

SATURDAY 08 MAY 2021**SAT 01:00 BBC News (w172xzjhw8w2cdg)**

The latest five minute news bulletin from BBC World Service.

SAT 01:06 Business Matters (w172xvq9r0rzqg5)

President Biden insists US is 'on the right track' despite lower job numbers

The US economy added 266,000 jobs in April, far fewer than economists had predicted. President Biden has said his economic plan is working despite the disappointing numbers. We get analysis from Diane Swonk, chief economist at accountancy firm Grant Thornton in Chicago.

Also in the programme, Kai Ryssdal from our US partners Marketplace talks to Dr Scott Anzalone in Logan, Ohio, about a shortage of doctors in his town.

And the BBC's Justin Rowlett finds out whether electric cars are likely to become dominant more quickly than had previously been expected.

Plus, we hear how delivery drivers in Indonesia are using apps to conceal their real locations in order to secure more business, from Vice reporter Rida Qadri.

Rahul Tandon is joined throughout the programme by Peter Ryan, ABC's senior business correspondent in Sydney.

(Picture: A 'now hiring' sign. Credit: Getty Images)

SAT 02:00 BBC News (w172xzjhw8w2h4l)

The latest five minute news bulletin from BBC World Service.

SAT 02:06 The Newsroom (w172xyxfh0533v)

The world's Newsroom brings you global events as they happen

SAT 02:30 BBC News Summary (w172zkkb0grvdz)

The latest two minute news summary from BBC World Service.

SAT 02:32 Stumped (w3ct1hbc)

'Corruptors are getting more sophisticated'

On this week's Stumped podcast Alison Mitchell, Jim Maxwell and Charu Sharma discuss the suspension of the IPL. They ask whether the decision has to come too later and debate what will happen next for cricket in India.

Plus the team are joined by Alex Marshall, the ICC Anti-Corruption Unit General Manager. He tells us what they do to tackle corruption and how convicted cricketers are helped following a ban.

We hear from Scottish cricketer Abtaha Maqsood on Ramadan, wearing a Hijab and preparing to play for the Birmingham Phoenix in the Hundred.

Photo: A cricket ball is caught in a pair of wicket keeping gloves with a fan of Australian fifty dollar notes (Credit: Getty images)

SAT 03:00 BBC News (w172xzjhw8w2lwq)

The latest five minute news bulletin from BBC World Service.

SAT 03:06 The Fifth Floor (w3ct20dv)

Women and peace in Afghanistan

The BBC Media Action team in Afghanistan recently went on the road with their programme Open Jirga to hear about women's hopes and fears for any peace deal between the Afghan government and the Taliban. Presenter Shazia Haya heard from the ambitious young women of Herat's all-female robotics team, and from women in the Taliban heartland city of Kandahar who risked their lives to have their voices heard.

Baghdad's graffiti artists

A group of graffiti artists in the Iraqi capital Baghdad have been painting murals and portraits in poor, rundown areas of the city. The artworks feature famous people and local folk heroes, as BBC Arabic's Haddad Salih explains.

Who is the new president of Tanzania?

President Samia Suluhu Hassan took office less than two months ago after the sudden death of her predecessor, John Magufuli. She has already shown a very different style of leadership. Zuhura Yunus of BBC Swahili introduces us to Tanzania's first female president.

Egypt's female folk singers

Folk music in Egypt has traditionally been the domain of men. But an all-female folk group called Tablet El Sitt, 'the woman's drum', is reviving old songs sung by and about women. Aya Hashim of BBC Arabic has been investigating.

A short walk in the Russian woods

Another chance to hear Oleg Boldyrev of BBC Russian enjoying last year's Spring lockdown in the company of fallen trees, fungi, and beaver dams.

Image: 'Open Jirga' presenter Shazia Haya with all female audience in Kandahar

Credit: BBC Media Action

SAT 03:50 Witness History (w3ct1wyg)

Surviving Guantanamo

After 9/11 the USA began a programme of 'extraordinary rendition', moving prisoners between countries without legal representation. Mohamedou Ould Slahi from Mauritania was one of those detained at the US military facility in Cuba, Guantanamo Bay. He tells Rebecca Kesby how he was tortured by American military personnel, and held for 15 years without charge. He's written a best-selling book about his experiences, 'Guantanamo diary', which has recently been made into a film.

(PHOTO: Mohamedou Ould Slahi, a Guantanamo Bay prisoner who wrote a book about his experiences in the military prison, poses on October 18, 2016 in Nouakchott, after he was reunited with his family in his native Mauritania. (Photo credit STRINGER/AFP via Getty Images)

SAT 04:00 BBC News (w172xzjhw8w2qmv)

The latest five minute news bulletin from BBC World Service.

SAT 04:06 The Real Story (w3ct1hsb)

Germany after Merkel

Angela Merkel is the longest serving leader in the European Union. Known as Mutti, or mother, to her supporters, Merkel is credited with keeping Germany stable in the midst of global and European crises with her steely yet non-confrontational style of leadership. But the German Chancellor is stepping down later this year when the country goes to polls. Voters will then decide whether to choose a successor who'll maintain her style, or back more dramatic change. Support for Mrs Merkel's CDU has dropped after a series of unpopular lockdowns and a patchy coronavirus vaccine rollout. The Greens, who are promising more climate-friendly policies at home and a pivot towards Nato and the United States abroad, are polling well. And the far right still garners hundreds of thousands of votes. So what does the future hold for Germany after 16 years of Angela Merkel? Will it now enter a period of uncertainty after years of stability? Does it have the right leadership to navigate the uncertainties of a post-Covid economic recovery? And how will it balance the economic and strategic interests of the United States and EU on one side, and Russia and China on the other? Ritula Shah is joined by a panel of experts.

SAT 05:00 BBC News (w172xzjhw8w2vez)

The latest five minute news bulletin from BBC World Service.

SAT 05:06 The Newsroom (w172xyxfh05gc7)

The world's Newsroom brings you global events as they happen

SAT 05:30 BBC News Summary (w172zkkb0gs6nc)

The latest two minute news summary from BBC World Service.

SAT 05:32 Trending (w3ct2dmk)

The Anti-Vax Files

Vaccine heroes fight back

Nicole is a paediatrician in Ohio who was shocked when she received a ton of nasty comments on one of her online videos. Her "mistake" was providing reliable, evidence-based information about vaccines.

It meant that anti-vaccine activists targeted her. But with the help of a group of volunteer medical professionals called Shots Heard Around the World, she led a fight back against abuse and disinformation.

The pandemic is far from over – but there are signs that science is winning out over hardcore anti-vaccine lies.

In the final episode of the series, we reveal the extent of vaccine disinformation in countries around the world. And we meet some of the volunteers on the frontlines of the push back.

They're filling in some of the gaps, but shouldn't that be the job of the social media companies? We quiz a Facebook executive about whether their policies and systems are really working.

Presenter: Mike Wendling

Reporter: Marianna Spring

Producer: Ant Adeane

SAT 05:50 More or Less (w3ct2dix)

Finding Mexico City's real death toll

Mexico City's official Covid 19 death toll did not seem to reflect the full extent of the crisis that hit the country in the spring of 2020 - this is according to Laurianne Despegel and Mario Romero. These two ordinary citizens used publicly available data to show that excess deaths during the crisis - that's the total number of extra deaths compared to previous years - was four times higher than the confirmed Covid 19 deaths.

(Mexican Red Cross ambulances transfer Covid-19 patients to emergency rooms that still have beds. Credit: Alfredo Estrella/Getty Images)

SAT 06:00 BBC News (w172xzjhw8w2z43)

The latest five minute news bulletin from BBC World Service.

SAT 06:06 Weekend (w172xyt4r1lfd6)

Indian Prime Minister Modi expected to ask West to waive Covid vaccine patents

The Indian Prime Minister Narendra Modi is expected to ask Western countries to waive patents for Covid-19 vaccines. It comes amid a devastating surge of Covid infections across India, which is now making its way into rural communities that are badly equipped to deal with the virus.

Also in the programme: The United States has called for a de-escalation of tensions in Jerusalem after nearly two hundred Palestinians were injured in clashes with Israeli police, and is ballet on point when it comes to issues of power imbalance and diversity?

To discuss these stories and more, Celia Hatton is joined by Maya Goodfellow a London based writer and academic specialising in race and immigration, and Rami Khouri, a professor of journalism and a non-resident senior fellow at the Kennedy School of Harvard University in Boston.

(Photo: An Indian man receives a dose of a vaccine against COVID-19, during a vaccination campaign at KC General Hospital in Bangalore, India. Credit: EPA/JAGADEESH NV)

SAT 07:00 BBC News (w172xzjhw8w32w7)

The latest five minute news bulletin from BBC World Service.

SAT 07:06 Weekend (w172xyt4r1lfb4b)

Violent clashes in Jerusalem between Israeli police and Palestinian protesters

There's been unrest in Jerusalem over the potential eviction of Palestinian families from land claimed by Israeli settlers. Hundreds of people, both protesters, and police were wounded in the clashes.

Also in the programme: results are coming in from Britain's biggest polls since the 2019 General Election; and the extraordinary stories of Jewish families who used classified adverts in the Guardian newspaper to flee the Holocaust and save their loved ones.

To discuss these stories and more, Celia Hatton is joined by Maya Goodfellow, a London based writer and academic specialising in race and immigration, and Rami Khouri, professor of journalism and a non-resident senior fellow at the Kennedy School of Harvard University in Boston.

(Photo: Israeli police aim their weapons during clashes with Palestinians in the compound that houses Al-Aqsa Mosque in Jerusalem's Old City, May 7, 2021. Credit: REUTERS/Ammar Awad)

SAT 08:00 BBC News (w172xzjhw8w36mc)

The latest five minute news bulletin from BBC World Service.

SAT 08:06 Weekend (w172xyt4r1lflwg)

Hundreds injured in unrest in Jerusalem

There's been growing unrest over the potential eviction of Palestinian families from the area, which culminated in a night of violence that left around 200 people injured, including some police.

Also in the programme: can the Tokyo Olympics still go ahead despite the ongoing pandemic?

(Photo:Palestinians react as Israeli police fire stun grenades

during clashes at the compound that houses Al-Aqsa Mosque.
Credit: REUTERS/Ammar Awad)

SAT 08:30 BBC News Summary (w172xzkbb0gskwr)
The latest two minute news summary from BBC World Service.

SAT 08:32 The Conversation (w3ct1p6g)
Nurses on the frontline: A year on

In April 2020, Kim Chakanetsa spoke to two young nurses who were putting their lives on the line by treating the sickest covid-19 patients in intensive care units. At that point, only a couple of months into a global pandemic, they were exhausted but optimistic about things getting better. Kim catches up with them and asks how they are coping a year on after another wave of infections and an increasing death toll.

Hannah Grey is a 24-year-old nurse based in London. She worked as a busy Intensive Care Unit for both waves of virus infections, but has since moved on to a children's critical unit. She has launched her own podcast, What Makes a Nurse?, sharing the stories of the many skilled nurses she met during the pandemic, as they came to help on the ICU.

Bianca Dintino is a 27-year-old critical care nurse based at Tufts Medical Center in Boston. She was one of the first nurses to volunteer to care for coronavirus patients last year, and credits her colleagues with keeping her going. Bianca got married during the pandemic, and has been trying to find the joy in a difficult year.

Produced by Rosie Stopher

IMAGE DETAILS:

L: Bianca Dintino (credit Anne Marie)
R: Hannah Gray (credit Simi Sebastian)

SAT 09:00 BBC News (w172xjhw8w3bch)
The latest five minute news bulletin from BBC World Service.

SAT 09:06 BBC OS Conversations (w3ct2d5m)
Coronavirus: Pilots and trainee doctors

The pandemic has caused millions of job losses during the past year. The travel industry is one area that has been badly affected as many countries closed their borders or restricted entry. As a result, thousands of pilots are no longer flying and are out of work. Host Nuala McGovern hears from two pilots in Canada and the UK about what it's like to lose a job that's part of your identity and what the future has in store.

We also return to the emergency situation in India. We hear from medical students and junior doctors about how the pandemic means they have to delay internships, training and graduations to treat Covid patients. They tell us about the emotional strain when they find themselves in a situation of "playing God" and having to decide whose lives to try and save. Plus, we discuss the anxiety of living thousands of miles away from relatives in India and being concerned for their safety - especially when one of them works in a hospital and treats coronavirus cases.

(Photo: Steve Zago Credit: Steve Zago)

SAT 09:30 BBC News Summary (w172xzkbb0gspmw)
The latest two minute news summary from BBC World Service.

SAT 09:32 The Lazarus Heist (w3ct2f8w)
2: Hacking Hollywood

A comedy plot, Kim Jong-un and a devastating cyber-attack. The story of the Sony hack. How the Lazarus Group hackers caused mayhem in Hollywood and for Sony Pictures Entertainment.
And this is just the beginning...
#LazarusHeist

Listen online at bbcworldservice.com/lazarusheist

SAT 09:50 Over to You (w3ct111b)
The art of the two-minute news bulletin

As part of the BBC drive to connect with younger audiences, we hear from the team behind Global Newsbeat - and ask if you can really provide comprehensive news in just two minutes.

Plus, a mother's love for her transgender daughter, the potential need for a password to access the BBC news pages and details of an extra £94.4m in funding for BBC World Service.

Presenter: Rajan Datar
Producer: Howard Shannon.

SAT 10:00 BBC News (w172xjhw8w3g3m)
The latest five minute news bulletin from BBC World Service.

SAT 10:06 Sportshour (w172y0pxtb1kw48)
Janelly Farias – the 'Mexican Rapinoe'

Club America defender Janelly Farias tells us how taking a stand on social issues has led to people in her home country likening her to USA star Megan Rapinoe. The comparisons were intended as an insult but Farias takes them as a compliment and the two women have exchanged messages on social media this week. Farias – who is LGBTQ+ - also tells us her family didn't want her to be a footballer and that they rejected her when she got her first girlfriend. They've since reunited and she's targeting playing for Mexico at the 2023 World Cup.

Anna Rutherford joins us to reflect on smashing the record for running the two hundred and twelve mile Southern Upland Way in Scotland. She completed the run in sixty two hours and thirty four minutes to break the previous record by seventeen hours.

Iddrisu Ismael – who could be the biggest Tranmere Rovers fan in Ghana – tells us about supporting a club in the fourth division of English football and how it would be a dream to see a game at Prenton Park. Fellow Rovers fan – Richard Davies – also joins us to discuss his friendship with Iddrisu and how he's trying to raise money to help his footballing dream come true.

Tom "Gordy" Drury recently skateboarded four thousand kilometres along the eastern coast of Australia from Melbourne to Cairns to raise money to help build a skate park in Laos. He tells us about run ins with deadly snakes, near misses with traffic, why he'll never do it again and what his next adventure is.

In Sporting Witness, we go back to the 1992 Olympics in Barcelona for the story of Indonesian badminton legend, Susi Susanti, who made history as her country's first-ever gold medallist.

Former New Zealand captain and host of The Players podcast - Rebecca Smith – looks ahead to this weekend's title decider in the Women's Super League and the BBC's Vicki Sparks is live at Elland Road ahead of Leeds United's game against Tottenham Hotspur in the Premier League.

Photo via Getty Images: Janelly Farias Rodriguez of Mexico in action during the friendly women football match played between Spain and Mexico at Municipal Marbella Stadium.

SAT 11:00 BBC News (w172xjhw8w3kvr)
The latest five minute news bulletin from BBC World Service.

SAT 11:06 The Newsroom (w172xyxfhz0650)
The world's Newsroom brings you global events as they happen

SAT 11:30 BBC News Summary (w172xzkbb0gsy44)
The latest two minute news summary from BBC World Service.

SAT 11:32 WorklifeIndia (w3ct2f32)
Tackling India's oxygen crisis

A devastating wave of coronavirus infections in India has seen crematoriums overwhelmed and hospitals reeling under a massive oxygen shortage.

There have been a record number of Covid cases and deaths. This exponential surge has swamped the healthcare system. Patients are seen dying in ambulances and parking lots outside hospitals – many of them gasping for breath due to a lack of oxygen, which is vital for those infected. There have been reports of hoarding and even black marketing as relatives scramble to arrange medical oxygen for their friends and kin.

What has led to this crippling shortage and what can be done to improve the situation? In this edition, we discuss the situation on the ground and the ways India can tackle its oxygen crisis.

Presenter: Devina Gupta

Contributors: Dr Sudhanshu Bankata, executive director, Batra Hospital; Puneet Singh, trustee, Khalsa Aid; Gautam Raj Anand, Mission Oxygen India

SAT 12:00 BBC News (w172xjhw8w3plw)
The latest five minute news bulletin from BBC World Service.

SAT 12:06 The Documentary (w3ct1d21)
My viral video and me

Colm Flynn tracks down the internet's original viral video

superstars and reveals how becoming an online sensation changed their life.

So many people spend their time chasing the allure of fame, however, very few ever reach the level of world-wide recognition that viral phenomena obtain almost overnight.

Colm tracks down the people he watched online growing up, to find out what happened to them after their initial viral fame faded. He visits people who amassed hundreds of millions of worldwide views and embedded themselves in the minds of a generation.

A child of the internet's early days, Colm felt the thrill of watching and sharing videos that seemed real and raw. Now, a decade on, he'll find the stars of those videos – the ones that gained popularity before the times of social media influencers and vlogger personalities.

He finds out what it was like to be in that whirlwind and discover the opportunities and challenges that going viral presents.

Colm meets Rebecca Black, whose song, Friday, gained international renown. He finds out how the reaction to the record impacted her life and shaped her future. He catches up with Tay Zonday, the man behind Chocolate Rain and Judson Laipply, star of Evolution of Dance – potentially YouTube's first ever viral hit.

(Photo: Colm Flynn (L) and Rebecca Black (R). Credit: Colm Flynn)

SAT 13:00 BBC News (w172xjhw8w3tc0)
The latest five minute news bulletin from BBC World Service.

SAT 13:06 Newshour (w172xv52fq3lsmn)
India's Covid-19 Deaths Reach Record High

As the number of coronavirus deaths in India reaches a new record, coronavirus. That's around a third of the global total. Prime minister Narendra Modi, is asking European leaders to waive patents for Covid vaccines. A doctor in rural Northern Maharashtra describes the shortages of equipment and beds and patients dying on arrival.

Also in the programme: A Burmese teacher living in Japan helps aspiring young students back home to get qualifications and scholarships to study abroad; and the venue for the UEFA Champions League final is thrown into dispute due to Covid travel restrictions.

(Photo: Covid-19 Hospital in India. Credit: Getty Images)

SAT 14:00 BBC News (w172xjhw8w3y34)
The latest five minute news bulletin from BBC World Service.

SAT 14:06 Sportsworld (w172y0t6t7gbkty)
Live Sporting Action

We're approaching the end of the football season and Sportsworld's Lee James will be joined by three winners - Arsenal invincible Lauren, Premier League winner Andy King and WSL winner Lianne Sanderson - to discuss the final weeks of the season and the Champions League final.

We react to the early kick off between Leeds United v Tottenham Hotspur and have commentary of Sheffield United v Crystal Palace.

We'll also preview one of the fights of the year so far as Saul Alvarez takes on Billy Joe Saunders in a middleweight title unification fight. There'll also be updates from the Madrid Open tennis, Spanish Grand Prix and the latest from European Football Leagues.

Photo: Crystal Palace's Wilfried Zaha and Ethan Ampadu of Sheffield United battle for possession. (Credit: Getty Images)

SAT 18:00 BBC News (w172xjhw8w4f2n)
The latest five minute news bulletin from BBC World Service.

SAT 18:06 The Newsroom (w172xyxfhz0711x)
The world's Newsroom brings you global events as they happen

SAT 18:30 BBC News Summary (w172xzkbb0gtsc1)
The latest two minute news summary from BBC World Service.

SAT 18:32 Trending (w3ct2dmk)
[Repeat of broadcast at 05:32 today]

SAT 18:50 Sporting Witness (w3ct1l83)

Indonesia's badminton heroine

In 1992, badminton legend Susi Susanti won the first ever Olympic Gold medal for Indonesia. It was the first time that badminton had been included as an Olympic sport in the games, giving them a special significance for Susi's badminton-obsessed home country. For Susi, it was also a moment when she could show her national pride as an Indonesian who hailed from the nation's ethnic Chinese minority. She talks to Jill Achineku. The programme is a Whistledown Production.

PHOTO: Susi Susanti in action (AFP/Getty Images)

SAT 19:00 BBC News (w172xzjhw8w4jts)

The latest five minute news bulletin from BBC World Service.

SAT 19:06 The Documentary (w3ct2fpf)

Our story

For the past seven years, Marlo has been making a podcast about life as a single mum raising her transgender daughter. In this programme Marlo reaches out to parents of transgender children and adults from around the world, who she has connected with through her podcast. From the mother of a Fa'afafine girl in Samoa, to a single mother who had to move her family from Italy to Spain to keep them safe from transphobia, to a father in India who supported his daughter who suffered from depression before she was able to transition, Marlo finds that across cultures, the experience of raising a transgender child connects her with these parents.

SAT 20:00 BBC News (w172xzjhw8w4nxx)

The latest five minute news bulletin from BBC World Service.

SAT 20:06 The Arts Hour (w3ct1rsv)

Actor Michael B. Jordan

Joining Nikki Bedi for The Arts Hour this week are British film critic Catherine Bray and Nigerian artist Williams Chechet who has been described as the African Andy Warhol

American actor Michael B. Jordan talks about his relationship with writer and director Ryan Coogler

Jamaican actor Adjani Salmon on how his career took off after the success of his web series, Dreaming Whilst Black

Irish singer songwriter Imelda May on her new album, Eleven Past the Hour

American actor Aubrey Plaza talks about her very meta new movie within a movie, Black Bear

Indian environmental journalist and filmmaker Swati Thiyagarajan on her Oscar winning documentary My Octopus Teacher

And Nikki hears about the World Service's new musical theatre production, U.Me The Musical, which has been written for radio and can be experienced globally.

(Photo: Michael B. Jordan. Credit: Frazer Harrison/Getty Images)

SAT 21:00 BBC News (w172xzjhw8w4sb1)

The latest five minute news bulletin from BBC World Service.

SAT 21:06 Newshour (w172xv52fq3mrnm)

Schoolgirls targeted in Kabul bombing

Fifty-five people, mainly schoolgirls, have been killed and 150 injured in another bombing in the Afghan capital Kabul. We hear from a young witness from the minority Hazara community.

Also, is the EU justified in rejecting pleas from India to push for a waiver on Covid vaccine patents? And the Patriarch of the Ethiopian Orthodox Church accuses his government of genocide in Tigray.

(Photo: An Afghan man weeps in hospital next to his daughter's body after bombers attacked her school in Kabul, Afghanistan 8 May, 2021. Credit: Reuters)

SAT 22:00 BBC News (w172xzjhw8w4x25)

The latest five minute news bulletin from BBC World Service.

SAT 22:06 Music Life (w3ct1hbs)

Music as a tool for self-expression with Biig Piig

Biig Piig, Nayana IZ, Puma Blue and Louis Culture explore the power of community, how social media has affected the way they make music, and what it's like to make music as an introvert.

Biig Piig blends soul-tinged melodies over hip-hop and pop beats with lyrics in English and Spanish. After growing up between Ireland and Spain, she moved to London and joined the Nine8 music collective alongside Nayana IZ.

Born in India and raised in North London, Nayana was named on BBC Asian Network's 2020 Future Sounds list and last year released her debut EP Smoke & Fly.

Puma Blue is a musician and songwriter originally from South London, now based in Atlanta. His first two EPs have built up millions of streams and he recently dropped his debut album In Praise of Shadows to critical acclaim.

Also representing South London is rapper and lyricist Louis Culture, who released his debut EP Smile Soundsystem last year and has worked with Frank Ocean producer Vegyn.

SAT 23:00 BBC News (w172xzjhw8w50t9)

The latest five minute news bulletin from BBC World Service.

SAT 23:06 The Newsroom (w172xywm27dkb8)

The world's Newsroom brings you global events as they happen

SAT 23:20 Sports News (w172y0sd4hvpzcx)

BBC Sport brings you all the latest stories and results from around the world.

SAT 23:30 BBC News Summary (w172zkb0gvd2p)

The latest two minute news summary from BBC World Service.

SAT 23:32 The Cultural Frontline (w3ct1pdx)

Opera singer Joshua Hopkins: Remembering my sister in song

Joshua Hopkins is an award-winning Canadian baritone who is using his voice to call out violence against women, after the loss of his sister in 2015. Joshua tells Sophia Smith Galer how collaborating with Booker Prize winning author Margaret Atwood on Songs for Murdered Sisters offers consolation, while opening up conversation about gender-based violence across the world.

Sun and Sea is a Lithuanian production that takes its international audiences on a playful trip to the beach. For The Cultural Frontline, the director Rugilė Barzdžiukaitė and writer Vaiva Grainytė share how they use humour to highlight the climate crisis.

Opera is an enduring, evolving art form, but is everyone invited? Rising stars J'Nai Bridges from the US, Angelica Negrón from Puerto Rico and Adrian Angelico from Norway tell Sophia how they're opening up the genre to make it more inclusive, on and off stage.

Plus, has a song, a poem or a book ever changed the course of your life? South African soprano Vuvu Mpofo shares the work that set her on a different path.

Presenter: Sophia Smith Galer

(Photo: Joshua Hopkins. Credit: Songs for Murdered Sisters, directed by James Niebuhr)

SUNDAY 09 MAY 2021**SUN 01:00 BBC News (w172xzjhw8w589k)**

The latest five minute news bulletin from BBC World Service.

SUN 01:06 The Science Hour (w3ct1yv3)

Africa's oldest burial

Analysis of the 78,000-year-old fossil of a Kenyan boy reveals he was likely buried with care and attention, the body wrapped and laid to rest supported on a pillow. Maria Martinon-Torres, of the National Research Centre on Human Evolution in Burgos, Spain, and a team from Kenya and Germany used techniques from paleontology and forensic science to reveal his story from the fragile remains.

A promising malaria vaccine is to enter trials which could lead to it being used globally to vaccinate children. Merheen Dattoo, Oxford University's Jenner Institute, explains malaria vaccines have been in development for 100 years. Research from these

helped covid vaccine development and the success of covid vaccines may now help to speed up the rollout of malaria vaccines.

Covid vaccines may also help to treat those who have symptoms of long covid – a range of immune system issues that develop sometimes months after the initial infection. Yale University immunologist Akiko Kawasaki is embarking on a research project to assess the impact. If you'd like to take part, have yet to be vaccinated, and live in Connecticut in the US, email covidrecovery@yale.edu.

And in India scientists are calling on the government to make all data on Covid more widely available. At present Indian bureaucracy means statistics on infection rates, variants and recovery are not distributed widely. Science journalist TV Padma says greater access to the data could help more scientists come together to work on solutions to India's Covid crisis.

And, Have you taken classes to learn a new sport or musical instrument or a language? It's hard work! Why is it that as children we effortlessly absorb new skills and we don't as adults?

That's what 50-something listener Gary Grief wondered about playing guitar. Do you need to play more frequently as an adult to attain the same level of expertise? Does the 10,000-hours theory still apply?

Presenter and budding tabla-player Anand Jagatia embarks on a musical journey to discover what neuroscience can tell us about muscle memory and learning. Do musicians and sportsmen share the same challenges? By understanding what's happening in the brain, can we learn how to learn better?

With tabla-teacher Satvinder Sehmbe, neuroscientist Dr Jessica Grah, viola-player Dr Molly Gebrian and sports scientist Prof Yannis Pitsiladis.

(Image: An artist's interpretation of Mtoto's burial Credit: Fernando Fueyo)

SUN 02:00 BBC News (w172xzjhw8w5d1p)

The latest five minute news bulletin from BBC World Service.

SUN 02:06 The Newsroom (w172xyfzhz0800y)

The world's Newsroom brings you global events as they happen

SUN 02:30 BBC News Summary (w172zkb0gvr2)

The latest two minute news summary from BBC World Service.

SUN 02:32 Health Check (w3ct1nv5)

Tanzania's new Covid prevention measures

As Tanzania announces new Covid prevention measures after the new president instigates a change in response to the pandemic, correspondent Rhoda Odhiambo discusses the implications for the country. And celebrating the Windrush generation in theatre - nurses who came to the UK from the Caribbean to work in the NHS share their memories in a new play. Plus Claudia talks to Mohsen Rajabi about his new research surveying Mental Health in Iran - both parents and children - after 16 months of school closures and hears from 18 year old Parnia Abbarian about her first hand experience. And the science of a baby's first poo!

Presenter: Claudia Hammond

Producer: Erika Wright

(Picture: People come to wash their hands with chlorinated water in Dar es Salaam, Tanzania in March 2020. Photo credit: Ericky Boniphace/AFP/Getty Images.)

SUN 03:00 BBC News (w172xzjhw8w5hst)

The latest five minute news bulletin from BBC World Service.

SUN 03:06 The Documentary (w3ct1d21)

[Repeat of broadcast at 12:06 on Saturday]

SUN 04:00 BBC News (w172xzjhw8w5m3j)

The latest five minute news bulletin from BBC World Service.

SUN 04:06 From Our Own Correspondent (w3ct1mtr)

India's Covid crisis

Stories from India, Germany, Afghanistan and France.

In India the government's reputation is being battered by its failure to avoid, and then cope with, a second wave of Covid. The global economic power-house has reversed its stance and accepted emergency humanitarian aid from other countries for

the first time in many years. The health service had all but run out of oxygen supplies. Images circulated of people dying as over-stretched hospitals turned them away. All this, after Mr Modi had assured his own people, and the world, that under his governance, Indians had successfully come together to combat the virus. But was the prime minister, instead, more focussed on division? The former BBC India Correspondent, Mark Tully who's lived and worked in India for much of his life, considers where the current crisis sits within India's history and Mr Modi's place in it.

After a slow start Germany's vaccination campaign is now gathering pace. The German government had kept to the timetable of the EU roll-out, rather than going it alone, putting it behind countries like Israel. However, around 30 per cent of the population has now had at least one dose. And infection rates are falling steadily. So the German government has agreed to lift some restrictions for vaccinated people. But as the scramble for vaccine appointments intensifies, that is sparking new emotions – and some new words in the German language, as Damien McGuinness in Berlin has been discovering.

In Afghanistan, female entrepreneurs have tended to have a tough time getting their business ideas off the ground. They don't normally get the same support as their male counterparts and only a tiny number of women entrepreneurs succeed in launching their own businesses. However, that number was growing – until the pandemic hit. There's also nervousness ahead of the US withdrawal of troops from Afghanistan that some sort of power sharing deal between the Taliban and the Afghan government could curtail freedoms which have been hard-won by women. Charlie Faulkner went to meet one determined shop owner in the capital Kabul.

Last Wednesday marked 200 years since the death of Napoleon Bonaparte – one of France's most revered military generals, who eventually met his defeat in the Battle of Waterloo. Opinion was sharply divided as to whether the anniversary should be commemorated or not. He's hailed by some as a pillar of national history. For others, he was a despot. President Macron went ahead with a largely positive speech saying that his decision to restore slavery six years after it had been abolished, was a "betrayal of the spirit of the enlightenment". Julia Buckley has visited a small museum in the Dordogne, that sidesteps elements of a life that was, as Mr Macron put it, "an ode to political will power" and focuses on the smaller lesser known aspects of Napoleon.

(Image: People queuing to be vaccinated against Covid-19 in Ahmedabad, India, 01 May 2021. Credit: Reuters/Amit Dave)

SUN 04:30 BBC News Summary (w172zxkbb0gvzbt)
The latest two minute news summary from BBC World Service.

SUN 04:32 The Cultural Frontline (w3ct1pdx)
[Repeat of broadcast at 23:32 on Saturday]

SUN 05:00 BBC News (w172zxjhw8w592)
The latest five minute news bulletin from BBC World Service.

SUN 05:06 The Newsroom (w172xyxfh08c8b)
The world's Newsroom brings you global events as they happen

SUN 05:30 BBC News Summary (w172zxkbb0gw3kg)
The latest two minute news summary from BBC World Service.

SUN 05:32 The Documentary (w3ct2fzr)
Where is Jack Ma?

On the eve of what would have been the world's largest share listing, Ant Financial founder Jack Ma, the Chinese billionaire mysteriously disappeared. Things started to go wrong for Ma after he told a room full of banking regulators that their methods were out of date and not fit for purpose. Shortly afterwards, the Chinese government cancelled the listing and Jack went silent. The extroverted charismatic billionaire, who once flourished in the public eye, simply did not show up at key events.

It is happening more and more often in China; some of the country's most famous and powerful people are disappearing after coming into conflict with the Communist Party. China's most famous actress, the Chinese head of the international police agency Interpol and even a top news presenter all disappeared.

So what has happened to Jack Ma? Journalist Celia Hatton, who spent 15 years living and reporting in China, investigates.

(Photo: Jack Ma, founder of Alibaba Group. Credit: Getty Images)

SUN 06:00 BBC News (w172zxjhw8w516)
The latest five minute news bulletin from BBC World Service.

SUN 06:06 Weekend (w172xyt4r1lj899)
Latest on Covid-19 in India

India has had a devastating week with almost four thousand people dying every day. We hear the latest from the capital Delhi and also from a doctor in the southern city of Bangalore.

Also on the programme: a message smuggled out of Ethiopia from the head of the country's orthodox church; and we hear from the state of Arizona following President Biden's halt to construction on his predecessor's wall along the southern US border.

Joining Celia Hatton on Weekend is Rokhaya Diallo, a French journalist, writer and filmmaker from Paris; and Carne Ross a former British diplomat and the founder of Independent Diplomat, a diplomatic advisory group.

SUN 07:00 BBC News (w172zxjhw8w5zsb)
The latest five minute news bulletin from BBC World Service.

SUN 07:06 Weekend (w172xyt4r1lj1df)
Afghan School Attack

The number of people now known to have been killed in a militant attack on a girls' school in Afghanistan has risen to at least fifty. There were multiple blasts as children were leaving the school in the capital, Kabul. We get the latest from there.

Also on the programme: India's struggle with the second wave of Covid infections continues and has now hit the city of Bangalore; and we hear about a second night of clashes between Israeli police and Palestinians at the Al-Aqsa Mosque compound in Jerusalem.

Joining Celia Hatton on Weekend is Rokhaya Diallo, a French journalist, writer and filmmaker from Paris and Carne Ross a former British diplomat and the founder of Independent Diplomat, a diplomatic advisory group.

SUN 08:00 BBC News (w172zxjhw8w63jg)
The latest five minute news bulletin from BBC World Service.

SUN 08:06 Weekend (w172xyt4r1ljhsj)
Scottish National Party win in Polls

After a fourth straight victory in the Scottish Parliament election, its national party leader says another independence referendum is the will of the people. We speak to a Scottish Member of Parliament.

Also on the programme: Activists are gathering in Paris to protest against the government's climate law; and is the Golden Age of Radio making a return?

Joining Celia Hatton on Weekend is Rokhaya Diallo, a French journalist, writer and filmmaker from Paris; and Carne Ross a former British diplomat and the founder of Independent Diplomat, a diplomatic advisory group.

SUN 08:30 BBC News Summary (w172zxkbb0gwgsv)
The latest two minute news summary from BBC World Service.

SUN 08:32 The Food Chain (w3ct1rfk)
The blind cooks

Three people who lost their vision as adults tell Emily Thomas how they learnt to cook again, becoming so accomplished in the kitchen that they became restaurateurs, cookbook writers, food podcast makers and Masterchef winners. They explain how their relationships with food have changed, and why cooking with just four senses can make you a better chef.

(Picture: Payal Kapoor, Simon Mahoney, Christine Hà. Credit: BBC/Julie Soefer Photography)

If you would like to get in touch with the show please email thefoodchain@bbc.co.uk

Contributors:

Christine Hà, chef, writer and owner of 'The Blind Goat' restaurant
Payal Kapoor, host of 'Rasoi ke Rahasya' YouTube channel
Simon Mahoney, author 'First Catch Your Rabbit! Or Cooking Without Fear'

SUN 09:00 BBC News (w172zxjhw8w678l)

The latest five minute news bulletin from BBC World Service.

SUN 09:06 From Our Own Correspondent (w3ct1mtr)
[Repeat of broadcast at 04:06 today]

SUN 09:30 BBC News Summary (w172zxkbb0gw1jz)
The latest two minute news summary from BBC World Service.

SUN 09:32 Outlook (w3ct1kwt)
A plane crash survivor's search for answers

When a plane carrying 11-year-old Norman Ollestad, his father and his father's girlfriend got caught in a snowstorm and crashed into the remote California mountains in 1979, Norman was the only survivor. Stranded on the edge of a cliff, the boy relied on the skills his father had taught him throughout his childhood to make it down the treacherous mountain to safety. In this episode Norman decides to return to the crash site 27 years later and while there, makes an extraordinary discovery.

Part 1 of this story is available on the Outlook website, it is called 'I was the sole survivor of a plane crash'.

Norman Ollestad's memoir is called Crazy For the Storm. He has also written a short story called Formentera about the fraying relationship of a married couple.

The archive you heard comes courtesy of CBS.

Get in touch: outlook@bbc.com

Presenter: Mariana Des Forges
Producer: Mariana Des Forges

Picture: Norman Ollestad
Credit: Courtesy of Norman Ollestad

SUN 10:00 BBC News (w172zxjhw8w6c0q)
The latest five minute news bulletin from BBC World Service.

SUN 10:06 Deeply Human (w3ct051p)
Deeply Human

The Teenage Brain

The experiences of being a teenager are deep and lasting - first break-ups, fierce arguments with parents, that time a friend tried to skateboard off the roof. Why is that time of life experienced so intensely and remembered so vividly?

Dessa finds that many answers lie in neuroanatomy and the way our brain rewires as we grow. She meets teens and a brain scientist to find out why the rollercoaster highs and lows of teenage life might be good for us in ways adults just don't get.

SUN 10:30 BBC News Summary (w172zxkbb0gwq93)
The latest two minute news summary from BBC World Service.

SUN 10:32 Heart and Soul (w3ct2fnq)
Black Jewish Lives Matter

The death of George Floyd Jr in May 2020 started a wave of unforeseen protests. As these protests consumed the United States, groups of people from various beliefs, backgrounds and origins came out in support of the Black Lives Matter movement, which started in 2014. A year later, under a new US president, the US still faces the same challenges even though police officer Derek Chauvin has been found guilty with murder, many still believe that they are still fighting against institutionalised racism in the US.

Monitoring the news in the US, journalist Amie Liebowitz has repeatedly seen images of groups of Jewish people stand side by side, holding placards and wearing t-shirts that said "Tzedek Tzedek Tirdof" (Deuteronomy 16:20) – a passage from the Torah meaning "Justice, Justice you shall pursue". This message has been adopted by the Jews for Black Lives Matter movement which has always been associated with the act of social justice. This made her reflect on her own context as a white, Ashkenazi Jew from Australia and what this movement meant for her religious community.

In this episode of Heart and Soul, Amie Liebowitz reconciles with her lack of knowledge about the black Jewish experience and reflects upon the need for further understanding of both privilege and antisemitism. She speaks to four black Jewish community members in the United States who speak frankly about identity dynamics and misconceptions, racism, activism and the support needed to help resolve the issues they face.

Presenter and producer: Amie Liebowitz
Executive Producer: Rajeev Gupta

Audio clip contributions: Hannah Roodman, Jews for Racial and Economic Justice (JFREJ), Nissim Black, Westside Gravy, Drake and CBS

(Picture: April N. Baskin at the Women's March in Washington DC in January 2019 representing Jewish Women of Color / Courtesy of April N. Baskin)

SUN 11:00 BBC News (w172xjhw8w6grv)
The latest five minute news bulletin from BBC World Service.

SUN 11:06 The Newsroom (w172xyxfhz092r3)
The world's Newsroom brings you global events as they happen

SUN 11:30 BBC News Summary (w172xkbb0gww17)
The latest two minute news summary from BBC World Service.

SUN 11:32 The Compass (w3ct2d2k)
Gambling: A Sure Bet?

Gambling: A sure bet? USA

Native American Tribes have flipped their fortunes by building casinos on their land, but that is under threat from the new players in the market - the online sports betting companies. Dr Heather Wardle meets Greg Sarris, Chairman of the Federated Indians of Graton Rancheria in Northern California, who shows her why his tribe's casino is a lifeline to the local community, and how online betting on smartphones is the new threat to his tribe's survival.

(Photo: USA Graton Casino, owned by the Federated Indians of Graton Rancheria)

SUN 12:00 BBC News (w172xjhw8w6lhz)
The latest five minute news bulletin from BBC World Service.

SUN 12:06 The Documentary (w3ct2fpf)
[Repeat of broadcast at 19:06 on Saturday]

SUN 13:00 BBC News (w172xjhw8w6q83)
The latest five minute news bulletin from BBC World Service.

SUN 13:06 Newshour (w172xv52fq3ppkq)
Kabul attack: Blasts near school leave more than 50 dead

Funerals have begun in Afghanistan for more than fifty people killed in a multiple bomb attack near a school; many of the victims were young girls.

Also in the programme: Scotland's newly re-elected first minister Nicola Sturgeon has warned of very grave implications if Scotland's democratic path to independence is blocked. And Germany marks the hundredth birthday of Sophie Scholl - the student who stood up to Hitler and paid for it with her life.

(Photo: Families began to bury some of the victims on Sunday. Credit: Getty Images)

SUN 14:00 BBC News (w172xjhw8w6v07)
The latest five minute news bulletin from BBC World Service.

SUN 14:06 The Forum (w3ct1rl2)
Tadeusz Kosciuszko, groundbreaking fort builder

The American president Thomas Jefferson called Tadeusz Kosciuszko 'as pure a son of liberty as I have ever known'. Kosciuszko was born in what is today Belarus, trained as an engineer in Poland and France and went on to become one of the important military players in the American War of Independence. This was when he wasn't pursuing his dream of a free Polish republic against the might of a conservative aristocracy and neighbouring Russian and Prussian armies. Or campaigning against slavery and feudalism. Testimonials like that of Jefferson's lauding his humility, energy and high moral principles flowed from around the world. He was toasted as a celebrity in London by the likes of Keats and Coleridge. In the USA and Europe there are bridges, statues and monuments in his name. And yet today Kosciuszko is relatively unknown outside of Poland.

Rajan Datar aims to change that with the aid of three Kosciuszko experts: Dr. Betsey Blakeslee, President of the Friends of the American Revolution at West Point, an organisation that works to preserve the fortifications Kosciuszko designed and built at West Point. She earned her PhD in American Studies at the University of Maryland; Kamil Ruzsala, Assistant Professor of History at Jagiellonian University in Kraków whose research focuses on the modern

history of Central Europe; and writer and Pulitzer-prize-winning journalist Alex Storozyński, Chairman of the Board of the Kosciuszko Foundation and author of Kosciuszko's biographies both in a book and film form.

[Image: A portrait of Tadeusz Kosciuszko. Credit: Bettmann / Getty Images]

SUN 14:50 More or Less (w3ct2dix)
[Repeat of broadcast at 05:50 on Saturday]

SUN 15:00 BBC News (w172xjhw8w6yrc)
The latest five minute news bulletin from BBC World Service.

SUN 15:06 Music Life (w3ct1hbs)
[Repeat of broadcast at 22:06 on Saturday]

SUN 16:00 BBC News (w172xjhw8w72hb)
The latest five minute news bulletin from BBC World Service.

SUN 16:06 Sportsworld (w172y0t6l7gfq79)
Live Sporting Action

On Sportsworld Sunday this week, Delyth Lloyd presents live Premier League commentary from the London Stadium, as West Ham look to stay in the race for Champions League qualification against Everton.

Delyth will be joined by the former West Ham and Chelsea striker Carlton Cole to look ahead to the match and reflect on the early Premier League games – Wolves v Brighton and Aston Villa v Man Utd.

We'll also discuss the best of the action from across Europe, where the title race in La Liga is set to go right down to the wire, as well as the final day of the Women's Super League season, where Chelsea are looking to remain on course for the quadruple.

Photo: West Ham United's Tomas Soucek and Everton's Gylfi Sigurdsson during a Premier League match between the sides. (Credit: CameraSport via Getty Images)

SUN 19:00 BBC News (w172xjhw8w7fqw)
The latest five minute news bulletin from BBC World Service.

SUN 19:06 The Newsroom (w172xyxfhz0b1q4)
The world's Newsroom brings you global events as they happen

SUN 19:30 BBC News Summary (w172xkbb0gxt08)
The latest two minute news summary from BBC World Service.

SUN 19:32 Heart and Soul (w3ct2fnq)
[Repeat of broadcast at 10:32 today]

SUN 20:00 BBC News (w172xjhw8w7kh0)
The latest five minute news bulletin from BBC World Service.

SUN 20:06 Business Weekly (w3ct2dgn)
Could an Epic battle take a bite out of Apple?

On this edition of Business Weekly, we look at the battle between the makers of one of the world's biggest computer games, Fortnite, and the world's biggest tech company, Apple. The court case could have implications for how app stores and payment models are run in the future. We also take a look at the jewellery sector and hear two different tales of sustainability - from those selling diamonds made in a laboratory and those digging them out of the ground. Plus, we head to campuses in the United States, where universities cash in on the popularity of college sports, while the players themselves - the students - rarely see a penny for their efforts. That is quickly changing, but perhaps too rapidly for some observers. Business Weekly is presented by Sasha Twining and produced by Matthew Davies.

(Photo illustration by Jakub Porzycki/NurPhoto via Getty Images)

SUN 21:00 BBC News (w172xjhw8w7p74)
The latest five minute news bulletin from BBC World Service.

SUN 21:06 Newshour (w172xv52fq3qnjr)
Israel defends action against Palestinian protests

Israeli Prime Minister Benjamin Netanyahu has defended police action against Palestinian protesters after two nights of

clashes in Jerusalem. He said Israel would "not allow any radical element to undermine the calm" in the city.

Also in the programme: Scotland's first minister tells the British prime minister there will be another Scottish independence referendum; and how trees communicate with each other using an underground network of fungi.

(Picture: A Palestinian man argues with an Israeli border policeman by the entrance to Jerusalem's Old City. Credit: Reuters/Ronen Zvulun)

SUN 22:00 BBC News (w172xjhw8w7sz8)
The latest five minute news bulletin from BBC World Service.

SUN 22:06 Deeply Human (w3ct051p)
[Repeat of broadcast at 10:06 today]

SUN 22:30 BBC News Summary (w172xkbb0gy57n)
The latest two minute news summary from BBC World Service.

SUN 22:32 The Lazarus Heist (w3ct2f8w)
[Repeat of broadcast at 09:32 on Saturday]

SUN 22:50 More or Less (w3ct2dix)
[Repeat of broadcast at 05:50 on Saturday]

SUN 23:00 BBC News (w172xjhw8w7xqd)
The latest five minute news bulletin from BBC World Service.

SUN 23:06 The Newsroom (w172xywm27dn78c)
The world's Newsroom brings you global events as they happen

SUN 23:20 Sports News (w172y0sd4hvs8x0)
BBC Sport brings you all the latest stories and results from around the world.

SUN 23:30 BBC News Summary (w172xkbb0gy8zs)
The latest two minute news summary from BBC World Service.

SUN 23:32 Outlook (w3ct1kwt)
[Repeat of broadcast at 09:32 today]

MONDAY 10 MAY 2021

MON 01:00 BBC News (w172xjhw8w7k5d0gt)
The latest five minute news bulletin from BBC World Service.

MON 01:06 World Business Report (w172xzl540crmn2)
US declares state of emergency over fuel cyber-attack

The US government is working to get one of the most important fuel pipelines in the country going again. The Colonial Pipeline was shut down after a cyber attack, with criminals seeking a ransom to allow the network to be switched back on. Ellen Ward of Transveral Consulting tells us the impact the shutdown is already having. One in three adults in the United States has been fully vaccinated against Covid 19, but millions are still hesitant about getting the jab. Fazal Khan, associate professor of law at the University of Georgia, says there are regional variations in vaccine hesitancy. Professor Dorit Reiss, a lawyer at the University of California explains that some employees could get fired for refusing a vaccine. The President of Argentina, Alberto Fernandez, has arrived in Europe hoping to get support for a new deal to repay the country's huge debts. Jimena Blanco, head of Latin America research for Verisk Maplecroft in Buenos Aires, explains how much the country owes to the IMF and various countries. And car company Ford is recalling 661,000 of its Explorer SUV after a fault was discovered with the pins that keep the roof rails in place, as we hear from Paul Eisenstein of The Detroit Bureau.

(Picture: fuel tanks of the Colonial Pipeline. Credit: Colonial Pipeline.)

MON 01:30 BBC News Summary (w172xkbb0gy8zcr6)
The latest two minute news summary from BBC World Service.

MON 01:32 Discovery (w3ct2fns)
The Curious Cases of Rutherford and Fry

The noises that make us cringe

Why do some people find noises like a fork scraping a plate so

terrible? asks Findlay in Aberdeenshire. Rutherford and Fry endure some horrible noises to find out the answer.

Warning - This episode contains some horrible sounds

Trevor Cox, Professor of Acoustic Engineering at the University of Salford, has run experiments to find out the worst, most cringe-making sound. He divided horrible sounds into three categories: scraping sounds, like nails down a blackboard; disgusting sounds like a snotty sniffy nose; and sounds that make us cringe because of what we associate them with, like the dentist's drill. All horrible sounds have some sort of association whether it's a primal scream or fear of catching a disease, and they're dealt with in the ancient part of the brain – the amygdala.

Professor Tim Griffiths is a Cognitive Neurologist at Newcastle University's Auditory Cognition Group. He has been studying people with misophonia, a condition where ordinary, everyday sounds, such as someone eating or breathing causes a severe anxiety and anger response. Misophonia may affect around 15% of the population and Tim thinks that different parts of the brain – the insula and the motor cortex - are involved in this fight or flight response to seemingly innocuous sounds.

Cat Thomas's job is to make horrible sounds. She is a Foley artist at Boompost. If you watch Call the Midwife or Peaky Blinders, all the incidental sounds are created by Cat and her team. She also created some of the sounds for the horror film Camilla, which involved evisceration and disembowelling with the aid of some squishy oranges and bananas. Adam Rutherford and Hannah Fry try their own horror sounds when they chop off a finger with the aid of some large pasta shells, an orange and a knife.

Presenters: Hannah Fry & Adam Rutherford
Producer: Fiona Roberts

MON 02:00 BBC News (w172xzjj7k5d46y)
The latest five minute news bulletin from BBC World Service.

MON 02:06 The Newsroom (w172xyxfw79gr66)
The world's Newsroom brings you global events as they happen

MON 02:30 BBC News Summary (w172xzkbp8s2hhb)
The latest two minute news summary from BBC World Service.

MON 02:32 The Climate Question (w3ct2dqf)
Can indigenous knowledge help us fight climate change?

Indigenous people represent only about six percent of the world's population, but they inhabit around a quarter of the world's land surface. And they share these regions with a hugely disproportionate array of plant and animal life. According to the UN and the World Bank, about 80 percent of our planet's biodiversity is on land where indigenous people live.

Global climate policy has however been slow to recognise that indigenous knowledge - built up over centuries - is worth listening to. This is despite the fact that sometimes in very remote areas, where scientific and meteorological data is lacking, this knowledge may be all there is. Indigenous knowledge can provide valuable insight into what adaptations have worked in the past, and so provide an important guide to the future.

What are the barriers to bringing indigenous knowledge out from the margins of climate research and policy, and can they be overcome?

Guests:
Nancy Kacungira, journalist, BBC Africa
Hindou Oumarou Ibrahim, environmental activist and member of Chad's pastoralist Mbororo people and Earthshot Prize Council
Nigel Crawhall, chief of section, local and indigenous knowledge systems, UNESCO
Aida Sanchez, assistant professor at Norwegian University of Life Sciences

Presenters: Neal Razzell and Graihagh Jackson
Producer: Darin Graham
Researcher: Zoe Gelber
Editor: Emma Rippon

MON 03:00 BBC News (w172xzjj7k5d7z2)
The latest five minute news bulletin from BBC World Service.

MON 03:06 Deeply Human (w3ct051p)
[Repeat of broadcast at 10:06 on Sunday]

MON 03:30 BBC News Summary (w172xzkbp8s2m7g)

The latest two minute news summary from BBC World Service.

MON 03:32 The Lazarus Heist (w3ct2f8w)
[Repeat of broadcast at 09:32 on Saturday]

MON 03:50 Over to You (w3ct111b)
[Repeat of broadcast at 09:50 on Saturday]

MON 04:00 BBC News (w172xzjj7k5dcq6)
The latest five minute news bulletin from BBC World Service.

MON 04:06 The Newsroom (w172xyxfw79gzpg)
The world's Newsroom brings you global events as they happen

MON 04:30 BBC News Summary (w172xzkbp8s2qzl)
The latest two minute news summary from BBC World Service.

MON 04:32 The Conversation (w3ct1p6h)
Women fighting wildfires

Large scale wildfires have increasingly made headlines in recent years. Fires have devastated areas of California, Australia, Siberia and the Pantanal that used to be relatively unaffected. We speak to two women helping stop the spread of wildland fires, protecting precious ecosystems, national parks and people's homes.

Being a professional fire fighter is out of the question for Olga Serova who lives in Russia, where women are not allowed to join the profession. However, Olga volunteers with teams that battle wildfires in the national parks outside Moscow and St Petersburg. She tells us why she does it and how people react.

Justine Gude is a Texas Canyon Hotshot in the Los Angeles National Forest. She's one of a team of elite small crews of wildfire fighters – there are about 100 crews in America – who have been trained to deal with fires in remote regions where little logistical support is available. She was one of a team of volunteer experts who flew to Australia to help out firefighting efforts in Melbourne in 2020.

Produced by Jane Thurlow

IMAGE DETAILS
L: Olga Serova [credit Maria Vasilieva]
R: Justine Gude [credit Santos Gonzalez]

MON 05:00 BBC News (w172xzjj7k5dhgb)
The latest five minute news bulletin from BBC World Service.

MON 05:06 Newsday (w172xv2mngsltkh2)
Violence continues in Jerusalem overnight

There are fears that 'Israel Day' marches by Jewish settlers near Muslim areas could further increase tension.

Multiple bombs near a Kabul school killed more than 60 people - mostly young female students - at the weekend. We hear from one campaigner working for wider access to education who's been targeted by the Taliban.

Also we hear from Germany where many sex workers are finding it hard to make their living because of covid restrictions.

MON 06:00 BBC News (w172xzjj7k5dm6g)
The latest five minute news bulletin from BBC World Service.

MON 06:06 Newsday (w172xv2mngsltp76)
Concern of violence ahead of annual Jerusalem Day Flag March

Jewish ultra-nationalists are due to parade near the Muslim quarter in the old city today.

The search is on in Lebanon to find out why 40 tonnes of dead fish floated up to the surface in one of the country's biggest reservoirs.

And we'll find out more about Australia's first female space commander.

MON 07:00 BBC News (w172xzjj7k5dqyl)
The latest five minute news bulletin from BBC World Service.

MON 07:06 Newsday (w172xv2mngsltszb)
Lampedusa: 1000 migrants arrive on Italian island in one day

Improvement in weather leads to a big jump in migrants arriving in the last 24 hours. One boat carried almost 400 men, women and children.

Jerusalem braces itself for further violence, with Palestinians protesting against evictions, and ultra-nationalist Jews marching to commemorate Israel's seizure of the old city after the Six Day War in 1967.

And a landslide at an unregulated gold mine in Guinea has killed at least 15 people.

MON 08:00 BBC News (w172xzjj7k5dvpq)
The latest five minute news bulletin from BBC World Service.

MON 08:06 HARDtalk (w3ct1n5n)
Fawzia Koofi: The future for women in Afghanistan

Zeinab Badawi interviews Fawzia Koofi, the first woman to lead a political party in Afghanistan, and is part of an Afghan delegation in talks with the Taliban. Yet she is one of their fiercest critics, endures constant intimidation, and has survived several attempts on her life. Why is Fawzia Koofi so worried about the future stability of Afghanistan and its women?

MON 08:30 BBC News Summary (w172xzkbp8s36z3)
The latest two minute news summary from BBC World Service.

MON 08:32 Business Daily (w3ct1j4n)
Can flying go green?

Paying extra to offset your carbon emissions may sound like a good idea. But does planting trees or paying to save a rainforest actually reduce your carbon footprint? Travel writer Manchán Magan and climate scientist Thales West explain why they're sceptical. We also hear from one of America's leading airlines, United, which is increasing the number of flights powered by waste products and old cooking fat. United's head of global environmental affairs Lauren Riley tells us more.

Photo: A plane casts a shadow over a forest (Credit: Getty)

MON 08:50 Witness History (w3ct1x0r)
Why a British MP was filmed taking mescaline

Warning: This programme contains scenes of drug use

In 1955, a British member of parliament, Christopher Mayhew, took the hallucinogenic drug mescaline and had his experience filmed by the BBC. The drug was legal at the time and the experiment was supervised by the psychiatrist Dr Humphry Osmond. The film was part of a wider public debate about psychedelic drugs following the publication of The Doors of Perception by the writer Aldous Huxley. But the film of the experiment was never broadcast and years later mescaline was put on the banned list of drugs in the UK because of fears of its potential impact on mental health.
Photo: Christopher Mayhew (right) preparing to start the experiment, watched by Dr Humphry Osmond (left), December 1955. (BBC)

MON 09:00 BBC News (w172xzjj7k5dzfv)
The latest five minute news bulletin from BBC World Service.

MON 09:06 The Climate Question (w3ct2dqf)
[Repeat of broadcast at 02:32 today]

MON 09:30 BBC News Summary (w172xzkbp8s3bq7)
The latest two minute news summary from BBC World Service.

MON 09:32 CrowdScience (w3ct1ppb)
Why is learning stuff harder as you get older?

Have you taken classes to learn a new sport or musical instrument or a language? It's hard work! Why is it that as children we effortlessly absorb new skills and we don't as adults?

That's what 50-something listener Gary Grief wondered about playing guitar. Do you need to play more frequently as an adult to attain the same level of expertise? Does the 10,000-hours theory still apply?

Presenter and budding tabla-player Anand Jagatia embarks on a musical journey to discover what neuroscience can tell us about muscle memory and learning. Do musicians and sportsmen share the same challenges? By understanding what's happening in the brain, can we learn how to learn better?

With tabla-teacher Sarvinder Sehmbey, neuroscientist Dr

Jessica Grahn, viola-player Dr Molly Gebrian and sports scientist Prof Yannis Pitsiladis.

Presented by Anand Jagatia
Produced by Dom Byrne for the BBC World Service

[Image: Adult and Child learning Piano. Credit: Getty Images]

MON 10:00 BBC News (w172xzzj7k5f35z)

The latest five minute news bulletin from BBC World Service.

MON 10:06 The Cultural Frontline (w3ct1pdx)

[Repeat of broadcast at 23:32 on Saturday]

MON 10:30 BBC News Summary (w172xzkbp8s3ggc)

The latest two minute news summary from BBC World Service.

MON 10:32 Trending (w3ct2dmk)

[Repeat of broadcast at 05:32 on Saturday]

MON 10:50 More or Less (w3ct2dix)

[Repeat of broadcast at 05:50 on Saturday]

MON 11:00 BBC News (w172xzzj7k5f6y3)

The latest five minute news bulletin from BBC World Service.

MON 11:06 The Newsroom (w172xyxfw79htxc)

The world's Newsroom brings you global events as they happen

MON 11:30 BBC News Summary (w172xzkbp8s3l6h)

The latest two minute news summary from BBC World Service.

MON 11:32 The Conversation (w3ct1p6h)

[Repeat of broadcast at 04:32 today]

MON 12:00 BBC News (w172xzzj7k5f7p7)

The latest five minute news bulletin from BBC World Service.

MON 12:06 Outlook (w3ct1jsz)

The music star who was born into a cult

Mikel Jollett started life in a California-based cult called Synanon. What began as a drug rehabilitation programme that helped his father kick a heroin addiction later turned into a cult where children were taken away from their parents at just six months old and married couples were forced to split up and take new partners. As the cult turned increasingly violent, Mikel's mother managed to escape with him and his brother, but Mikel's hardships didn't end there. For years he never spoke about his childhood. It was only later - when he discovered a love for music and formed a successful band, The Airborne Toxic Event - that he began to open up and write about those early years. Mikel's book is called Hollywood Park.

Get in touch: outlook@bbc.com

(Photo: Mikel Jollett performs with The Airborne Toxic Event in 2015. Credit: Andrew Bengel/Redferns/Getty Images)

MON 12:50 Witness History (w3ct1x0r)

[Repeat of broadcast at 08:50 today]

MON 13:00 BBC News (w172xzzj7k5fgfc)

The latest five minute news bulletin from BBC World Service.

MON 13:06 The Newsroom (w172xyxfw79j2dm)

The world's Newsroom brings you global events as they happen

MON 13:30 BBC News Summary (w172xzkbp8s3tpr)

The latest two minute news summary from BBC World Service.

MON 13:32 CrowdScience (w3ct1pqb)

[Repeat of broadcast at 09:32 today]

MON 14:00 BBC News (w172xzzj7k5f15h)

The latest five minute news bulletin from BBC World Service.

MON 14:06 Newshour (w172xv52szdxk3)

Hundreds are injured in clashes between Israeli police and Palestinians in East Jerusalem

There has been growing anger around the possible eviction of 300 Palestinians from their East Jerusalem homes. We speak to a Palestinian lawyer and a senior adviser to the Israeli Prime Minister.

Also on the programme: There's been a deadly bomb attack on a bus in Afghanistan shortly before the Taliban announced a three-day ceasefire to mark the end of Ramadan; and on climate change, we speak to the special adviser on climate action at the UNHCR.

(Picture: Medical aid workers carry an injured person on a stretcher as clashes between Israeli police and Palestinians continue in Jerusalem Credit: EPA/A/TEF SAFADI)

MON 15:00 BBC News (w172xzzj7k5fpxm)

The latest five minute news bulletin from BBC World Service.

MON 15:06 HARDtalk (w3ct1n5n)

[Repeat of broadcast at 08:06 today]

MON 15:30 BBC News Summary (w172xzkbp8s4260)

The latest two minute news summary from BBC World Service.

MON 15:32 World Business Report (w172y47xj93zy1g)

Fears over US fuel shortage amid cyber-attack

The US has acted to keep fuel flowing after a major pipeline was hit by a cyber-attack. Energy analyst Gaurav Sharma explains the significance of the Colonial Pipeline, which carries 45% of the east coast's supply of diesel, petrol and jet fuel from the Gulf of Mexico. And Algirde Pipikaite is a cyber security expert at the World Economic Forum who discusses how the pipeline was shut down by cyber criminals. Also in the programme, we take a close look at Nigeria's electricity challenge, which means around 40% of the country having no access to official supplies. Victor Agbro runs a printing company in Lagos, and tells us he has to run diesel generators to ensure a steady flow of power to his printing presses. We hear from Yadviga Semikolenova, who is the World Bank's lead energy economist for Nigeria, about a recent \$500m loan to the country to shore up the power sector. And we get the government's perspective from Ahmad Zakari, who is special adviser to President Buhari on infrastructure. Plus, researchers have created a cricket bat made out of bamboo, rather than the traditional willow, which they say is cheaper and more sustainable. We hear more about the idea from Ben Tinkler-Davies of the University of Cambridge, who was on the research team.

(Picture: Holding tanks for the Colonial Pipeline in Maryland. Picture credit: EPA.)

MON 16:00 BBC News (w172xzzj7k5ftmr)

The latest five minute news bulletin from BBC World Service.

MON 16:06 BBC OS (w172xxxh9w8wtm6)

Jerusalem violence: Clashes between Israeli police and Palestinians

Hundreds of people have been injured in clashes between Israeli police and Palestinians around Al-Aqsa mosque in Jerusalem, ahead of a planned Jewish nationalist march in the city. The BBC's diplomatic correspondent answers your questions about what's happened and the conflict between Israel and the Palestinians. You can send your question to us on WhatsApp +447730 751925.

Also, we return to Afghanistan, where more than 60 people, mostly girls, are now known to have died in a school attack that hit students as they left class on Saturday. We hear reaction from women living through the violence.

And our regular medical expert, Dr Eleanor Murray, assistant professor of epidemiology at Boston University School of Public Health, will talk us through the latest coronavirus stories and answer more of your questions. We will also hear a conversation between former Covid vaccine sceptics, and find out why they changed their minds.

(Photo: Israeli police clash with Palestinians at the compound that houses Al-Aqsa Mosque in Jerusalem, 10/05/2021. Credit: Reuters)

MON 17:00 BBC News (w172xzzj7k5fydw)

The latest five minute news bulletin from BBC World Service.

MON 17:06 BBC OS (w172xxxh9w8wyeb)

Coronavirus conversations: Vaccine sceptics

We continue to bring people together facing the coronavirus

with shared experiences. Today we hear from three people who were vaccine sceptics but changed their minds. We hear why they were fearful of being vaccinated and what made them change their minds.

Hundreds of people have been injured in clashes between Israeli police and Palestinians around Al-Aqsa mosque in Jerusalem, ahead of a planned Jewish nationalist march in the city. The BBC's diplomatic correspondent answers your questions about what's happened and the conflict between Israel and the Palestinians. We'll also hear from people living in Jerusalem to find out what it's like living in the city.

And our regular medical doctor, Professor Manfred Green, professor of epidemiology in the school of public health at the University of Haifa in Israel will answer your questions on the latest coronavirus stories.

(Photo: A health worker gives a shot of COVID-19 vaccine to a woman. Credit EPA)

MON 18:00 BBC News (w172xzzj7k5g250)

The latest five minute news bulletin from BBC World Service.

MON 18:06 Outlook (w3ct1jsz)

[Repeat of broadcast at 12:06 today]

MON 18:50 Witness History (w3ct1x0r)

[Repeat of broadcast at 08:50 today]

MON 19:00 BBC News (w172xzzj7k5g5x4)

The latest five minute news bulletin from BBC World Service.

MON 19:06 The Newsroom (w172xyxfw79jswd)

The world's Newsroom brings you global events as they happen

MON 19:30 BBC News Summary (w172xzkbp8s4k5j)

The latest two minute news summary from BBC World Service.

MON 19:32 Sport Today (w172y0n9944k1qh)

2021/05/10 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

MON 20:00 BBC News (w172xzzj7k5g9n8)

The latest five minute news bulletin from BBC World Service.

MON 20:06 The Climate Question (w3ct2dqf)

[Repeat of broadcast at 02:32 today]

MON 20:30 BBC News Summary (w172xzkbp8s4nxx)

The latest two minute news summary from BBC World Service.

MON 20:32 Discovery (w3ct2g6b)

Patient zero: Spillover in suburbia

Episode One: Spillover in Suburbia

A horse mysteriously falls ill in her paddock, and before long dozens of other horses from her stables are sick. As the horses start to die vicious, painful deaths, their trainer falls into a coma and is placed into intensive care. The race is on to figure out what's making both species sick, and where it came from. What they find will resonate throughout the following decades and might help us uncover the origins of COVID-19.

Presented by Olivia Willis

Patient Zero is a production of ABC Science, Radio National, and the BBC World Service.

Picture: Wild horses. Credit: Phil Copp/Getty Images

MON 21:00 BBC News (w172xzzj7k5gfd)

The latest five minute news bulletin from BBC World Service.

MON 21:06 Newshour (w172xv52szdydq0)

Airstrikes hit Gaza after rockets target Jerusalem

The authorities in Gaza say 20 people, including children, have been killed in Israeli airstrikes, which came after militants in Gaza target Jerusalem with rocket fire. The past few days have seen the worst violence in Jerusalem for years, with hundreds of Palestinians wounded in confrontations with Israeli police

outside the al-Aqsa mosque.

Also in the programme: a cyber attack shuts down one of the most important fuel pipelines in the US; and how Sweden's reputation for safety has been challenged by the killings of six women in less than five weeks.

Image: An injured Palestinian man in Jerusalem. Credit: EPA

MON 22:00 BBC News (w172xzjj7k5gk4j)

The latest five minute news bulletin from BBC World Service.

MON 22:06 HARDtalk (w3ct1n5n)

[Repeat of broadcast at 08:06 today]

MON 22:30 BBC News Summary (w172xzkbp8s4xdx)

The latest two minute news summary from BBC World Service.

MON 22:32 The Conversation (w3ct1p6h)

[Repeat of broadcast at 04:32 today]

MON 23:00 BBC News (w172xzjj7k5gnwn)

The latest five minute news bulletin from BBC World Service.

MON 23:06 The Newsroom (w172xywfmhfvzfm)

The world's Newsroom brings you global events as they happen

MON 23:20 Sports News (w172y0dhs50128)

BBC Sport brings you all the latest stories and results from around the world.

MON 23:30 BBC News Summary (w172xzkbp8s5151)

The latest two minute news summary from BBC World Service.

MON 23:32 World Business Report (w172y48qz0qq6fs)

Fears over US fuel shortage amid cyber-attack

The US has acted to keep fuel flowing after a major pipeline was hit by a cyber-attack. Ellen R Wald, president of Transversal Consulting, explains the significance of the Colonial Pipeline, which carries 45% of the east coast's supply of diesel, petrol and jet fuel from the Gulf of Mexico and the shutdown's impact. Algirde Pipikaite is a cyber security expert at the World Economic Forum who discusses how the pipeline was shut down by cyber criminals. Also in the programme, we take a close look at Nigeria's electricity challenge, which means around 40% of the country having no access to official supplies. Victor Agbro runs a printing company in Lagos, and tells us he has to run diesel generators to ensure a steady flow of power to his printing presses. We hear from Yadviga Semikolenova, who is the World Bank's lead energy economist for Nigeria, about a recent \$500m loan to the country to shore up the power sector. And we get the government's perspective from Ahmad Zakari, who is special adviser to President Buhari on infrastructure. Plus, researchers have created a cricket bat made out of bamboo, rather than the traditional willow, which they say is cheaper and more sustainable. We hear more about the idea from Ben Tinkler-Davies of the University of Cambridge, who was on the research team.

(Picture: Holding tanks for the Colonial Pipeline in Maryland. Picture credit: EPA.)

TUESDAY 11 MAY 2021

TUE 01:00 BBC News (w172xzjj7k5gxcx)

The latest five minute news bulletin from BBC World Service.

TUE 01:06 Business Matters (w172xvqb392d8pm)

Colonial Pipeline to attempt gradual reopening

The Colonial fuel pipeline, shut down by a cyber attack since Friday, serves 45% of America's east coast. A regional state of emergency has been declared, allowing tanker drivers to work extra hours to get some fuel where it's needed – but will they be able to keep up with demand? We ask Ellen R Ward, president of Transversal Consulting. Is it a surprise that criminals were able to hack into the system running the most important fuel pipeline in the United States? A question for Algirde Pipikaite, cyber security expert at the World Economic Forum. Also in the programme, Mike Johnson takes a close look at Nigeria's electricity challenge, which means around 40% of the country having no access to official supplies. Plus, researchers have created a cricket bat made out of bamboo, rather than the traditional willow, which they say is cheaper and more sustainable. We hear more from Ben Tinkler-Davies of the University of Cambridge, who was on the research team.

All this and more discussed with our two guests on opposite sides of the globe: Erin Delmore, political reporter in New York City and Patrick Barta, Asia Enterprise Editor for the Wall Street Journal, in Bangkok.

TUE 02:00 BBC News (w172xzjj7k5h141)

The latest five minute news bulletin from BBC World Service.

TUE 02:06 The Newsroom (w172xyxfw79kn39)

The world's Newsroom brings you global events as they happen

TUE 02:30 BBC News Summary (w172xzkbp8s5ddf)

The latest two minute news summary from BBC World Service.

TUE 02:32 The Documentary (w3ct2fnt)

Bob Marley: An extraordinary day

Forty years after the death of reggae singer Bob Marley, British writer and dub poet, Benjamin Zephaniah, remembers the day Jamaica came to a standstill for the singer's funeral.

Bob Marley was laid to rest on the 21 May 1981, 11 days after dying from skin cancer.

The extraordinary day saw the island come together to mourn their most famous son – and to celebrate his life and work. He was more than a singer and writer to the people of Jamaica, he was a national hero and prophet with his beliefs in peaceful resolution and Rastafarian religion.

For days leading up to the funeral, tens of thousands of people filed past his body and on the day, thousands lined the streets of Kingston while the 12,000 capacity National Arena was jam-packed.

The outpouring of emotion on the day was unprecedented in Jamaican history with some comparing it to the kind of atmosphere at JFK or Martin Luther King's funeral.

As Benjamin recalls with some of the people who were in Jamaica that day, everything stopped - even the Government's budget statement was delayed by a week on the direction of the new Prime Minister.

The singer's hits could be heard right across the island as sound systems pumped out songs like No Woman, No Cry, I Shot the Sheriff and One Love. Meanwhile two of his sons danced and the Wailers and the I Three performed.

Among those remembering this extraordinary day – I Three singer Judy Mowatt, reggae musician Michael Ibo Cooper, reporter Robin Denselow and Edward Williams who was a 13-year-old boy living in Kingston at the time.

(Photo: Bob Marley performing at the Brighton Leisure Centre. Credit: Mike Prior/Redferns/Getty Images)

TUE 03:00 BBC News (w172xzjj7k5h4w5)

The latest five minute news bulletin from BBC World Service.

TUE 03:06 Outlook (w3ct1jsz)

[Repeat of broadcast at 12:06 on Monday]

TUE 03:50 Witness History (w3ct1x0r)

[Repeat of broadcast at 08:50 on Monday]

TUE 04:00 BBC News (w172xzjj7k5h8m9)

The latest five minute news bulletin from BBC World Service.

TUE 04:06 The Newsroom (w172xyxfw79kwk)

The world's Newsroom brings you global events as they happen

TUE 04:30 BBC News Summary (w172xzkbp8s5mwp)

The latest two minute news summary from BBC World Service.

TUE 04:32 In the Studio (w3ct1ttx)

The making of U.Me: The Musical

U.Me: The Musical is a new musical for radio and podcast that premieres on Wednesday 12 May.

How – in a period of global pandemic – do you take the idea of creating a radio musical that aims to bring joy and catharsis to a locked down world, and turn that into a reality? This programme examines the huge team effort that goes into crafting a piece of audio art for our times.

At the centre of the story are BBC story commissioner and co-

writer Simon Pitts, composer and lyricist Theo Jamieson (musical supervisor of West End hit Everybody's Talking About Jamie), plus Grammy Award-winning record producer Steve Levine. The trio are at the heart of a large cast of artistic talents, all of whom contribute to the final work.

Via a combination of video calls, exclusive access to the fully Covid-19 compliant bubble of London rehearsal rooms, actual production recordings featuring the socially distanced BBC Philharmonic, and contributions from show leads Anoushka Lucas and Martin Sarreal, actor and writer Mathew Horne (Gavin Shipman in BAFTA-winning BBC TV series Gavin and Stacey) examines the creative process behind this unique radio production.

Presenter: Mathew Horne
Producer: Lewis Borg-Cardona
A Magnum Opus Broadcasting production for the BBC World Service

Image: Martin Sarreal and Anoushka Lucas (Credit: BBC)

TUE 05:00 BBC News (w172xzjj7k5hdcf)

The latest five minute news bulletin from BBC World Service.

TUE 05:06 Newsday (w172xv2mgsldxgd5)

Pleas for calm as Jerusalem violence escalates

The US, the European Union and the UK call for an end to retaliatory attacks by Israelis and Palestinians

There are growing concerns that African countries could see an Indian style covid disaster as vaccine mistrust leads to a spike in cases.

And we go to Jamaica to mark the anniversary of the passing of one of the all-time greats: Bob Marley.

TUE 06:00 BBC News (w172xzjj7k5hj3k)

The latest five minute news bulletin from BBC World Service.

TUE 06:06 Newsday (w172xv2mgsldx49)

Jerusalem crisis: retaliatory violence escalates

Israel's military launches air strikes against militant targets in Gaza in retaliation for rockets fired into Jerusalem. Twenty people, including children, are reported to have died.

A grim discovery on the banks of the Ganges in northern India as a number of bodies are washed up on its shores.

And how would you feel about getting a Covid vaccine... in Count Dracula's castle?

TUE 07:00 BBC News (w172xzjj7k5hmvp)

The latest five minute news bulletin from BBC World Service.

TUE 07:06 Newsday (w172xv2mgsldxpwf)

Emergency UN meeting over Jerusalem crisis

There've been calls for Israel and the Palestinians to stop tit-for-tat attacks after a day of escalating violence centred on Jerusalem.

China's population is growing at the slowest rate in a decades - so what will the long term impact be on society there?

And a new Sabre-Toothed Cat species is discovered - an animal big enough to hunt rhinos across America more than 5 million years ago.

TUE 08:00 BBC News (w172xzjj7k5hrlt)

The latest five minute news bulletin from BBC World Service.

TUE 08:06 People Fixing the World (w3ct1pks)

Turning oil platforms into reefs

There are thousands of oil and gas platforms in the world's oceans and in the coming decades many will become obsolete. Some people think that instead of treating them as industrial waste, we should embrace the ecosystems they've created and leave them in the sea as artificial reefs. This approach has been adopted by some US states, and scientists are considering whether this could also work in the North Sea.

Produced and presented by Celestina Olulode

Picture: Getty Images

TUE 08:30 BBC News Summary (w172xzkbp8s6w6)

The latest two minute news summary from BBC World Service.

TUE 08:32 Business Daily (w3ct1jfp)

The battle for football

Why plans for a European Super League won't go away. Ed Butler speaks to James Montague, author of the book *The Billionaires Club: The Unstoppable Rise of Football's Super-rich Owners*, about why creating a Europe-wide league of the richest clubs made so much sense to football club owners with backgrounds in US sport. Spanish football journalist Semra Hunter explains why for Spanish clubs, the ESL is seen as the only way to guarantee their financial survival. And Keiran Maguire, accountant and lecturer in football finance, tells us why the swift collapse of the ESL plans could prompt owners to sell up.

(Photo: Fans protest outside Old Trafford, the home of Manchester United, Credit: Getty Images)

TUE 08:50 Witness History (w3ct1x58)

Legalising contraception in Ireland

Contraception wasn't easily accessible in Ireland until 1985. Activists spent years fighting for the right to control their fertility but faced opposition from the Roman Catholic church which traditionally played a central role in Irish society. Paul Moss has been hearing from Betty Purcell who was a teenager when she first started campaigning.

Photo: a woman holding up a condom and some contraceptive pills. Credit: Getty Images.

TUE 09:00 BBC News (w172xzzj7k5hwy)

The latest five minute news bulletin from BBC World Service.

TUE 09:06 The Documentary (w3ct2fnt)

[Repeat of broadcast at 02:32 today]

TUE 09:30 BBC News Summary (w172xkbp8s67mb)

The latest two minute news summary from BBC World Service.

TUE 09:32 Discovery (w3ct2g6b)

[Repeat of broadcast at 20:32 on Monday]

TUE 10:00 BBC News (w172xzzj7k5j032)

The latest five minute news bulletin from BBC World Service.

TUE 10:06 The Arts Hour (w3ct1rsv)

[Repeat of broadcast at 20:06 on Saturday]

TUE 11:00 BBC News (w172xzzj7k5j3v6)

The latest five minute news bulletin from BBC World Service.

TUE 11:06 The Newsroom (w172xyxfw79lqtg)

The world's Newsroom brings you global events as they happen

TUE 11:30 BBC News Summary (w172xkbp8s6h3l)

The latest two minute news summary from BBC World Service.

TUE 11:32 In the Studio (w3ct1ttx)

[Repeat of broadcast at 04:32 today]

TUE 12:00 BBC News (w172xzzj7k5j71b)

The latest five minute news bulletin from BBC World Service.

TUE 12:06 Outlook (w3ct1jw7)

Secrets of my family's lost café

Meriel Schindler grew up in London in a family of émigrés. They were Jewish and had fled Austria in the late 1930s as Hitler's Nazi Party took over and the violent persecution of Jews turned into the Holocaust. When her father died in 2017, Meriel inherited 13 photo albums. One was dedicated to the Café Schindler in Innsbruck, Austria, a venue set up by her Jewish grandfather in the 1920s. As Meriel started to research the café, she discovered it had gone from being a hub of jazz music and delicious pastries, to a Nazi watering hole. But the research would also uncover some uncomfortable truths about her father that she struggled to make sense of.

Meriel has written a book called *The Lost Café Schindler*.

Get in touch: outlook@bbc.com

Picture: Meriel Schindler and a photo of the Café Schindler in the 1930s

Credit: Holly Falconer / courtesy of Meriel Schindler

TUE 12:50 Witness History (w3ct1x58)

[Repeat of broadcast at 08:50 today]

TUE 13:00 BBC News (w172xzzj7k5jcbg)

The latest five minute news bulletin from BBC World Service.

TUE 13:06 The Newsroom (w172xyxfw79l9q)

The world's Newsroom brings you global events as they happen

TUE 13:30 BBC News Summary (w172xkbp8s6qlv)

The latest two minute news summary from BBC World Service.

TUE 13:32 Discovery (w3ct2g6b)

[Repeat of broadcast at 20:32 on Monday]

TUE 14:00 BBC News (w172xzzj7k5jh2l)

The latest five minute news bulletin from BBC World Service.

TUE 14:06 Newshour (w172xy5zsf2ogd6)

Jerusalem crisis escalates

There have been further heavy exchanges of fire between Israeli forces and Palestinians after days of unrest as the international community appeals for calm. We speak to Hamas and an Israeli official on this programme.

Also in the programme: Children killed in a school shooting in the Russian city of Kazan; and the 40th anniversary of the death of reggae legend Bob Marley.

(Photo: Smoke trails in the sky as Israel's Iron Dome anti-missile system intercepts rockets launched from the Gaza Strip. Credit: Reuters)

TUE 15:00 BBC News (w172xzzj7k5jltq)

The latest five minute news bulletin from BBC World Service.

TUE 15:06 People Fixing the World (w3ct1pks)

[Repeat of broadcast at 08:06 today]

TUE 15:30 BBC News Summary (w172xkbp8s6z33)

The latest two minute news summary from BBC World Service.

TUE 15:32 World Business Report (w172y4bcvy4r7f)

China's population growth rate slows

China's population grew at its slowest pace in decades according to results of its census. The BBC's Robin Brant in Shanghai explains why a slowdown in population growth presents significant demographic challenges for the country. And we get wider context from Dr Lauren Johnson of the School of Oriental and African Studies in London. Also in the programme, a case filed with the UK's Competition Appeal Tribunal argues that millions of Apple's customers in the UK should be compensated for breaches of competition law because of how the company's App Store works. Dr Rachael Kent, lecturer in digital economy at King's College, London, is bringing the case, and tells us why. Plus, in the wake of the row over the failed creation of a European Super League for some of the continent's top football teams, the BBC's Ed Butler examines what it revealed about the real state of finances in football, and the power of fans to change things.

(Picture: Babies held by nurses on a ward in China. Picture credit: Getty Images.)

TUE 16:00 BBC News (w172xzzj7k5jqkv)

The latest five minute news bulletin from BBC World Service.

TUE 16:06 BBC OS (w172xxxh9w8zqj9)

Israel-Gaza violence erupts

There have been more casualties in Gaza and Israel as the heavy exchange of fire between Palestinian militants and the Israeli army continues. People on both sides have been killed. We continue to answer audience questions about the situation with the help of our regional experts, and hear messages from different communities and religious groups about how they are affected.

We are joined by our BBC Russian colleague who will be telling us about a school shooting in the city of Kazan, where

according to local authorities seven pupils and a teacher have died.

And we are discussing today's coronavirus stories with Dr Isaac Bogoch, from the University of Toronto. We'll also hear a conversation between doctors in the UK and South Africa who have decided to leave or are thinking of leaving their jobs because of the pressures of the pandemic and other challenges at work.

(Photo: Israel-Palestinian violence flares up. Credit: Reuters)

TUE 17:00 BBC News (w172xzzj7k5jv9z)

The latest five minute news bulletin from BBC World Service.

TUE 17:06 BBC OS (w172xxxh9w8zv8f)

Coronavirus conversations: Doctors under pressure

We continue to bring people together facing the coronavirus with shared experiences. Today we'll hear a conversation between doctors in the UK and South Africa who have decided to leave, or are thinking of leaving their front line jobs because of the pressures of the pandemic and other challenges at work.

And there have been more casualties in Gaza and Israel as the heavy exchange of fire between Palestinian militants and the Israeli army continues. People on both sides have been killed. We continue to answer audience questions about the situation with the help of our regional experts, and hear messages from different communities and religious groups about how they are affected.

We hear from our regular coronavirus expert, Dr Swapneil Parikh in Mumbai. He discusses the situation there with a surge in infections and the reports of a rare fungus infection diagnosed among Covid-19 patients. We also hear from citizens who are challenging the official tally of coronavirus deaths in India, counting bodies being cremated in their areas.

Photo: Doctors in PPE Credit: EPA/Drees Mohammed)

TUE 18:00 BBC News (w172xzzj7k5jz23)

The latest five minute news bulletin from BBC World Service.

TUE 18:06 Outlook (w3ct1jw7)

[Repeat of broadcast at 12:06 today]

TUE 18:50 Witness History (w3ct1x58)

[Repeat of broadcast at 08:50 today]

TUE 19:00 BBC News (w172xzzj7k5k2t7)

The latest five minute news bulletin from BBC World Service.

TUE 19:06 The Newsroom (w172xyxfw79mpsh)

The world's Newsroom brings you global events as they happen

TUE 19:30 BBC News Summary (w172xkbp8s7g2m)

The latest two minute news summary from BBC World Service.

TUE 19:32 Sport Today (w172y0n9944myml)

2021/05/11 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

TUE 20:00 BBC News (w172xzzj7k5k6kc)

The latest five minute news bulletin from BBC World Service.

TUE 20:06 The Documentary (w3ct2fnt)

[Repeat of broadcast at 02:32 today]

TUE 20:30 BBC News Summary (w172xkbp8s7ktr)

The latest two minute news summary from BBC World Service.

TUE 20:32 Digital Planet (w3ct1lrz)

Urgent calls for mandatory recycling of e-waste

Pascal Leroy, Director General of the Waste Electrical and Electronic Equipment Forum joins us live to discuss their report on a proposed recycling framework for critical raw materials – CEWASTE – and why recycling critical raw materials from circuit boards, neodymium magnets, fluorescent lights and batteries is essential for the long-term sustainability of

electronic manufacture.

Geek TV

Stephen Cass, senior editor of IEEE spectrum, explains how he has repurposed an old CRT TV to display his favourite web pages using a Raspberry Pi and a bit of python code. We also discuss the importance of the maker movement and the right to repair laws coming into force later this summer.

Apple vs. Epic

Our Games Correspondent Chris Berrow, delves into the detail of the Apple vs Epic lawsuit, with Epic asking if Apple's control over the App Store is anti-competitive, by only allowing in-app purchases through the store and taking a 30% cut of the sales? If Epic wins, this could have huge implications for the games industry, and potentially make in-app purchases considerably cheaper.

(Image: Electronic waste. Credit: Getty Images)

The programme is presented by Gareth Mitchell with expert commentary from Angelica Mari

Studio Managers: John Boland and Bob Nettles
Producer: Ania Lichtarowicz

TUE 21:00 BBC News (w172xzjj7k5kb9h)

The latest five minute news bulletin from BBC World Service.

TUE 21:06 Newshour (w172xv52zsf19m3)

Gaza rockets target Israeli city of Tel Aviv

The militant group Hamas says it targeted Tel Aviv with a barrage of 130 rockets after an Israeli airstrike brought down an apartment block in Gaza. Air raid sirens sounded in Tel Aviv as Israel's Iron Dome defence system intercepted rockets in the air.

Also in the programme: President Putin has ordered a review of gun ownership after a shooting at a school in the Russian city of Kazan that left nine people dead; and how the World Wildlife Fund mapped forest re-growth that is helping to combat climate change.

Photo: Buildings in the Israeli city of Ashkelon damaged by rocket fire from Gaza.

TUE 22:00 BBC News (w172xzjj7k5kg1m)

The latest five minute news bulletin from BBC World Service.

TUE 22:06 People Fixing the World (w3ct1pks)

[Repeat of broadcast at 08:06 today]

TUE 22:30 BBC News Summary (w172xkbp8s7tb0)

The latest two minute news summary from BBC World Service.

TUE 22:32 In the Studio (w3ct1ttx)

[Repeat of broadcast at 04:32 today]

TUE 23:00 BBC News (w172xzjj7k5kksr)

The latest five minute news bulletin from BBC World Service.

TUE 23:06 The Newsroom (w172xywfmhpywbq)

The world's Newsroom brings you global events as they happen

TUE 23:20 Sports News (w172y0sdhs52zxc)

BBC Sport brings you all the latest stories and results from around the world.

TUE 23:30 BBC News Summary (w172xkbp8s7y24)

The latest two minute news summary from BBC World Service.

TUE 23:32 World Business Report (w172y48qz0qt3bw)

US approves first major offshore wind farm

The Vineyard Wind project off the coast of Massachusetts is intended to create enough electricity to power 400,000 homes in New England. Does this herald the dawn of a lower emission energy industry in the States? A question for Helen Zichal, CEO of the American Clean Power Association. China's population grew at its slowest pace in decades according to results of its census. The BBC's Robin Brant in Shanghai explains why a slowdown in population growth presents significant demographic challenges for the country. And we get wider context from Dr Lauren Johnson of the School of Oriental and African Studies in London. Also in the

programme, a case filed with the UK's Competition Appeal Tribunal argues that millions of Apple's customers in the UK should be compensated for breaches of competition law because of how the company's App Store works. Dr Rachael Kent, lecturer in digital economy at King's College, London, is bringing the case, and tells us why. Plus, in the wake of the row over the failed creation of a European Super League for some of the continent's top football teams, the BBC's Ed Butler examines what it revealed about the real state of finances in football, and the power of fans to change things.

(Picture: an offshore wind farm. Credit: Getty Images.)

WEDNESDAY 12 MAY 2021

WED 01:00 BBC News (w172xzjj7k5kt90)

The latest five minute news bulletin from BBC World Service.

WED 01:06 Business Matters (w172xvqb392h5lq)

US approves first major offshore wind farm

The Vineyard Wind project off the coast of Massachusetts is intended to create enough electricity to power 400,000 homes in New England. Does this herald the dawn of a lower emission energy industry in the States? A question for Helen Zichal, CEO of the American Clean Power Association. China's population grew at its slowest pace in decades according to results of its census. Dr Lauren Johnson of the School of Oriental and African Studies in London explains the impact on the country's economy. Plus, in the wake of the row over the failed creation of a European Super League for some of the continent's top football teams, the BBC's Ed Butler examines what it revealed about the real state of finances in football, and the power of fans to change things.

All this and more discussed with our two guests on different sides of the globe: Enda Curran, chief Asia economics correspondent for Bloomberg News, in Hong Kong and Hayley Woodin – executive editor of Business in Vancouver, in Canada.

(Picture: an offshore wind farm. Credit: Getty Images.)

WED 02:00 BBC News (w172xzjj7k5ky14)

The latest five minute news bulletin from BBC World Service.

WED 02:06 The Newsroom (w172xyxfw79nk0d)

The world's Newsroom brings you global events as they happen

WED 02:30 BBC News Summary (w172xkbp8s899j)

The latest two minute news summary from BBC World Service.

WED 02:32 The Compass (w3ct1csg)

Finders Keepers

Finders Keepers: A photograph, a pipe and a skull

Actor and musician Kema Sikazwe is no historical expert. A young Zambian who now lives in northern England, he hasn't even set foot inside a museum since he was ten years old. All that changes when Kema learns about the movement to return stolen objects back to where they came from. Should these priceless parts of history be returned? And if so, what's at stake?

Kema measures the scale of the problem on a visit to Newcastle's Great North Museum. Curator JC Niala shares her experience of seeing a photograph of her grandfather on display in a Kenyan exhibition, and Kema's father tells him about an ongoing dispute between Britain and Zambia.

Theme music composed by Kema Sikazwe aka Kema Kay

Programme produced by Scattered Pictures

WED 03:00 BBC News (w172xzjj7k5l1s8)

The latest five minute news bulletin from BBC World Service.

WED 03:06 Outlook (w3ct1jw7)

[Repeat of broadcast at 12:06 on Tuesday]

WED 03:50 Witness History (w3ct1x58)

[Repeat of broadcast at 08:50 on Tuesday]

WED 04:00 BBC News (w172xzjj7k5l5jd)

The latest five minute news bulletin from BBC World Service.

WED 04:06 The Newsroom (w172xyxfw79nshn)

The world's Newsroom brings you global events as they happen

WED 04:30 BBC News Summary (w172xkbp8s8jss)

The latest two minute news summary from BBC World Service.

WED 04:32 Project 17 (w3ct0x8j)

Goal 16: Peace and justice

In 2015 the United Nations announced a radical plan to change the world.

Global leaders drew up a list of 17 "sustainable development goals" to create a blueprint for a better future. The goals cover things like gender equality, health provision, a good education and much more. We've asked 17-year-olds from 17 different countries tell us what they think needs to change if the world is to meet those goals by 2030.

Seventeen-year-old Israel is a member of the Otomi indigenous community. He lives in Mexico City but he faces police harassment when he works selling sweets and cigarettes on the streets of the capital. For Project 17 Israel went to meet an Otomi woman who was arrested and sent to jail after being picked up by the police - and he talks to indigenous activists fighting for equal access to justice for all Mexicans.

Presenter: Sana Safi

Producer: Tim Mansel

Project 17 is produced in partnership with The Open University

WED 05:00 BBC News (w172xzjj7k5l98j)

The latest five minute news bulletin from BBC World Service.

WED 05:06 Newsday (w172xv2mgsm0c98)

Israel declares state of emergency

Israel has declared a state of emergency in the central city of Lod after riots. Rocket attacks and airstrikes continue overnight, as the UN warns it could fall into all-out war between Israel and the Palestinians in Gaza - we'll be hearing from all sides throughout the programme.

We'll hear how the changing climate threatens one of Kenya's biggest exports - tea, and the millions of livelihoods which depend on it.

And the pandemic is changing people's attitudes to work and there are predictions it will lead to a big wave of resignations.

WED 06:00 BBC News (w172xzjj7k5l1f0n)

The latest five minute news bulletin from BBC World Service.

WED 06:06 Newsday (w172xv2mgsm0h1d)

Conflict escalates between Israel and the Palestinians

The United Nations has warned that the conflict between Israel and the Palestinians in Gaza is escalating towards full-scale war. Both sides have exchanged their heaviest bombardments in years, with rocket barrages and airstrikes continuing throughout the night.

We look at why the southern Italian island of Lampedusa is seeing a sharp rise in the number of migrants crossing the Mediterranean from North Africa.

And could climate change threaten global tea exports from Kenya ?

WED 07:00 BBC News (w172xzjj7k5l1jrs)

The latest five minute news bulletin from BBC World Service.

WED 07:06 Newsday (w172xv2mgsm0lsj)

Gaza airstrikes

The United Nations has warned that the conflict between Israel and the Palestinians in Gaza is escalating towards full-scale war.

We also take a look at allegations that some social media accounts there were blocked.

And Covid restrictions have made Ramadan difficult but a church in Barcelona has opened its doors for Muslims to be together for their communal meal to break the fast.

WED 08:00 BBC News (w172xzjj7k5lnhs)

The latest five minute news bulletin from BBC World Service.

WED 08:06 HARDtalk (w3ct1nb5)

Harry Theoharis: What is in store for European summer

holidays?

We have reached the point in the Covid pandemic where the impacts of the virus are varying wildly. Here in the UK, infection rates have been contained and a rapid vaccine roll out is having its effect, but in many other countries the situation remains critical. In this patchwork pandemic how much scope is there for a resumption of travel and tourism? Stephen Sackur speaks to Greece's Minister of Tourism Haris Theoharis.

(Photo: Haris Theoharis, Greece's Minister of Tourism)

WED 08:30 BBC News Summary (w172xzkbp8s90s9)
The latest two minute news summary from BBC World Service.

WED 08:32 Business Daily (w3ct1jng)
The dirty business of old car batteries

The recycling of lead acid batteries poses a growing health hazard in many developing countries.

Vivienne Nunis looks at the case of Bangladesh, where a cottage industry has sprung up all over the country, with old car and auto-rickshaw batteries being burned in unsafe conditions, poisoning the surrounding land, animals, plants and people. Researcher Bret Ericson says that hundreds of millions of children across the developing world have dangerously high blood lead levels, risking damage to their developing brains.

Andrew McCarty of the anti-pollution activists Pure Earth explains why the economics of battery recycling make it such an intractable problem, while Adam Muellerweiss of the major global battery manufacturer Clarios explains what he thinks needs to be done to make recycling a fully closed-loop process, as it is in the developed world. Plus industry journalist Christian Ruoff explains why the rise of electric vehicles does not spell the end of lead acid batteries.

(Picture: Used batteries piled up at a recycling plant in Russia; Credit: Peter Kovalev/TASS via Getty Images)

WED 08:50 Witness History (w3ct1x7j)
The Jewish exodus from Iraq

In the summer of 1971 around 2,000 Iraqi Jews were forced to flee the country following persistent threats and persecution. The Jewish community in Iraq dated back to the Babylonian times, but by the mid 1950s numbered less than eight thousand. Mike Lanchin has been speaking to Edwin Shuker, who was just 16 years old when he and his family were smuggled over the mountains to safety in neighbouring Iran by members of Iraq's Kurdish minority. Edwin and his family eventually settled in the UK.

Photo: Edwin Shuker and his parents and grandmother at home in Baghdad before they left in 1971 (courtesy of Edwin Shuker)

WED 09:00 BBC News (w172xzzjj7k5ls81)
The latest five minute news bulletin from BBC World Service.

WED 09:06 The Compass (w3ct1csg)
[Repeat of broadcast at 02:32 today]

WED 09:30 BBC News Summary (w172xzkbp8s94jf)
The latest two minute news summary from BBC World Service.

WED 09:32 Digital Planet (w3ct1lrz)
[Repeat of broadcast at 20:32 on Tuesday]

WED 10:00 BBC News (w172xzzjj7k5lx05)
The latest five minute news bulletin from BBC World Service.

WED 10:06 The Documentary (w3ct1d21)
[Repeat of broadcast at 12:06 on Saturday]

WED 11:00 BBC News (w172xzzjj7k5m0r9)
The latest five minute news bulletin from BBC World Service.

WED 11:06 The Newsroom (w172xyxfw79pmqk)
The world's Newsroom brings you global events as they happen

WED 11:30 BBC News Summary (w172xzkbp8s9d0p)
The latest two minute news summary from BBC World Service.

WED 11:32 Project 17 (w3ct0x8j)
[Repeat of broadcast at 04:32 today]

WED 12:00 BBC News (w172xzzjj7k5m4hf)
The latest five minute news bulletin from BBC World Service.

WED 12:06 Outlook (w3ct1jyh)
How did this man find two lost Rembrandts?

Jan Six is a Dutch art dealer whose ancestor, also called Jan Six, was painted by the Dutch Master Rembrandt in the 17th century. So when, in 2016, Jan uncovered a lost painting by Rembrandt, the news shook the art world. But, at the time, Jan was hiding another astonishing find... he told Outlook's Emily Webb his story.

Nelson Molina is another collector of prized objects, although he's not finding them in auction houses and old country houses. While working for New York City's Department of Sanitation he started collecting items he found in people's rubbish and then made a collection of his most prized pieces - he now has over 45,000 items. Outlook's Will Coley went to meet him in 2016.

Get in touch: outlook@bbc.com

Picture: Jan Six takes a selfie with Portrait of a Young Gentleman by Rembrandt van Rijn in The Hermitage Museum, Amsterdam, which Jan bought at a London auction in 2016
Credit: KOEN VAN WEEL/AFP via Getty Images

WED 12:50 Witness History (w3ct1x7j)
[Repeat of broadcast at 08:50 today]

WED 13:00 BBC News (w172xzzjj7k5m87k)
The latest five minute news bulletin from BBC World Service.

WED 13:06 The Newsroom (w172xyxfw79pw6t)
The world's Newsroom brings you global events as they happen

WED 13:30 BBC News Summary (w172xzkbp8s9mby)
The latest two minute news summary from BBC World Service.

WED 13:32 Digital Planet (w3ct1lrz)
[Repeat of broadcast at 20:32 on Tuesday]

WED 14:00 BBC News (w172xzzjj7k5mzczp)
The latest five minute news bulletin from BBC World Service.

WED 14:06 Newshour (w172xv52zfc399)
Interviews, news and analysis of the day's global events.

WED 15:00 BBC News (w172xzzjj7k5mhtq)
The latest five minute news bulletin from BBC World Service.

WED 15:06 HARDtalk (w3ct1nb5)
[Repeat of broadcast at 08:06 today]

WED 15:30 BBC News Summary (w172xzkbp8s9w06)
The latest two minute news summary from BBC World Service.

WED 15:32 World Business Report (w172y4cm0kv8lsg)
Amazon wins European court tax appeal

Amazon has won an appeal against an EU ruling that it should pay over \$300m in back taxes. Simon Van Dorpe of Politico explains the background to the case, and Alex Cobham, chief executive of the Tax Justice Network, tells us why he's disappointed with the ruling. Also in the programme, the BBC's Vivienne Nunis examines the practice of recycling lead-acid car batteries, which poses a growing health hazard in many developing countries. Plus, as millions of people around the world start drifting back to the office following a lengthy period of working from home, our regular workplace commentator, Peter Morgan, discusses the implications.

(Picture: An Amazon parcel on a conveyor belt. Picture credit: Getty Images.)

WED 16:00 BBC News (w172xzzjj7k5mmgy)
The latest five minute news bulletin from BBC World Service.

WED 16:06 BBC OS (w172xxxh9w92mfd)
Israel-Gaza: Fears of war

The exchange of fire between Palestinian militants in the Gaza Strip and the Israeli military has escalated significantly. Our correspondent joins us to answer questions from listeners around the world on this conflict. We'll also hear from the

people most affected, including from the city of Lod, where a state of emergency has been declared.

Our regular health expert today responds to the latest developments about Covid-19.

And we return to Kazan, as the city grieves the loss of seven children and two adults killed in a shooting at a school yesterday.

(Photo: A man walks inside a synagogue which was torched during violent confrontations in the city of Lod, Israel between Israeli Arab demonstrators and police. Credit: Reuters/Ronen Zvulun)

WED 17:00 BBC News (w172xzzjj7k5mr72)
The latest five minute news bulletin from BBC World Service.

WED 17:06 BBC OS (w172xxxh9w92r5j)
Colombia: Dozens killed in anti-government protests

Dozens of people have been killed during anti-government protests in Colombia. The demonstrations started on April 28th and were initially against a tax reform. That tax reform has been withdrawn but the protests have continued against the government. We hear from protesters and get the latest from our Latin America editor.

Also, the exchange of fire between Palestinian militants in the Gaza Strip and the Israeli military has escalated significantly. We discuss the international reaction with our correspondents.

And our regular health expert today responds to the latest developments about Covid-19.

(Photo: Protests in Bogota on May 10th. Credit: Reuters/Nathalia Angarita)

WED 18:00 BBC News (w172xzzjj7k5mvz6)
The latest five minute news bulletin from BBC World Service.

WED 18:06 Outlook (w3ct1jyh)
[Repeat of broadcast at 12:06 today]

WED 18:50 Witness History (w3ct1x7j)
[Repeat of broadcast at 08:50 today]

WED 19:00 BBC News (w172xzzjj7k5mzqb)
The latest five minute news bulletin from BBC World Service.

WED 19:06 The Newsroom (w172xyxfw79qlp)
The world's Newsroom brings you global events as they happen

WED 19:30 BBC News Summary (w172xzkbp8sbbzq)
The latest two minute news summary from BBC World Service.

WED 19:32 Sport Today (w172y0n9944qvjp)
2021/05/12 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

WED 20:00 BBC News (w172xzzjj7k5n3gg)
The latest five minute news bulletin from BBC World Service.

WED 20:06 U.Me: The Musical (w3ct1fzx)
U.Me: The Musical

An international love story staged for radio, U.Me: The Musical tells the story of two young people on opposite sides of the world who meet online and make a true connection during the Coronavirus pandemic.

Having moved to London to start a new job just as everything in her world stops, Rose (Anoushka Lucas) meets Ryo (Martin Sarreal) across a crowded video conference at work. He's a Japanese-American living in Kyoto experiencing a quarter-life crisis and is starting out again. Alone and together during the lockdowns they make sense of it all between them and find hope and joy amidst everything.

Special guest narrator is Stephen Fry.

WED 21:00 BBC News (w172xzzjj7k5n76l)
The latest five minute news bulletin from BBC World Service.

WED 21:06 Newshour (w172xv52szf46j6)
Fresh exchanges of fire in Israel-Gaza violence

Palestinian militants have fired more waves of rockets towards Israeli cities as Israel destroyed another high-rise tower in Gaza City and killed top commanders in the military wing of Hamas. We hear from Gaza City and from Lod, an Israeli city with a mixed Jewish and Arab population where violent protests have erupted.

Also in the programme: France's efforts to speed up its Covid-19 immunisation programme; and can Hollywood help to raise awareness about climate change?

(Image: An Israeli mobile artillery unit fires near the border between Israel and the Gaza Strip. Credit: Reuters/Amir Cohen)

WED 22:00 BBC News (w172xzjj7k5nbyq)
The latest five minute news bulletin from BBC World Service.

WED 22:06 HARDtalk (w3ct1nb5)
[Repeat of broadcast at 08:06 today]

WED 22:30 BBC News Summary (w172xzkbp8sbq73)
The latest two minute news summary from BBC World Service.

WED 22:32 Project 17 (w3ct0x8j)
[Repeat of broadcast at 04:32 today]

WED 23:00 BBC News (w172xzjj7k5ngpv)
The latest five minute news bulletin from BBC World Service.

WED 23:06 The Newsroom (w172xywfmhq1s7t)
The world's Newsroom brings you global events as they happen

WED 23:20 Sports News (w172y0dhs55twg)
BBC Sport brings you all the latest stories and results from around the world.

WED 23:30 BBC News Summary (w172xzkbp8sbtz7)
The latest two minute news summary from BBC World Service.

WED 23:32 World Business Report (w172y48qz0qx07z)
Bolivia agrees vaccine exports with Canadian company

Canadian drug company Biolyse have agreed to supply 15 million covid vaccine doses to Bolivia. But this is reliant on cooperation by vaccine producers Johnson and Johnson, or compulsory license. We hear from Biolyse's executive vice president John Fulton. According to a World Bank report, remittances to low and middle-income countries from citizens working abroad held up unexpectedly well in 2020, outstripping combined foreign direct investments and overseas development aid. The World Bank's Dilip Ratha explains. Also in the programme, the BBC's Vivienne Nunis examines the practice of recycling lead-acid car batteries, which poses a growing health hazard in many developing countries. Plus, as millions of people around the world start drifting back to the office following a lengthy period of working from home, our regular workplace commentator, Peter Morgan, discusses the implications.

(Picture: a man receives a vaccine in La Paz, Bolivia. Credit: Getty Images.)

THURSDAY 13 MAY 2021

THU 01:00 BBC News (w172xzjj7k5nq63)
The latest five minute news bulletin from BBC World Service.

THU 01:06 Business Matters (w172xvqb392lht)
Bolivia agrees vaccine exports with Canadian company

Canadian drug company Biolyse have agreed to supply 15 million covid vaccine doses to Bolivia. But this is reliant on cooperation by vaccine producers Johnson and Johnson, or compulsory license. We hear from Biolyse's executive vice president John Fulton. According to a World Bank report, remittances to low and middle-income countries from citizens working abroad held up unexpectedly well in 2020, outstripping combined foreign direct investments and overseas development aid. The World Bank's Dilip Ratha explains. Also in the programme, the BBC's Vivienne Nunis examines the practice of recycling lead-acid car batteries, which poses a growing health hazard in many developing countries. Plus, as millions of people around the world start drifting back to the office following a lengthy period of working from home, our regular workplace commentator, Peter Morgan, discusses the implications.

All this and more discussed with our two guests on opposite sides of the globe. Lori Ann LaRocco, author of Trade War: Containers Don't Lie and Sushma Ramachandran, columnist for The Tribune newspaper, in Delhi.

(Picture: a man receives a vaccine in La Paz, Bolivia. Credit: Getty Images.)

THU 02:00 BBC News (w172xzjj7k5nty7)
The latest five minute news bulletin from BBC World Service.

THU 02:06 The Newsroom (w172xyxfw79rfxh)
The world's Newsroom brings you global events as they happen

THU 02:30 BBC News Summary (w172xzkbp8sc66m)
The latest two minute news summary from BBC World Service.

THU 02:32 Assignment (w3ct1gx8)
Saving the vaquita

Jacques Cousteau called Mexico's Sea of Cortez, 'the aquarium of the world'. It is home to one of the most critically endangered species on earth. The vaquita is a small porpoise facing total extinction, whose numbers have dwindled to less than a dozen. In particular, the vaquita get caught in the nets used to catch totoaba. Casting nets for this large marine fish is illegal. But the totoaba's swim bladder is believed to have potent medicinal properties in China, and sells for thousands of dollars in a trade controlled by Mexican organised crime. So efforts to save the vaquita have brought conflict to poor fishing communities in northern Baja California – people who often rely on an illicit income from totoaba. On New Year's Eve, 2020 one fisherman was killed and another seriously injured in an altercation between local boats and an NGO ship patrolling to stop the sinking of illegal nets that kill the vaquita. Linda Pressly reports from the coast of Baja California on a dangerous clash of interests. Can the vaquita be saved?

Producer: Michael Gallagher
Producer in Mexico: Ulises Escamilla Haro

(Image: Illustration of a vaquita in Mexico's Sea of Cortez. Credit: Greenpeace/Marcelo Otero)

THU 03:00 BBC News (w172xzjj7k5nypc)
The latest five minute news bulletin from BBC World Service.

THU 03:06 Outlook (w3ct1jyb)
[Repeat of broadcast at 12:06 on Wednesday]

THU 03:50 Witness History (w3ct1x7j)
[Repeat of broadcast at 08:50 on Wednesday]

THU 04:00 BBC News (w172xzjj7k5p2fh)
The latest five minute news bulletin from BBC World Service.

THU 04:06 The Newsroom (w172xyxfw79rprd)
The world's Newsroom brings you global events as they happen

THU 04:30 BBC News Summary (w172xzkbp8scfpw)
The latest two minute news summary from BBC World Service.

THU 04:32 The Food Chain (w3cszjpv)
Dan Barber: My life in five dishes

In an illustrious career spanning three decades, there's little that booking-writing, seed-breeding, 'philosopher chef' Dan Barber has not put his hands to. Celebrated as the poster child of the 'farm to fork' movement, he tells Graihgh Jackson how a visit to a wheat farm called into question everything he thought he knew about agriculture and changed his cooking and ethos forever.

Surprisingly though, Dan started life wanting to be a writer not a chef. Through five dishes, we hear how a failed stint as a baker, a baptism of fire in french kitchens and running a company from a mice-infested kitchen eventually won him over to the cause. We learn that an obsession with simplicity and flavour has taken him on a farming odyssey around the world, what coronavirus can teach us about the future of food, and how it all started with a humble dish of scrambled eggs.

If you would like to get in touch please email thefoodchain@bbc.co.uk

(Picture: Chef Dan Barber. Credit: Richard Bolls/BBC)

THU 05:00 BBC News (w172xzjj7k5p65m)
The latest five minute news bulletin from BBC World Service.

THU 05:06 Newsday (w172xv2mgsm386c)
Israeli airstrikes and Hamas rockets

As airstrikes hit Gaza, we speak to a doctor on the ground about the impact of the fighting.

In the United States, one of the top ranking Republican officials has been voted out by her own party. It's all part of the debate about whether Trumpism still dominates.

And environmentalists in Brazil are raising the alarm about two new bills which could cause real damage to the Amazon basin.

THU 06:00 BBC News (w172xzjj7k5p9xr)
The latest five minute news bulletin from BBC World Service.

THU 06:06 Newsday (w172xv2mgsm3cyh)
Israeli Palestinian violence intensifies

Israel's leaders have appealed for restraint, as street clashes between Jews and Arab Israelis spread in response to the conflict with Palestinian militants in Gaza.

The exchange of rocket fire and airstrikes has continued into the night, with both sides escalating their bombardment of urban areas. We hear from both sides in the conflict.

In the United States, Republicans oust Trump critic Liz Cheney from her leadership role. We'll discuss the future of the party.

And India's coronavirus tragedy has been making world headlines. Much less publicised is the situation in neighbouring Nepal which has a long open border with India and is one of the poorest countries in Asia.

THU 07:00 BBC News (w172xzjj7k5pfnw)
The latest five minute news bulletin from BBC World Service.

THU 07:06 Newsday (w172xv2mgsm3hpm)
Live news, business and sport from around the world.

THU 08:00 BBC News (w172xzjj7k5pkf0)
The latest five minute news bulletin from BBC World Service.

THU 08:06 The Inquiry (w3ct1z1x)
Will the Taliban rule Afghanistan again?

In the afternoon of Saturday 8th May in the Afghan capital of Kabul, just a few days before the end of Ramadan, students from the Syed Al-Shahda girls school were starting to leave for the day. Without any warning, a car bomb went off. Then a second explosion, followed by a third.

The Afghan Government blamed the Taliban, the hardline Islamist movement that has fought a long civil war in Afghanistan. The Taliban, although they have previously targeted the education of girls, denied it and blamed the Islamic State Group.

Things were supposed to be getting better in this war torn country.

Earlier this year President Joe Biden announced US troops were going to be removed in September. But what will happen after they've gone?

Produced by Rob Cave and Soila Apparicio.

(Taliban militia move towards the front line in Kabul, February 1995. Credit: Saeed Khan /Getty Images)

THU 08:30 BBC News Summary (w172xzkbp8scxpd)
The latest two minute news summary from BBC World Service.

THU 08:32 Business Daily (w3ct1j95)
What is the real death toll in India?

The chief scientist for the World Health Organisation acknowledges the frailty of the official numbers. Ed Butler speaks to Anthony Masters, the statistics ambassador for the UK's Royal Statistical Society who explains that one way to try to count the number of deaths is through excess deaths figures. But in countries like India there aren't very reliable national mortality statistics to start with, and there's often a long delay in delivering the latest numbers. One man who's done as much as

any to sift through the data available is Murad Banaji, an Indian-born mathematician based at the University of Middlesex in the UK. He says the Indian death toll could be between three and eight times higher than the official data.
(Picture: A relative of a Covid-19 patient cries in New Delhi, India. Picture credit: Raj K Raj/Hindustan Times via Getty Images)

THU 08:50 Witness History (w3ct1x30)

The trial of South Africa's 'Dr Death'

The trial of a South African doctor accused of multiple murders under the Apartheid regime. Wouter Basson, nicknamed 'Dr Death' by the country's media, was alleged to have run a secret chemical and biological weapons project in the 1980s to eliminate perceived enemies of the government. But after the country's longest and most expensive trial and despite evidence from 150 witnesses, in 2002 a judge found him not guilty on all 46 charges. Bob Howard talks to Dr Marjorie Jobson, the national director of Khulumani, a group which campaigns for justice on behalf of the victims of apartheid.

THU 09:00 BBC News (w172xj7k5pp54)

The latest five minute news bulletin from BBC World Service.

THU 09:06 Assignment (w3ct1gx8)

[Repeat of broadcast at 02:32 today]

THU 09:30 BBC News Summary (w172xkbp8sd1fj)

The latest two minute news summary from BBC World Service.

THU 09:32 Health Check (w3ct1nv6)

Is BMI an outdated risk measure?

New research from The Lancet Diabetes & Endocrinology journal shows current body mass index [BMI] guidance is outdated and dangerous for people from different ethnic groups. The study's principal investigator, Dr Rishi Caleyachetty unpicks the global implications of his findings.

Maria Rebollo Polo – WHO lead for Neglected Tropical Diseases in Africa – explains the important task of mapping NTDs like Trachoma.

Plus Khadiatou Cisse reports from Benin on Trachoma – one of the oldest known infections and a leading cause of preventable blindness worldwide.

And, have our memories really got worse during the pandemic? Professor Catherine Loveday of Westminster University discusses her new research on our memories during lockdown.

Guest: Dr Ann Robinson

Presenter: Claudia Hammond

Producer: Erika Wright

(Picture: Female doctor weighing senior patient at medical clinic. Photo credit: Jose Luis Pelaez/Getty Images.)

THU 10:00 BBC News (w172xj7k5psx8)

The latest five minute news bulletin from BBC World Service.

THU 10:06 The Forum (w3ct1rl3)

Ukulele - a history of Hawaii's national instrument

Throughout its 130-year-old history, the ukulele has often been underrated – for many, this tiny four stringed instrument is a musical joke, a plastic toy or a cheap airport souvenir, but in fact, some of the world's greatest musicians have played and admired it, and it has enduring associations with the struggle for Hawaiian independence since its arrival on the islands from Madeira in the late 19th century. The ukulele is also surprisingly versatile and musicians are forever involved in the challenge of expanding its repertoire, from Bach to ukulele concertos to jazz.

Joining Bridget Kendall to find out more about this deceptively humble instrument is the award-winning musician Brittni Paiva, who's been described as Hawaii's pre-eminent ukulele artist; Jim Beloff, the co-founder of Flea Market Music, publishers of some of the first ukulele song books which played a key part in the modern ukulele revival, his forthcoming memoir is UKetopia: Adventures in the Ukulele World; and Samantha Muir, a classical ukulele musician and composer, who's doing a PHD at the University of Surrey in the UK to create new works for the classical ukulele repertoire.

Produced by Anne Khazam for the BBC World Service.

[Image: A ukulele sitting on its side on a Hawaiian beach.

Credit: McCaig via Getty Images]

THU 10:50 Sporting Witness (w3ct1184)

Arsenal's last-minute championship win

In May 1989, Arsenal won the football league championship in arguably the most exciting finish to a season in English top-flight history. The Gunners needed to beat the legendary 1980s Liverpool side by two goals at Anfield, and managed to scrape a 2-0 victory thanks to a dramatic injury-time winner. It was Arsenal's first championship since 1971. Alex Capstick talks to their former defender Nigel Winterburn.

PHOTO: Nigel Winterburn celebrates Arsenal's winning goal (Getty Images)

THU 11:00 BBC News (w172xj7k5pxnd)

The latest five minute news bulletin from BBC World Service.

THU 11:06 The Newsroom (w172xyxfw79sjmn)

The world's Newsroom brings you global events as they happen

THU 11:30 BBC News Summary (w172xkbp8sd8xs)

The latest two minute news summary from BBC World Service.

THU 11:32 The Food Chain (w3cszjpv)

[Repeat of broadcast at 04:32 today]

THU 12:00 BBC News (w172xj7k5q1dj)

The latest five minute news bulletin from BBC World Service.

THU 12:06 Outlook (w3ct1k30)

What really happened on the 'Sex Raft'

In 1973 Mexican anthropologist Santiago Genovés decided to create an experiment to find out what drives people to commit acts of violence. He put a group of men and women from different parts of the world on a raft and cast them out to sea. But what happened was not what he expected. Emily Webb hears from three of the women who took part - Fé Seymour, Edna Reves and Maria Bjornstam. This story was originally broadcast in May 2019.

Anthony Garone was a guitar-mad kid growing up in 1990s Arizona in the US. Having mastered many of his heroes' work by the age of 16, his dad set him a challenge to play an 'impossible' song, Fracture by British prog-rock band King Crimson, that would consume him and his family for the next 22 years.

Get in touch: outlook@bbc.com

Picture: The raft cast out to sea by Santiago Genovés

Credit: Modern Films

THU 12:50 Witness History (w3ct1x30)

[Repeat of broadcast at 08:50 today]

THU 13:00 BBC News (w172xj7k5q54n)

The latest five minute news bulletin from BBC World Service.

THU 13:06 The Newsroom (w172xyxfw79ss3x)

The world's Newsroom brings you global events as they happen

THU 13:30 BBC News Summary (w172xkbp8sdjfl)

The latest two minute news summary from BBC World Service.

THU 13:32 Health Check (w3ct1nv6)

[Repeat of broadcast at 09:32 today]

THU 14:00 BBC News (w172xj7k5q8ws)

The latest five minute news bulletin from BBC World Service.

THU 14:06 Newshour (w172xv52szf686d)

No let up in Gaza conflict

After a night of heavy bombardment in Gaza and in Israel, and with Israeli ground forces massing on the border, we report from Gaza City and Israel. We also ask what - if anything - the US can do to help end the conflict.

Also in the programme: a shortage of oxygen hits Nepal's Covid efforts as neighbouring India stops exports; and what's the best way to persuade the hesitant to get vaccinated?

(Picture: Palestinians cast shadows over a crater where buildings and houses were hit in Israeli air strikes amid a flare-up of Israeli-Palestinian violence, in the northern Gaza Strip May 13, 2021; Credit: REUTERS/Mohammed Salem)

THU 15:00 BBC News (w172xj7k5qdmx)

The latest five minute news bulletin from BBC World Service.

THU 15:06 The Inquiry (w3ct1z1x)

[Repeat of broadcast at 08:06 today]

THU 15:30 BBC News Summary (w172xkbp8sdrx9)

The latest two minute news summary from BBC World Service.

THU 15:32 World Business Report (w172y494pd19ldp)

Tesla will no longer sell cars for Bitcoin

Tesla founder Elon Musk says the car maker will no longer accept Bitcoin for purchases. In a statement he cited concerns about the "rapidly increasing use of fossil fuels for Bitcoin mining and transactions". We get reaction to the news from Olinga Ta'eed, who is an adviser to the Chinese government on digital currency, and director of the UK-based Centre for Citizenship, Enterprise and Governance. Also in the programme, Mr Musk is at odds with Amazon founder Jeff Bezos over investment in competing projects to build a space craft to land on the moon. David Whitehouse is a scientist and author of books about technology in space, and has been studying the entrepreneurs' rivalry. And Keith Cowing, editor of NASA Watch tells us whether Mr Musk's SpaceX or Mr Bezos's Blue Origin is likely to be first to make it back to the moon. Plus, the BBC's Theo Leggett reports on the biggest tunnelling machine ever used in the UK, which officially starts work today, cutting through the chalk beneath the Chiltern Hills northwest of London. And we take a look at some of the financial incentives being offered in the US to boost flagging coronavirus vaccine take-up rates, including free entry to a \$1m lottery in Ohio, with Ivan Pereira, ABC News reporter in New York.

(Picture: Commemorative Bitcoins next to a Tesla car badge. Picture credit: Getty Images.)

THU 16:00 BBC News (w172xj7k5qjd1)

The latest five minute news bulletin from BBC World Service.

THU 16:06 BBC OS (w172xxxh9w95jhb)

Israel sends more troops to Gaza border

Israeli troop reinforcements are being sent to the Gaza border to prepare for an escalation of violence against the Palestinians. We'll be looking at the reasons for the fighting between Israelis and Palestinians and answering listener's questions about the situation. We'll also hear more messages from people affected by the latest round of violence. And we continue to speak to our colleagues in the region about the diplomatic efforts to de-escalate the tension.

We are joined by our regular medical expert, Dr Emma Hodcroft, who is answering questions about how Covid vaccines work against different variants of the virus.

And we'll look at the impact of a ransomware attack that forced one of the biggest fuel pipelines in the US to shut down. The shortage of fuel has led to long queues at petrol stations across the East Coast.

(Photo: An area in Gaza after Israeli military strikes. Credit: Reuters)

THU 17:00 BBC News (w172xj7k5qn45)

The latest five minute news bulletin from BBC World Service.

THU 17:06 BBC OS (w172xxxh9w95n2m)

Israel-Gaza: Violence intensifies

Violence in Gaza and Israel continues with rocket fire and air strikes on both sides. We'll get the latest on the fighting between Israelis and Palestinians and on street violence involving Jewish and Israeli-Arabs. And we hear more messages from people whose everyday life has been disrupted by this latest round of violence. Our regional experts will also explain what's happening with diplomatic efforts to ease the tension.

And we hear from Kenya, where three members of parliament have been summoned by the House Speaker after making allegations that some of their colleagues have received cash bribes in exchange for votes. Our reporter Emmanuel Iguna is in Nairobi.

We also hear from a reporter in New York, who explains how a

teacher there is facing a backlash after handing out a homework assignment that questioned the cause of George Floyd's death.

(Photo: The Iron Dome anti-missile defence system has reportedly intercepted 90% of the rockets that have crossed into Israel. Credit: EPA)

THU 18:00 BBC News (w172xzjj7k5qrw9)

The latest five minute news bulletin from BBC World Service.

THU 18:06 Outlook (w3ct1k30)

[Repeat of broadcast at 12:06 today]

THU 18:50 Witness History (w3ct1x30)

[Repeat of broadcast at 08:50 today]

THU 19:00 BBC News (w172xzjj7k5qwmf)

The latest five minute news bulletin from BBC World Service.

THU 19:06 The Newsroom (w172xyxfw79thlp)

The world's Newsroom brings you global events as they happen

THU 19:30 BBC News Summary (w172xzkbp8sf7wt)

The latest two minute news summary from BBC World Service.

THU 19:32 Sport Today (w172y0n9944trfs)

2021/05/13 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

THU 20:00 BBC News (w172xzjj7k5r0ck)

The latest five minute news bulletin from BBC World Service.

THU 20:06 Assignment (w3ct1gx8)

[Repeat of broadcast at 02:32 today]

THU 20:30 BBC News Summary (w172xzkbp8sfcmf)

The latest two minute news summary from BBC World Service.

THU 20:32 Science in Action (w3ct1l3m)

Covid and clean air

We wouldn't drink dirty water so why do we put up with polluted air? Researchers are calling for a major rethink on our attitude to air quality. Professor Lidia Morawska, from the Queensland University of Technology, says attention to air quality during the Covid pandemic has shown how levels of airborne disease can be reduced.

Sam Wilson from the UK Medical Research Council, University of Glasgow Centre for Virus Research has been investigating genetic mechanisms associated with susceptibility to Covid infection. His team has identified a molecule that detects SARS-COV-2 when it starts to replicate in our cells. However, not all humans have this protective mechanism, which may help explain why some people become very ill with Covid and others have little if any symptoms.

Many Europeans lack this protective molecule, whereas the vast majority of Africans have it. The difference can be seen in cell cultures. However, the lack of diversity in the cells used in experiments worldwide can be a serious problem when looking at genetic differences as Samara Linton reports.

Nuclear material buried beneath the doomed Chernobyl nuclear power plant is becoming more active
Neil Hyatt Professor of Nuclear Materials Chemistry at Sheffield University says it's a small increase but needs to be monitored.

(Photo by Sean Gallup/Getty Images)

Presenter: Roland Pease
Producer: Alex Mansfield

THU 21:00 BBC News (w172xzjj7k5r43p)

The latest five minute news bulletin from BBC World Service.

THU 21:06 Newshour (w172xv52szf73f9)

Israel-Gaza: Deaths mount as Israel-Gaza violence worsens

Violence in Gaza and Israel shows no sign of abating amid continued rocket fire and air strikes, and civil unrest between Jewish and Israeli Arab communities. Israel says it's hit a Hamas intelligence facility with dozens of operatives inside as it continues airstrikes on Gaza. This comes after Hamas launched a new barrage of rockets at central and southern Israel.

Also in the programme: How Covid-19 is devastating Nepal and academics say they've uncovered evidence of a Chinese incursion by stealth into Bhutan
(Photo: Palestinians assess the damage in Gaza after a night of air strikes by Israeli forces. Credit: Getty Images)

THU 22:00 BBC News (w172xzjj7k5r7vt)

The latest five minute news bulletin from BBC World Service.

THU 22:06 The Inquiry (w3ct1z1x)

[Repeat of broadcast at 08:06 today]

THU 22:30 BBC News Summary (w172xzkbp8sfm46)

The latest two minute news summary from BBC World Service.

THU 22:32 The Food Chain (w3cszjpv)

[Repeat of broadcast at 04:32 today]

THU 23:00 BBC News (w172xzjj7k5rcly)

The latest five minute news bulletin from BBC World Service.

THU 23:06 The Newsroom (w172xywfmfhq4p4x)

The world's Newsroom brings you global events as they happen

THU 23:20 Sports News (w172y0sdhs58qsk)

BBC Sport brings you all the latest stories and results from around the world.

THU 23:30 BBC News Summary (w172xzkbp8sfqwb)

The latest two minute news summary from BBC World Service.

THU 23:32 World Business Report (w172y48qz0qz52)

Tesla will no longer sell cars for Bitcoin

Tesla founder Elon Musk says the car maker will no longer accept Bitcoin for purchases. In a statement he cited concerns about the "rapidly increasing use of fossil fuels for Bitcoin mining and transactions". We get reaction to the news from Olinga Ta'eed, who is an adviser to the Chinese government on digital currency, and director of the UK-based Centre for Citizenship, Enterprise and Governance. Also in the programme, Mr Musk is at odds with Amazon founder Jeff Bezos over investment in competing projects to build a space craft to land on the moon. David Whitehouse is a scientist and author of books about technology in space, and has been studying the entrepreneurs' rivalry. And Keith Cowing, editor of NASA Watch tells us whether Mr Musk's SpaceX or Mr Bezos's Blue Origin is likely to be first to make it back to the moon. The BBC's Theo Leggett reports on the biggest tunnelling machine ever used in the UK, which officially starts work today, cutting through the chalk beneath the Chiltern Hills northwest of London. Plus financial incentives are being offered in the US to boost flagging coronavirus vaccine take-up rates, including free entry to a \$1m lottery in Ohio; we hear from Dr Kevin Schulman, Professor of Medicine at Stanford University. (Picture: Commemorative Bitcoins next to a Tesla car badge. Picture credit: Getty Images.)

FRIDAY 14 MAY 2021

FRI 01:00 BBC News (w172xzjj7k5rm36)

The latest five minute news bulletin from BBC World Service.

FRI 01:06 Business Matters (w172xvqb392nzd)

Amazon announces hiring spree

One of the world's most successful companies, Amazon, has announced it is set to hire 75,000 new employees in the US and Canada. This is against a backdrop of surprisingly weak job numbers. One of the factors preventing people returning to the workplace in the United States is childcare with many children still not going to school. We hear from the president of the American Federation of Teachers, Randi Weingarten. Financial incentives are being offered in the US to boost flagging coronavirus vaccine take-up rates, including free entry to a \$1m lottery in Ohio, but will it work? We hear from Dr Kevin Schulman, Professor of Medicine at Stanford University. Tesla founder Elon Musk says the car maker will no longer accept Bitcoin for car purchases. We get reaction to the news from Olinga Ta'eed, an adviser to the Chinese government on digital

currency, and director of the UK-based Centre for Citizenship, Enterprise and Governance. Plus we're joined throughout the programme by journalist, Paddy Hirsch, in LA and in Malaysia, finance professional, Jessica Khine. (Picture of Amazon package via Ronny Hartmann for Getty Images).

FRI 02:00 BBC News (w172xzjj7k5rqvb)

The latest five minute news bulletin from BBC World Service.

FRI 02:06 The Newsroom (w172xyxfw79vbtI)

The world's Newsroom brings you global events as they happen

FRI 02:30 BBC News Summary (w172xzkbp8sg33q)

The latest two minute news summary from BBC World Service.

FRI 02:32 World Football (w3ct1tyz)

The rise of Barça's women and Crew-less in Columbus

A look ahead to the women's Champions League final between Chelsea and Barcelona. The former Barcelona director Maria Teixidor gives an insight into the rapid rise of the club's women's team. Plus, Columbus Crew fans explain why they're so upset about their club's controversial rebrand.

(Photo: Barcelona's Lieke Martens celebrates scoring during the Uefa Women's Champions League Semi Final match against PSG.. Credit: Eric Alonso/Getty Images)

FRI 03:00 BBC News (w172xzjj7k5rvlg)

The latest five minute news bulletin from BBC World Service.

FRI 03:06 Outlook (w3ct1k30)

[Repeat of broadcast at 12:06 on Thursday]

FRI 03:50 Witness History (w3ct1x30)

[Repeat of broadcast at 08:50 on Thursday]

FRI 04:00 BBC News (w172xzjj7k5rzbI)

The latest five minute news bulletin from BBC World Service.

FRI 04:06 The Newsroom (w172xyxfw79v19v)

The world's Newsroom brings you global events as they happen

FRI 04:30 BBC News Summary (w172xzkbp8sgblz)

The latest two minute news summary from BBC World Service.

FRI 04:32 Heart and Soul (w3ct2fmr)

Cardinal Pell

He was once the third most powerful Catholic in the world, overseeing financial reform at the Vatican. But for Cardinal George Pell, the fall from grace was hard when he was accused, convicted, and imprisoned for sexual abuse in his home country of Australia. It was a huge blow for the Catholic church across Australia.

Abuse victim groups celebrated his conviction, however not everyone was convinced, and a debate began to rage as to the credibility of the accusations levied against him, as well as the fairness of his trial.

Cardinal George Pell always maintained his innocence, and after spending a year in jail, in a startling twist to the story, Australia's highest court overturned his conviction, seven high court judges unanimously ruling.

Today, Cardinal George Pell is back in the eternal city of Rome and living right next to the Vatican. In this Heart and Soul special, Colm Flynn meets Cardinal Pell at his home for a one-on-one extended interview to talk about the accusations that were made against him, the time he spent in prison, and why he decided to return to Rome after his release.

Presenter and producer: Colm Flynn
Executive Producer: Rajeev Gupta

(Photo: Cardinal George Pell is surrounded by Australian police as he leaves the Melbourne Magistrates Court in Australia, 6 October, 2017. Credit: Mark Dadswell/Reuters)

FRI 05:00 BBC News (w172xzjj7k5s32q)

The latest five minute news bulletin from BBC World Service.

FRI 05:06 Newsday (w172xv2mgsm653g)

Israel steps up bombardment of Gaza

Palestinian residents flee homes as militants continue to fire rockets into Israel. We hear from a Palestinian filmmaker and the Israeli police spokesperson.

In Ohio, USA, people who get vaccinated are being given the chance to win a million dollars in a special lottery. But do incentives really change how people feel about getting a jab?

And for years we've been told that natural is best. Now some argue that being ethical is more important - even if that means artificially creating products like diamonds, silks or even meat.

FRI 06:00 BBC News (w172xzjj7k5s6tv)

The latest five minute news bulletin from BBC World Service.

FRI 06:06 Newsday (w172xv2mgs68v1)

Israel: Will there be a ground excursion into Gaza?

More than 100 people have been killed in Gaza and seven in Israel as violence escalates between the two sides.

In Cambodia, a strict lockdown has led to tens of thousands of people going hungry – we'll go live to the capital Phnom Penh.

And with more and more migrant children turning up on the southern borders of the US, we speak to a Child Advocate who helps unaccompanied children navigate the country's migrant detention system.

FRI 07:00 BBC News (w172xzjj7k5sbkz)

The latest five minute news bulletin from BBC World Service.

FRI 07:06 Newsday (w172xv2mgs68dlq)

Israel: Communal violence increases in mixed towns

We have a special report from the streets of Israel where mixed communities of Jews and Arabs have been clashing. So are the Israeli police doing enough to tackle the violence? We hear from a spokesman defending their role.

We're going to be talking about mysterious "directed energy" attacks which it's claimed have left 130 US government personnel with brain injuries.

And we'll hear about the painting that sold for more one hundred million dollars at auction.

FRI 08:00 BBC News (w172xzjj7k5sgb3)

The latest five minute news bulletin from BBC World Service.

FRI 08:06 HARDtalk (w3ct1n14)

Tzipi Hotovely: Israel's ambassador to the UK

The escalating violence between Israel and the militant Islamic groups in Gaza has the potential to inflict terrible bloodshed, but will it change any of the underlying realities in this seemingly endless conflict? Stephen Sackur speaks to Israel's Ambassador to the UK Tzipi Hotovely.

(Photo: Tzipi Hotovely in the Hardtalk studio)

FRI 08:30 BBC News Summary (w172xzkbp8sgtlh)

The latest two minute news summary from BBC World Service.

FRI 08:32 Business Daily (w3ct1j04)

Who should control the vaccines?

Calls are rising for a waiver of patent protections on Covid-19 vaccines - but would it do anything to accelerate their rollout in the developing world?

Manuela Saragosa speaks to an advocate of the "People's Vaccine" campaign, which aims to end the control of the major pharmaceutical companies. Els Torreele of University College London says much of the research and development of these vaccines was publicly funded anyway, and the need to negotiate patent agreements prevents other companies from rapidly scaling up vaccine production.

The need to speed up the rollout is testified to by the South African professor of vaccinology Shabir Madhi, who points out that his own country has yet to begin immunising the general public. But Thomas Cueni of the global pharmaceutical industry body, the IFPMA, says they are already on course to vaccinate the world within a year.

(Picture: A man is vaccinated at a hospital in Nairobi, Kenya; Credit: Robert Bonet/NurPhoto via Getty Images)

FRI 08:50 Witness History (w3ct1wyh)

China's Democracy Wall

How a brick wall in Beijing became a beacon for those calling for change. But when Wei Jingsheng posted an essay demanding democracy in 1978, he was arrested and imprisoned for 18 years. He's been telling Rebecca Kesby why he thinks it was worth it.

(PHOTO: BEIJING, CHINA: China's prominent dissident Wei Jingsheng (R) laughs as he talks to reporters at his Beijing apartment 20 September 1993. Wei was arrested again shortly after this and eventually released from prison on medical grounds in 1997. He currently lives in the USA. (credit MANUEL CENETA/AFP via Getty Images)

FRI 09:00 BBC News (w172xzjj7k5sl27)

The latest five minute news bulletin from BBC World Service.

FRI 09:06 Tech Tent (w3ct1ngw)

Ransomware hackers disable key oil pipeline

Has the threat to infrastructure from hackers demanding money been underestimated? Plus, a Facebook moderator tells the Irish Parliament of the toll the work is taking on her mental health. And we chat to an engineer trying to develop affordable autonomous driving tech for Indian cities. Presented by Rory Cellan-Jones, with BBC cybersecurity reporter Joe Tidy. Produced by Jat Gill.

(Image: Valve representing an oil pipeline, with cryptocurrency tokens. Credit: Getty Images).

FRI 09:30 BBC News Summary (w172xzkbp8sgybm)

The latest two minute news summary from BBC World Service.

FRI 09:32 Science in Action (w3ct1l3m)

[Repeat of broadcast at 20:32 on Thursday]

FRI 10:00 BBC News (w172xzjj7k5sptc)

The latest five minute news bulletin from BBC World Service.

FRI 10:06 The Real Story (w3ct1hsc)

Ransomware on the rise in the US

A cyber-attack on an oil pipeline in the United States has caused widespread disruption and alarm. The Colonial Pipeline stretches thousands of kilometres from Texas to New Jersey and was shut down as a result of the attack, causing fuel shortages and price spikes on America's East Coast. This is the latest in a long list of recent ransomware attacks on US institutions and infrastructure, where groups have shut down crucial information networks or threatened to reveal trade secrets unless a fee was paid. President Biden has blamed a group based in Russia for the Colonial Pipeline attack; and while he did not hold Moscow directly responsible, he has blamed it and other nations for conducting cyber-espionage against America on a regular basis. Despite the advanced technological abilities of many US companies, and the investment of millions in digital security, hackers are continuing to find ways to break into government and commercial networks. So who are the hackers and how are their methods evolving? And how can the Biden administration ensure global cooperation in the fight against cyber-crime? Ritula Shah is joined by a panel of experts.

FRI 11:00 BBC News (w172xzjj7k5stkh)

The latest five minute news bulletin from BBC World Service.

FRI 11:06 The Newsroom (w172xyxfw79wfrjr)

The world's Newsroom brings you global events as they happen

FRI 11:30 BBC News Summary (w172xzkbp8sh5tw)

The latest two minute news summary from BBC World Service.

FRI 11:32 World Football (w3ct1tyz)

[Repeat of broadcast at 02:32 today]

FRI 12:00 BBC News (w172xzjj7k5sy9m)

The latest five minute news bulletin from BBC World Service.

FRI 12:06 The Fifth Floor (w3ct20dw)

Mexico's apology to the Mayans

Last week, Mexico's President Andrés Manuel López Obrador apologised to the indigenous Mayan people for abuses committed against them since independence. But with elections looming, some are questioning the timing of the apology. The

BBC's Lourdes Heredia discusses this historic moment.

Targeting Afghan girls
Zuhul Ahad of BBC Afghan shares her experiences of reporting on the bomb attack outside a girls' school last weekend which left more than 80 dead, many of them schoolgirls. It happened in her childhood neighbourhood in Kabul, which has seen several devastating attacks in recent years.

America's 'green gold rush'
Zhaoyin Feng, who reports from Washington for BBC Chinese, tells us about her trip to Oklahoma to report on the latest frontier in America's so-called marijuana gold rush. It's attracted many Chinese American investors and Chinese immigrant workers.

Saving Kenya's turtles

Kenya's Watamu coast is famous for its wildlife, including four different types of sea turtle. But turtle numbers are declining due to poaching and loss of habitat. Njoroge Muigai of BBC Nairobi visited Watamu recently to meet the people working to save the turtles.

Who becomes an Islamic extremist?

BBC Indonesian's Silvano Hajid investigates the role of social media in recruiting young Indonesians to commit terrorist attacks through the story of a young man called Akbar. He was only 16 years old when he tried to join a group affiliated with so-called Islamic State in Syria.

Image: The festival of Valle del Maiz in San Miguel de Allende, Mexico

Credit: Kobby Dagan/VW Pics/Universal Images Group via Getty Images

FRI 12:50 Witness History (w3ct1wyh)

[Repeat of broadcast at 08:50 today]

FRI 13:00 BBC News (w172xzjj7k5t21r)

The latest five minute news bulletin from BBC World Service.

FRI 13:06 The Newsroom (w172xyxfw79wp10)

The world's Newsroom brings you global events as they happen

FRI 13:30 BBC News Summary (w172xzkbp8shfb4)

The latest two minute news summary from BBC World Service.

FRI 13:32 Science in Action (w3ct1l3m)

[Repeat of broadcast at 20:32 on Thursday]

FRI 14:00 BBC News (w172xzjj7k5t5w)

The latest five minute news bulletin from BBC World Service.

FRI 14:06 Newshour (w172xv52szf953h)

Gaza bombardments intensify

Palestinians in northern Gaza are fleeing from Israel's heaviest bombardment to date. Meanwhile, Jewish and Israeli-Arab mobs have been fighting within Israel.

Also in the programme: A company responsible for around a quarter of Lebanon's power supply has turned off its generators and we talk to one of the world's most prominent climate scientists about his devotion to curbing global warming.

(Picture: Palestinians gather at the site of destroyed houses in Gaza. REUTERS/Mohammed Salem)

FRI 15:00 BBC News (w172xzjj7k5t9k0)

The latest five minute news bulletin from BBC World Service.

FRI 15:06 HARDtalk (w3ct1n14)

[Repeat of broadcast at 08:06 today]

FRI 15:30 BBC News Summary (w172xzkbp8shntd)

The latest two minute news summary from BBC World Service.

FRI 15:32 World Business Report (w172y46pc67b10x)

Lebanon: Turkish firm cuts off electricity supply

Turkey's Karpowership provided a quarter of Lebanon's electricity, but has cut the supply. The company says it made the decision after 18 months of unpaid bills, and Beirut-based journalist Luna Sharwaz explains the implications. Also in the programme, as Greece prepares to reopen for international visitors, we speak to hotelier George Filippidis about how his business has coped with a lack of trade. Plus, we examine the impact of the coronavirus pandemic on church finances around

the world. Father Aquinas Duffy is parish priest at St Brigid's Catholic Church in Cabinteely, Ireland, and tells us funds for his diocese are down around 70%. We hear from Father Augusto Zampini, who is on the Pope's Covid Task Force about how the Catholic church is preparing for the future. And Reverend Dr Prince Raney Rivers, senior minister at Union Baptist Church in North Carolina discusses alternative ways of fundraising that have ensured donations to his church rebounded to normal levels.

(Picture: One of Karpowership's electricity barges. Picture credit: Reuters.)

FRI 16:00 BBC News (w172xzzj7k5t94)

The latest five minute news bulletin from BBC World Service.

FRI 16:06 BBC OS (w172xxxh9w98f7l)

Rockets and shelling continue in Israel and Gaza

As Israel intensifies its assault on Gaza and Palestinian militants continue to fire rockets into Israel, we hear about the fear among residents on both sides. We'll also get more audience questions about the crisis answered by our regional experts.

Our regular coronavirus expert Dr Megan Murray from Harvard Medical School joins us to explain the decision in the US to allow fully vaccinated Americans to stop using face masks. We'll also talk about the sharp rise in the number of people infected with the Indian variant of coronavirus in the UK and why the government might speed up the delivery of second doses of Covid vaccines.

Earlier this week we heard from health care professionals who had left or were thinking of leaving their jobs because of the pressures on the frontline during the pandemic. Today we play a conversation with therapists in the US and the UK, who discuss potential solutions and explain how challenges for doctors and other health care workers began long before the arrival of the pandemic.

(Photo: Palestinian women walk at the site of destroyed houses in the aftermath of Israeli air and artillery strikes as cross-border violence between the Israeli military and Palestinian militants continues, in the northern Gaza Strip May 14, 2021. Credit: Mohammed Salem/Reuters)

FRI 17:00 BBC News (w172xzzj7k5tk18)

The latest five minute news bulletin from BBC World Service.

FRI 17:06 BBC OS (w172xxxh9w98jzq)

Coronavirus conversations: Doctors and mental health

Earlier this week we heard from health care professionals who had left or were thinking of leaving their jobs because of the pressures on the frontline during the pandemic. Today we play a conversation with therapists in the US and the UK, who discuss potential solutions and explain how challenges for doctors and other health care workers began long before the arrival of the pandemic.

We get the latest from our correspondent in Jerusalem on the Israeli-Palestinian conflict and hear from residents on both sides whose lives have been disrupted by the violence.

We'll get questions answered about the pandemic by our regular expert, Dr Marc Mendelson in Cape Town, South Africa and look at the spread of the Indian variant of coronavirus around the world. And an Indian journalist talks about her experience of trying to find treatment for her mother who had Covid-19, and how one Uber driver went above and beyond to help her.

(Photo: A doctor holds a stethoscope in the Intensive Care Unit (ICU) at the Melun-Senart hospital, near Paris, France, October 30, 2020. Credit: Benoit Tessier/File Photo/Reuters)

FRI 18:00 BBC News (w172xzzj7k5tmsd)

The latest five minute news bulletin from BBC World Service.

FRI 18:06 The Fifth Floor (w3ct20dw)

[Repeat of broadcast at 12:06 today]

FRI 18:50 Witness History (w3ct1wyh)

[Repeat of broadcast at 08:50 today]

FRI 19:00 BBC News (w172xzzj7k5tsjj)

The latest five minute news bulletin from BBC World Service.

FRI 19:06 The Newsroom (w172xyxfw79xdhs)

The world's Newsroom brings you global events as they happen

FRI 19:30 BBC News Summary (w172xzkbp8sj4sx)

The latest two minute news summary from BBC World Service.

FRI 19:32 Sport Today (w172y0n9944xnbw)

2021/05/14 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

FRI 20:00 BBC News (w172xzzj7k5tx8n)

The latest five minute news bulletin from BBC World Service.

FRI 20:06 Tech Tent (w3ct1ngw)

[Repeat of broadcast at 09:06 today]

FRI 20:30 BBC News Summary (w172xzkbp8sj8k1)

The latest two minute news summary from BBC World Service.

FRI 20:32 CrowdScience (w3ct1ppc)

Could we turn poisonous plants into edible crops?

There are over 400,000 species of plant on earth, they're on every continent including Antarctica. But humans only regularly eat about 200 species globally, with the vast majority of our nutrition coming from just three species. Many of the fruits, leaves and tubers that other plants grow are packed full of toxins that are poisonous to us, and would make us very ill if we ate them. But could we take out the poisons and create new, edible crops? That's what CrowdScience listener Marija wants to know.

Crowdscience dives into this topic, and uncovers the that many crops are poisonous, and why so few plants are eaten globally. Host Anand Jagatia finds that even the modern scientific processes of crop breeding are very slow. But science can now engineer plants at the genetic level by adding, silencing or removing specific genes. This 'genetic modification' is hugely controversial but can be highly effective.

Anand finds a man who has spent decades making cotton seeds edible by removing the poisons they naturally produce in their seeds. This GM crop could help fend-off starvation. But sometimes introducing poisons can be as important as removing them, as we find in the genetically modified 'BT eggplants' in Bangladesh. The new gene makes the vegetable toxic to a major insect pest, so they are much easier to grow.

But GM crops are not the perfect solution. They have problems of gene escape, can increase the use of environmentally damaging herbicide, and can be open to monopolisation. In some countries, particularly in Europe, GM crops are hugely controversial. Anand finds out whether these concerns stand up to science and looks at the counterpoint in developing countries in Africa, South Asia and elsewhere, where local farmers like Patience Koku in Nigeria have little time for some of the concerns around GM, particularly as they see poor harvests, poverty and starvation as the more pressing problems.

Contributors:

Professor Sandra Knapp, The Natural History Museum in London
Professor Julie King, Nottingham University
Professor Keerti Rathore, Texas A&M University
Dr Yousuf Akhond, Bangladesh Agricultural Research Institute
Professor Matthew Cobb, University of Manchester
Patience Koku, Nigerian Farmer and member of the Global Farmer's Network
Alliance for Science

Produced by Rory Galloway and presented by Anand Jagatia for the BBC World Service.

Image:

(Photo:)

FRI 21:00 BBC News (w172xzzj7k5v10s)

The latest five minute news bulletin from BBC World Service.

FRI 21:06 Newshour (w172xv52szfb0bd)

Interviews, news and analysis of the day's global events.

FRI 22:00 BBC News (w172xzzj7k5v4rx)

The latest five minute news bulletin from BBC World Service.

FRI 22:06 HARDtalk (w3ct1n14)

[Repeat of broadcast at 08:06 today]

FRI 22:30 BBC News Summary (w172xzkbp8sjj19)

The latest two minute news summary from BBC World Service.

FRI 22:32 World Football (w3ct1tyz)

[Repeat of broadcast at 02:32 today]

FRI 23:00 BBC News (w172xzzj7k5v8j1)

The latest five minute news bulletin from BBC World Service.

FRI 23:06 The Newsroom (w172xywfmh7120)

The world's Newsroom brings you global events as they happen

FRI 23:20 Sports News (w172y0sdhs5cmppn)

BBC Sport brings you all the latest stories and results from around the world.

FRI 23:30 BBC News Summary (w172xzkbp8sjmsf)

The latest two minute news summary from BBC World Service.

FRI 23:32 World Business Report (w172y48qz0r2t25)

Lebanon: Turkish firm cuts off electricity supply

Turkey's Karpowership provided a quarter of Lebanon's electricity, but has cut the supply. The company says it made the decision after 18 months of unpaid bills, and Beirut-based journalist Luna Sharwaz explains the implications. Also in the programme, as Greece prepares to reopen for international visitors, we speak to hotelier George Filippidis about how his business has coped with a lack of trade. Plus, we examine the impact of the coronavirus pandemic on church finances around the world. Father Aquinas Duffy is parish priest at St Brigid's Catholic Church in Cabinteely, Ireland, and tells us funds for his diocese are down around 70%. We hear from Father Augusto Zampini, who is on the Pope's Covid Task Force about how the Catholic church is preparing for the future. And Reverend Dr Prince Raney Rivers, senior minister at Union Baptist Church in North Carolina discusses alternative ways of fundraising that have ensured donations to his church rebounded to normal levels.

(Picture: One of Karpowership's electricity barges. Picture credit: Reuters.)