CRITICAL MASS
Lessons on gender, race and nuclear weapons

CND
PEACE EDUCATION
# Contents

Critical Mass Calendar ......................................................... 4  
Curriculum links ............................................................... 5-6  
Introduction ....................................................................... 7  
Message from the Nuclear Education Trust ....................... 8  
Lesson One: International disagreements, nuclear negotiations, and gender ................................................... 9  
Lesson Two (Drama): The Women of Greenham Common .... 18  
Lesson Two (English): The Women of Greenham Common .... 20  
Lesson Three: Hibakusha and Art ........................................ 32  
Lesson Four: Uranium mining .............................................. 39  
Lesson Five: Philosophy for Children, Colleges and Communities ................................................................. 49  
Praise for Critical Mass and other resources ....................... 55  
Acknowledgements ............................................................. inside back page
## Critical Mass Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>26th January</td>
<td>Survival Day/Australia Day</td>
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<tr>
<td>20th February</td>
<td>World Day of Social Justice</td>
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<td>8th March</td>
<td>International Women's Day</td>
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<td>21st March</td>
<td>International Day for Elimination of Racial Discrimination</td>
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<td>22nd March</td>
<td>Earth Day</td>
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<td>5th June</td>
<td>World Environment Day</td>
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<td>6th August</td>
<td>Hiroshima Day</td>
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<td>9th August</td>
<td>Nagasaki Day</td>
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<tr>
<td>9th August</td>
<td>International Day of the World's Indigenous Peoples</td>
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<td>29th August</td>
<td>International Day Against Nuclear Tests</td>
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<tr>
<td>21st September</td>
<td>UN International Day of Peace</td>
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<tr>
<td>26th September</td>
<td>International Day for the Total Elimination of Nuclear Weapons</td>
</tr>
<tr>
<td>1st-31st October</td>
<td>Black History Month (UK)</td>
</tr>
<tr>
<td>24th October</td>
<td>One World Week (<a href="https://www.oneworldweek.org/">https://www.oneworldweek.org/</a>)</td>
</tr>
<tr>
<td>10th December</td>
<td>Human Rights Day</td>
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Curriculum links

Appropriate for subject teaching from 2019. These links will be updated as appropriate in due course. The resource’s relevance to SMSC and Prevent is also outlined.

ART AND DESIGN

Primary
- ‘[Students should] produce creative work, exploring their ideas and recording their experiences; evaluate and analyse creative works using the language of art, craft and design’.

KS3/4
- ‘[Students should] produce creative work, exploring their ideas and recording their experiences; analyse and evaluate their own work, and that of others’.

GCSE
- AQA, Eduqas: Component 1: Portfolio
- OCR: 01: Portfolio
- Edexcel: Component 1: Personal Portfolio

A-Level
- Stimuli for Personal Investigation
- Edexcel: Component 1: Devising
- OCR: 01/02: Devising Drama
- AQA: Component 2: Devising Drama
- Eduqas: Component 1: Devising Theatre
- Edexcel: Component 1: Devising

ENGLISH LANGUAGE

GCSE
- AQA: Paper 1: Explorations in creative reading and writing; Paper 2: Writers’ viewpoints and perspectives.
- OCR: Component 1: Communicating information and ideas; Component 2: Exploring effects and impact (both components require the reading and writing of creative texts (non-prescribed).
- Edexcel: Component 1: Fiction and Imaginative Writing; Component 2: Non-fictional and transactional writing.

A-Level
- AQA: Language in Action
- Edugas: Component 4: Language and Gender
- Edexcel: Component 3: Investigating Language

ENVIRONMENTAL SCIENCE

A-Level
- ‘[Students should] understand how society makes decisions about environmental issues and how these contribute to the success of the economy and society’.
- AQA: Paper 1: Energy Resources; Paper 1: The Physical Environment

GEOGRAPHY

KS3/4
- The use of natural resources.

GCSE
- AQA: Paper 2C: The challenge of resource management
- OCR B: Paper 2: Resource Reliance
- Edexcel A: Component 2C: Resource Management

A-Level
- AQA: Component 2C: Resource Security
- Edexcel: Paper 2A: Superpowers

GOVERNMENT AND POLITICS

A-Level
- AQA: Political Ideas (Feminism)
- Edexcel: Component 2: Non-core political ideas (Feminism)

HISTORY

KS3/4
- ‘[Students should] are equipped with the skills to think critically and debate political questions; [&] the ways in which citizens work together to improve their communities’.

GCSE
- OCR: Component 02: Citizenship in Action (Citizenship Participation in the UK); Component 03: Our rights, our society, our world (The UK and its relations to the wider world).
- Edexcel: Theme D: Power and Influence.

DRAMA

GCSE
- AQA: Component 2: Devising Drama
- OCR: 01/02: Devising Drama
- Eduqas: Component 1: Devising Theatre
- Edexcel: Component 1: Devising

ENGLISH LITERATURE

GCSE
- AQA: Comprehension; critical reading; comparison of texts.
- Eduqas: Component 2, Section C; Reading comprehension and reading critically.
- Edexcel: AO1, AO3.

A-Level
- Cambridge International: AO1, AO3
- AQA: AO3, AO5
- OCR: AO1, AO3, comparative and contextual studies.
- Eduqas: Component 3, AO3
- Edexcel: AO1, AO3

ENVIRONMENTAL SCIENCE

A-Level
- ‘[Students should] understand how society makes decisions about environmental issues and how these contribute to the success of the economy and society’.
- AQA: Paper 1: Energy Resources; Paper 1: The Physical Environment

HISTORY

KS3/4
- ‘[Students should] engage in historical enquiry to develop as independent learners and as critical and reflective thinkers; develop an awareness of why people, events and developments have been accorded historical significance and how and why different interpretations have been constructed about them’.

GCSE
- AQA: Paper 1, Section BC (Conflict and Tension between East and West, 1945-1972); Paper 2, Section BB (Britain: Power and the People)
- OCR (A): Component Group 1: International Relations; Component Group 2: War and British Society
- Eduqas: Component 1D: Austerity, Affluence and Discontent (The Changing Lives of Women); Component 2G: The Development of Warfare in Britain (The Role of Women in War)
- Edexcel: Paper 2, Option 4: Superpower relations and the Cold War

RELIGIOUS EDUCATION

KS3
- ‘[Students should] express […] their personal reflections and critical responses to questions and teachings about identity, diversity meaning and value, including ethical issues’.

GCSE
- AQA A: Component 2D: Religion, peace and conflict
– Edexcel B: Paper 2: Religion, Peace and Conflict
Relevant Lessons: 3, 5

PHILOSOPHY FOR CHILDREN
• Lesson 5 provides four lesson plans with appropriate stimuli and guidance to help teachers conduct a Philosophy for Children, Colleges and Communities (P4C) session.
Relevant Lessons: 5

SOCIOLOGY
GCSE
– ‘[Students should] draw on information and evidence from different sources and demonstrate the ability to synthesise them’.
– Eduqas: Component 2: Understanding Social Structures (Social differentiation and stratification).

• A-Level
– Eduqas: Component 3: Power and Stratification
Relevant Lessons: 2, 4, 5

SMSC
• Spiritual
– ‘[Students] enjoy learning about themselves, others and the surrounding world; use imagination and creativity; reflect’.
• Moral
– ‘[Students] understand consequences; investigate moral and ethical issues; offer reasoned views’.
• Social
– ‘[Students] appreciate diverse viewpoints; engage with the ‘British values’ of democracy, the rule of law, liberty, respect and tolerance’.

• Cultural
– ‘[Students] participate in culture opportunities; understand, accept, respect and celebrate diversity’.
• Prevent
– ‘The Prevent duty is not intended to stop discussion of controversial issues. By providing a safe environment where pupils are encouraged to discuss social and political issues, you can help build their resilience to extremist ideas and prepare them for an active role in society…’
Department for Education and Home Office
Relevant Lessons: All
Introduction

Thank you for your interest in Critical Mass: Lessons on gender, race and nuclear weapons. This CND Peace Education teaching pack contains 5 lessons concerning gender, nuclear weapons, marginalisation, and peace.

These lessons have been designed to help teachers combine social justice, peace and their subject curriculum in the classroom. At a time when feminism, anti-racism and identity politics are pressing issues for young people, and with the world seeming more divided and dangerous, Critical Mass uses nuclear weapons examples to encourage students to consider these complex issues together, and is needed now more than ever. As Audre Lorde put it:

‘There is no such thing as a single-issue struggle because we do not live single issue lives’.

These lessons can be taught either independently or in sequence, as a complementary scheme of work, at Key Stage 3, 4, 5, and even 2, with students of 10 to 18 years. They have been designed to run to 60 minutes, but can be easily adapted to be longer or shorter as necessary. Critical Mass is a cross-curricular resource, though has relevance especially for English, Citizenship, History and SMSC with specific lesson plans for Drama, Art & Design, and Geography/Geology.

Lesson 1 – ‘International disagreements, nuclear negotiations and gender’ looks at social ideas of gender, strength and security in nuclear weapons issues. Students play a trading-card game to then think about conflict resolution and cooperation. This lesson fosters a broader understanding of power, gender and global nuclear weapons issues, which the following lessons build on through case studies:

Lesson 2 – ‘Greenham Common’ uses both drama activities and critical reading to understand how feminism and peace activism intersected at the height of the Cold War in the UK.

Lesson 3 – ‘Hibakusha and Art’ goes beyond learning about the atomic bombings of Hiroshima and Nagasaki, by asking students to creatively respond to the lives of survivors, their artwork, and their advocacy. Students explore East Asian responses to tragedy, and reflect on cultural difference, and ethnic/racial difference.

Lesson 4 – ‘Uranium Mining’ uses an Australian case study to investigate the controversies of uranium extraction, especially concerning Aboriginal communities, colonial legacies, race and traditional land ownership. This is done through a mock town meeting, and is based on real events.

Lesson 5 – ‘Philosophy for Children, Colleges, and Communities’ provides teachers with an open-ended lesson plan, giving the opportunity for students to evaluate and conclude upon the themes raised in any or all of the lessons. Where the pack begins with critical thinking about the world’s current situation, it ends with creative conclusions.

CND Peace Education resources promote critical thinking and global citizenship through fun, active learning exercises. Critical Mass offers interactive activities and engaging stimuli for critical thinking, inquiry, self-expression, dialogue, and the consideration of multiple perspectives in controversial issues. It does so whilst adhering to legislation and guidelines on political impartiality.

CND Peace Education will run free, participatory workshops from Critical Mass in your school – contact us at peaceeducation@cnduk.org to request a session. We can also provide speakers for assemblies and drop-down days.

We always welcome feedback from teachers and educators about what works, or could do with updating, in our resources. If you’d like to let us know what you make of the activities in Critical Mass, send us an e-mail or call 020 7700 2393.

Thank you also to our funders, the Nuclear Education Trust, and all those who contributed to this teaching pack or helped in its development.

CND Peace Education
September 2019
Dear Teacher,

The Nuclear Education Trust (NET) is pleased to provide funding for this new edition of the CND Peace Education resource pack, Critical Mass. The pack promotes the key objective of the Trust, which is:

“To advance education by promoting the study and understanding of, and research into, arms control and disarmament, defence and security, with an emphasis on nuclear weapons and other weapons of mass destruction.”

This objective echoes the UN Secretary-General’s statement in 2016 regarding disarmament and non-proliferation education: ‘It is important to bring the discussion of these critical issues to schools in all countries to inform and empower young people to become agents of peace’. It does so whilst also adhering to UK Prevent and SMSC requirements.

The educational materials in this pack invite young people to engage with those voices and experiences that are rarely considered in nuclear weapons issues, asking ‘who has a say’ in these crucial matters? Paying particular attention to gender, race and identity, the lessons exhibit a variety of case studies, ranging from international diplomacy, grassroots activism, survivors’ advocacy, and resource extraction. The pack enables teachers to empower young people with knowledge about their position in the world today, by connecting different times and places through creativity, critical thinking and interactive learning methods.

The pack has been subject to the quality assurance of NET’s education sub-committee to ensure that the education resources conform to NET’s objective, that they are free from bias and are presented in such a way as to allow young people to form their own opinions.

The pack was also reviewed by a panel of educationalists for feedback on: usability, impartiality, curriculum relevance and enjoyability. The materials have then been revised in accordance with any recommendations.

The Nuclear Education Trust is governed by charity law and as such, the NET Trustees would like to make it clear that NET’s educational aims and activities are quite separate from, and independent of, the campaigning work of the Campaign for Nuclear Disarmament (CND).

If you have any comments about the work, further recommendations or would like to hear more about the Nuclear Education Trust, please email chair@nucleareducationtrust.org.

Baroness Christine Blower
Chair of NET Trustees
Lesson One: **International disagreements, nuclear negotiations, and gender**

Subjects: Citizenship, PSHE, English, Government & Politics

**OVERVIEW**
Students explore their own assumptions of 'strength' and 'security' by putting themselves in the shoes of world leaders. They play a card game to understand the difficulties of nuclear deal negotiations, and then take part in a modified version of the game to see the differences in nuclear treaty negotiations.

**MATERIALS**
Pens / Powerpoint / Tug o’ War cards / Worksheets

**ROOM LAYOUT**
For group work.

**LEARNING OBJECTIVES**
– All students will experience two different ways to approach international conflict and change: mediated negotiation, and multilateral co-operation.
– Most students will understand the role of vested interests and gendered ideas in conflict, strength, and security.
– Some students will decide on the best ways to negotiate for change, and defend their opinion, with a consideration of gender.

Note: This lesson has been designed to be delivered independently of other lessons in the pack, however for a gentler or more thorough learning experience, it can be adapted to fit in with other, or longer, schemes of work.

**STARTER (5 minutes) Thinking Thumbs: Strong or not strong?**
The class are shown a series of photos (refer to PowerPoint), and have to judge whether they consider whatever is depicted in the image to be either ‘strong’ (thumbs/hands up) or ‘not strong’ (thumbs/hands down). In each instance the teacher asks a student from each side why they decided to vote a certain way.

If you are putting together your own slides, you could consider: a weightlifter / a male soldier / a male political leader / a mother / a female soldier / a female politician / a female protester / a girl / a boy / a homeless person / a business person.

For a deeper inquiry, ask the class to think about their responses to the activity with regards to gender. In small groups, students discuss any biases they might not have realised they hold, to do with gender, age, profession, appearance etc. You may find our supporting material (p.13), which explores gender and militarism, helpful.

**ACTIVITY 1: Tug o’ War (15 minutes)**

**Before (5 mins)**
– Brief the students (PowerPoint with videos) about current tensions between two nuclear armed countries (we suggest the 2018/9 talks between North Korea and the USA), giving the ‘bare bones’ of the situation.
– In THREES, students decide who will play the opposing parties (1 student on each side), and who will act as a neutral mediator.
– Provide students with their trading cards (p.15-16). The cards detail what each party can ‘offer’, ‘ask’ for, or ‘threaten’and each card has either a positive or negative value. A briefing card for each country outlines how many points each ‘party’ starts with (a reflection of their power). Tell negotiators they need to maintain their strength, whilst reducing the threat posed by their enemy.
– Give the mediator their own separate worksheet (p.17), which they can use to keep a record of how the negotiations progress. Their job is to understand each ‘deal’ and try to get the parties to compromise.

**During (5 mins only – the game might be frustrating, this is the point!)
– Without seeing the other’s cards, each party chooses one ‘ask’ or one ‘offer’ card. They slide these cards face-down to the mediator.
– The mediator turns the cards over and: 1) reads aloud what each party wants; 2) asks parties why they asked/offered what they did; 3) asks parties how they feel about this prospective ‘deal’.
– The parties can accept or reject the deal ‘as it stands’, and have the opportunity to say what they would like to see in the next deal. Whether accepted or rejected, another round of proposals follows.
– If the parties accept the deal, the mediator notes down on their worksheet what just occurred, including any change in power scores. The cards remain face-up on the table.
– If the parties reject the deal, the cards are returned to the parties’ hands, and the mediator records that this deal has failed. The mediator tells the parties why they think the deal failed (e.g. one party asked for too much, or didn’t offer anything in return).
− The parties choose a new set of cards (or the same, if they were returned to their hands) to slide over to the mediator in the next negotiation. Note: there are blank cards on which the parties can write their own ‘offer’ or ‘ask’. The mediator can decide on the points ascribed to these custom cards.
− If either party plays a ‘threaten’ card, the game must restart and any cards on the table are returned to the parties’ hands. This is because a direct threat can de-rail diplomatic efforts, and reduce trust between parties. Alternatively, you may wish to allow the negotiations to continue, so that students must respond to the threat.

After (5 mins)
− Ask groups how their negotiations went; did the class have difficulties, and why?
− Discuss whether they felt they needed to appear strong and powerful, and if they found it difficult to make any concessions because of this.
− Emphasise that this negotiation process is a zero-sum game, where one party’s gain requires another party’s loss. Ask how the students feel about this? Is there an alternative?

DISCUSSION (15 mins)
Our PowerPoint presentation will help with this section: [see: bit.ly/CNDCriticalMass]
− Present what happened in Trump/Kim talks of 2018 (Singapore Summit) and 2019 (Hanoi Summit and Trump’s visit to the Korean de-militarised zone). To what extent were these negotiations successful?
− Refer to conflict escalation slides, and as a class apply this understanding to the US/NK talks. How would students have navigated these conflicts differently?
− Noting that almost all negotiators in these conflicts were men, ask the class to discuss in pairs for 1 minute whether there is a link between gender and conflict. Would the outcome have been different if women were in the room? Field responses.
− Play video in which Theresa May states she would fire the UK’s nuclear weapons. Underline that although our ideas of strength and conflict might be gendered, they are not necessarily exclusive to everyone of one gender i.e. masculine ideas of strength can be communicated through the actions of women leaders too. Link: http://bit.ly/UKPMTheresa
− Extension: For a deeper inquiry, also play video showing New Zealand Prime Minister’s emotive reaction to the Christchurch massacre (note: discussion of shooting and weapons). Do these leaders show the same strength, or different strengths? Link: http://bit.ly/NZPMJacinda (0.29-1.42)
− Extension: Students asked where else these ideas might play out? Teacher writes these on the board. Responses might be: at home, in the workplace, in the street, with other men, in sport... The responses can be left on the board.

ACTIVITY 2 (10 mins): Tug for Peace (the TPNW): the Treaty on the Prohibition of Nuclear Weapons (TPNW)
Before
− The teacher is now a mediator, and the class splits into small groups of two or three, for which they are given blank ‘suggestion cards’ or slips of plain paper.
− Teacher thinks of a question applicable to a school setting e.g. ‘What can we do to ensure everyone feels safe at school?’ Students will produce an agreement to try and reach a solution.

During
− Three groups hand the teacher a ‘suggestion’ card, which they have written themselves.
− Teacher reads them aloud and asks the groups why they made this suggestion. Might other groups disagree?
− The class votes on whether each suggestions is added to a group agreement. This is decided by a majority vote. Teacher can write on board or stick the cards to the board with tack. The teacher reads these agreements out loud and can suggest ways that the discussion can move forward.
− New groups now hand in suggestion cards that can add to, or edit, the agreement. The process is repeated until every group has given in at least one suggestion card.
− The class votes as a whole on whether to accept the agreement, remaining in the roles of their delegation groups.

PLENARY (10 mins)
− The class learns about the TPNW (refer to PowerPoint), noting that the Tug for Peace occurred in a similar process to the TPNW negotiations. See our supporting information on the TPNW (p.14).
− Note the role of women, and other marginalised groups, in establishing the treaty – Ask:
  • Why might some people say that this is significant?
  • Is the ‘regular’ process of negotiation being changed by listening to those affected?
− Note the differences in approach between the Tug for Peace and the Tug o’ War – Consider how the Tug for Peace used power co-operatively whilst the Tug o’ War used power competitively, and ask which was most effective at creating a change?
− Ask how might some people critique this way of change making? Responses might include:
  • Reaching a consensus could mean that no one is fully satisfied.
  • In a majority vote, some voices can be overlooked.
• Some parties can be excluded from an agreement, such as ‘rogue states’, meaning that although the rule is changed for most, the exceptions to the rule are unchanged.

DIFFERENTIATION

Simplify
– Provide students with fewer cards to choose from in the Tug o’ War activity.
– Provide students with a list of possible suggestions to choose from in the Tug for Peace activity.

Stretch
– Provide groups with more, or only, ‘custom’ cards in the Tug o’ War activity.
– Base the Tug for Peace activity around nuclear weapons e.g. ask ‘what are the dangers of nuclear weapons and how can we reduce them?’ In this example students can act as delegations (i.e. groups of two or three representing a civil society group or country, such as CND or North Korea). They could do their own research on these beforehand.
– In the Tug for Peace activity, you might wish to give a group VETO powers, allowing them to block any suggestion, or the agreement as a whole. This could be because they are particularly powerful, or require special consideration.
– Move the Thinking Thumbs STARTER activity to follow the DISCUSSION for a deeper inquiry of gender and ‘strength’.

EXTENSION (Homework or subsequent lesson ideas)
– Students could produce a poster on the Treaty on the Prohibition of Nuclear Weapons, which could later be put on display.
– Students could research another conflict with a ‘gender’ lens, for example, the International Women’s Strike, which occurs on the 8th March in over 50 countries, looking at the difference between the people seeking change, and the people who have the power to make decisions. See: https://womensmarchglobal.org/
– For a historical comparison, our teaching pack ‘Dial M for Missile’ offers several lesson plans around the Cuban Missile Crisis, which bring to life another famous nuclear negotiation. Available via our website.

ENRICHMENT
– Students contact their MP to see if they support the Treaty on the Prohibition of Nuclear Weapons (TPNW). Contact them to either thank them or challenge them based on the student’s point of view. You can find more information at: https://cnduk.org/nuclear-ban-communities/
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<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>16 July 1945</td>
<td>World's first successful nuclear weapons test carried out by the USA in New Mexico.</td>
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<tr>
<td>6 and 9 August 1945</td>
<td>USA drops two nuclear bombs on Hiroshima and Nagasaki in Japan, close to the end of the Second World War.</td>
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<tr>
<td>August 1945</td>
<td>Following the end of the World War, Korea is divided in two, with the Soviet Union occupying the North and the USA occupying the South (until 1948-9).</td>
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<tr>
<td>May to September 1948</td>
<td>Two separate governments are formed in the North and South. North Korea then becomes an independent country, known in full as the Democratic People's Republic of Korea (DPRK), following the South's independence in May 1948.</td>
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<td>1950-1953</td>
<td>The Korean War between the North (supported by the USSR and China) and the South (supported by the USA and backed by the UN):</td>
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<td>- The DPRK's army invades South Korea on 25th June 1950. Other foreign powers get involved as the conflict escalates.</td>
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<td>- The conflict ends without a peace treaty on 27th July 1953, and with a 4km-wide Demilitarised Zone (DMZ) on the border between the two states.</td>
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<td>- The US military presence in the South is reinforced and the North's system is maintained.</td>
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<td>March-June 1993</td>
<td>North Korea threatens to withdraw from the Non-Proliferation Treaty.</td>
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<td>31 August 1998</td>
<td>North Korea launches a long-range Taepodong-1 ballistic missile over Japan, surprising the world.</td>
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<td>29 January 2002</td>
<td>US President George W. Bush lists North Korea as one of the ‘axis of evil’ (together with Iran and Iraq) during his State of the Union address. The USA eventually takes North Korea off the list in 2008. However in the 2017 National Security Strategy, the USA refers to North Korea as a ‘rogue state’.</td>
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<td>10 January 2003</td>
<td>North Korea announces its withdrawal from the NPT.</td>
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<td>October 2006</td>
<td>North Korea conducts first nuclear test, underground (it was detected as a small earthquake before the announcement came!)</td>
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<tr>
<td>17 December 2011</td>
<td>Kim Jong-Un becomes the third Supreme Leader of North Korea</td>
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<tr>
<td>20 January 2017</td>
<td>Donald Trump becomes President of the United States of America.</td>
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<tr>
<td>July 2017</td>
<td>North Korea's first successful intercontinental ballistic missile (ICBM) test, says that a North Korean missile could reach USA mainland.</td>
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<td>August 2017</td>
<td>Trump tells reporters: 'North Korea best not make any more threats to the United States.... They will be met with fire and fury like the world has never seen.'</td>
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<td>September 2017</td>
<td>- North Korea conducts a nuclear test of 250 kilotons (16 times the power of the Hiroshima bomb)</td>
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<td>- Trump tells United Nations: 'The United States has great strength and patience, but if it is forced to defend itself or its allies, we will have no choice but to totally destroy North Korea. Rocket Man is on a suicide mission for himself and for his regime'.</td>
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<td>- Kim declares Trump will ‘pay dearly for his speech’.</td>
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<td>12 June 2018</td>
<td>- Having been invited for a meeting in March, Trump meets Kim at the ‘Singapore Summit’.</td>
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<td>- Both sides commit to ‘denuclearise’ the Korean peninsula, but the agreement appears vague.</td>
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<td>- Trump stops ‘provocative’ military drills with South Korea.</td>
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<td>- Talks fail after two days. The USA says that North Korea wanted all economic sanctions lifted, Trump reassures reporters that he trusts Kim.</td>
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<td>30 June 2019</td>
<td>Trump meets Kim at the de-militarised zone (DMZ) and steps over the border into North Korea, making him the first sitting US President to set foot on North Korean soil.</td>
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The gendered impact of nuclear weapons

How are nuclear weapons gendered?
Nuclear weapons are indiscriminate in their character i.e. the effects of a nuclear explosion do not distinguish between military targets and a civilian population. This does not mean, however, that the effects of the use of nuclear weapons are the same for everyone. In this sense nuclear weapons can be ‘gendered’, from the language and ideas of nuclear weapons themselves, to the direct effects of a nuclear explosion on the population. Nuclear weapons affect women and men differently.

Gendered pattern of harm
Any use of nuclear weapons would have long-term (and direct catastrophic) effects on people and the environment. But women in particular face unique and sex-specific risks due to their biology and child-bearing capacities. For example, as was seen following the bombing of Hiroshima and Nagasaki and the Chernobyl disaster in 1986, women affected by radiation were twice as likely to develop cancer, experience stillbirth or give birth to children with genetic disorders, so consequences were passed on for many generations afterwards.

From this, radiation-affected women have faced ostracism from their communities, especially when the impacts of radiation have not been fully understood. Women can/would also be differently affected by political instability following a nuclear explosion, such as a greater risk of sexual violence, or inequalities in access to resources such as food and water.

Even in peacetime, testing nuclear weapons has irradiated communities, often on lands inhabited by indigenous and minority populations. Between 1945 and 1980 over 60 locations across the globe were subject to nuclear tests, which harmed colonised populations in particular through the effects of radiation. An estimated 2.4 million people died as a result. Underwater and atmospheric nuclear test explosions were banned by the UN in 1963.

Peace activism
Historically, women have played a leading role in peace movements and anti-nuclear campaigns, such as Greenham Common Peace Camp* against placement of nuclear weapons in the UK (or a Committee of Soldiers’ Mothers in the USSR in the 80s). One might think, then, that there is a natural link between women and peace, but this correlation is more to do with society and gender roles than biology. It is nonetheless an important correlation.

* This is the subject of Lesson 2 in Critical Mass.

Women and war
Although men experience direct forms of violence in war, women and young girls face increased physical, social and economic insecurity during warfare that leads to sexual violence and rise in gender inequality (child marriages, FGM, endurance of patriarchal norms).

Outside of armed conflicts, issues concerning state security, including the control and management of weapons of mass destruction, are overwhelmingly decided on by men. Data collected by Article 36 between 2010 and 2014 showed that women comprise only 25% of participants at international arms control meetings, with almost half of state delegations comprised fully of men.**

** Source: http://www.article36.org/updates/bwc-participation

Language and values
The underrepresentation of women in nuclear policy decision-making does not only mean that a significant proportion of the population is not heard and their voices not taken into account. Feminists have argued that the language used to discuss nuclear weapons is deeply gendered. For example, ‘masculine’ characteristics such as dominance, power, and physical strength are valued over more ‘feminine’ ones such as soft power, diplomacy, or cooperation. When one’s focus is skewed towards one view of power, alternatives can be overlooked.

The cost of maintaining a nuclear arsenal takes a significant amount of public resources. As women are more dependent on the welfare state than men, the way the government directs its revenue is a gender issue. For example, the 2016 UK Government’s decision to replace Trident is estimated to cost £205 billion. Yet public spending available for single parents (90% of which are women), has decreased and pay for public sector employees (three-quarters of which are women), has been frozen, which widens the poverty gap between men and women.***

*** Source: LSE blogs (https://blogs.lse.ac.uk/politicsandpolicy/gendered-impacts-of-austerity-cuts/)
The Treaty on the Prohibition of Nuclear Weapons

‘One of the most unique aspects of the TPNW is that it is the only gender-sensitive nuclear weapons agreement in existence’ – Women’s International League for Peace and Freedom (WILPF)

‘Together we have brought democracy to disarmament and are reshaping international law’ – Beatrice Fihn, Director of the International Campaign to Abolish Nuclear Weapons (ICAN)

On 7th July 2017, following months of negotiations with more than 135 nations as well as members of civil society, the United Nations voted to adopt the Treaty on the Prohibition of Nuclear Weapons (TPNW) with an overwhelming majority of 122 states. The treaty, sometimes referred to as the nuclear ban treaty, is a legally-binding agreement that prohibits nations from using, manufacturing, and stockpiling nuclear weapons on their territory and makes any international assistance in those activities illegal. The treaty’s adoption fills a gap in international law towards an all-inclusive ban of nuclear weapons, and it is the first document to recognise the humanitarian harm resulting from their use. The treaty becomes legally binding once signed and ratified by at least 50 UN member states, and is expected to enter into force in 2020.

Following decades of global campaigning and advocacy, and working closely with groups representing peace, disarmament, and women’s and minorities’ rights, the treaty acknowledges the disproportionate effect of nuclear weapons on women and girls, as well as on the indigenous populations across the globe. The nuclear ban treaty also addresses the importance of gender equality and says that women’s full participation in denuclearisation is a vital step towards peace and security. It obliges nations to support the victims of nuclear weapons’ use and testing, and including provisions for environmental recovery. The TPNW marks a significant step towards justice for indigenous inhabitants of colonised lands who were exposed to nuclear testing between 1945 and 1980.

Although the nine states that possess nuclear weapons boycotted the negotiation talks and did not participate in the UN vote – including the US and the UK – the treaty has been officially signed by over 70 governments, which means that it is due to become international law soon.

As of September 2019, the treaty has been ratified by 26 states. To check on the progress of the ‘global nuclear ban’, see: http://www.icanw.org/status-of-the-treaty-on-the-prohibition-of-nuclear-weapons/

Following the agreement, the International Campaign to Abolish Nuclear Weapons was awarded the Nobel Peace Prize in 2017.
<table>
<thead>
<tr>
<th><strong>ASK</strong> North Korea to end all nuclear weapons tests.</th>
<th><strong>ASK</strong> North Korea to get rid of all of its nuclear weapons</th>
<th><strong>ASK</strong> North Korea to stop threatening the USA with its nuclear weapons</th>
<th><strong>ASK</strong> North Korea to release US prisoners</th>
</tr>
</thead>
<tbody>
<tr>
<td>US +5</td>
<td>US +10</td>
<td>US +2</td>
<td>US +1</td>
</tr>
</tbody>
</table>

**ASK** North Korea to sign a peace deal (a pledge to become less aggressive towards South Korea and remove nuclear weapons in the future)

US +2

**OFFER** Allow North Korea to trade with the USA’s allies. (lift economic sanctions)

US –5

**OFFER** Suspend USA’s own nuclear weapons production and testing.

US –10

**OFFER** Invite North Korean leader on a state visit, including a banquet.

US –2

**OFFER** Remove North Korea from USA’s list of terrorist states.

US –5

This happened in 2008 (though is now described as rogue state)

**OFFER** Completely get rid of USA’s nuclear weapons.

US –20

**OFFER** Dismantle a quarter of USA’s nuclear weapons.

US –10

**THREATEN** Impose even harsher economic sanctions.

US +5

---

**USA. 50 POWER SCORE.** UN Security Council, 6,500 nuclear weapons, military alliance with many countries.
<table>
<thead>
<tr>
<th><strong>ASK</strong></th>
<th><strong>ASK</strong></th>
<th><strong>ASK</strong></th>
<th><strong>ASK</strong></th>
</tr>
</thead>
</table>
| For the US military to be removed from South Korea | US to get rid of:  
• a quarter of its weapons (NK +5) or  
• half of its nuclear weapons (NK +10) or  
• all of them (NK +20) | For ‘sanction relief’ (being able to trade with other countries, or receive aid from them.) | For a ‘peace treaty’ to formally end the Korean War |
| NK +5 |  | NK +3 | NK +3 |

<table>
<thead>
<tr>
<th><strong>ASK</strong></th>
<th><strong>OFFER</strong></th>
<th><strong>OFFER</strong></th>
<th><strong>OFFER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>For the President to apologise for calling NK a ‘band of criminals’ at the United Nations</td>
<td>To establish a US embassy in Pyongyang</td>
<td>Declare the location of all nuclear sites (previously kept secret)</td>
<td>To get rid of all North Korea’s nuclear weapons.</td>
</tr>
<tr>
<td>NK +1</td>
<td>NK –1</td>
<td>NK –5</td>
<td>NK –15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>OFFER</strong></th>
<th><strong>OFFER</strong></th>
<th><strong>OFFER</strong></th>
<th><strong>THREATEN</strong></th>
</tr>
</thead>
</table>
| To improve relations with South Korea  
e.g. sending a joint Korean team to the 2018 Winter Olympics | To get rid of all North Korea’s nuclear weapons. | Promise not to test a nuclear capable missile (again). | To fire a nuclear missile at:  
• Guam, a US military base (NK +1), or  
• South Korea (NK +3), or  
• USA mainland (NK +5) |
| NK –2 | NK –5 |  |  |

**NORTH KOREA: 20 POWER SCORE.** Around 30 nuclear weapons, recent nuclear tests and threats.
<table>
<thead>
<tr>
<th></th>
<th>UNITED STATES OF AMERICA</th>
<th>NORTH KOREA</th>
<th>Deal accepted? (Y/N)</th>
<th>If rejected, how could deal be improved?</th>
<th>Power Points running total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked/Offered:</td>
<td>e.g. Other to get rid of nuclear weapons</td>
<td>e.g. Move the army away from the border</td>
<td>e.g. N</td>
<td>e.g. US could start by asking for less</td>
<td>USA North Korea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>e.g. +/- 0 = 50</td>
<td>e.g. +/- 0 = 20</td>
</tr>
</tbody>
</table>
OVERVIEW

Students learn about the Greenham Common Women’s Peace Camp, and discuss their responses to the women-only movement. They then improvise and devise short pieces, based on themes they identify in historical source material.

MATERIALS

Pens/Pencils / PowerPoint / Secondary Materials (printed)

ROOM LAYOUT

6 small ‘stations’, with room to move in.

All resources available for download from: www.bit.ly/CNDCriticalMass

LEARNING OBJECTIVES

- All students should be able to describe the Greenham Common Women’s Peace Camp and its relation to nuclear weapons history, gender identity, and social history in the UK.
- Most students will be able to evaluate the relative successes and limitations of the camp, as well as considering the role of gender.
- Most students should apply their knowledge of dramatic techniques (speech, gesture, movement, design) to the stimuli material and create theatre.
- Some students will consider the relevance of theatre for social commentary and documentary, as well as theatre for social change.

STARTER (15 minutes)

Gates of Greenham (10 mins)

A gate is placed in the middle of the room. This can be a prop, a piece of set, or imagined/mimed (in which case it can assume different shapes, sizes and weights).

Students must take it in turns to improvise scenarios in which they pass through the gate, this will begin as a pair. The activity roughly follows the improvisation activity ‘What are you doing?’

- One student mimics an action on one side of the gate (e.g. digging a hole).
- Another student approaches on the other side of the gate, and calls over: ‘What are you doing?’
- The original student replies with an action different to what they were previously doing (e.g. now mimics knitting), and calls back: ‘Want to join?’
- The second student passes through the gate however they wish, and begins enacting the activity (here, knitting a scarf). They then ask the original student: ‘Are you staying?’
- The original student can either reply ‘Yes’, and join in with the second activity (knitting a scarf), or ‘No’, and leave the improvisation. If they stay, the student who has just asked ‘Are you staying?’ will reply to the next question.
- The activity is repeated with a new student approaching the empty side of the gate and asking ‘What are you doing?’, until every student has been able to pass through the gate.

This activity can be adapted so that the ‘new’ actor asks ‘Can I join?’, whilst the other actor says ‘Only if…’, which the ‘new’ actor then acts out e.g. ‘Can I join?’ / ‘Only if you knit twice as fast as me!’

Suggest that the students think about gates more critically:

- A gate can be a barrier, as part of a wall to keep some people out, but can open to allow people in.
- A gate is a point of transition between two different spaces e.g. drawbridge of a castle (inside/outside), which can be locked if necessary.

PRESENTATION

Our PowerPoint presentation, as well as the further information and supporting materials in this lesson, can help you to provide students with the necessary information about the Peace Camp in an efficient and engaging way.

Discuss in small groups: What happened? or What was Greenham Common?

- Why do you think the decision was taken to go women-only? What could men have done to be involved with the camp’s work? Why did the women try hard to avoid framing their protest as ‘anti-man’?
- Are there advantages and disadvantages of framing the peace camp as women-only? Was Greenham Common more or less successful because of this?
- How do these images from Greenham Common make you feel? How is womanhood portrayed in these images?

MAIN ACTIVITY: A mile in their boots (30 minutes)

Create several ‘stations’ around the room using our secondary materials (p.22). In groups of five or six, the students are allocated different stations. They are asked to discuss the themes of these materials together, and pick 3 items (any mixture of text extract, photograph, artefact), from which to devise their interpretation of the Greenham camps. Music can be played whilst this activity occurs. (6 mins)

The following is a possible sequence of developments the students can explore:

- As a group produce three still images, which sum up the source material you have chosen. (9 mins)
Lesson Two (Drama) continued

- Link these still images through movement, counting 4 or 8 beats in the music. (3 mins)
- Each student takes on either the same or different characters in each image. By repeating the movement between each still image, they can experiment with their stance, gesture, facial expression, voice, and interaction with other students. (3 mins)
- Taking these tableaux as a beginning, middle and end, the students improvise small scenes that transition between the still images. They can quote any source material text, or improvise their own dialogue. The small scenes are combined into a short devised piece several minutes in length (up to 10 mins).

The following is another activity, which focuses on themes:
- Students identify two key themes that runs across their source material e.g. protest, and fear. (4 mins)
- Students use their bodies to make still images that represent the themes they identified: ‘what does protest/fear look like’? (4 mins)
- In pairs, students alternate between their two themes, so that one strikes their ‘protest’ pose, whilst the other their ‘fear’ pose, they alternate between these poses. Students can also create still images as a group and move between each group together. (2 mins)
- Students think about where their source material came from. E.g. who designed the poster, or wrote the extract? Advise students to think about how the reality of the camp’s actions might be different to what the sources suggest.
- In groups, students improvise/devise a short piece of around 5 minutes based around their source material and the themes they identified. (15 mins)

The teacher moves between the small groups, providing advice as well as more information on the camps.

PLENARY (15 mins)
The class shares some or all of the small pieces (depending on class size), with time allocated for discussion. E.g. ‘why did you choose to stage [x] moment like that?’ ‘what made you speak with that tone?’ Other students are invited to guess what themes the group had identified in their sources.

Using the presentation, sum up the successes of the Peace Camp, then ask students whether they think there were any limitations to the camp’s protests. Ask whether we can be sure that the Greenham Women’s actions alone lead to these ‘successes’.

Can you think of other campaigns or movements that have used identity in similar ways? Answers could be:
- Black Lives Matter (BLM, formed in 2013): https://blacklivesmatter.com/ ,
- The Youth Climate Strikes (2018/2019): https://ukscn.org/ys4c, or
- Disabled People Against Cuts (DPAC, formed in 2010): https://dpac.uk.net/.

DIFFERENTIATION
Simplify
- Assign students specific pieces of stimulus material and give them a particular concept, such as peace, to identify.
- Focus on ‘narrative’ (representing the stimuli and telling a story), rather than theme, in the Mile in their Shoes activity.

Stretch
- Students can do their own online research during the lesson.
- During the Starter activity: groups of students could try to create a gate with their bodies. Remind students to think about the conditional, joining and dividing aspects of gates, after the previous conversation.

EXTENSION (Homework or subsequent lesson ideas)
Students design Greenham Common for the stage – either through set design (tents, gates, fences, etc.), lighting and sound design, or through costume (different opposing groups). What are the key themes that could be signified? How do the source materials the students worked with relate to their ideas for their design(s)?

This lesson plan has been designed to take 60 minutes, but can be extended across two or more lessons to allow for deeper inquiry and more devising time.

Our teaching pack, Dial M for Missile, explores themes around the Cold War and includes a lesson plan on the Peace Movement. Another teaching pack, Under Pressure, looks at how pressure groups operate including considering non-violent direct action. Both available via our website.

ENRICHMENT
- Look out for any nearby plays that are set in the time period of the Cold War, or that feature women changemakers or activists. Be aware that there is a play by Jill Truman called The Web (later published as Common Women).
OVERVIEW
Students practice reaching consensus, and learn about the Greenham Common Women’s Peace Camp. As a class they discuss the strategies used by the peace activists in their protest. They then conduct ‘silent conversations’ using historical source material regarding the Peace Camp.

MATERIALS
Pens/Pencils / PowerPoint / Secondary Materials (printed)

ROOM LAYOUT
6 small ‘stations’ for group work.

All resources available for download from: www.bit.ly/CNDCriticalMass

LEARNING OBJECTIVES
• All students should be able to describe the Greenham Common Women’s Peace Camp and its relation to nuclear weapons history, gender identity and social history in the UK.

• Most students will be able to evaluate the relative successes and limitations of the camps, as well as considering the role of gender played in these.

• Some students will consider how language can be gendered, and can be used to emphasise a particular opinion or political goal.

STARTER: Reaching Consensus (10 minutes)
Students are asked a ‘silly’ hypothetical question e.g. ‘Which animal would host the best dinner party?’ (the instructions will use this example, but you can ask any question).

– In groups of 4 or 5, each student must state which animal they believe would be the best host and why. The group must then decide which animal they all agree is the best host (up to 4 minutes).

– The group of students joins with another group of students (totalling around 10), and together must decide which of their two animals makes the best host (up to 3 minutes).

– As a class, a consensus must be reached on which animal (of the remaining 3) would make the best host. There could be a clear winner, the class could take a vote, or traits of these remaining animals could be combined to make a new creature altogether.

The teacher or a capable student acts as a mediator in the last round, and can use hand signals so that the whole class is involved (e.g. hands up, hands down, or hands in the middle, to indicate levels of agreement with a given point).

Inform class that this is how decisions were taken at Greenham Common Peace Camp Every woman had the chance to speak and share their thoughts as the camp worked by ‘consensus’. You might wish to ask students how they found the consensus activity. Can they imagine any limitations to using consensus decision-making in practice?

PRESENTATION and DISCUSSION (15 mins)
Our PowerPoint presentation, as well as the further information and supporting materials in this lesson, can help you to provide students with the necessary information about the Peace Camp in an efficient and engaging way.

Discuss:
– What happened? or What was Greenham Common?
– What do you make of the Peace Camp? Why? Is this an effective way to make a change?
– Why do you think the decision was taken to go women-only (and that this was upheld)? What could men have done to be involved with the camps’ work? Why did the women try hard to avoid framing their protest as ‘anti-man’?
– Are there advantages and disadvantages of framing the peace camp as women-only? Was Greenham Common more or less successful because of this?
– How do these images from Greenham Common make you feel? How is womanhood portrayed in these images?

MAIN ACTIVITY: Silent Conversations (20 minutes)
Place our stimulus materials (see p.23-31) around the classroom so that multiple ‘stations’ are formed. Students are formed into small groups and assigned a station to work at.

Students silently annotate the stimulus material (4 minutes). The groups rotate clockwise around the room, and annotate the next stimulus sheet. At every station but the first, they can annotate not just the source material, but also others’ existing responses to the stimulus. With each rotation, the teacher asks a new prompt, such as:
– Can you spot how gender is being used here?
– What questions can you ask of the stimuli? Is this a biased or honest representation?
– Where might conflict be seen in the material, how would it arise, and how might it be dealt with?
– What metaphors (in texts) and imagery (in photographs) are being used? How are these gendered?

PLENARY (10 minutes)
After at least 3 rotations (dependent on time), the students are asked to feedback about the kinds of conversations recorded on the A3 paper at the table they are currently at. They must describe the stimuli, some key questions that were asked of it, and any themes or ‘big concepts’ (e.g. disruption, authority, gender/femininity, ‘greater good’ etc.) that they think have arisen (i.e. any common responses?). Teacher to note these on the board, and that these thoughts were generated collaboratively.

The teacher asks questions on the themes that arise – can the students define the words on the board, and explain why they relate to the source material? The teacher can:
– Ask the students to order the themes by how important they consider them to be to understanding Greenham Common.
    This could be modelled on consensus, with one student suggesting an order and the rest of the class ‘signalling’ their agreement using hand signals. Link this process back to the Starter activity.

DIFFERENTIATION
Simplify
– Allow for discussion time between each rotation of the silent conversations activity, or hold a spoken discussion for each source as a class.
Stretch
– Field questions from students during the Discussion section, and the silent conversations activity.

EXTENSION (Homework or subsequent lesson ideas)
– Create a piece of creative writing from the perspective of: A woman protestor, a male supporter, a US Air Force worker, a policeman, or a Newbury local.
– Write a critical comparison between two or more non-fiction extracts relating to Greenham (see supporting material).
– Identify the different perspectives in a topical protest or direct action, such as the Youth Climate Strikes (2019). Our teaching pack ‘Under Pressure’, about how pressure groups operate, contains interactive activities and information on protest. Available via our website.
– Students research another historic peace camp and compare its politics to Greenham. Other camps include: RAF Molesworth, Faslane Peace Camp, Seneca Women’s Encampment and the Parliament Square Peace Campaign.

ENRICHMENT
– Look out for any nearby plays that are set in the time period of the Cold War, or that feature women changemakers or activists. Be aware that there is a play by Jill Truman called The Web (later published as Common Women).
### Greenham Common Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1981:</td>
<td>The Women for Life on Earth march reaches Greenham Common to protest about NATO's decision to site cruise missiles at Greenham Common.</td>
</tr>
<tr>
<td>March 1982:</td>
<td>The first blockade of the base is staged by 250 women and 34 arrests are made.</td>
</tr>
<tr>
<td>May 1982:</td>
<td>The first eviction of the peace camp takes place and four arrests are made as bailiffs and police move in an attempt to clear the women and their possessions from the site. The camp re-locates.</td>
</tr>
<tr>
<td>December 1982:</td>
<td>30,000 women join hands to 'embrace the base'. The next day, a mass blockade occurs again.</td>
</tr>
<tr>
<td>January 1983:</td>
<td>On New Year's Day, women enter the base and dance on top of the nuclear silos.</td>
</tr>
<tr>
<td></td>
<td>Newbury District Council makes itself private landlord for Greenham Common and starts court proceedings to reclaim eviction costs from women whose address is the peace camp.</td>
</tr>
<tr>
<td>November 1983:</td>
<td>The first cruise missiles arrive at Greenham Common airbase. A total of 95 missiles are to follow in the coming months.</td>
</tr>
<tr>
<td>April 1983:</td>
<td>70,000 CND supporters form a 14-mile human chain linking Burghfield, Aldermaston and Greenham. 200 women dressed as furry animals enter the base to stage a protest picnic.</td>
</tr>
<tr>
<td>December 1983:</td>
<td>50,000 women encircle the base, holding up mirrors. Parts of the fence are brought down and hundreds of arrests are made.</td>
</tr>
<tr>
<td>1987:</td>
<td>Presidents Ronald Reagan and Mikhail Gorbachev sign the Intermediate-range Nuclear Forces (INF) Treaty – the first agreement between the two powers to actually reduce weaponry. It spelt the end for the Cruise missile and similar Soviet weapons in eastern Europe.</td>
</tr>
<tr>
<td></td>
<td>Supporters of the Reagan administration, dismissing the role of the peace campaigners, hailed the Treaty as a victory for the president’s ‘zero option’ of 1981.</td>
</tr>
<tr>
<td>August 1989:</td>
<td>The first cruise missile leaves Greenham Common, as well as other sites in the UK and Europe.</td>
</tr>
<tr>
<td>March 1991:</td>
<td>The US completes removal of all Greenham Common Cruise missiles, as both it and the Soviet Union get rid of their land-based intermediate weapons under the INF treaty. In total, 2,692 weapons are eliminated – 846 US missiles based across Western Europe and 1,846 Soviet missiles across Eastern Europe.</td>
</tr>
<tr>
<td>1 January 2000:</td>
<td>Women who had remained at Greenham Common campaign to return the site to common land. Once this was achieved, remaining Greenham women began to leave.</td>
</tr>
</tbody>
</table>

*Adapted from BBC World Service (1999)*
Court Statement – Lesley Davidson

‘I believe I had a right to be there as I have a young child and like any other parent I wish to see him grow to adulthood. The presence of Cruise missiles here and the stated willingness of our governments to use them to initiate a nuclear war with Russia, if and when they see fit, makes me very fearful for my son’s future. I genuinely believe that the reliance on nuclear weapons for the defence of this country, coupled with the antagonistic and provocative attitudes of the American and British governments towards Russia, makes my son’s future so precarious that I have no alternative than to protest and act in any way I can to try to bring attention to this perilous state of affairs.

I believe my duty to try and ensure a safe and secure future for my son justifies my breaking a minor law in order to try to prevent a greater crime being committed. While I recognize that an act of trespass will not directly change the situation, I believe as part of the wider protest, it plays a relevant part. If we fail in our efforts to create a saner and safer future for our children, and the nuclear nightmare becomes a reality, I need to be able to face my son in the knowledge that at least I have tried to protect him. Had I not protested about the dangers to the best of my ability, I would have failed in my duty’.

Source: https://lacuna.org.uk/protest/memories-of-a-protest/
Greenham Common –
oddly named enclosure,
property of foreigners,
not common land at all;
nor green,
but khaki,
or black/white stark;
nor hamlet,
but floodlight bleached
complex of sharp structures:
blocks, pipes, spikes,
erections,
sinister moulded
lumps and humps, all viciously wired in
with notices declaring,
declaming,
blaring,
exclaiming:
‘In the name of Peace,
Security,
KEEP OUT’.

And yet close by –
hard by
(all things considered) –
camp-fire flickers,
breathes woodsmoke,
smoulders orange,
glows on overhang
of sloping canvas,
pan of simmering
leaf-bean supper,
lights slanting poles
of strong withstanding
women’s tabernacle,
bend of boughs,
evergreen protecting
all those people,
peacemakers,
who proclaim this poem:
Every embryo,
Every foetus,
Every infant
Every child,
Every adolescent,
Every adult,
Every middle-ager,
Every old person
shout this message so loud
that even journalists
and politicians hear:
No Cruise
No Trident
No missiles
No atom bombs
No
No
No
To nuclear obliteration.

Pat Arrowsmith (born 1930) is a British peace activist, author and poet. She was an early campaigner against nuclear weapons, first with the Direct Action Committee against Nuclear War and then with the Campaign for Nuclear Disarmament. She was one of the organisers of the first Aldermaston March in 1958 and has been active ever since, being imprisoned many times for her actions. Much of her poetry reflects her anti-militaristic beliefs, her experiences in prison and her feminist politics.
This is the day I first thought of
in my closed eyes,
deep in my eyes,
the day I first thought of;
with the sun strands weaving,
sun drops sparkling
in the high streams,
on the high seas –
the day I once dreamed.

This is the day I first saw
down in my mind,
deep in my brain,
the day I first saw;
with the wind gulls calling,
barley sheen swishing
in the high wind
on the high hill –
the day I once dreamed.

This is the day I first heard
far away in my head,
away out of sight,
the day I first heard;
with the streets all glittering,
coloured throng shimmering
on the bright lights,
under the lamps –
the day I once dreamed.

That was the day I then saw,
the day I then heard,
when I opened my eyes,
when I unblocked my ears;
the day I then knew
when I focused my mind,
the day I then knew;
with the huge cloud thundering,
thick sky asphyxiating
right overhead,
night overhead,
all over the land –
that was the day I then knew:
the terrible night,
the night of the Bomb,
the night of the doom.
That was the night I then knew –
the night of the end of the world.

Pat Arrowsmith (born 1930) is a British peace activist, author and poet. She was an early campaigner against nuclear weapons, first with the Direct Action Committee against Nuclear War and then with the Campaign for Nuclear Disarmament. She was one of the organisers of the first Aldermaston March in 1958 and has been active ever since, being imprisoned many times for her actions. Much of her poetry reflects her anti-militaristic beliefs, her experiences in prison and her feminist politics.
I only meant to protest at Greenham nuclear base for a week, but ended up living at the Women’s Peace Camp for five years. In that time I met some amazing women from all over the world, danced on the nuclear silos, occupied the US air traffic control tower, locked myself in the cab of one of the massive “transporter erector launchers” just as it was about to be loaded with cruise missiles for a nuclear exercise, got beaten up by American soldiers and a police sergeant, and imprisoned in Holloway maybe a dozen times. Campaigning against global annihilation wasn’t what I’d planned to do with my life. But being at Greenham made me feel incredibly alive, and what I learnt in those years has compelled me to devote my life to working against the justifications and weapons that fuel patriarchal violence and war.

The early 1980s were one of the most dangerous periods of the Cold War, with 50,000 nuclear warheads just poised for someone to make a mistake. We respond to nuclear fears in different ways. It was 1981 when I returned to London after a few years travelling and teaching. American generals and politicians were talking about winning a nuclear war in Europe with a different kind of nuclear weapons that could “melt into the countryside”. Images from the museum in Hiroshima seeped into my dreams, a recurring nightmare of waking up and seeing the broken dome of St Paul’s across a wasteland of bones and dust.

Going to Greenham was my way to stop the nightmares. What I discovered was how to make a dream I could live with. The Greenham so many women created was populated with waves of feminist, non-violently committed, punky/dykey/witchy/anarcho revolutionaries loving life, loving each other, and stopping the machines of war. Which we did, time and time again. Till we banned the ones in Greenham and sent them back to America where they were dismantled in accordance with the 1987 US-Soviet Intermediate-Range Nuclear Forces Treaty.

The Women’s Peace Camp developed out of a walk from Cardiff to the Greenham US base, 120 miles away, to raise awareness of the new generation of cruise, Pershing and SS20 missiles being deployed by America and Russia. When threatened with eviction, we occupied part of the base. When sent to prison for “breach of the peace” we mobilized over 30,000 women to Embrace the Base, circling it with linked hands and decorating the nine-mile perimeter with symbols of why we wanted to prevent war. Then we closed the base with the bodies and songs of thousands of women who blocked all the gates for days on end. Hundreds stayed or came back, giving rise to camps all round the base, coloured with rainbow names. At the heart of each camp was the fire, with blackened kettles and endless discussions, punctuated by evictions and nuclear exercises when women were forcibly moved and the fires extinguished… always to return, relight and make another cup of tea.

So the protest grew into an unusual, creative crucible that challenged and changed prevailing expectations of peace activism and sexual politics. As Greenham inspired and involved more and more women from around the world, we took on the racism, colonialism and sexual violence embedded in militarism and nuclear politics, and tried out crazy (but generally effective) ways to undermine military machines and oppressors with nonviolent – but not at all passive – direct action.

As part of a feminist movement that didn’t want to have or provide leaders, Greenham women insisted that everyone has the power and responsibility to connect with each other and change the world. That was the symbolism of the spiderwebs we wore as ear-rings and wove across the gates of the base (years before the world-wide-web was born).

Today Greenham women are scattered. We are older and face different challenges. But many of us still feel the need to take action to tackle violence and injustice of all kinds, to confront climate destroyers and sexual predators, rapists and traffickers, violent extremists and wealthy weapons sellers, buyers and users. Look, and you will still see us, as Women in Black, anti-Trident activists or marching with Million Women Rise.

This year, 30 years after Greenham women played such a major part in bringing the US and Russia together to ban nuclear-armed missiles from Europe, we are celebrating a new milestone. In September, the United Nations formally opened the recently concluded 2017 Treaty on the Prohibition of Nuclear Weapons for states to sign. Once again, women played a leading role in making this happen. Together with nuclear-bomb survivors, doctors, diplomats and many more, we highlighted the humanitarian arguments for banning and abolishing all nuclear weapons, and created unstoppable momentum to bring the majority of UN governments to the negotiating table’.

(Campfire’s Burning was first published in 2017 by Perfect Bound magazine, and remains the copyright of Dr. Rebecca Johnson)
To the Newbury District Councillors

They used to burn witches and the law of the time endorsed it. At one time it was illegal for a married woman to retain her property. The Law is not a creature which exists independently. Laws have been wrong and they have been changed. When laws clash with the developing moral standards of the time then these laws are put aside – ignored. Human beings make, break, change laws and ignore laws that are morally wrong.

If the Women’s Peace Camp is destroyed due to part of a law (a very old one, I believe 1925?) then the people who try to endorse such a law, who go against morality in this way by trying to remove the women at the camp, they, YOU are responsible for that action. Don’t blindly obey laws that go against Truth and Life – simply ignore them – just as wrong laws have been ignored in the past and eventually changed.

The people who try to move the women at the camp must not hide behind hindering laws – and must not let themselves be pressurised into enforcing them . . . Nature is in the balance. Certain sections of our society have the power to actually destroy the Earth – our home. We at the peace camp seek to alter this suicidal course. We see the realities of the situation and must try to stop this senseless state of affairs.

The protection of life on this planet goes beyond the Law and politics. To overcome the confusions of Law and politics takes only two things – common sense and the ability to see the truth (reality) behind the actions of human beings.

The problem of nuclear disarmament and the protection of life is a nationwide/worldwide problem and it is not the place of a small local council to allow itself to be a pawn in the dangerous military game.

There was no reply.

Photos and postcards of 'camp life', with thanks to The Women’s Library and LSE Library, where the Greenham Common and CND collections are based.
CHANT DOWN GREENHAM

Thirty-five women, campers for peace
Breaking the law
So there’ll be no more war . . .

We don’t want your laws
We don’t like your cause
We won’t fight your wars
Chant down Greenham.

Thirty-five thousand women for peace
Embracing the base
So there’ll be no more war

We don’t want your Cruise
We have life to lose
It’s not too late to choose
Chant down Greenham.

More and more women reflecting the base
Stating our case
So there’ll be no more war . . .

We won’t live in fear
We’ll always be here
‘Til the skies are clear
Chant down Greenham.

‘Chant Down Greenham’, from Chant Down Greenham illustrated songbook.
With thanks to The Women’s Library and LSE Library, where the Greenham Common and CND collections are based.
Open letter from Women for Life on Earth.

With thanks to The Women’s Library and LSE Library, where the Greenham Common and CND collections are based.
Photographs of actions taken at Greenham Common by Raissa Page.
Copyright: Adrianne Jones – courtesy of Richard Burton Archives, Swansea University.
Lesson Three: Hibakusha and Art
Subjects: Art, Photography, History, Citizenship, and Primary Education (Art, History, SMSC)

OVERVIEW
Students hear testimonies of atomic bomb survivors and learn about the ‘Hibakusha’ of Japan. They produce their own artwork in response to what they’ve heard, and compare their pieces to those by Hibakusha.

MATERIALS
Oil pastels / Charcoal sticks / Paper or Sketchbooks / PowerPoint

ROOM LAYOUT – N/A

LEARNING OBJECTIVES
• All students will be able to describe the Hibakusha, the atomic bombings of Japan and the long-lasting impact of radiation (on people).
• Most students will be able to articulate the importance of art in representing different voices or experiences, or in activism, therapy and social change.
• Some students will make connections between Hibakusha artwork and other artists or techniques that they have studied.

Note: This lesson plan works with sensitive material regarding death, atomic bombings, and the impacts of radiation, which could cause distress. Teacher discretion is advised, especially where younger children, students with East Asian heritage, or students with experience of war are involved.

INTRODUCTION AND STARTER (10 – 15 minutes)
Students listen to the testimony of Akihiro Takahashi, a survivor of the atomic bombing of Hiroshima. This can also be read aloud if a student volunteers. (Mr Takahashi’s testimony, along with other sources, is provided in our supporting materials, see p.34) Allow 1 minute of reflection.
– Ask students to share any responses they have to the testimonies. Listen to the responses and write any key words and themes on the board or flipchart, focussing on ‘big ideas/concepts’
– Using our PowerPoint to help: fill any gaps in the students’ knowledge about the atomic bombings of Japan; introduce the term ‘Hibakusha’ and provide information about the lives of those affected.
Note: This can also be treated as a joint learning experience for the teacher and the students – it can be helpful to acknowledge that the subject matter is ‘new’, as this can encourage more honest responses to the stimuli. For more support, see p.36.

MAIN ACTIVITY (35 – 40 minutes)
– Using charcoal and oil pastels, the students explore their own responses to the testimonies.
– They could focus on representing the specific experiences detailed in the texts, or the ‘bigger’ ideas such as ‘disaster’, ‘victimhood’, ‘survival’, ‘hope’ etc., which were written on the board during the Starter activity.
– During the activity, walk around the room and talk to students about what they are drawing and why. Make links between what they are doing, the testimonies they’ve already heard, and any ideas that emerged from the previous discussion. Testimony could be displayed via a projector or screen as a reminder to the students.
Note: This could also be done as a group study.

PLENARY (10 mins or less)
The class reconvenes.
– Allow 1 minute of reflection. With the aid of our PowerPoint, show students actual examples of Hibakusha art. You can look more closely at the work of a particular artist(s) (e.g. Iri and Toshi Maruki and the Hiroshima Panels), by also disclosing their biography/-ies and the reception of their work (see our supporting material).
– The class reflects on the differences between their own work and that of the Hibakusha artwork, noting style, technique, and different cultural influences.
– Perhaps their work is under or over dramatized in contrast with the artworks they now see (why might this be?).
– Using the words written on the board or flipchat, ask the students to comment on how a certain concept or idea is represented in the class’ artworks, in comparison to the Hibakusha artwork. This can be done in groups of 4 or 5.
– Ask: for a lot of Hibakusha, it took many years before they were able to produce art relating to their experiences, what might have influenced their silence? / their decision to begin making art?
– Ask: are the artworks political? If so, why? If not, why not?
– Ask: did you know about the atomic bombings before today’s lesson? What is the role of artwork in remembering events/documenting social history? Can we learn new things about historic events through art? Why (not)?
EXTENSION (Homework or subsequent lesson ideas)
- Students create a page in their sketchbooks that compares what they created in the lesson to a specific Hibakusha artwork (a comparative study).
- Alternatively, students compare the works of Aboriginal nuclear test survivors, with those of the Hibakusha (see: www.blackmistburntcountry.com.au)
- Students undertake a close study of an Hibakusha artist or a set of paintings, in their sketchbook, including the recreating of a piece.
- Students research the work of Rauschenberg and/or Peter Kennard (Kennard is particularly apt for photography), to see how nuclear weapons inspired artists in very different ways, in part owing to different cultural contexts, and materials.
- Students could research ‘art as therapy’, and apply this understanding to Hibakusha art.
- Our teaching pack, Truman on Trial would complement this lesson. It investigates the bombings of Hiroshima and Nagasaki, featuring a ‘mock trial’ of President Truman, who chose to drop the atomic bombs. Available via our website.

ENRICHMENT
- There are few permanent collections of Hibakusha art in the UK, however touring exhibitions have visited the UK in the past. Is there an exhibition of survivors’ art, therapeutic art, or other political art in your area at the moment?
- Students research, sign and/or share the ‘Appeal of the Hibakusha’: https://hibakusha-appeal.net/english/

DIFFERENTIATION / PRIMARY EDUCATION
This lesson is intended to be delivered for 60-minutes but could also fit into your own scheme of work, whether as a stimulus for students, as a creative exploration lasting several lessons, or for a thematic focus e.g. ‘memory’, ‘trauma’.

We have provided a range of testimonies and stimuli to use in this lesson, and you might have concerns about using these with younger children. The format of the lesson plan itself can nonetheless be used with primary school classes. Both our supporting material, and primary-level PowerPoint can help teachers tackle this lesson.

DISPLAY SUGGESTIONS FOR PRIMARY SCHOOLS
- Build a nuclear explosion or mushroom cloud in the centre of the display using coloured paper (black, white, red, orange and yellow). The paper could be cut into strips and pinned onto the wall so that it stands out from it. You can also experiment with scrunching the paper for a more 3-D effect in the mushroom cloud. Around the explosion, the students’ artwork can be exhibited.
- A simpler and bolder option would be to source Japanese/East Asian patterns and use these as a background against which the students’ artwork can be pinned.
On August 6th, 1945 at 8.15 am, the world’s first atomic bomb exploded over Hiroshima. I was 14 years old then. I was in a playground about 1.4 kilometers away from the hypocenter when the bomb exploded. At the instant of the explosion, a fireball with a temperature of several million degrees Celsius rose into the sky. The center of the explosion – around the A-bomb dome – was filled with extremely high heat of 3,000 to 4,000 degrees Celsius.

A shock wave with the pressure of several hundred thousand atmospheres spread in all directions. Following the shockwave was an extremely strong wind. Its maximum instantaneous wind velocity peaked at nearly 1,000 miles per hour.

The sky was clear in that morning. The B-29 airplane approached just above us leaving a beautiful vapor trail. Believing we were secure and safe, we looked up at the flying airplane while pointing at the sky. Then our teacher came out of the staff room and our class president called out, ‘Gather around! Fall in!’ At that particular instant, with an incredible noise, complete darkness covered my eyes for a second. They say there was a flash but I do not remember it. From what I have heard, it was a pale blue light bursting out in all directions, followed by a powerful booming blast. We were blown away without the least resistance.

After a while, I recovered consciousness when the smoke that had covered the playground disappeared. I had been blown about 10 meters away. I gazed into the distance but saw no houses – all had disappeared except for a few buildings. Oh, Hiroshima has disappeared, I thought for a moment. Then I looked at my own body. At the moment of the A-bomb flash in the sky, my uniform had spontaneously caught fire and burnt down to tatters. That blast peeled the skin right off the back of my head and down to my back, arms, hands, and legs. I could see my own red flesh exposed between tatters of skin burned by the heat ray.

Fleeing to a river at the time of an air raid was what I remember being told during evacuation drills by the teacher. I promptly left the playground to flee to the river. A great number of bombed people were fleeing in procession. Everyone held out their arms with tattered skin dangling from the fingertips. Some were almost naked – their skin had peeled off and red flesh was exposed, they were dragging their feet and staggering barefoot. The sight looked as if it were ghosts walking in procession. One was covered with broken glass pieces from the waist up – these glass pieces were window glass that had been broken into fragments and scattered by the blast.

I also saw a baby lying beside a woman who was apparently the baby’s mother. Both were seriously burned – almost their entire skin had peeled off with red flesh exposed. The baby was shrieking. This entire scene was horrible. Words can never describe such a horrible sight.

I entered the river and soaked in the water. The cold water felt so good on my burning hot body that it was like a treasure. Thousands of people were soaking their bodies in the water like I was, and many of them drank river water, then, were carried away to their deaths.

Large black drops of rain began falling. Black rain is formed when the dust sent to the sky by the blast mixes with the rain. This black rain contains radiation. I later heard that my friend Tokujiro Hatta had died from acute radiation disorder on August 8th – two days after the bombing.
Although I have survived, since 1971 I have suffered from chronic hepatitis thought to have been caused by radiation. I have been hospitalized 14 times, and currently I receive injections three or four times a week. I also suffer from many other diseases.

Every day I’m anxious and painfully aware of my difficulties and the pains involved with living. In despair, I sometimes wonder why I have to continue to live while suffering this much. However, I encourage myself by saying that I have managed to survive so I should continue to live. Out of about 60 classmates of mine at the time, only 14 are still alive. I am one of the few survivors. Ever since the war, I have lived thus far pledging that I should never waste their deaths.

I have lived with the conviction that it is the duty and responsibility of those who survived to convey the unheard voices and will of the tremendous number of dead. I live and work on behalf of my dead friends. We must never forget to open our hearts to others. We will continue to appeal and act against wars and work towards the abolition of nuclear weapons up until our last breath.

About 350,000 people, including Korean workers brought in forcibly from the Korean Peninsula, U.S. POWs, and students from China and Southeast Asia, encountered the Hiroshima bombing. About 140,000 were dead by the end of 1945. The death toll increased to about 200,000 by the year 1950. As of the end of March 2004, a total of 273,918 atomic bomb survivors still live in Japan.

Akihiro Takahashi died in November 2011, at the age of 80. Mr Takahashi’s testimony has been edited for length and clarity.

Illustration: Drawn by Mr. Goro Shikoku. Shikoku is a local amateur painter born in Hiroshima in 1924. He returned to Hiroshima in 1949, having been a Prisoner of War and found that many of his friends and relatives – including one of his brothers – had been killed by the atomic bomb. He was also shocked by the physical condition of A-bomb survivors and started painting. Over the next 50 years he continued painting, producing many anti-nuclear works. Mr. Shikoku died in March 2014 at the age of 89.

Reproduced and updated from the Hiroshima Peace Institute. To access these illustrations see our downloadable PowerPoint at: bit.ly/CNDCriticalMass

Extra resources

East Asian Hibakusha
– See ‘1945’, a project by photographer Haruka Sakaguchi (2018), for additional portraits and testimonies gathered ‘to honour a rapidly aging hibakusha community’: www.1945project.com
– An illustrated and amended version of this testimony, from MIT’s ‘Visualizing Cultures’ programme, is available at: http://bit.ly/groundzero1945
– Visit the ‘Survivor Testimonies’ webpage of the Hiroshima Peace Memorial Museum to access other testimonies in both written and video form: http://bit.ly/HPMMtestimonies

Nuclear test survivors, Australia
– Black Mist, Burnt Country exhibition – Aboriginal nuclear-test affectees create art about their experience: https://blackmistburntcountry.com.au/. See also: Lesson 5’s guidance regarding the same topic.
– Testimonies: Karina Lester, Yankunytjatjara-Anangu woman from South Australia, spoke to the UN on behalf of 35 groups worldwide: https://vimeo.com/221958618
– Sue Coleman-Haseldine, sharing her experience of nuclear testing in Australia, at the UN: http://www.icanw.org/campaign-news/australia/australian-nuclear-test-survivor-speaks-up-at-the-un-ban-negotiations/ (ft. video)
Hibakusha and Art

Who are the Hibakusha?
‘Hibakusha’ is an internationally-recognised name for survivors of the 1945 atomic bombings of Hiroshima and Nagasaki. The term means ‘bomb-affected-people’ in Japanese. While hundreds of thousands were killed immediately following the USA’s atomic bombings, Hibakusha are witnesses to the lasting impacts of nuclear weapons on people’s lives.

Due to a very limited knowledge of radioactivity at the time, survivors not only faced ill health and loss of friends and family, but also stigmatisation from other people who feared that they would be ‘contaminated’ themselves. Others saw the victims of the bombings as a reminder of a shameful military defeat. As a result of prejudice, Hibakusha were marginalised, often unable to marry and forbidden to return to their workplace.

Following over a decade of activism and pressure from Hibakusha, in 1956 the Japanese government agreed to offer medical and financial support for survivors who fall into one or more of the four recognised categories:
- People exposed directly to the explosion and its immediate aftermath,
- People exposed to the explosion within 2 kilometres radius within two weeks of the bombing,
- People exposed to radioactive fallout,
- Those born to mothers who belong(ed) to any of the above categories.

Later testimonies and activism also revealed a significant number of Korean Hibakusha who, at the time of the explosions, were living in Japan as forced labourers. It is estimated that around 10,000 survivors still live in South and North Korea, but only a proportion of them are certified Hibakusha.

What have Hibakusha done?
Sadako Sasaki
Perhaps the most famous Hibakusha is a young girl called Sadako Sasaki. She was only two years old when the atomic bomb was dropped on Hiroshima, and survived the explosion without any serious injuries. However, when Sadako was twelve, she developed leukaemia which was caused by radiation exposure and died on 25th October 1955. During her illness Sadako began to fold paper cranes, as a Japanese legend says that folding one thousand ‘orizuru’ (paper cranes) grants you a wish. Her story inspires the global peace movement and the origami paper crane has become a symbol of peace. For more lesson ideas using Sadako’s story, see our teaching pack ‘Sadako’s Cranes for Peace’ available via our website.

Setsuko Thurlow
Many Hibakusha have dedicated their lives to speak out against the threat of nuclear weapons. Setsuko Thurlow is a Canadian-based activist who was born in Hiroshima and was 13 years old when the bomb exploded over her city. As a leading figure in the International Campaign to Abolish Nuclear Weapons (ICAN), Setsuko advocates that only a total elimination of nuclear weapons (including their production and testing) can ensure the end of human suffering. In her 2017 Nobel Peace Prize acceptance speech, Setsuko underlined the importance of Hibakusha activism: ‘through our agony and the sheer struggle to survive – and to rebuild our lives from the ashes – we Hibakusha became convinced that we must warn the world about these apocalyptic weapons’.

Akihiro Takahashi
Akihiro Takahashi, another Hiroshima survivor, was a prominent Hibakusha, who survived the nuclear explosion as a 14 year-old boy. He spoke publicly about his struggles with mental and physical health following the explosion. He became Director of the Hiroshima Peace Memorial Museum, and believed that the atomic bombing of the Hiroshima and Nagasaki was to test nuclear weapon and demonstrate American military power.
The Hiroshima Panels
The Hiroshima Panels are a series of fifteen painted folding panels, which depict the bombing and aftermath of the atomic bombings of Hiroshima and Nagasaki. They were painted by husband and wife, Iri and Toshi Maruki, and took 30 years to complete. The panels are artistically interesting as they show both traditional and contemporary/Western techniques: Iri was trained in suibokuga (ink-painting), whilst Toshi focused on illustrative painting. Both artists visited Hiroshima just three days after the bombing, though it took them three years to decide to begin painting what they had seen. Known as Genbaku no Zu in Japan, the panels also depict American Prisoners of War, Korean labourers, and other victims of atrocities in WWII, as well as the terror of nuclear war. Despite the seriousness of the paintings, Toshi Maruki said: “We do paint dark, cruel, painful scenes. But the question is, how should we portray people who face such realities? We want to paint them beautifully”.

You can learn about and view the artworks via The Maruki Gallery for the Hiroshima Panels: http://www.aya.or.jp/~marukimsn/english/indexE.htm
This collection of Hibakusha artwork is available via our website as downloadable pdf slides, featuring the artists and dimensions of each piece. Reproduced with thanks to the Hiroshima Peace Memorial Museum.

Available at: bit.ly/CNDCriticalMass
Lesson Four: **Uranium Mining in Northern Australia**

Subjects: Geography, Geology

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**OVERVIEW**

Students take on the roles of different stakeholders in a community affected by Ranger Uranium Mine, Northern Australia. In this case study, they work with data to put forward their position as to what should happen to the future of their town, Jabiru.

**MATERIALS**

Stakeholder briefings / PowerPoint

**ROOM LAYOUT**

For group work.

**LEARNING OBJECTIVES**

- All students will be able to **identify** key stakeholders in uranium mining.
- Most students will be able to **explain** the tensions between different groups at Ranger Uranium Mine, Australia.
- Some students will be able to **evaluate** differences in power between groups in their case study, as well as the globalisation of uranium as a resource.

Note: this lesson focusses on uranium extraction, rather than the use of uranium in nuclear power. Therefore, the learning objectives do not include the chemistry/physics of nuclear fuel production in any depth.

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**STARTER: The lay of the land** (5 minutes)

Note: Our PowerPoint presentation (available online) will help you lead the discussion outlined below, see: www.bit.ly/CNDCriticalMass

Ask students as a class to state what they know about nuclear weapons. What is a nuclear bomb? Have nuclear weapons ever been used? Collect answers, and fill any gaps in knowledge. Then ask, where does the nuclear material come from?

**PRESENTATION (20 mins):**

a) Uranium

- Outline how we get uranium (and plutonium), and where from. Briefly look at how uranium is extracted, processed, and enriched. Emphasise that the same process of enrichment produces fuel for nuclear weapons as well as nuclear power reactors. Provide an overview of risks when working with uranium, from extraction to decommissioning.

b) Ranger Uranium Mine

- Outline a brief history of uranium mining, noting that although beginning with scientific research, demand for uranium skyrocketed during WWII, as technology for a nuclear bomb was worked on. From 1954, the British mined for uranium in Australia, which has one third of the world’s known uranium resources!

- Introduce the case study – Ranger Uranium Mine, Northern Territory, Australia. Pay particular attention to its geography: its location in a National Park, on Aboriginal land, and with its own township, Jabiru.

**MAIN ACTIVITY: Ranger! Ranger!** (20 minutes)

An emergency town meeting is held in the town of Jabiru. Where the following stakeholder groups are represented:

- Anti-nuclear weapons campaigners
- Representatives from Energy Resources of Australia
- Locals: residents of Jabiru
- The government of the Northern Territory
- Traditional owners

The stakeholders are faced with the following news:

- Ranger’s lease is coming to a close, and if the lease is not extended then everything involved with the mining operations will need to be turned back to how it was before the mine operated including the town of Jabiru. Traditional owners have the power to accept or reject deals brought to them regarding their land, but also have their own views to consider.

- What will happen to the town of Jabiru? Will the town choose to extend the mining lease? Are there other, more sustainable options? What are the social, economic and environmental impacts of the mine?

- In groups of 5 or 6, students take on the role of one stakeholder group. They are given a ‘stakeholder briefing’ sheet (p.41-45). Students must produce a statement that presents the opinions of the stakeholder group, but also uses facts and figures to make their case. They must identify what they want to happen and what they would not agree to (10 minutes to prepare). Each group is also given a ‘Framing the Information’ worksheet (p.46)

- The town meeting begins, and the teacher acts as Mayor/facilitator. The ‘traditional owners’ group, who must agree to any proposal concerning their land, will give their position first. Other groups may then state their position, and make a proposal for the future of Jabiru (up to two minutes per presentation).
The teacher/facilitator must listen carefully and write different proposals, or concerns on the board. These will be returned to later.

- Encourage students to ‘build on’ the points made by previous speakers, and ensure there are opportunities for students to ask questions of other groups’ suggestions.
- At the end of the town meeting, the ‘traditional owners’ group rank the stakeholders’ suggestions from most acceptable to least acceptable. Teacher notes these preferences on the board, next to each suggestion. A class vote is taken to see which group’s suggestion wins (this can be a multi-vote, where students can vote for as many options as they like).

PLENARY (5 mins)

- Compare the events of the town meeting with the actual plan for Ranger Uranium Mine, which is to regenerate the area and maintain the town of Jabiru as a tourism hub.

Spectrum activity, based on the following questions:

- ‘If you were a [traditional owner/resident of Sydney/Northern Territory labourer…] would you support the mine?’
- ‘Is uranium an essential resource for today?’
- ‘Are nuclear weapons fair?’ or ‘Which is more (un)fair: the use or the creation of nuclear weapons?’

DIFFERENTIATION

- A higher attaining student or group of students can act as a mediator in the main activity, and it is their job to produce a draft deal which considers most points of view. This draft deal is then presented to the class to vote on.
- The demands of this lesson can be planned for in advance. Consider asking students to research a particular stakeholder position, or Ranger Uranium Mine more generally, before the lesson.

EXTENSION (Homework or subsequent lesson ideas)

- Students re-cap what they heard in the town meeting, and identify the social, political, economic, and environmental concerns surrounding uranium mining. Who are the winners and losers generally, and is the situation changing?
- Students to write a comparison between two stake-holder groups – can they suggest agreements, or possible solutions to any tensions (short essay format).
- Students to design a poster campaign for a stakeholder group

Given that nuclear power is banned in Australia, students research where Ranger’s ‘yellowcake uranium’ has been exported to and used. Examples include the Fukushima Daiichi Nuclear Power Plant in Japan, but could it have also gone into weapons production?

Our teaching pack, The Bomb Factor, features a lesson on the Chernobyl disaster, including an A3 map and worksheet. Available via our website.

ENRICHMENT

Visit nuclear power/fuel station in the UK e.g. Springfields Nuclear Fuel Manufacturing Facility, Preston:
http://www.westinghousenuclear.com/springfields/about

Contact organisations working in nuclear issues, to find out more. You could contact:

- The Campaign for Nuclear Disarmament (CND): https://cnduk.org/campaigns/no-nuclear-power/
- Kick Nuclear, UK: https://kicknuclear.com/
- The Nuclear Education Trust: http://www.nucleareducationtrust.org/
- World Nuclear Association: http://www.world-nuclear.org/
- Nuclear Institute (UK): https://www.nuclearinst.com/

All resources available for download from: www.bit.ly/CNDCriticalMass
Stakeholder Briefing:

1. Australian anti-nuclear weapons campaigners

It’s true that Australia has an abundance of natural minerals such as uranium, but we believe that mining these radioactive rocks pollutes the environment and carries many other costs.

Nuclear disasters, such as Chernobyl and Fukushima Daiichi, show that serious accidents can still occur at modern power plants, and there is no long-term solution for what to do with radioactive waste.

With its history of spills, accidents and waste, nuclear energy should never be called ‘clean’. By contrast, renewable technology like solar and wind is a less expensive and less dangerous alternative that still reduces greenhouse gas emissions.

Nuclear materials are associated with many health risks, as exposure to radioactive materials can lead to health problems like cancers developing. Did you know that women are twice as vulnerable as men to the impacts of radiation, and children more so?

Most serious hazards associated with nuclear power have not changed since the Cold War. We can’t guarantee that nuclear material won’t be used to make nuclear weapons, as civilian power reactors can be also used for weapons-grade plutonium production. Only stopping uranium mining once and for all can guarantee a future free from nuclear weapons.

We want: ________________________________________________________________________________________________
_________________________________________________________________________________________________________

Our worst case scenario is ___________________________________________________________________________________
_________________________________________________________________________________________________________

Information

Fukushima
After an earthquake in March 2011, a 15-metre tsunami cut off the power supply and cooling of reactors at Fukushima Daiichi nuclear power station in the region of Tōhoku, Japan, causing the reactors to melt and triggering a nuclear accident.

Australia
In 2016 Northern Territory decided not to lay charges against Energy Resources of Australia for an accident in 2013 at the Ranger Uranium Mine, which spilled 1,400 cubic meters of radioactive slurry. This was because it was unsure whether it could successfully prosecute the company. Nuclear power generation is banned in Australia, so uranium is an export only.
Stakeholder Briefing:

2. Energy Resources of Australia

We are Energy Resources of Australia (ERA). We are one of Australia's largest uranium producers and we have been operating on the site of Kakadu National Park since 1979. We belong to the global corporation Rio Tinto. Australia's known uranium resources are the world's largest and amount to a third of the world total.

We believe that uranium is a clean, cost-effective and profitable source of electricity. Across the world, major cities such as Seoul, Moscow, Paris, Los Angeles, and Toronto run on nuclear generated electricity.

Ranger Uranium Mine in the Northern Territory aims to deliver clean energy to the world. We take care of the country and the people we provide for. Our objective is to safely produce uranium oxide and protect the environment, contributing to the global energy market and the local economy in return.

Our operations in the Ranger Project Area benefit the local economy and indigenous populations through salaries and local spending. We provide workplace numeracy and literacy training, and offer work experience and apprenticeships for local students.

We work with the local stakeholders and rehabilitate the parts of the mine that are no longer in use. We take sole responsibility for the management of the region's transition to post mining, though we would prefer to extend our mining lease.

We want: ____________________________________________

__________________________________________________________________________________

Our worst case scenario is ____________________________________________

__________________________________________________________________________________

Information

- Ranger mine will stop all operations in 2021 and close down completely in 2026.
- It will cost an estimated $507 million to clean up the site, which must be reintegrated into the surrounding World Heritage-listed Kakadu national park by 2026.
- As of 2017, ERA's employment in the Jabiru region features 13% indigenous peoples, 18% women and 46% Jabiru locals
- $473 million has been invested in rehabilitation projects since 2012 (as of 2018).
- A nearby mine, Jabiluka, is now completely closed. Revegetation is ongoing with over 16,000 saplings over a 10 year period.
- Nuclear energy supplied 3.2% of India's electricity in 2017, 4.2% of China's electricity in 2018. These countries' economies are growing rapidly.
Stakeholder Briefing:

3. Locals
We are the residents of the town of Jabiru, which was created in 1982 when Ranger Uranium Mine began operating. The town of Jabiru has grown since then, and now has a population of over 1,000. Its economy is not reliant only on Ranger Uranium Mine because it also serves as a hub for tourists visiting Kakadu National Park.

We have serious environmental and cultural concerns regarding the decision to stop mining, and call on Northern Territory government to protect the future of our town.

The Uranium mine operates in an important, wetland-style environment in the middle of Australia's largest national park, with many indigenous communities living downstream from the mine. Many of Jabiru's residents are Aboriginal.

In 2013, a large spill occurred at the mine, resulting in one million litres of radioactive acid and slurry being released into the park. This was the latest of over 200 incidents since the Ranger mine started operating. The 2013 spill demonstrates the dangers of the mine to local people and the local environment too.

Planning the closure of the mine must not ignore the local population! Business owners and their families will have to leave to find jobs if the town is not supported, but Jabiru's large indigenous population will find it even harder to settle elsewhere. We are worried about the environmental risks associated with the mine, and the impact on our way of life after it closes. A plan for the future needs to manage both of these concerns.

We want: ________________________________________________________________

___________________________________________________________________

Our worst case scenario is _________________________________________________

___________________________________________________________________

Information
– The population of Jabiru is around 1,100 (as of 2016). A quarter of the population is indigenous, and 350 people are ERA employees.
– Jabiru is the only town in Kakadu National Park, located almost 160 miles from Darwin.
– There are around 200,000 tourists to Kakadu National Park each year.
Stakeholder Briefing:

4. Northern Territory Government

We are the government of the Northern Territory and we believe that the town of Jabiru has a nuclear-free future. It shouldn’t be closed because of the scheduled closing of Ranger Uranium Mining in Kakadu National Park.

Ever since Jabiru was purpose-built for the mine over thirty years ago, the town has also served a secondary role as a tourism service center for the visitors to Kakadu. It is a vital hub for the work of Aboriginal organisations and community groups in an otherwise isolated area.

Tourism is an important economic activity for the Northern Territory, with iconic destinations such as Uluru, Darwin and Kakadu – all popular choices for domestic and international visitors.

It is right that Energy Resources of Australia (ERA) restore the land they have been mining, but we are concerned about the town closing, losing electricity, and being without an airport. This is a possibility because ERA is obliged to return the town to a ‘pre-mine’ state.

Investing in Jabiru would mean that the mine closure will not have such a significant impact on the local economy. The Northern Territory can help keep services going, attract tourists to the area, and create sustainable jobs in hospitality and retail if it invests a lot of money. We’re willing!

We want: ____________________________________________________________

________________________________________________________________________

Our worst case scenario is ________________________________________________

________________________________________________________________________

Information:

– In 2018, the Kakadu National Park received a total of about 200,577 visitors, an increase of 12,641 on the previous year’s total. Meanwhile over $250 million was spent in the Kakadu region in 2019.
– It is estimated that saving the town of Jabiru will cost $500 million, including projects such as a $16 million education precinct, and $40 million to maintain Jabiru airport.
– The area of Kakadu National Park has recorded 171 places of indigenous cultural heritage significance and more than 160 archaeological sites and artefacts, including one that proved Aboriginal people have been here for up to 80,000 years! The park is dual World Heritage listed.
Stakeholder Briefing:

5. Traditional owners

We, the Mirarr people, state that Uranium mining in Kakadu is and has always been developed against our wishes. We want our land to be protected forever, and to have a say over what happens to it.

The environment we inhabit is very vulnerable and easily affected by the spillage incidents that occur at the Ranger mine. The site is part of our ancient traditions and we believe that it should not be disturbed by human action.

We understand that uranium mining is a contentious issue in Australia as it brings wealth and work to people, but the mining has completely upturned our lives, bringing many changes to our culture, such as substance abuse and arguments about money into our community.

We have been told that the spillages that occurred over the years have been controlled and did not contaminate our waters, but nevertheless our land is being transformed before our eyes with toxic chemicals in natural creeks and hills. UNESCO has identified mining as a key management issue in the national park, but we have previously not been listened to in land use meetings.

We are also saddened to see other communities suffering from the uranium mined on our land, such as those affected by the 2011 Fukushima nuclear disaster. Our relationship with our land leads us to feel a sense of responsibility.

In future, we need to have control over what happens with our land, as we have the longest and deepest understanding of it. We don’t want a big company making decisions on our behalf.

We want:

______________________________________________________________________________________________

______________________________________________________________________________________________

Our worst case scenario is _______________________________________________________________________

______________________________________________________________________________________________

Information

Kakadu National Park was granted UNESCO World Heritage Site status in 1981 (the site excludes the Ranger lease). Kakadu ‘is a place of living culture used by Mirarr and other Bininj (Aboriginal people) every day. This living culture stretches back thousands of years as can be seen in numerous prehistoric rock art paintings, as well as dreaming tracks and sites of cultural significance. Age-old stories have been handed down from tens of thousands of years ago to the present day. Aboriginal people have lived continuously in the area now known as Kakadu for over 60,000 years and the region contains one of Australia’s oldest sites of human occupation.

By comparison, British occupation is recent, dating back to the 1890s.

(Source: www.mirarr.net/pages/kakadu)

Over 70% of the world’s uranium reserves are located on Indigenous land and in Australia. Indigenous people feel a disproportionate impact of the environmental, health, social and cultural impacts of uranium mining.

Over 200 spills, leaks and breaches of licence conditions have occurred in the four decades of Ranger Uranium Mine’s existence, including:

– December 2013: The tank containing radioactive material collapsed and up to one million litres of radioactive slurry and acid spilled out of the site. The mine was shut down for 6 weeks.

– April 2010: Millions of litres of contaminated water leaked from the Ranger uranium mine to the wetlands in Kakadu National Park.

– March 2004: The mine was shut down due to safety concerns. Drinking water had been contaminated by ‘process water’ used in the mine’s operations.

– February 2002: Leakage of uranium contaminated water to Coonjimba and Magela Creeks caused by incorrect stockpiling. It was the fourth such incident since 1999.
Framing the information worksheet

What is your most persuasive piece of information? _____________________________________________________________
_________________________________________________________________________________________________________
_________________________________________________________________________________________________________

What does it emphasise? ___________________________________________________________________________________
_________________________________________________________________________________________________________
_________________________________________________________________________________________________________

How can it help your argument? _____________________________________________________________________________
_________________________________________________________________________________________________________
Supporting information

What is uranium?
Uranium is a heavy metal, which occurs naturally in the Earth's crust in quantities as common as tin. It was ‘discovered’ by German chemist Martin Klaproth in 1789 and named after the planet Uranus. A small proportion (about 0.7%) of uranium isotopes are ‘heavy’, meaning that an atom contains fewer neutrons. These heavy isotopes can easily become unstable or ‘fissile’, which can lead to an atom splitting and creating a lot of energy.

How is uranium made into nuclear weapons fuel?
The process of getting uranium out of rocks in the ground and into nuclear weapons can be lengthy and expensive:
– Uranium ore is extracted from the ground, typically by open-cast mining.
– Acid is used to remove uranium from the ore by dissolving it.
– This process of ‘leaching’ produces yellowcake uranium (uranium oxide concentrate) which can be transported and sold.
– Yellowcake uranium is converted into a gas (uranium hexafluoride).
– The gas is spun in industrial centrifuges, which separate out the heavy isotope, U-235. This process is repeated again and again until enough heavy uranium has been separated. ‘Highly enriched uranium’ is produced, which can be as concentrated as >90% U-235.
– The enriched uranium gas is turned into uranium dioxide, and pressed into pellet form. The pellets are put into metal rods, which are inserted into reactors.
– The fission of the uranium atoms causes an extremely powerful chain reaction.
For more information on uranium processing visit: https://www.world-nuclear.org/information-library/nuclear-fuel-cycle/introduction/what-is-uranium-how-does-it-work.aspx

Uranium and colonialism
Historically, it has often been the case that imperial powers have benefitted from uranium extraction, whilst indigenous peoples under occupation have shouldered much of the associated negative impacts.
– Much of the uranium used in the Hiroshima and Nagasaki bombs was extracted through forced labour of the Congolese people under Belgian colonial rule. Shinkolobwe mine was worked from 1921, and ultimately closed in 2004 (though the USA stopped sourcing uranium from the mine in 1960) yet the local community still suffers the impacts of exposure through birth defects, deformities, and severe illness for example.
– Between 1944 and 1986, 30 million tonnes of uranium was mined on the land of the Navajo nation, in the West of the USA. Navajo men dug uranium for less than the minimum wage, bringing radioactive debris home to their families with them. Private industry became involved in mining initiatives, which complicated indigenous land rights. Other indigenous nations experienced similar hardships. Workers were not warned of the dangers of working with radioactive material, nor did the US government provide protective gear. Navajo cancer rates doubled between the 1970s and 1990s, and 27% of Navajo people had levels of radioactive uranium in their bodies five times higher than the US average. Today, the land of the Navajo nation is still being cleaned up.
For more information on the harm done to indigenous communities by uranium extraction and use, see: https://outrider.org/nuclear-weapons/articles/human-cost/

Australia and uranium
Australia's known uranium resources are the largest in the world. Almost a third of all the uranium in the world can be found in Australia. Uranium was first mined in Australia as early as 1906, at the so-called ‘Radium Hill’ and today it is the world's third-ranking producer, behind Canada and Kazakhstan, of yellowcake uranium which it exports. Radium Hill has been credited with providing the uranium for early US and UK nuclear weapons programmes, including for Australian nuclear tests in the 1950s and 60s.
For more information visit: https://www.world-nuclear.org/information-library/country-profiles/countries-a-f/australia.aspx

Indigenous Australians/Aboriginal People
Prior to the British settling in Australia (in 1788), over 500 different indigenous groups (some 750,000 people) lived on the continent. Aboriginal cultures date back over 60,000 years making them the world's oldest. Through the introduction of new diseases, the stealing of land from communities and direct, violent conflict, 90% of Australia's indigenous population were killed as a result of British colonisation. Later, Aboriginal populations were heavily controlled by both the state and Christian religious initiatives, which together removed Aboriginal people from their own cultures, languages and even families. Aboriginal people were housed, moved and managed in ‘reserves’, housing estates created by colonial occupiers, which lead to further ostracising Indigenous Australians, and entrenching their marginalisation in Australian society. These legacies of colonialism and more are experienced by indigenous Australian groups even today.
Because uranium extraction in Australia happens in large part on Aboriginal land, indigenous communities bear the brunt of the environmental and health impacts of mining. These include chronic illness, acid leaching into the environment, contaminated drinking water, and the influence of corporations in traditional land ownership agreements. Some Aboriginal communities report a deep sense of guilt that uranium from their traditional lands has caused harm abroad, against their will (a recent example being the Fukushima disaster of 2011).

For more on Indigenous Australian history, visit Australians Together: https://australianstogether.org.au/discover/australian-history/

**Ranger Uranium Mine**

Located approximately 230km East of Darwin lies Ranger Uranium Mine and the nearby town of Jabiru. The mine lies within Kakadu National Park, a major tourist attraction and has been operating since 1980. The ‘orebody’ was completely mined by 2012 and now ‘Ranger’ processes ore which has already been extracted. In its four-decade life-span, the mine has produced over 125,000 tonnes of uranium.

After decades of protest from Aboriginal groups in particular, more than 200 accidents, and a slump in uranium prices following the Fukushima disaster of 2011, the profitability of the mine is in decline. Aboriginal communities have opposed uranium mining on their land, and have refused to extend the mine’s lease beyond 2021, meaning that multinational company Rio Tinto is set to take on a clean-up project costing up to $808 million.
Lesson Five: Philosophy for children, colleges and communities (P4C)

OVERVIEW
P4C, or Philosophy for Children, Colleges and Communities, is an approach to learning and teaching which enhances children’s thinking and communication skills, boosts their self-esteem, and improves their academic attainment.

In P4C, a stimulus, such as a story, video clip or image, is shared with a group of children. The children are encouraged by a facilitator, such as a teacher, to come up with big, engaging, philosophical questions about the stimulus.

The teacher gives the children time to think and reason individually about the question before facilitating the exchange of ideas and opinions as a group, or ‘community of enquiry’. Children learn to listen carefully to each other, to explore differences of opinion respectfully, and to value the ideas of others.

Adapted from the Society for Advancing Philosophical Enquiry and Reflection in Education (SAPERE). Read more about P4C here: https://www.sapere.org.uk/about-us.aspx

LEARNING OBJECTIVES
– P4C aims for all students to think critically and deeply, to share their thoughts with others, and to build on the points that they hear.
– As it is a student-led process, the facilitator should let specific conclusions be drawn only once the philosophical enquiry has occurred.

P4C AND THIS TEACHING RESOURCE
The following facilitation guidance provides P4C teachers/facilitators with stimuli and tips for conducting a P4C session concerning the central themes of Critical Mass. The following stimulus suggestions and tips complement previous lessons in the pack, and so could be delivered subsequently to them in order to deepen understanding, or in isolation.

Each lesson plan features an introduction to the stimulus, with links to online video where applicable. Suggestions are given for key concepts, central questions, facilitation tips, and possible conclusions. All are for guidance only, as P4C is a student-led method of inquiry, and are intended to help facilitators imagine the kind of session that is possible when a given stimulus is used.

METHOD
Philosophy for Children, Colleges and Communities follows a 10-step process for philosophical enquiry. Sessions run to around an hour, though can also extend longer than this if timetabling allows.

Creating Ideas
1. Preparation – a starter activity to prepare students for thinking.
2. Presentation of Stimulus – read, watch or listen to a stimulus containing ‘big ideas’.
3. Thinking Time – time for private reflection on the stimulus.

Creating Questions
4. Question-making – students create their own open, contestable, philosophical questions.
5. Questions-airing – the class’ questions are aired, discussed and clarified.
6. Question-choosing – one question is agreed upon, by vote or through facilitated negotiation.

Creating Dialogue
7. First Thoughts – the person/group who submitted the question shares their thoughts.
8. Dialogue Building – all students participate in a facilitated discussion where each point is built upon by the next, towards a better understanding of key concepts as they arise.
9. Final Thoughts – each student has the opportunity to share their final remarks on the question.
10. Review – reflect on successes, possible improvements, and what can be taken further next time.

If you are attempting Philosophy for Children, Colleges and Communities for the first time, we recommend doing your own research and/or seeking facilitator training. The following are some helpful links:
– SAPERE, UK charity supporting P4C: www.sapere.org.uk – includes guidance, sample lesson plans, and videos of sessions.
– www.p4c.com : a subscription site providing resources and advice on P4C.
1. Nuclear legacies

**Stimulus**


Between 1952 and 1963 the British Government performed highly secretive nuclear weapons tests at Maralinga and Emu Field in South Australia and on the Monte Bello Islands off the coast of Western Australia. A total of twelve major nuclear tests were performed, and up to 700 minor ‘dirty’ trials were also conducted. The area was massively contaminated with radioactive materials and cleanups were attempted in 1967 and 2000. However, examinations after these cleanups found that many of these sites still remain radioactive.

Shot on location at Maralinga in 2011, this short film takes the viewer through a haunting landscape of the places these bombs were exploded, as well as snippets of memories of Aboriginal elders and an Australian nuclear veteran, whose lives have been deeply impacted by these tests. – Jessie Boylan

**Key concepts:** indigenous peoples, memory, recognition, fairness/justice, secrets, blame

**KEY QUESTIONS:**

- Why do some events matter more than others?
- Do we ever know the whole story?
- Is it right to make decisions on someone’s behalf?
- Can you be guilty of something that wasn’t your intention?

**FACILITATION:**

- **Starter activity (5 minutes):** For younger years, play a memory game, such as the Supermarket game* (“When I went to the supermarket I bought…”). For older years, play a game of deception, such as two truths and a lie** with a partner, in small groups, or with one student in front of the class.
- Watch the video ahead of time and write down some quotations, to which you could refer in either the ‘question building’ activity or in the inquiry itself.
  - For example, ‘I’m sure we all have the same feeling, and the hurt’.
- Although the video as a whole would make an effective and atmospheric stimulus, if you require a shorter stimulus during the P4C session, you could watch:
  - From 2.15 to 7.40
  - From 6.17 to 10.35
  - From 9.00 to 11.50

**SUB-QUESTIONS:**

- Where appropriate, encourage students to think from multiple perspectives. Referencing the stimulus might help if this does not detract from the philosophical enquiry.
  - For example, would the former soldier see things differently? Would the Aboriginal couple have been persuaded by that argument? Why?
- Asking students ‘How do you know that?’, or ‘How can you be sure?’, or ‘If that were true, what would then happen?’ will help to bring out the themes of secrecy, uncertainty and contest.

**SUGGESTED CONCLUSIONS:**

- Matters of fairness or justice can be affected by one’s perspective, even if the ideas are universal.
- Memory can help us to work out ‘how we got here’, but it involves emotion and can be different to someone else’s memory.
- Fault/Blame can be helpful concepts, but do not themselves create a solution.

* Guidance for The Supermarket Game: https://www.fundamentallychildren.com/play_idea/supermarket-game/
** Guidance for two truths and a lie: https://www.teachersfirst.com/content/knowyou/twotruths.cfm
2. Mutually Assured Destruction (MAD)

Stimulus
Text/Video: The Butter Battle Book (1989) by Dr Seuss
Video animated by Ralph Bakshi, 20 minutes. https://www.youtube.com/watch?v=prL1uva22Do (Accessed 08/08/19)

‘The Butter Battle Book’ is an illustrated tale about the Yooks and the Zooks, who live on opposite sides of a wall. Because of a butter-related disagreement, the rivalry of the groups leads to something akin to an arms race, resulting in an incredibly powerful weapon being produced on both sides. Threatening each other with destruction, the story ends with ‘The End?’

When it was released in 1984, some people took issue with the story, saying it was too critical of Ronald Reagan and the arms race occurring at the time. This meant it was banned in some libraries and bookshops. In response to calls that the book was ‘brainwashing’ children, Seuss made his opinion clear: ‘I just want people to think’.

Key Concepts: safety, responsibility, community/identity, war, peace, pride, courage, masculinity, difference.

Key Questions:
– Which comes first: defence or offence?
– Is it the job of a few to make sure everyone is safe?
– Can fear ever make us feel protected?
– What makes an enemy an enemy?

Facilitation
– Starter activity (5 minutes): In pairs, students identify three things they have in common, and three things that make them different.
– Students might wish to focus solely on the weapons, and the security aspect of the stimulus. Because of this you could remind students to think about ‘why’ or ‘for whom’ the weapons are being made and used.
– You can read the picture book aloud with any age group, if you have access to a copy. You can play the animated video to any age group as well, though it is longer in duration (20 minutes). When presenting the stimulus in full, you could opt for a shorter enquiry, or preferably build questions in an earlier lesson.
  • Whilst the stimulus as a whole is very thought-provoking, the final scenes of the animation (17.30 – 22.30) can be played in isolation if you are concerned about time.

Sub-Questions:
– Where did all this begin? How did the Zooks and the Yooks end up in such a dangerous position? Students can reflect on when the ‘starting point’ of the story is. It could be when the first weapon is made, when the stones are slung across the wall, when the wall itself would have been built, or even when the toast was first buttered differently.
– If students were in Grandpa’s (the protagonist’s) shoes, would they have acted differently? If so, how and why?
– Who are the better side, the Zooks or the Yooks? Why?

Suggested Conclusions:
– Even the smallest differences can lead to big disagreements if pride or fear are involved.
– It can be harder to find true certainty in your actions, when you have great power and great responsibility.
– Aggression can provide a sense of strength in the face of danger, but it does not remove the sense of danger itself.
– When we reduce our capacity to communicate with other people, we reduce our ability to understand them.
3. Trident and Gender

Stimulus
Photograph: Courtesy of the Royal Navy (2012)
Pictured: The ‘Weapons Engineer Officer’s Tactical Trigger’ used to launch a Trident Missile.
UK Ministry of Defence © Crown Copyright 2019

You can use the picture as a standalone stimulus, however we would recommend accessing another picture*, depicting Lt Olsson, who was the first woman in the UK to become a submariner. The two images could be presented side by side.

Additional image LINK:
https://i.dailymail.co.uk/i/pix/2016/01/21/13/306D481F0000578-0-image-a-14_1453383791400.jpg

Key concepts: duty, power, authority, gender/masculinity, morality, difference.

Key Questions:
Should you do something just because you’re told to?
Is it true that with great power comes great responsibility?
Does it matter who makes decisions and who follows them?

Facilitation
– A 5-minute warm-up activity to do with following orders would be suitable, for example a game of ‘Simon Says…’*.
– A discussion of (gender) difference can easily become reductive e.g. ‘women are [x] and men are [y]’. A facilitator can instead encourage children to think about ideas, traits, patterns and assumptions, instead of biological difference alone, which will generate a deeper philosophical inquiry. Be aware of the language students use in these instances, as some phrasing might cause offence or harm to other students.
– Students could dwell on the nuclear trigger and pose questions about the morality of using weapons of mass destruction. The facilitator could research nuclear weapons using CND Peace Education materials, or referring to CND’s website: www.cnduk.org.

Sub-questions:
– What do you have to say about the fact that the images show people of different genders? Is it significant that they are doing different things? Students may not see a distinction between two submariners ‘doing their job’, but an enquiry could benefit from a consideration of this.
– Discussion may likely consider obedience and authority. To help students think critically, ask what the next logical step in their thinking is. For example, ‘does someone need to order someone else to give an order?’, or ‘who has the ultimate say, then’, or ‘can you decide to do something that someone has decided you should do’?

Suggested Conclusions:
– People of any gender can be involved in nuclear issues, but nuclear and/or societal issues can be gendered to some degree.
– There can be a rift between what you believe, and what you consider to be your duty, to which people have different responses.
– Being ready for war can be seen as a way to achieve peace, but can equally hinder peace.

4. Women for Peace

Stimulus
Two Protest Song Lyrics from the ‘Chant Down Greenham Songbook’
(with thanks to The Women’s Library and LSE Library, where the Greenham Common and CND collections are based).

i) Chant Down Greenham (illustrated):

CHANT DOWN GREENHAM

Thirty-five women, campers for peace
Breaking the law
So there’ll be no more war . . .

We don’t want your laws
We don’t like your cause
We won’t fight your wars
Chant down Greenham.

Thirty-five thousand women for peace
Embracing the base
So there’ll be no more war

We don’t want your Cruise
We have life to lose
It’s not too late to choose
Chant down Greenham.

More and more women reflecting the base
Stating our case
So there’ll be no more war . . .

We won’t live in fear
We’ll always be here
’Til the skies are clear
Chant down Greenham.

With thanks to The Women’s Library and LSE Library, where the Greenham Common and CND collections are based.

Listen to the song here (via Guardian’s ‘Your Greenham Songbook’):
ii) You Can’t Kill the Spirit, a popular Greenham chant at demonstrations:

‘...She goes on, and on, and on
You can’t kill the Spirit
She is like a mountain
Old and Strong
She goes on and on
You can’t kill the Spirit...’

AUDIO LINK (via Lacuna’s ‘Memories of a Protest’): https://soundcloud.com/lacuna-4/you-cant-kill-the-spirit

Key concepts: war, peace, integrity, belief, gender (womanhood), the law, morality.

Key Questions
Does gender matter? Does your gender make a difference?
Are laws meant to be broken?
Is peace possible? Is war inevitable?
Can one person really make a difference?

Facilitation
- An awareness of the Greenham Common Peace Camp would help you present the stimuli. Refer to Lesson 2 of Critical Mass for supporting information regarding the camp. This P4C session can serve as an introduction to, or revision of, Lesson 2.
- Discussions of the military, war and nuclear weapons can often feature hypotheticals e.g. ‘but would you attack someone if...’. A hypothetical talking point could help students to apply their critical thinking to a theoretical example, but you might wish to ensure that the enquiry does not only use hypothetical scenarios. Encourage students to think about concepts too, rather than just application.
- A discussion of (gender) difference can easily become reductive e.g. ‘women are [x] and men are [y]’. A facilitator can instead encourage children to think about ideas, traits, patterns and assumptions, instead of biological difference alone, which will generate a deeper philosophical inquiry. Be aware of the language students use in these instances, as some phrasing might cause offence or harm to other students.

Sub-Questions
- Is it right to take action against something, just because you don’t want/don’t like it? Students might have mixed opinions on this, but a facilitator could encourage a discussion of when it ‘becomes’ right for a person to take action, based on their beliefs. The facilitator might also wish to encourage consideration of consequences, i.e. of breaking the law.
- Students might talk about the concepts of war and peace more philosophically. If so, it is important to seek a definition for each concept, so that each point is easily built upon. Later, a comparison of the concepts can occur e.g. ‘are war and peace opposites?’

Suggested Conclusions
- Laws and rules can ‘keep the peace’ but doesn’t mean that everyone understands ‘peace’ in the same way.
- Our gender, like any aspect of our identity, can give us strength, just as it can be misunderstood.
- As individuals we are all involved in systems, movements, stories greater than ourselves.
Praise for Critical Mass

‘Timely, appropriate, useful and accessible!
The materials are very engaging and appropriate [and] presented in a balanced, informative way … I envisage students enjoying taking ownership of a viewpoint, being active learners and sharing ideas’
– Elena Lengthorn, Senior Lecturer and PGCE subject Lead, University of Worcester

‘This is very important.
We need pupils to gain more than a superficial understanding of [peace, gender, race and marginalization] and the embedded systems that give rise to these issues … Pupils will love the active learning … it is pitched accurately [and] does not push one position, such as denuclearisation’
– Elicia Lewis, Senior Lecturer and PGCE subject Lead, University of East London

‘The whole pack is moving and should be motivating for teachers and students
Materials and discussions are very engaging, carefully chosen and thought provoking, and hopefully can be adapted by a teacher who knows their class.’
– Henrietta Cullinan, Voices for Creative Nonviolence

‘I think this is a very good collection of lessons
World wide there are issues that involve us all and we need to prepare children for what might come … The lesson would easily work into a term’s work [and] I could also adapt it to work with different age groups.’
– Darren Willison, Teacher, King Edward’s School, Bath

Sadako’s Cranes for Peace
Learn the history of Sadako and make your own origami peace cranes.

Dial M for Missile
Seven cross-curricular lesson plans to teach themes around the Cuban Missile Crisis.

Truman on Trial
Six cross-curricular lessons around Hiroshima and Nagasaki, including a mock trial to decide if President Truman was justified in dropping the atomic bombs.

The Bomb Factor
In an X Factor style activity discuss the arguments for and against nuclear weapons.

Under Pressure
Find out how pressure groups operate and form your own in the classroom.

Other free teaching packs from CND
Peace Education
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Critical Mass: Lessons on gender, race and nuclear weapons

In their production, their use, and their aftermath, nuclear weapons impact different populations in different ways. Nuclear weapons issues provide a lens through which to understand issues of identity and society, from gender to nationality, race to class. In this five-lesson teaching resource, students discover how gender and identity are embedded in nuclear issues, by learning from different geographical and historical examples. Aimed at Key Stages 3, 4 and 5, the resource also features tips on how to differentiate for younger years, as well as higher- and lower-ability classes.

Critical Mass lesson plans fulfill SMSC and Prevent requirements, and are particularly applicable to English, History, Government and Politics, Sociology, Philosophy, Citizenship, Drama, Art and Design, and Geography.

This resource comprises the following lessons:
- **International disagreements, nuclear negotiations and gender** – what role does gender play in how we think about strength and security? Students negotiate conflicts competitively and co-operatively.
- **The women of Greenham Common** – to what extent have people used their gender as a successful part of their anti-nuclear weapons activism? Students explore primary sources through drama and English exercises.
- **Art and atomic bomb survivors** – what is the difference between a victim and a survivor? Students create art in response to testimony of the ‘Hibakusha’ of Japan.
- **Uranium mining in Australia** – does anyone have a right to the Earth? Students hold a ‘town meeting’ with multiple stakeholders to evaluate resource extraction controversies.
- **Philosophy for children, colleges and communities (P4C)** – stimuli and facilitation tips to support relevant philosophical enquiry in the classroom.

All materials including accompanying PowerPoint presentations can be downloaded for free at www.cnduk.org/education. CND Peace Education aims to empower young people with knowledge about peace and nuclear weapons, developing students’ critical thinking through active and collaborative learning. We provide free teaching resources, school speakers and interactive workshops to schools and teacher training institutions across England. The work of CND Peace Education staff and the production of CND Peace Education packs is funded through the Nuclear Education Trust, registered charity 1118373.