

## General Election 2019: manifesto science and education policies

Please note that we have summarised the parties' main manifestos only. You can find the manifestos in full below:

[Conservatives](#)

[Green Party](#)

[Labour](#)

[Liberal Democrats](#)

[Scottish National Party \(SNP\)](#)

[Plaid Cymru](#)

[Democratic Unionist Party \(DUP\)](#)

[Brexit Party](#)

### Climate and energy

#### Conservative:

- Deliver on the target of net zero greenhouse gas emissions by 2050 and ask partner countries to match this target.
- Not support fracking unless the “science shows categorically that it can be done safely.”
- An oil and gas sector deal for Scotland.
- Increase offshore wind capacity and aim for offshore wind industry to reach 40GW by 2030.
- Invest £800 million to build the first fully deployed carbon capture storage cluster by the mid 2020s.
- Invest £500 million to help energy-intensive industries move to low carbon techniques.
- Support gas for hydrogen production and nuclear energy, including fusion, as important parts of the energy system, alongside increasing the Government’s commitment to renewables.

#### Labour:

- Kick-start a “Green Industrial Revolution” that will look to create one million jobs in the UK “to transform industry, energy, transport, agriculture and our buildings, while restoring nature.”
- Implement a “Green New Deal”, which aims to achieve the substantial majority of UK emissions reductions by 2030, in a way that is “evidence-based.”
- Invest £250 billion from the National Transformation Fund to fund the transition through a “Green Transformation Fund,” dedicated to renewable and low carbon energy and transport, biodiversity and environmental restoration.
- Develop the recommendations of Labour’s ‘30 by 2030’ report to put the UK on track for a net zero carbon energy system within the 2030s.
- Deliver nearly 90% of electricity and 50% of heat from renewable and low-carbon sources by 2030.
- Build 7,000 new offshore wind turbines and 2,000 new onshore wind turbines.
- Build enough solar panels to cover 22,000 football pitches.

- Build new nuclear power needed for energy security.
- Trial and expand tidal energy and invest to reduce the costs of renewable and low-carbon hydrogen production.
- Upgrade “almost all” of the UK’s 27 million homes to the highest energy-efficiency standard
- Introduce a zero-carbon homes standard for all new homes.
- Roll out technologies like heat pumps, solar hot water and hydrogen.
- Invest in district heat networks using waste heat.
- Expand power storage and invest in grid enhancements and interconnectors.
- Expand distributed and community energy.
- “Immediately and permanently” ban fracking.
- Support energy workers through transition and guarantee them “retraining and a new, unionised job on equivalent terms and conditions.”
- Introduce a windfall tax on oil companies.
- Provide a strategy to safeguard the people, jobs and skills that depend on the offshore oil and gas industry.
- Bring energy and water systems into public ownership.
- Reinvest surplus energy and water to reduce bills.
- Create a new UK national energy agency, which will own and maintain the national grid infrastructure and oversee the delivery of decarbonisation targets.
- Create 14 new regional energy agencies to replace the existing district network operators and hold statutory responsibility for decarbonising electricity and heat and reducing fuel poverty.
- Bring the supply arms of the “Big Six” energy companies into public ownership.
- Pledges to ensure that “whenever public money is invested in an energy generation project, the public sector will take a stake and return profits to the public.”
- Instruct the UK Committee on Climate Change to assess the emissions the UK imports, as well as those it reduces and recommend policies to tackle them.
- Fund R&D into newer technologies like hydrogen and carbon capture and storage.
- Modernise public buildings to ensure a reduction in their carbon footprint.
- Launch a “National Transformation Fund” of £400 billion and rewrite the Treasury’s investment rules to “guarantee that every penny spent is compatible with the UK’s climate and environmental targets – and that the costs of not acting are fully accounted for too.”
- Rebuild climate expertise within the Foreign Office, “putting climate diplomacy at the heart of foreign policy.”
- Provide new and additional spending on international climate finance to bring the total to £4 billion a year.
- Stop all aid spending on fossil fuel production overseas, and redirect it towards clean, renewable energy.

### **Liberal Democrats:**

- Amend the current HGV road user levy to take account of carbon emissions.
- Support innovation in zero emission technologies, including batteries and hydrogen fuel cells, supplementing government funding with a new “Clean Air Fund” from industry.

- Reduce the climate impact of flying by reforming the taxation of international flights to focus on those who fly the most, while reducing costs for those who take one or two international return flights per year.
- Introduce a zero carbon fuels blending requirement for domestic flights.
- Convert the rail network to ultra low emission technology (electric or hydrogen) by 2035 and provide funding for light rail and trams.
- As part of the £130 billion infrastructure projects, the party will aim to “empower all regions and nations of the UK and developing the climate-friendly infrastructure of the future.”
- Introduce an emergency ten year programme to reduce energy consumption from all the UK’s buildings.
- Providing free energy retrofits for low income homes.
- Build all new homes to zero carbon standards.
- Deliver a ten year emergency programme to cut greenhouse gas emissions substantially straight away, and phase out emissions from the remaining “hard-to-treat sectors by 2045 at the latest.”
- Ensure 80% of electricity is generated from renewables by 2030, cut energy bills and emissions by insulating homes, and prioritise bringing 3.5 million households out of fuel poverty by 2025.
- Ban fracking.
- Require all companies registered in the UK and listed on UK stock exchanges to set targets consistent with the Paris Agreement on climate change.
- Establish a department for climate change and natural resources.
- Establish UK and local citizens’ climate assemblies to engage the public in tackling the climate emergency.
- Create a statutory duty on all local authorities to produce their own zero carbon strategy.
- Provide an additional £12 billion over five years to support these commitments, and ensure that the National Infrastructure Commission, National Grid, the energy regulator Ofgem, and the Crown Estate work together to deliver their net zero climate objective.
- Require all new homes and non domestic buildings to be built to a zero carbon standard (where as much energy is generated on-site, through renewable sources, as is used), by 2021, rising to a more ambitious “Passivhaus” standard by 2025.
- Increase minimum energy efficiency standards for privately rented properties and remove the cost cap on improvements.
- Adopt a zero carbon heat strategy.
- End support from UK Export Finance for fossil fuel related activities, and “press for higher environmental standards for export credit agencies throughout the OECD.”
- Support the Paris Agreement and lobby for all countries to commit to net zero climate goals by the 2020 UN climate conference in Glasgow.
- Set a binding, EU wide net zero target of 2050, and continuing to take part in the EU’s internal energy market, to “provide access to clean energy sources while keeping costs low.”
- Refuse to enter any trade agreements with countries that have policies counter to the Paris Agreement, “including the Mercosur-EU free trade agreement because of the Brazilian government’s actions in the Amazon.”

- Argue for an end to all fossil fuel subsidies worldwide and provide aid to developing countries to help them transition to clean sources of energy.

### **Scottish National Party (SNP):**

- Call for the UK to accelerate to meet Scotland's climate change target of a 75% reduction in emissions by 2035, net zero carbon emissions "no later than 2040" and net zero of all emissions by 2045.
- Lobby the UK to accelerate action to decarbonise the gas grid- a "critical" recommendation of the Committee on Climate Change.
- Oppose new nuclear power plants and prioritise investment in "cleaner, cheaper" forms of electricity generation.
- Ensure that from 2024, all new homes use renewables or low carbon heat.
- Support industry calls for firms to include climate change related disclosures in their annual reports and back steps to put this onto a statutory basis.
- Reduce emissions from Scotland's railways to zero by 2035.

### **Green Party:**

- Combine investment of over £100 billion a year towards the "Green New Deal."
- Introduce support and new incentives to directly accelerate wind energy development, paving the way for wind to provide around 70% of the UK's electricity by 2030.
- Introduce new support for solar, geothermal, tidal, hydro and other renewable energies to provide "much of the remainder" of the UK's energy supply by 2030.
- Remove subsidies to the oil and gas industries.
- Apply a carbon tax on all fossil fuel imports and domestic extraction, based on greenhouse gas emissions produced when fuel is burnt. The carbon tax will be raised progressively over a decade to phase out use of coal, oil and gas.
- Prohibit the construction of nuclear power stations.
- Ban fracking.
- Start deployment of a carbon capture and storage system that can deal with carbon dioxide emissions from the manufacture of iron, steel and cement.

### **Plaid Cymru:**

- Establish a national energy agency, Ynni Cymru, which would be charged with "realising Wales's green energy potential."
- Seek a "complete ban" on fracking and new open-cast coal mines.
- Oppose the development of new sites for nuclear power stations.
- "Fully realise" marine energy potential including wave, tidal range and tidal stream energy.
- Develop plans for renewable energy that "operate in harmony with nature" by identifying ecologically sustainable sites for offshore and onshore wind energy development, as well as potential areas for solar and tidal energy development.
- Commission a national inventory of green energy potential in Wales, an "Energy Atlas for Wales", which will identify areas where development will have the least ecological impact.

### **Democratic Unionist Party (DUP):**

- Support a Northern Ireland executive request for a formal recommendation from the Committee on Climate Change on a “carbon dioxide 2050” target.

#### **Brexit Party:**

- Cut VAT on domestic fuels, with a zero rate VAT on domestic fuel to reduce energy bills.

## **Environment and ecology**

#### **Conservative:**

- Establish a new independent office for environmental protection and introduce legal targets for things like air quality.
- Prioritise the environment in the next Budget by investing in the infrastructure science and research that would deliver economic growth.
- Invest in nature through a new £640 million “Nature for Climate” fund.
- Create new national parks and areas of outstanding natural beauty and make the coast to coast path across the most beautiful areas of the North a National Trail.
- Protect and enhance the green belt and prioritise brownfield development.
- Bring the ivory ban into force and extend it to cover other ivory-bearing species, and ban imports from trophy hunting of endangered animals.
- Ban keeping primates as pets.
- Set up new international partnerships to tackle deforestation.

#### **Labour:**

- Ensure the NHS becomes a net zero carbon service and introduce an “NHS Forest” of one million trees, more efficient heating and insulation systems, greater reliance on renewable energy, including more solar panelling and a transition to electric paramedic vehicles, NHS fleet cars and hybrid ambulances.
- Introduce a Climate and Environment Emergency Bill setting out robust, binding new standards for decarbonisation, nature recovery, environmental quality and habitats and species protection.
- Labour’s “Plan for Nature” will set legally binding targets to drive the restoration of species and habitat.
- Fully fund the Environment Agency and other frontline environment agencies and improve upstream river management.
- Create new national parks alongside a revised system of other protected area designations.

#### **Liberal Democrats:**

- Ensure that the environment is protected for future generations and create urgent action to tackle the climate emergency.
- Establish a general corporate duty of care for the environment and human rights.

- Guarantee an Office of Environmental Protection that is fully independent of government.
- Increase government expenditure on climate and environmental objectives.
- Introduce legally binding targets for reducing the consumption of key natural resources and other incentives for businesses to improve resource efficiency.
- Introduce a “Nature Act” to restore the natural environment through setting legally binding near-term and long-term targets for improving water, air, soil and biodiversity, and supported by funding streams of at least £18 billion over five years.
- Invest in large scale restoration of peatlands, heathland, native woodlands, saltmarshes, wetlands and coastal waters.
- Provide greater resources for international environmental cooperation on climate change and on actions to tackle illegal and unsustainable trade in timber, wildlife, ivory, and fish.
- Significantly increase the amount of accessible green space, including protecting up to a million acres, completing the coastal path, exploring a ‘right to roam’ for waterways and creating a new designation of National Nature Parks.
- Give the Local Green Space designation the force of law.
- Protect and restore England’s lakes, rivers and wetlands through reform of water management and higher water efficiency standard.
- Create a new “British Overseas Ecosystems Fund” for large-scale environmental restoration projects in the UK Overseas Territories and sovereign bases.
- Establish a £5 billion fund for flood prevention and climate adaptation.
- Increase the budget for the Department for the Environment, Food and Rural Affairs, ensuring that agencies such as Natural England and the Environment Agency are properly funded.
- Work within the EU to ensure that future trade agreements require high environmental and animal welfare standards.

### **Scottish National Party (SNP):**

- Press the Ministry of Defence to “take responsibility for the environmental impact of military munitions as a polluter.”
- Campaign to ban the import into the UK of any supposed trophy of any animal on the CITES list of endangered species.

### **Green Party:**

- Encourage the creation of new green spaces from pocket parks on vacant land, to living green roofs and walls.
- Encourage urban gardeners to “plan for wildlife” – opting for grass and shrubs over paving in a garden can create vital new habitats for wildlife.
- Encourage, through changes to the planning system, the “rewilding” of spaces to provide new habitats for wildlife.
- Champion a treaty which establishes the Arctic, Antarctic and Amazon as World Nature Reserves.
- Create a new international “ecocide law” to prosecute crime against the natural environment.



- Strengthen Green Belt, Areas of Outstanding Natural Beauty and Sites of Special Scientific Interest protections, with development in these areas only being permitted in exceptional circumstances.
- Create a new Environmental Protection Commission.
- Develop a soil health monitoring programme for England, to match those in Scotland and Wales.
- Invest in peatland restoration and end both the burning of peatlands and use of peat in compost in horticulture.
- Reintroduce nature into our urban environments.

### **Plaid Cymru:**

- Bring forward legislation to tackle the extinction crisis, placing a legal obligation on this and future governments to act for the recovery of nature.
- Scrap HS2.
- Oppose the construction of a third runway in Heathrow.
- Oppose the use of pylons through National Parks and Areas of Natural Beauty, advocating the use of underground and undersea cables to carry electricity where feasible.
- Create an overarching strategic framework for planning that prioritises sustainable development and protects against environmentally damaging development.
- Establish a “Ministry for the Future”, with a Minister for the Future tasked with taking a long-term view of our environment.
- Require that imported palm oil comes from sustainable sources.
- Legislate to end the importation of goods that have caused deforestation.
- Ban imports of soy, beef and other agri-commodities from illegally deforested land.
- The party says that future trade deals undertaken by the UK, whether inside or outside the EU, should maintain and enhance environmental standards, minimise the environmental footprint of trade and make trade terms explicitly subject to environmental and human rights commitments. Within this, there should be protections for vital global ecosystems and habitats such as the Amazon, and for indigenous people.

### **Democratic Unionist Party:**

- Through the 2021 Environmental Strategy for the first 30 years of Northern Ireland’s new century, the DUP plan to ensure a raft of actions through the long-term plan.
- Support the creation of “Environmental Protection” based on the Food Standards Agency, which aims to provide the best use of resources and access to the highest degree of expertise.

### **Brexit Party:**

- Scrap HS2.
- Simplify planning consents for Brownfield sites.

## **Agriculture and fisheries**

### **Conservative:**

- Lobby for farmers to farm “in a way that protects and enhances the natural environment whilst safeguarding high standards of animal welfare.”
- Move to a system based on ‘public money for public goods’ for farmers once Brexit has been done, in order to “free farmers from the bureaucratic common agricultural policy.”
- Leave the Commons Fisheries Policy upon leaving the EU.
- Establish a “legal commitment” to fish sustainably and a legal requirement for a plan to achieve the “maximum sustainable yield for each stock.”
- Introduce “tougher” sentences for animal cruelty.
- Bring in new laws on animal sentience.
- End “excessively long” journeys for slaughter and fattening.
- Oppose any changes to be made to the Hunting Act.

### **Labour:**

- Maintain agricultural and rural structural funds but “repurpose” them to support environmental land management and sustainable methods of food production.
- Re-establish an agricultural wages board in England.
- Set maximum sustainable yields for all shared fish stocks.
- Aim to achieve net zero carbon food production in Britain by 2040.

### **Liberal Democrats:**

- Reduce “basic” agricultural support payments to the larger recipients and “redeploy the savings to support the public goods that come from effective land management.”
- Ensure that “sustainability lies at the heart of fisheries policy.”
- Improve standards of animal health and welfare in agriculture, including a ban on caged hens, and promote the responsible use of antimicrobials.
- Develop safe, effective, humane, and evidence-based ways of controlling bovine TB, including investing to produce workable vaccines.

### **Green Party:**

- Work with farmers to refocus farm subsidies to help farmers transition to “more sustainable, diverse and environmentally friendly” forms of land use, including organic farming, agroforestry and mixed farming, and away from intensive livestock farming.
- Encourage the expansion and replanting of the “majority” of hedgerows lost in the last 50 years through new subsidies, creating new environments for wildlife.
- Legislate to give farmers “greater security” of tenure, so that they can “invest in sustainable improvements to their land,” whilst ending the use of land as a tax shelter and encouraging new entrants into farming.
- Create “thousands” of new jobs in rural areas, through the shift away from intensive farming towards smaller-scale, more people-focussed food production and land management that respects nature.
- Invest in training and skills to help people develop and apply the skills needed in these new jobs.



- End the badger cull, “which has no evidence basis and has failed to effectively reduce Bovine TB.”
- Fund research into a “sensitive” test to enable cattle vaccination, as an essential, as well as humane, part of a meaningful strategy to control the spread of the disease.
- Invest in better farm bio-security and badger vaccination.
- Advocate for European legalisation to end factory farming, prohibit the routine use of antibiotics for farm animals, and ban the killing of animals for sport across the EU.
- Implement a ban on cages and close confinement and “deliberate mutilation” of farm animals.
- Reduce pesticide and fungicide use by at least 50% by overall weight by 2022.
- Champion reform of the common agricultural policy, so that it “promotes more sustainable farming methods.”
- Press for a review of the common fisheries policy in order to increase its sustainability.
- Introduce new support for small-scale family farms and for new entrants to farming.

### **Scottish National Party (SNP):**

- Not allow the UK government to dismantle Scotland’s GM-free status and commitment.
- Support the Scottish Government’s efforts to maintain current EU standards and regulations over animal and plant health.
- Prevent the UK Government taking devolved powers over farming or fishing or attaching strings to any future funding.
- If the UK leaves the EU, seek to “protect fishing interests” by insisting on Scotland playing a central role in future annual negotiations, and insist that access to Scotland’s waters is not traded or that the UK does not enter into annual access arrangements
- In the event of the UK remaining in the EU, the SNP will push for fundamental reform of the Common Fisheries Policy to shift from a “one size fits all” fishing policy towards a policy which “suits different fleets and different geography.”

### **Plaid Cymru:**

- Support a GMO free Wales and the continuing moratorium on GM crops in the EU.
- Support greater transition to organic and other sustainable farming systems.
- Support a UN global ocean treaty capable of creating a network of ocean sanctuaries covering at least 30% of oceans by 2030. The party suggests that this involve an immediate moratorium on deep sea mining.
- Demand that future trade deals “seek to strengthen rather than weaken animal welfare legislation.”
- Invest in overseas development aid that supports a transition to ecologically friendly farming.

### **Democratic Unionist Party:**

- Currently direct support for farms under the CAP is linked to land holding. The DUP believe that this should change and that future government policy needs to reflect the national need for food security and rewarding productive, sustainable farming systems and proven environmental benefit.

- Animal health schemes, like the BVD eradication scheme, provide an important vehicle to driving efficiency on farms. The DUP believe this should be widened out to include Johne's disease in cattle.
- Commit to introducing further legislation to improve animal care. This includes the introduction of Private Member's legislation banning circuses that contain wild animals.
- Support the development and implementation of a pragmatic Ammonia strategy.

### **Brexit Party:**

- Invest £2.5bn in fishing and coastal communities.

## **Water and air**

### **Conservative:**

- Support clean transport to ensure clean air, as well as setting "strict" new laws on air quality.
- Consult on the earliest date at which the phasing out of the sale of new conventional petrol and diesel cars can take place.
- Establish a new £500 million "Blue Planet Fund" to help protect oceans from plastic pollution, warming sea temperatures and overfishing.
- Extend the Blue Belt programme to preserve the maritime environment.

### **Labour:**

- Any expansion of airports must pass Labour's tests on air quality, noise pollution, climate change obligations and countrywide benefits.
- Introduce a new Clean Air Act, with a vehicle scrappage scheme and clean air zones, complying with World Health Organisation limits.
- Provide an extra £5.6 billion in funding to improve the standard of flood defences and respond to the increased risk of flooding.

### **Liberal Democrats:**

- Legislate for the right to unpolluted air, and take urgent action to reduce pollution especially from traffic.
- Pass a Clean Air Act, based on World Health Organisation guidelines, and enforced by a new air quality agency.
- Extend ultra low emission zones to ten more towns and cities in England.
- Ensure that all private hire vehicles and new buses licensed to operate in urban areas are ultra low emission or zero emission vehicles by 2025, and invest £2 billion to support this transformation.
- Establish a 'blue belt' of marine protected areas covering at least 50% of UK waters by 2030, in partnership with UK overseas territories.
- Introduce "high standards" for flood resilience for buildings and infrastructure in flood risk areas.

- Introduce a “National Fund for Coastal Change” to allow local authorities to efficiently manage their changing coastlines.

### **Green Party:**

- Ban advertising for flights, and introduce a “Frequent Flyer Levy” to reduce the impact of the 15% of people who take 70% of flights. The “Frequent Flyer Levy” will only apply to people who take more than one (return) flight a year, discouraging excessive flying.
- Stop the building of new runways and increased road capacity, “saving thousands of acres of countryside every year and protecting people from the harm of increased air pollution and traffic danger.”
- Reduce the emission of polluting fluorinated gases (used in fridges, air conditioners and aerosols) in all manufactured goods by implementing the UK Committee on Climate Change recommendations in this area.
- Deploy “environmentally friendly” flood management measures to protect communities from flooding.
- Protect water supplies by enforcing stricter penalties for polluters and for water companies found to be extracting too much water.
- Invest in ecotourism and associated schemes such as rewilding, habitat recovery and species reintroduction, creating new job opportunities.
- Commit to making “at least 30%” of UK domestic waters into fully protected marine protected areas by 2030.

### **Plaid Cymru:**

- Set a national and regional plan to reduce air pollution in Wales.
- Create clean air zones in Welsh towns and cities.
- Allow communities to place pollution-monitoring equipment outside schools and hospitals.
- Enable local authorities to introduce pollution and congestion charges.
- Accelerate the transition to an electric transport system so that petrol and diesel cars are phased out by 2030.
- Reform planning law to require impact on air pollution to be given greater weight in the planning system.

### **Democratic Unionist Party:**

- Increase Northern Ireland Water’s public education programmes to reduce water use.

## **Waste**

### **Conservative:**

- Introduce a levy to increase the proportion of recyclable plastics in packaging, and well as introducing “extended producer responsibility.”
- Ban the export of plastic waste to non-OECD countries, consulting with industry NGOs and local councils on the date by which this should be achieved.

- Crack down on waste that destroys the natural environment and kills marine life by increasing penalties for fly-tipping, making those on community sentences clean up their parks and streets.
- Introduce a deposit return scheme to incentivise people to recycle plastic and glass.

#### **Liberal Democrats:**

- Ban non-recyclable single-use plastics.
- Extend the forthcoming EU 'right to repair' legislation for consumer goods.
- Extend deposit return schemes for all food and drink bottles and containers.
- Establish a statutory waste recycling target of 70% in England.
- Extend separate food waste collections to at least 90% of homes by 2024.
- Initiate negotiations within the UN for a legally binding international treaty on plastics reduction.

#### **Green Party:**

- Ban the production of single use plastics for use in packaging, and invest in research and development into alternatives to plastic.
- Extend the tax on plastic bags to cover plastic bottles, single-use plastics and microplastics, and extend plastic bottle deposit schemes.
- Develop and implement a "reformed waste strategy," where manufacturers and retailers are required to pay the full cost of recycling and disposing of the packaging they produce.
- Develop the infrastructure necessary to enable large corporations and individuals to recycle "close to 100%" of the items they use.
- Require manufacturers to offer ten year warranties on white goods, to encourage repair and reuse.
- Promote initiatives to reduce food waste, including education programmes and changing the rules to allow food waste to be used for animal feed for pigs and chickens.

#### **Plaid Cymru:**

- Ban single-use plastics.
- Ensure a "Zero Waste Wales" by 2030 through a combination of legislation and policy initiatives, such as Deposit Return Schemes, extended producer responsibility and use of planning laws, levies and tax-making powers.

#### **Democratic Unionist Party:**

- Commission a new strategic waste infrastructure plan for Northern Ireland, driving up recycling rates and the circular economy approach to recycling.
- Follow the Welsh model and include incinerator bottom ash as counting towards the recycling target.
- Commission a new strategic waste infrastructure plan for Northern Ireland.
- Introduce a "Single Waste Disposal Authority" for Northern Ireland.
- Introduce an "Extended Producer Responsibility Scheme."

### **Brexit Party:**

- Create an obligation to recycle waste domestically and make it illegal for it to be exported across the world to be burnt, buried or dumped at sea.

## **Health and biomedicine**

### **Conservative:**

- Make the UK the “leading hub for life sciences after Brexit.”  
*(N.B. There are varying definitions of what life science encompass. The outgoing Conservative government usually restricted the definition to cover pharmaceuticals, drug development, clinical diagnostic and related areas of biotechnology)*

### **Labour:**

- Establish a royal commission to develop a public health approach to substance misuse, focusing on harm reduction rather than criminalisation.
- Establish a generic drug company.
- Labour promise that if fair prices are rejected for patented drugs they will use the Patents Act provisions, compulsory licences and research exemptions to secure access to generic versions.
- Increase the number of pharmaceutical jobs in the UK.
- Ensure rewards and incentives match the areas of greatest health need.

### **Liberal Democrats:**

- Move the departmental lead on drugs policy to the Department of Health and Social Care and invest in more addiction services and support for drug users.

### **Green Party:**

- Enable medical scientists to conduct research on psychoactive drugs to develop new treatments for mental and physical illnesses.
- Invest in education and treat problematic drug use as “a health issue, not a crime.”

### **Plaid Cymru:**

- Invest in the infrastructure needed to make the Welsh NHS a “world class environment” for conducting clinical trials.
- Support the publication of all clinical trials to ensure transparency in medical research.
- Support efforts to increase the robustness of EU licensing of medicines, and stronger regulation against false health claims being made in product marketing.

## **Food and drink**

### **Labour:**

- Establish a National Food Commission and review the Allotments Act.
- Enforce stricter rules around the advertising of junk food.

#### **Liberal Democrats:**

- Introduce a “National Food Strategy.”
- Support producers by broadening the remit of the Groceries Code Adjudicator and supporting them with access to markets.
- Develop a strategy to tackle childhood obesity including restricting the marketing of junk food to children, and closing loopholes in the Soft Drinks Industry Levy.
- Require labelling for food products, in a readable font size, and publication of information on calorie, fat, sugar and salt content in restaurants and takeaways.
- Restrict how products high in fat, salt and sugar are marketed and advertised by multiple retailers.

#### **Scottish National Party (SNP):**

- Press for the UK to introduce new rights including “a right to food for all” and to support and resource action which makes such a right “meaningful for people.”

#### **Green Party:**

- Encourage urban food growing, including new community farms and allotments, through the planning system.
- Legislate for a right to food, giving everyone access to healthy, nutritious, locally grown food, including the creation of new providers to supply this food at an affordable price to schools.
- Help shoppers choose cruelty free food, with mandatory method of production labelling for meat, milk and dairy products.
- Maintain a moratorium on production and import of GM foods, including food from animals fed on GM feed.
- Establish a Food and Agriculture Research Council to research sustainable and health-promoting methods of food production and distribution.
- “Support the transition” to plant based diets by phasing in a tax on meat and dairy products over the next ten years.

## **Forestry**

#### **Conservative:**

Build support for creating a Great Northumberland Forest which could reach an additional 75,000 acres of trees a year by the end of the next Parliament, and restoring peatland.

#### **Scottish National Party (SNP):**

- Aim to press for an increase in new woodland creation, working towards a target of 60 million trees planted annually in the UK by 2025, with 30 million of these in Scotland “to help tackle the Climate Emergency” and to support biodiversity and rural employment.



### **Plaid Cymru:**

- Increase the acreage of Welsh forestry.
- Aim for a minimum planting rate of 2,000 hectares a year from 2020, a target recommended by the UK Climate Change Committee.
- Examine the case for establishing a dedicated forestry organization “to undertake the urgent task of addressing the Climate Emergency” by planting more trees. Ensure that this policy is closely connected with agri-environment incentives for farmers.
- Invest in prevention work to reduce new and repeat flooding across Wales, utilising land management techniques such as planting new woodland to manage water retention in the uplands and prevent water run-off.

### **Democratic Unionist Party:**

- The DUP support a reforestation plan for Northern Ireland with a ‘one person one tree’ planting scheme in 2021.

### **Brexit Party:**

- Pledge to plant “millions” of trees to capture carbon dioxide.
- Promote a global initiative at the UN.

## **Animal Research**

### **Labour:**

- Introduce an animal welfare commissioner.

### **Liberal Democrats:**

- Enshrine the principle of animal sentience in UK law “to ensure that due regard is paid to animal welfare in policymaking.”
- Minimise the use of animals in scientific experimentation, including by funding research into alternatives.

### **Green Party:**

- Guarantee the principle of animal sentience. This will mean that that regard for the welfare needs of animals as sentient beings is uppermost in formulating and implementing relevant government policy.
- Stop the use of primates, cats and dogs in research and the importation of monkeys for use in labs.
- Work towards a complete ban on all animal testing.

## **Science and exiting the EU**

### **Conservative:**

- Continued collaboration internationally and with the EU on scientific research including the Horizon 2020 scheme.
- Support “international collaboration and exchange” to ensure UK teams can recruit the skills and talent they need from abroad.

#### **Labour:**

- Continue participation in EU agencies and funding programmes, including scientific research and culture.

#### **Plaid Cymru:**

- Protect inward and outward student mobility post-Brexit, including participation in Erasmus+ or any successor schemes and cross-border study on the island of Ireland.
- Continue to push for Welsh participation in European research networks, and to ensure that Wales receives its fair share of research funding.

#### **Brexit Party:**

- Maintain subsidies and grants paid by the EU to UK businesses such as farmers, fisheries, universities and research bodies.

## **Research funding and higher education policy**

#### **Conservative:**

- Reform the science funding system to “cut time wasted by scientists filling in forms.”
- Increases the science budget to “drive forward the development of technologies of critical importance to the UK.”
- Introduce a student visa to help universities attract talented young people and allow those students to stay on to apply for work here after they graduate.
- Review the interest rates on student loan repayments with a view to reducing the burden of debt on students.
- Explore ways to “tackle the problem of grade inflation” and “low-quality” courses and improve the application and offer system for undergraduate students.
- “Strengthen academic freedom and free speech” in universities and continue to “focus on raising standards.”
- Strengthen universities and colleges’ civic roles by investing in local adult education and require the Office for Students to look at universities’ success in increasing access across all ages.
- Investment in world-class computing and health data systems that can aid in research.
- Unlock long-term capital in pension funds to invest in and commercialise scientific discoveries.

#### **Labour:**

- Set a target for 3% of GDP to be spent on R&D by 2030.

- Increase direct support for R&D and reforming the innovation ecosystem to better ‘crowd in’ private investment.
- Put “British innovation at the heart of procurement.”
- Abolish university tuition fees and the reintroduction of maintenance grants.
- Develop a new funding formula for higher education that ensures all public HE institutions have adequate funding for teaching and research, widens access to higher education and ends the casualisation of staff.
- Introduce post qualification admissions in higher education.

#### **Liberal Democrats:**

- Identify and seek to solve skills gaps such as lack of advanced technicians by expanding higher vocational training like foundation degrees.
- Reinstate maintenance grants for the poorest students.
- Establish a review of higher education finance in the next parliament.
- Increase national spending on research and development to 3% of GDP.
- Publish a roadmap to achieve 3% of GDP on research and development “by the earliest date possible”, via an interim target of 2.4% of GDP by “no later than 2027.”
- Support innovation with a goal of doubling innovation spending across the economy, increase the Strength in Places Fund and creating more ‘Catapult’ innovation and technology centres.
- Introduce a new two year visa for students to work after graduation and a major expansion of high quality apprenticeships.
- Establish a “Student Mental Health Charter” which will require all universities and colleges a good level of mental health provisions and services for students.

#### **Green Party:**

- Fully fund every higher education student and scrap undergraduate tuition fees.
- Write off existing debt for former students who studied under the £9k tuition fee regime.
- Increase funding for adult education across England and Wales, creating a range of new adult education programmes for learners to access.

#### **Plaid Cymru:**

- Guarantee to replace EU funding which supported research in higher education in the event of Brexit.
- Undertake a review of the funding offer for Welsh domiciled undergraduate and post graduate students in respect of both tuition fees and living costs.
- Provide a subsidy to students who reside in Wales and who wish to study in Wales.
- Target groups and ensure those studying subjects “vital to the Welsh economy and public goals” will pay no tuition fees in Wales, including those taking up key healthcare posts, studying science, engineering and technology subjects and students from particularly challenging backgrounds.

#### **Democratic Unionist Party:**

- Introduce an updated skills strategy focussing on key growth sectors aligned with the new industrial strategy.

### **Brexit Party:**

- Require universities to incorporate an “obligation to protect legal free speech.”
- Invest in young people by scrapping interest on student loans, which will improve the debt recovery rate.
- Introduce a new workable apprenticeship scheme.
- Abolish student loan interest.
- Abolish the target to push 50% of young people into Higher Education.

## **Schools education policy**

### **Conservative:**

- Invest an extra £14 billion in funding for schools, including at least £5,000 a year for each secondary school pupil and at least £4,000 for each primary school pupil. This also includes £780 million in new funding to support children with Special Educational Needs next year.
- Raise teachers’ starting salaries to £30,000.
- Create a new “National Skills Fund” worth £3 billion over the next Parliament. A proportion of this funding will be reversed for further strategic investment in skills and the party will “consult widely” on the overall design.
- Invest £250 million into a cultural capital programme to support local libraries and regional museums.

### **Labour:**

- Introduce a £150 billion “Social Transformation Fund” to replace, upgrade and expand our schools, hospitals, care homes and council houses.
- Support recruitment of an additional 150,000 early years staff, including special education needs coordinators.
- Introduce “a fairer funding formula” for schools.
- Provide schools with long term funding and ensure that primary schools have maximum class sizes of 30.
- Scrap Key Stage 1 and 2 SATs and baseline assessments and refocus assessment on supporting pupil progress.
- Review the curriculum to cover subjects like black history and the environmental emergency.
- Transfer budget and day-to-day decisions back to schools, overseen by an accountable governing body with elected representative.
- Responsibility for delivery of education and support for young people will sit with local authorities, they will manage admissions. And have responsibility for school places, including the power to open schools.

- Replace Ofsted and transfer responsibilities for inspections to a new body which shall be designed to drive school improvement.
- Return of the school support staff negotiating body and national pay settlements for teachers.
- Align the base rate of per pupil funding in post-16 education with key stage 4, providing dedicated capital funding to expand provision and bringing back the Education Maintenance Allowance.

### **Liberal Democrats:**

- End “teaching to the test” by scrapping mandatory SATs and replacing existing government performance tables of schools with a broader set of indicators.
- Triple the Early Years Pupil Premium to £1,000, to give extra help to disadvantaged children who are at risk of falling behind from the very beginning of their education.
- Require all Early Years settings to have a training programme for staff, with the majority of staff working with children who are at risk of falling behind.
- In the run, each Early Years setting should have at least one person qualified to graduate level.
- Reverse cuts to school funding, allowing schools to employ an additional 20,000 teachers and reduce class sizes, restoring them to 2015 levels per pupil.
- Allocate additional funding to local authorities to support pupils with Special Educational Needs and disabilities.
- Introduce a “curriculum for life” in all state-funded schools.
- Establish an “independent body of education experts” who will use the most up-to-date educational evidence to oversee any future curriculum changes.
- Replace existing government performance tables with a broader set of indicators.
- Replace Ofsted with a new HM Inspector of Schools.
- Protect the availability of arts and creative subjects in the curriculum and act to remove barriers to pupils studying these subjects, including by abolishing the English Baccalaureate as a performance measure.
- Teach the core skills required for children including critical thinking, verbal reasoning and creativity.
- Give local authorities with responsibility for education the powers and resources to act as Strategic Education Authorities for their area, including responsibility for places planning, exclusions, administering admissions including in-year admissions, and SEND functions.
- Introduce “Young People’s Premium” to help children from lower income families to remain in education and training beyond the age of 16.
- Set a requirement for schools to introduce gender-neutral uniform policies and break down perceptions of subject gender-appropriateness.

### **Green Party:**

- Relieve the “financial squeeze” on schools by increasing funding by at least £4 billion per year.
- Focus funding to reduce class sizes down to under 20 in the long term.

- Free schools from centrally imposed testing regimes, Ofsted inspections, and “rigid” national curriculum and league tables.
- Replace Ofsted with a collaborative system of assessing and supporting schools locally.
- Create a fully inclusive education system, where children with special education needs are able to access their local school and are fully supported in that school.
- Introduce an “English Climate Emergency Education Act” to support schools to teach young people about the urgency, severity and scientific basis of the climate and environmental crises, and to ensure youth voices are heard on climate issues.
- Enable more outdoor lessons, where children will learn more about nature, animals and the environment.
- Introduce a new “Nature” GCSE.
- Remove charitable status from private schools and charge full VAT on fees.
- Revive the further education sector to provide a wider choice of academic and vocational learning.
- Raise the funding rate for 16–17-year-olds, followed by an annual rise in line with inflation, at the same time as introducing a capital expansion fund for sixth form providers.

#### **Plaid Cymru:**

- Provide an extra £300 million a year for school and colleges, allowing for long term planning.
- Enable the expansion of capital investment in new school-community hubs, together with developing new Welsh medium schools and 3-14 and 3-19 through-schools where there is local demand.
- Create a professionalised support staff network with adequate rates of pay and clear career progression.
- Ensure that world class teachers are attracted and retained by raising the formal standing of teaching as a profession through introducing mandatory continuous professional development.
- Create a “National Cooperative Agency for Supply Teachers,” which will ensure they receive the same entitlement to training and standards as classroom teachers.
- Support women and girls to follow careers in key growth areas, especially in STEM fields.
- Create a mentorship schemes to increase the visibility of women in non-traditional occupations and senior roles and to increase girls’ awareness of the many different paths available to them.

#### **Democratic Unionist Party:**

- Ensure education funding reaches the “frontline” so every pupil in a classroom reaps the benefit.
- Support the introduction of a “strategic small schools initiative” in order to ensure that parents in isolated communities are not left without realistic educational choices.
- Reduce administrative burdens in schools through greater collaboration, co-ordination and central data to remove duplication of information requests.



- Overhaul of the work experience system in schools to encourage greater skill and work awareness from a younger age.

### **Brexit Party:**

- Further expand parental choice.

## **Diversity and inclusion**

### **Labour:**

- Enable positive action for recruitment to roles where employers can “justify the need for more diversity.”
- Introduce a right for all workers to request flexibility over their hours from the first day of employment.
- Ensure that the single-sex-based exemptions contained in the Equality Act 2010 are understood and fully enforced in service provision.
- Extend pay-gap reporting to BAME groups and tackle pay discrimination on the basis of race.
- Require that all employers be trained to better support disabled people, while introducing mandatory disability pay-gap reporting for companies with over 250 employees.
- End disability discrimination and update the Equality Act to introduce new specific duties including disability leave, paid and recorded separately from sick leave.
- Appoint a dedicated global ambassador to the Foreign Office on LGBT+ issues.
- Work to eliminate institutional biases against BAME communities.
- Give effect to the UN Convention on the Rights of Persons with Disabilities and amend the Equality Act to reflect the social model of disability.
- Require employers to devise and implement plans to eradicate the gender pay gap, and inequalities underpinned by race and/or disability, or face fines.
- Take action to close the gender pay gap by 2030.
- Take steps to safeguard LGBT+ rights inside or outside the EU, such as retaining and promoting the Human Rights Act.

### **Liberal Democrats:**

- Extend the Equality Act to all companies with more than 250 employees, requiring them to monitor and report on gender, BAME and LGBT+ employment levels and pay gaps.
- Extend the use of name-blind recruitment processes in the public sector and encourage their use in the private sector.
- Set targets for improving diversity in public appointments and require reporting against progress with explanations when targets are not met.
- Develop a free, comprehensive unconscious bias training toolkit and make the provision of unconscious bias training to all members of staff a condition of the receipt of public funds.
- Develop a government-wide plan to tackle BAME inequalities and review the funding of the Equality and Human Rights Commission to ensure that it is adequate.

Establish a national fund for projects that work in schools to raise the aspirations of ethnic minority children and young people.**Scottish National Party (SNP):**

- Demand tougher action to close the gender pay gap, including introducing fines for businesses that fail to meet an agreed Equal Pay Standard.

**Green Party:**

- Confront racism, antisemitism and prejudice, including from an early age through a broader and decolonialised curriculum in school, focussing on histories and role models from a diverse range of ethnicities and religions.
- End the opt-out of LGBTIQA+ inclusive PHSE classes at school to ensure that every child learns about different types of couples and families that make up UK society.