.

On her search, Joann travels almost 20,000 years back in time to discover north Africa's earliest rock art, she discovers how the first writing was used to calculate taxes and explores one of the first stone structures on earth - Egypt's first pyramid. Joann ends her journey in the largest monument of them all - the Great Pyramid. Here, she explains how Egypt had now reached a pinnacle - the ultimate society, creating one of the wonders of the ancient world.

WED 00:00 Timeshift (b082v57b)

Series 16

Penny Blacks and Twopenny Blues: How Britain Got Stuck on Stamps

Timeshift charts the evolution of the British postage stamp and examines how these sticky little labels became a national obsession. Like many of us, writer and presenter Andrew Martin collected stamps when he was young, and now he returns to that lost world to peel the history of iconic stamps like the Penny Black and the Blue Mauritius, study famous collectors like King George V and the enigmatic Count Phillip de Ferrary, and to meet present-day philatelists at a stamp club.

WED 01:00 How the Celts Saved Britain (b00kps7h)
A New Civilisation

Dan Snow blows the lid off the traditional, Anglo-centric view of history and reveals how the Irish saved Britain from cultural oblivion during the Dark Ages, in this provocative, two-part documentary.

Travelling back in time to some of the remotest corners of the British Isles, Dan unravels the mystery of the lost years of 400-800 AD, when the collapse of the Roman Empire left Britain in tatters.

In the first episode, Dan shows how in the 5th century AD Roman 'Britannia' was plunged into chaos by the arrival of Anglo-Saxon invaders. As Roman civilisation disappeared from Britain, a new civilisation emerged in one of the most unlikely places - Ireland. Within a few generations, Christianity transformed a backward, barbarian country into the cultural powerhouse of early medieval Europe.

This is a visually and intellectually stimulating journey through one of the least known chapters of British history.

WED 02:00 Armada: 12 Days to Save England (p02pkxkm)
[Repeat of broadcast at 20:00 today]

WED 03:00 New Forest: A Year in the Wild Wood (m0001y84)
[Repeat of broadcast at 21:00 today]

THURSDAY 10 JANUARY 2019

THU 19:00 Beyond 100 Days (b0bxqlgr)
Series 1

10/01/2019

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

THU 19:30 Top of the Pops (m0001y8c)

Gary Davies presents the pop chart programme, first broadcast on 1 January 1987, featuring Status Quo, a-ha, Alison Moyet, Elkie Brooks, Gary Moore, Spitting Image and Madonna.

THU 20:00 Wonders of Life (b01qh3bb)
Original Series

What Is Life?

In this episode Brian Cox visits South East Asia's 'Ring of Fire'. In the world's most volcanic region he explores the thin line that separates the living from the dead and poses that most enduring of questions: what is life? The traditional answer is one that invokes the supernatural, as seen at the annual Day of the Dead celebrations in the Philippine highlands. Brian sets out to offer an alternative answer: one bound up in the flow of energy through the universe.

On the edge of Taal Volcano lake, Brian demonstrates how the first spark of life may have arisen. Here, heat energy from the inner Earth forces its way to the surface and changes its chemistry, just as it did in our planet's infancy. It is now believed that these chemical changes set up a source of energy from which life first emerged.

Today, virtually all derives its energy from the Sun. But there's a paradox to this as according to the laws of physics energy can neither be created nor destroyed. So life doesn't 'use' energy up. It can't remove it from the universe. So how does energy enable living things to live?

Brian reveals life to be a conduit through which energy in the universe passes, just one part in a process that governs the lifecycle of the entire Universe. By diverting energy in the cosmos living things are able to grow and thrive.

But whilst the flow of energy can explain living things, it can't explain how life has endured for more than three billion years. So Brian meets an animal in the Borneo rainforest that holds the key to how life persists - the orangutan. Ninety seven per cent of our DNA is shared with orangutans. That shared heritage reveals a profound conclusion: that DNA is a record of the evolution of life on Earth, one that connects us to everything alive today and that has ever lived.

So life isn't really a thing. It's a chemical process, a way of tapping into the energy flowing through the Universe and transmitting it from generation to generation through the elegant chemistry of DNA. Far from demanding a mystical explanation, the emergence of life might be an inevitable consequence of the laws of physics.

THU 21:00 Light and Dark (p01k4y6t)

Light

Two-part series in which Professor Jim Al-Khalili shows how, by uncovering its secrets, scientists have used light to reveal almost everything we know about the universe. But in the last 30 years we have discovered that far from seeing everything, we have seen virtually nothing. Our best estimate is that more than 99 per cent of the universe is actually hidden in the dark.

The story of how we used light to reveal the cosmos begins in the 3rd century BC when, by trying to understand the tricks of perspective, the Greek mathematician Euclid discovered that light travels in straight lines, a discovery that meant that if we could change its path we could change how we see the world. In Renaissance Italy 2,000 years later, Galileo Galilei did just that by using the lenses of his simple telescope to reveal our true place in the cosmos.

With each new insight into the nature of light came a fresh understanding of the cosmos. It has allowed us to peer deep into space and even revealed the composition and lifecycles of the stars.

In the 1670s, the Danish astronomer Ole Roemer discovered that light travelled at a finite speed, a discovery that had a profound implication. It meant the further one looks out into the universe, the further one looks back in time. And in 1964, by detecting the cosmic microwave background, the aftermath of the big bang, we captured the oldest light in the universe and saw as far back as it is possible to see with light.

THU 22:00 Horizon (b07fys2y)
2016

Why Are We Getting So Fat?

Over 62 per cent of adults in the UK are currently overweight or obese and this figure is set to rise. A common attitude is that obese people should be ashamed - it is their fault, they have no will power and if they could just 'eat less and exercise more', the problem would soon be solved. Yet, despite millions of pounds being spent on this simple message, the UK is getting fatter every year.

Cambridge geneticist Dr Giles Yeo believes that for many obese people, simply eating less is a lot harder than you might think - and he is taking a road trip around the UK and America to uncover why. He meets the real people behind some of the more shocking newspaper headlines and, through their stories, reveals surprising truths which dispel commonly held myths about obesity. He gains access to scientists and doctors trialling cutting-edge techniques to tackle the crisis - from a 'miracle' hormone injection to a transfusion of faecal matter, and even learns a thing or two about his own size and relationship with food.

THU 23:00 Horizon (b05wdfhk)
2014-2015

Is Binge Drinking Really That Bad?

How bad can our drinking pattern be for our health? Doctors and genetically identical twins Chris and Xand van Tulleken want to find out. With the current drinking guidelines under review, the twins embark on self-experimentation to see the effects of different drinking patterns on their health. With Chris drinking 21 units spread evenly across the week and Xand having his 21 in single weekly binges, how will their bodies differ after a month? Catching up with the latest research into alcohol drinking patterns, we ask if moderate drinking is genuinely good for us - and whether binge drinking is really that bad.

THU 00:00 Top of the Pops (m0001y8c)
[Repeat of broadcast at 19:30 today]

THU 00:30 Inside No. 9 (b05rq0t2)
Series 2

Nana's Party

It is Nana's special day: it isn't every day you get to be 79. She is excited about spending the afternoon with her whole family - even Pat and Jim, who both love a great practical joke. Her Angela has put on a lovely spread, including a huge cake. But as Nana says, 'Don't worry about the future: you can't predict it'.

THU 01:00 The Joy of Logic (b03k6ypz)

A sharp, witty, mind-expanding and exuberant foray into the world of logic with computer scientist Professor Dave Cliff. Following in the footsteps of the award-winning *The Joy of Stats* and its sequel *Tails You Win* - *The Science of Chance*, this film takes viewers on a new rollercoaster ride through philosophy, maths, science and technology- all of which, under

the bonnet, run on logic.

Wielding the same wit and wisdom, animation and gleeful nerderly as its predecessors, this film journeys from Aristotle to Alice in Wonderland, sci-fi to supercomputers to tell the fascinating story of the quest for certainty and the fundamentals of sound reasoning itself.

Dave Cliff, professor of computer science and engineering at Bristol University, is no abstract theoretician. 15 years ago he combined logic and a bit of maths to write one of the first computer programs to outperform humans at trading stocks and shares. Giving away the software for free, he says, was not his most logical move...

With the help of 25 seven-year-olds, Professor Cliff creates, for the first time ever, a computer made entirely of children, running on nothing but logic. We also meet the world's brainiest whizz-kids, competing at the International Olympiad of Informatics in Brisbane, Australia.

The film also hails logic's all-time heroes: George Boole who moved logic beyond philosophy to mathematics; Bertrand Russell, who took 360+ pages but heroically proved that 1 + 1 = 2; Kurt Godel, who brought logic to its knees by demonstrating that some truths are unprovable; and Alan Turing, who, with what Cliff calls an 'almost exquisite paradox', was inspired by this huge setback to logic to conceive the computer.

Ultimately, the film asks, can humans really stay ahead? Could today's generation of logical computing machines be smarter than us? What does that tell us about our own brains, and just how 'logical' we really are...?

THU 02:00 Wonders of Life (b01qh3bb)
[Repeat of broadcast at 20:00 today]

THU 03:00 Light and Dark (p01k4yt6)
[Repeat of broadcast at 21:00 today]

FRIDAY 11 JANUARY 2019

FRI 19:00 World News Today (m0001y8f)

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

FRI 19:30 Top of the Pops (m0001y8h)

Gary Davies presents the pop chart programme, featuring Swing Out Sister, Lionel Richie, The Gap Band, The Pretenders, Paul Simon, Jackie Wilson and Genesis.

FRI 20:00 It's Only Rock 'n' Roll: Rock 'n' Roll at the BBC (b063m6wy)

A celebration of rock 'n' roll in the shape of a compilation of classic artists and songs, featuring the likes of Jerry Lee Lewis, Dion and Dick Dale who all featured in the Rock 'n' Roll America series, alongside songs that celebrate rock 'n' roll itself from artists such as Tom Petty (Anything That's Rock 'n' Roll), Joan Jett (I Love Rock 'n' Roll) and Oasis (Rock 'n' Roll Star).

FRI 21:00 Guitar, Drum and Bass (m0001y8k)

Series 1

On Drums... Stewart Copeland!

Stewart Copeland explores the drums as the founding instrument of popular modern music. Beats that travelled from Africa via New Orleans and across the world are the consistent force behind musical evolution.

Stewart plays with some of the most inspiring drummers of the last 50 years, including John Densmore of The Doors, Chad Smith of The Red Hot Chili Peppers, Prince's musical director Sheila E, New Order's Stephen Morris and Foo Fighters' Taylor Hawkins. He goes dancing in New Orleans, builds his own bass drum pedal and checks out hot new bands on Santa Monica beach.

FRI 22:00 Top of the Pops (b00zwrn5)

1964 to 1975 - Big Hits

1964 saw the birth of a very British institution. Spanning over four decades, *Top of the Pops* has produced many classic moments in pop culture.

Digging deep within the darkest depths of the BBC's archive, this compilation offers some memorable performances from 1964 through to 1975 from the likes of The Rolling Stones, Tom Jones, Status Quo, Procol Harum, Stevie Wonder, Queen and The Kinks, and opens the vintage vaults to rare performances from Stealers Wheel, Julie Driscoll, Peter

Sarstedt and The Seekers.

So sit back and witness once again where music met television.

FRI 23:30 Reginald D Hunter's Songs of the South (p02j94nr)
Tennessee and Kentucky

In the first of a three-part road trip, Georgia-born but London-based Reginald D Hunter returns home to explore the American south both past and present through its world-famous songs. Reg begins by exploring the sounds of Kentucky and Tennessee and the disturbing tradition of blackface minstrelsy.

Hunter is led through the south by its signature songs, including Dolly Parton's *My Tennessee Mountain Home*, Knoxville Girl, *Blue Moon of Kentucky*, Chattanooga Choo Choo and minstrel songs such as *My Ol' Kentucky Home* and *Old Folks at Home*.

On his voyage Reg visits Dollywood, a slave plantation in Bardstow, Nashville - the home of country music, a moonshine distillery in Gatlinburg and a string band festival in Mount Airy.

Featuring Dolly Parton, The Handsome Family and Del McCoury.

FRI 00:30 Top of the Pops (m0001y8h)
[Repeat of broadcast at 19:30 today]

FRI 01:00 Motown at the BBC (b00hq4qr)

To mark the 50-year anniversary of Motown in 2009, a compilation of some of the iconic record label's greatest names filmed live in the BBC studios. Visitors from Hitsville USA over the years have included Smokey Robinson and the Miracles, Diana Ross and the Supremes, the Temptations, Stevie Wonder, The Four Tops and The Jackson 5.

FRI 02:00 It's Only Rock 'n' Roll: Rock 'n' Roll at the BBC (b063m6wy)
[Repeat of broadcast at 20:00 today]

FRI 03:00 Guitar, Drum and Bass (m0001y8k)

[Repeat of broadcast at 21:00 today]