



Nuclear Weapons and COVID-19

The COVID-19 pandemic has raised financial, moral and ethical questions about spending on nuclear weapons versus spending on our health service. This information sheet aims to summarise some of these issues, together with some practical considerations such as “social distancing” on a nuclear-armed submarine.

Where possible we have provided sample questions and references to assist teachers and parents, and to stimulate discussion and analysis by students.

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Curriculum Links

Topics covered by our Educational Resources

Moral/Ethical issues raised by COVID-19

1. Nuclear weapons spending vs Health Service spending

The COVID-19 pandemic has highlighted the high costs of nuclear weapons, versus the shortages in funding for our health services. Some have described spending on Trident (the UK's nuclear missile and submarine programme) as "Theft from the NHS". Even former Royal Navy Commanders have called for nuclear weapons spending to be diverted to our health services.

Each Trident warhead costs nearly £25 million, and it has been estimated that this could instead pay for 507 ambulances, 2,845 ventilators, 8,419 Intensive care beds, 221,333 tests for COVID-19 and 16 million PPE masks. The UK currently possesses approximately 160 of these warheads.

Successive 'National Security Risk Assessments' produced by UK Governments have designated human health crises such as pandemics as the most important "Tier One" threats, whereas the risk of attack and nuclear weapons proliferation by other countries have been designated a 'Tier Two' threat. The Campaign for Nuclear Disarmament have asked why the governments which produced these risk assessments have chosen to spend £205 billion on a nuclear weapons system to meet the lower level threat, while leaving health services underfunded and unable to meet the challenge of a pandemic.

Questions:

- Can you verify the figures for spending on the Trident nuclear missile programme?
Hint: figures may be found from the independent 'Nuclear Information Service'
- Can you find the National Security Risk Assessments?
Hint: They can be found on Government websites and have the acronym 'NSRA'
- Can you make a counter-argument in favour of spending on nuclear weapons?
- Can you find out how much other countries spend on nuclear weapons?

References:

Nuclear weapons spending information can be found via 'Nuclear Information Service' a not-for-profit independent service <https://www.nuclearinfo.org/>

'Pride: why the UK spent billions on nuclear bombs but ignored pandemic threat'. 'A viral outbreak was judged more likely than a nuclear attack – so why was Trident ring-fenced while NHS funding was cut?'

<https://www.opendemocracy.net/en/opendemocracyuk/pride-why-uk-spent-billions-nuclear-bombs-ignored-pandemic-threat/>

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CND UK "Successive National Security Risk Assessments have rightly identified such human health crises as worthy of the highest level of concern and planning" <https://cnduk.org/pandemic-exposes-government-security-failure/>

"Former UK Royal Navy Commanders call for nuclear cuts to help address Covid-19"

<http://www.nuclearweaponsmoney.org/news/former-uk-commanders-call-for-nuclear-cuts-to-address-covid-19/>

Nuclear weapon law expert suggests furloughing Trident

<https://www.scottishlegal.com/article/nuclear-weapon-law-expert-suggests-furloughing-trident>

"The UK dismissed early warnings about coronavirus – spending billions on the arms industry while ignoring real threats" <https://www.theguardian.com/commentisfree/2020/apr/08/national-defence-corona-pandemic-fighter-jets>

USA spending figures: "The amount of money spent in one year by the U.S. on nuclear weapons could instead provide 300,000 ICU (intensive care unit) beds, 35,000 ventilators and 75,000 doctors'

salaries" <https://www.newsweek.com/one-year-us-nuclear-weapon-spending-would-provide-300000-icu-beds-35000-ventilators-salaries-1494521>

ICANW - Global doctors on COVID-19 and nuclear war

https://www.icanw.org/global_doctors_on_covid_19_and_nuclear_war

Nuclear Weapons and COVID-19

Images taken from social media during April and May 2020 (COVID-19 outbreak)

 Pax Christi Scotland
6 May at 20:42 · Public

Renewing Trident in 2030 will cost at least £30bn. To keep Trident updated until 2060 will cost £205bn. The Scottish Bishops' Conference has condemned nuclear weapons since the 1980s. If that amount was invested in the NHS, would we need people sewing scrubs at their kitchen tables?

**WELFARE
OVER
WARFARE**

Fund the  not Trident

MartinML

2. 'Fail-safe' capacity provided for nuclear weapons

In engineering, 'redundancy' is the duplication of critical components or functions of a system with the intention of increasing reliability, usually in the form of a backup or 'fail-safe'.

The Trident nuclear weapons system has FOUR submarines in rotation, and multiple spare nuclear warheads ready for maintenance and replacements. This has been compared with a number of first-hand accounts of NHS doctors having to make very difficult decisions to choose between THREE or more patients as to who gets the ventilator which might allow them to survive. Oxygen supplies have been limited in some hospitals and NHS staff were told to ration and re-use their Personal Protective Equipment (PPE) i.e. masks and gloves, as there was a shortage.

Our health service operates without the excesses and spare capacity provided for our nuclear weapons system.

Questions:

- Can you find accounts written by NHS staff of PPE rationing and re-use?
- Can you give reasons why extra capacity provided for nuclear weapons might be more or less important than extra capacity provided for oxygen supplies in a hospital?

References:

NHS rationing oxygen with doctors instructed to downgrade blood saturation targets

<https://www.telegraph.co.uk/news/2020/04/17/exclusive-nhs-rationing-oxygen-doctors-instructed-downgrade/>

Pride: why the UK spent billions on nuclear bombs but ignored pandemic threat

A viral outbreak was judged more likely than a nuclear attack – so why was Trident ring-fenced while NHS funding was cut? <https://www.opendemocracy.net/en/opendemocracyuk/pride-why-uk-spent-billions-nuclear-bombs-ignored-pandemic-threat/>

3. 'Utilitarianism' and choosing who lives or dies

Utilitarianism is an ethical theory that determines right from wrong by focusing on outcomes – it is covered in more details in our 'Morality' education module at

<https://www.peaceeducationscotland.org/docs/morality.pdf>

During the COVID-19 pandemic, Utilitarianism has been discussed as part of the moral/ethical decisions made by doctors of who should get a ventilator, and who should receive treatment when beds and oxygen supplies are limited.

Questions:

- Can you find accounts of life or death decisions made NHS staff?
- Using Utilitarianism can you find arguments in favour of, and against, nuclear weapons?
Hint: Our 'Morality' PDF module contains such arguments.

References:

Ethicists agree on who gets treated first when hospitals are overwhelmed by coronavirus

<https://qz.com/1821843/ethicists-agree-on-who-should-get-treated-first-for-coronavirus/>

4. 'Swords into Ploughshares' during COVID-19

The Campaign for Nuclear Disarmament had argued for decades that nuclear weapons workers could be redeployed to socially useful parts of the economy, this 'defence diversification' was seen as unrealistic – however during the COVID-19 pandemic several defence companies re-purposed their staff and machinery to help produce medical equipment and PPE for our health services.

Questions:

- Can you find the source of the phrase 'Swords into Ploughshares'?
- Can you find an example of a country stopping nuclear weapons spending?
Hint: At least one can be found on the continent of Africa.

References:

Nuclear weapons contractor to make 10,000 ventilators

<https://cnduk.org/defence-firm-babcock-to-make-10000-ventilators/>

5. International Cooperation – countries working together

On 23rd March 2020, the leader of the United Nations, Secretary-General. António Guterres, called for nations to cooperate in the face of COVID-19 to ‘end the sickness of war and fight the disease that is ravaging our world’. The UN was formed in 1945 at the end of the Second World War to advance world peace through a framework of joint declarations such as the Declaration of Human Rights, treaties and institutions such as the World Health Organisation that warned the world of the COVID-19 pandemic.

The UN only succeeds fully when all countries agree. Sadly, it can be argued that the UK remains connected to the ‘sickness of war’. As well as British weapons and expertise being used by countries waging war on their neighbours, the UK government are also developing a new nuclear weapon system which if ever used would cause a scale of death and destruction resulting in a complete and catastrophic collapse of all health services – far greater than COVID-19.

Meanwhile, the majority of the member states of the United Nations have signed up to the 2017 ‘Treaty for the Prohibition of Nuclear Weapons’ which our government has refused to support.

Questions:

- Are nuclear weapons immoral if they are illegal under international law? Write your opinion in a paragraph or two.

Hint: you can use the “International Law & Treaties” (Pg.10) and “If You Love This Planet” (Pg.14) sections of our ‘Morality’ module available here:

<https://www.peaceeducationscotland.org/docs/morality.pdf>

References:

UN: The Secretary-General : Appeal for global cease-fire (March 2020)

<https://peacekeeping.un.org/en/secretary-general-appeal-global-cess-fire>

Treaty on the Prohibition of Nuclear Weapons (adopted at the United Nations, July 2017.)

<https://www.un.org/disarmament/wmd/nuclear/tpnw>

Women cleared as court rules nuclear arms illegal (October 1999)

<https://www.theguardian.com/uk/1999/oct/22/gerardseenan>

A beautifully animated short film, “If You Love This Planet” brings to life Hiroshima survivor Setsuko Thurlow’s passionate call to action, on the day that the Treaty on the Prohibition of Nuclear Weapons was adopted at the United Nations – 7 July 2017. https://www.youtube.com/watch?v=i9c6_qobMko

Peace Education Scotland’s ‘Morality’ module <https://www.peaceeducationscotland.org/docs/morality.pdf>

Logistical/Safety issues

6. COVID-19 in submarine crews

In February 2020, the COVID-19 outbreak spread to several cruise ships. Health authorities became concerned as the nature of such ships with their crowded, enclosed areas and limited medical resources, contributed to the heightened risk and rapid spread of COVID-19. Many cruise lines suspended their operations to mitigate the spread of the pandemic. Submarines are far more enclosed and have higher risk factors than a cruise ship.

The submarines of the UK's nuclear fleet typically carry 160 men and, after a period training together at Faslane naval base, they are isolated together in close proximity for three months with no access to hospitals, on a 'boat' (the Navy term for a submarine) carrying 48 nuclear warheads.

It has been proven that some carriers of COVID-19 do not display any symptoms of the disease, but can pass it on to others. It is not possible to "socially distance" on a submarine. There was a suspected outbreak of COVID-19 at Faslane naval base where Trident crews train and many other countries submarine crews were quarantined after contact with the virus. Many surface ships have had to return to port due to outbreaks. A sailor from the USA's nuclear-powered aircraft carrier 'Theodore Roosevelt' died from COVID-19 in April 2020.

Questions:

- Knowing that the incubation period of COVID-19 is 14 days and that people may not display any symptoms, how would you ensure that nobody who boarded the submarine was a carrier?
- Submarine crews are often not told about news from home. If a member of a submariner's family were seriously ill and expected to die from COVID-19 would it be morally wrong to withhold that information, and their chance to say a final goodbye, until the submariner returned to land?

References:

Entire Crew Of A Russian Nuclear Submarine Is In Quarantine After COVID-19 Exposure thedrive.com/the-war-zone/32802/entire-crew-of-a-russian-nuclear-submarine-is-in-quarantine-after-covid-19-exposure

Another Submarine Quarantined: Nowhere Is Out Of Reach Of Coronavirus forbes.com/sites/hisutton/2020/03/30/another-submarine-quarantined-nowhere-is-out-of-reach-of-coronavirus

Life on Trident: three months under the waves with 48 nuclear warheads theguardian.com/uk/2010/may/20/trident-submarine-captain-life-onboard

Submariners on top-secret missions still don't know about coronavirus, according to retired admiral independent.co.uk/news/world/submarine-coronavirus-nuclear-deterrent-france-navy-a9436896.html

COVID-19 pandemic on naval ships https://en.wikipedia.org/wiki/COVID-19_pandemic_on_naval_ships

Twenty sailors hospitalised after Covid-19 hits French aircraft carrier rfi.fr/en/france/20200416-twenty-sailors-hospitalised-after-covid-19-hits-french-aircraft-carrier-charles-de-gaulle-coronavirus

7. Safety of nuclear bases, convoys and weapons factories

While emergency services are already overstretched dealing with COVID-19, nuclear weapons convoys have continued to operate – travelling from the ‘Atomic Weapons Establishment’ (AWE) Burghfield near Reading, to Royal Naval Armaments Depot (RNAD) Coulport 30 miles north of Glasgow.

The convoys involve 100 personnel in two crews using large vehicles to transport nuclear warheads, which contain radioactive materials via motorways and through towns and villages near to houses. They have previously experienced several accidents, and planning exercises have shown faults with preparedness for a serious accident involving an explosion or fire. This could lead to a radioactive smoke plume spreading for miles, poisoning a huge area. A scenario which would be exacerbated by the limitations on emergency services caused by a pandemic.

Questions:

- Who might be ‘morally responsible’ if there was to be an accident involving a nuclear convoy that caused loss of life or a danger to the public? Convoy crews? Scientists who prepared the warheads? Civil Servants at the Ministry of Defence who tried to plan and prepare for accidents of every type? Politicians in Government? Politicians who were in previous Governments who voted for Trident? Members of the public who voted for these politicians? Give reasons for each you include.
- Using the above example, if a criminal or terrorist caused the convoy accident they would be ‘morally responsible’ and ‘legally responsible’, but would any of the other people still be on your list? Give reasons for each one you include.
- Is there a difference between ‘morally responsible’ and ‘legally responsible’?
Hint: See Peace Education Scotland’s ‘Morality’ module
<https://www.peaceeducationscotland.org/docs/morality.pdf>

References:

Coronavirus crisis at UK's nuclear submarine base as twenty staff show COVID-19 symptoms and are forced into isolation <https://www.dailymail.co.uk/news/article-8131755/Coronavirus-crisis-UKs-nuclear-submarine-base.html>

Nuclear weapon convoy accidents – Nukewatch https://www.nukewatch.org.uk/?page_id=178

‘Playing with Fire’ report on nuclear convoys describes 110 accidents, near misses, and dangerous occurrences <https://www.nuclearinfo.org/sites/default/files/playing%20with%20fire%20report%20FINAL.pdf>

8. Nuclear launch codes and COVID-19

The United Kingdom is one of a small number of states with nuclear weapons, and has four nuclear submarines armed with Trident ballistic missiles loaded with nuclear warheads, with at

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least one submarine always on patrol. Only the UK's Prime Minister can authorise a nuclear strike and such an order would be transmitted to one of Britain's nuclear submarines with a special set of codes.

In April 2020, the UK's Prime Minister was admitted to a hospital Intensive Care Unit (ICU) due to a COVID-19 infection which reportedly caused serious breathing difficulties. The PM told newspapers (after he recovered) that "contingency plans" were made and there was a 48-hour period when things "could have gone either way" while "litres and litres of oxygen" helped keep him alive.

The UK's laws do not explicitly state what happens to the nuclear weapons launch codes if the Prime Minister is incapacitated. When asked if the Foreign Secretary had been given the nuclear codes while the Prime Minister was ill, the Cabinet Office Minister said, "There are well developed protocols which are in place" and "I just really cannot talk about national security issues".

Each nuclear-armed submarine also carries a sealed letter from the Prime Minister – known as a "Letter of Last Resort" - which is written when the PM first takes office. If Britain is attacked and the British Government destroyed then the Captain will open the letter, which contains instructions about what he should do. Concerns have been expressed as to whether this 'Last Resort' system could be wrongly triggered if solar flare activity caused an electronic communications blackout. One of their tests as to whether the UK has already been destroyed in a nuclear attack is to check if BBC Radio 4 is still broadcasting.

Questions:

- Write a 'Letter of Last Resort' giving instructions to the Captain of a nuclear-armed submarine on what to do if Britain has been destroyed.

Hint: you can find examples on Pg.12 of Peace Education Scotland's ['Trident' module](#)

References:

Prime Minister Boris Johnson has said it "could have gone either way" as he thanked healthcare workers for saving his life after being discharged from hospital. <https://www.bbc.co.uk/news/uk-politics-52262012>

Who has the UK nuclear button while Johnson is ill? No comment <https://www.reuters.com/article/health-coronavirus-britain-nuclear/who-has-the-uk-nuclear-button-while-johnson-is-ill-no-comment-idUSL8N2BV1Z5>

Peace Education Scotland modules – Trident, Pg.12 'Further Challenge - Captain's Letter'
<https://peaceeducationscotland.org/docs/trident.pdf>

Environmental issues raised by COVID19

9. Pandemics as a result of environmental destruction

A number of researchers think that humanity's destruction of biodiversity has created the conditions for new viruses and diseases such as COVID-19 to arise. It has been suggested that human activity, such as road building, mining, hunting and logging have triggered outbreaks of Ebola and other deadly viruses which have crossed from animals to humans.

Questions:

- What other human activities may have caused viruses to cross from animals to humans?

Hint: consuming the meat of wild animals may have enabled viruses to cross between species.

- Find out the possible impact of Nuclear Weapons on climate change and the environment and write a paragraph summarising the arguments.

Hint: Nuclear Weapons have a considerable 'carbon footprint' in their manufacture, and even a small nuclear conflict could cause major changes to the world's climate.

References:

"'Tip of the iceberg': is our destruction of nature responsible for Covid-19? As habitat and biodiversity loss increase globally, the coronavirus outbreak may be just the beginning of mass pandemics"

<https://www.theguardian.com/environment/2020/mar/18/tip-of-the-iceberg-is-our-destruction-of-nature-responsible-for-covid-19-aoe>

The carbon footprint of nuclear war - Almost 700m tonnes of CO2 would be released into the Earth's atmosphere by even the smallest nuclear conflict <https://www.theguardian.com/environment/blog/2009/jan/02/nuclear-war-emissions>

10. Climate change and the response to COVID19

As a response to the economic damage caused by COVID-19 governments are organising bailouts for certain industries such as airlines and tourism. However, it has been suggested that politicians are not considering enough the real threat from climate change, as it seems 'far away' just now, but could harm the future of our planet.

COVID-19 has forced many of us to make dramatic changes to our way of life, staying at home, working remotely and consuming less. There have been less cars on our streets, pollution levels have fallen and wildlife has started to return to our cities, suburbs and busy 'tourist' beauty spots.

These aspects of the COVID-19 response have demonstrated that a low-carbon future is achievable but campaigners are concerned that we may return to bad habits and that the industry rescue packages, if not carefully designed, will only entrench fossil fuel dependence across the economy.

Some have suggested that the 2017 United Nations "Treaty for the Prevention of Nuclear Weapons" (TPNW), which has been ratified by the majority of countries around the world, could provide an inspiration for a global effort to reduce carbon emissions. If nations can come together to ban nuclear weapons, then perhaps they can do the same for carbon-emissions.

Questions:

- Rank in order of importance, what you think are the current long-term and short-term threats facing humanity as a whole. Give reasons for each, and their importance.

Hint: Examples could include: Nuclear war, Climate Change, Pandemic (e.g. COVID-19), and antibiotic resistance.

- Find connections between the threats you identified above. Does that change your ranking? Give reasons if you make any changes to the ranking order.

Hint: Research has shown that Climate Change may increase the likelihood of pandemics arising, and Nuclear War would change the climate.

- Which of the above threats do you think is the easiest to tackle? Give reasons for your answer.

References:

Environmentalists ask for 'green' response to COVID19 Campaigners urge governments to tie any bailouts to aviation and cruise industries to requirements for climate action

<https://www.theguardian.com/environment/2020/mar/24/covid-19-economic-rescue-plans-must-be-green-say-environmentalists>

Nuclear Disarmament's Lessons for Climate Change. If we can ban nukes, we can ban carbon emissions. Here's how.

<https://foreignpolicy.com/2019/06/12/nuclear-disarmaments-lessons-for-climate-change/>

11. Environmental Health and Disadvantaged Communities

Those exposed to nuclear weapons tests, processing, and pollution are at greater risk from COVID-19. These populations are disproportionately from Indigenous communities, communities of colour, low-income, and rural communities. In addition they can face barriers to receiving adequate health care.

Nuclear weapon testing has historically exposed indigenous people to great harm. Britain tested weapons at Maralinga in Australia, leaving large regions contaminated with radioactive waste. The aboriginal people suffered death and illnesses when they attempted to return to their contaminated homelands. The Soviets tested nuclear weapons at Semipalatinsk, a remote area of Kazakhstan - once home to nearly a quarter of the world's nuclear testing. The long-term health impact on its inhabitants has been devastating.

One of the most common illnesses suffered by those exposed to radiation is cancer. Studies have shown that those with cancers are up to three times more likely to die of COVID-19 than those without cancer.

The main radioactive substance in nuclear reactors and nuclear bombs is the element uranium, which is mined in Canada, Russia, Africa and Australia. During the mining process, uranium escapes into the atmosphere and into groundwater. The contamination of air, land and sea lasts for thousands of years.

During the Cold War, widespread uranium mining took place on the lands of the Native American Navajo and Lakota tribes. The mining endangered thousands of Navajo workers, as well as producing contamination that has persisted in adversely affecting air and water quality, on Navajo lands. Mining companies failed to inform the Navajo workers about the invisible dangers of radiation exposure and the miners contracted a variety of cancers including lung cancer at much higher rates than the rest of the U.S. population.

Questions:

- Find what areas of the world the USA tested their nuclear weapons, and identify whether indigenous people's health has been affected by these tests.
- On a blank map of the world: highlight areas of nuclear mining, testing and explosions.

References:

COVID-19: The Pandemic of Nuclear Weapons" wilpf.org/covid-19-the-pandemic-of-nuclear-weapons/

Nuclear Weapons, Frontline Communities, and the COVID Stimulus. What You Need to Know <https://allthingsnuclear.org/guest-commentary/covid-19-nuclear-weapons>

In the Grand Canyon, uranium mining threatens a tribe's survival theguardian.com/environment/2017/jul/17/grand-canyon-uranium-mining-havasupai-tribe-water-source

Indigenous peoples' health and safety during COVID-19 <http://www.fao.org/indigenous-peoples/covid-19/en/>

Nuclear Weapons and COVID-19

Images taken from social media during April and May 2020 (COVID-19 outbreak)



Lakota Law Project
@lakotalaw

Humans are not "the virus."

Indigenous people have shown that it is possible to live in balance with nature.

Colonialism and extraction for profit, those are the virus.

The disastrous unfolding of the pandemic in the UK and the US illustrates what many of us have been saying about climate and ecological breakdown: If you don't act promptly and frontload your costs, you end up paying a far higher price, both financially and in human life.

George Monbiot



ANOTHER ANGRY VOICE

Curriculum Links

Topics covered by our Educational Resources

Download at <https://www.peaceeducationscotland.org>

Scotland - Curriculum for Excellence:

People in society, economy and business (Modern Studies): SOC 3-15a, SOC 4-15a, SOC 3-18a

People, past events and societies (History): SOC 4-01a, SOC 3-06a, SOC 4-06a, SOC 3-06b, SOC 4-06b

Religious and Moral Education - Christianity, Values & Issues RME 4-02a, RME 4-02b,

World Religions, Values & Issues RME 3-05a, RME 4-05a, Development of Beliefs & Values RME 0-07a / 1-07a / RME 2-07a / RME 3-07a / RME 4-07a, RME 1-08a / RME 2-08a / RME 3-08a / RME 4-08a, RME 2-09b, RME 3-09a, RME 4-09a, RME 4-09b, RME 3-09c, RME 2-09d, RME 3-09d, RME 4-09d, RME 4-09e

Topical Science (Science): SCN 4-20b

Listening and talking (Literacy): LIT 3-09a, LIT 4-09a, LIT 3-10a

Social wellbeing (Health and wellbeing): HWB 4-09a

England - Key Stages:

KS3 Religious Education - Global issues, KS3 / KS4 Religious Education (Ultimate questions, Moral & Ethical Issues), KS3 Citizenship - Debating a global issue, KS3 Citizenship - Challenge of creating peace, KS3 Citizenship - Dealing with conflict, KS3 English - Speaking & Listening, KS3 Religious Education - Global issues, KS4 History, KS4 Religious Education, KS4 Citizenship - Global citizenship, KS4 English - Language & Skills, KS4 English - Speaking & Listening - Discuss, argue, persuade, KS4 History - The Cold War, KS4 Media studies - Film, KS4 Other subjects - Modern studies