

Decolonising the Science Curriculum: What must be decolonised?

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Greater demands to decolonise

- BLM movement has highlighted institutional racism and its British colonial origins.
- Palestine solidarity movement has drawn attention to Britain's role in promoting the Zionist settler-colonial regime, as the ongoing source of the conflict today.
- Rising demands to decolonise everything: statues, place names, educational curriculum, etc.
- Scope: What are today's colonial or neocolonial practices? And thus the decolonial task?

Neo-colonial practices

- Mid 20th century: 'Decolonise' meant liberating all European colonies from direct foreign domination, exploitation and plunder.
- In 21st century, there remain few colonies in the classic sense. Settler-colonial regimes: Israel/Palestine, Morocco/western Sahara) Palestine has been prime laboratory for testing high-tech 'security' systems for export to other repressive regimes.
- But today generally colonization has more subtle neocolonial forms: Since gaining formal independence, new countries have extended a neocolonial exploitation, treating entire social groups as an internal colony, in ways analogous to their former imperialist masters.
- Lower-income, darker-skinned groups are ideologically framed as backwards: deficient in knowledge, culture, technical capabilities, etc.
- Thus they need a rescue by development-as-modernisation, capital-intensive technology, training to implement it, etc

Racism in science, then and now

- Science has been promoted as neutral value-free knowledge yet disguises its own value frameworks as a means for elites to legitimise their agendas.
- British colonialism was accompanied by scientific racism: stereotyped colonial subjects as inferior people; justified dominating & exploiting them.
- The earlier, blatantly racist forms can help us to identify today's more subtle forms and to understand how neocolonial practices defines what counts as science
- Science is what gets funded by elite priorities.
- Dominant narrative: Under-developed countries need rescue by development-as-modernisation, capital-intensive technology, training to implement it, etc
- Green Revolution initiated agri-modernisation via 'technology packages' (uniform hybrid seeds, agrochemicals, expensive machinery)

1984 Bhopal disaster:

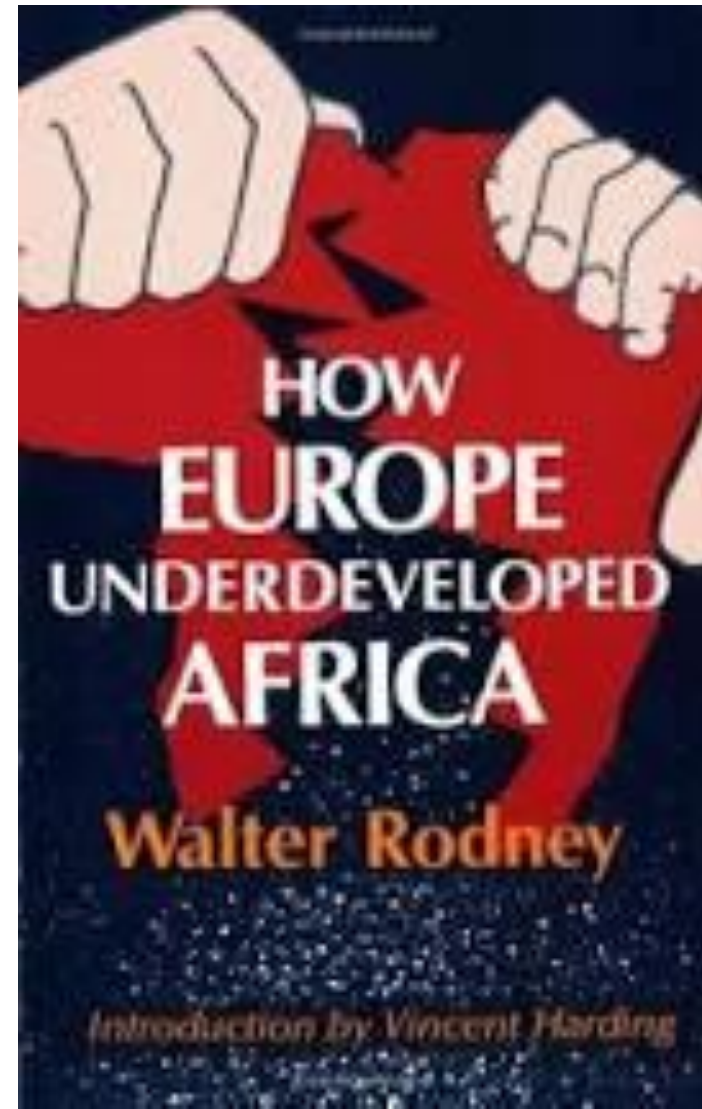
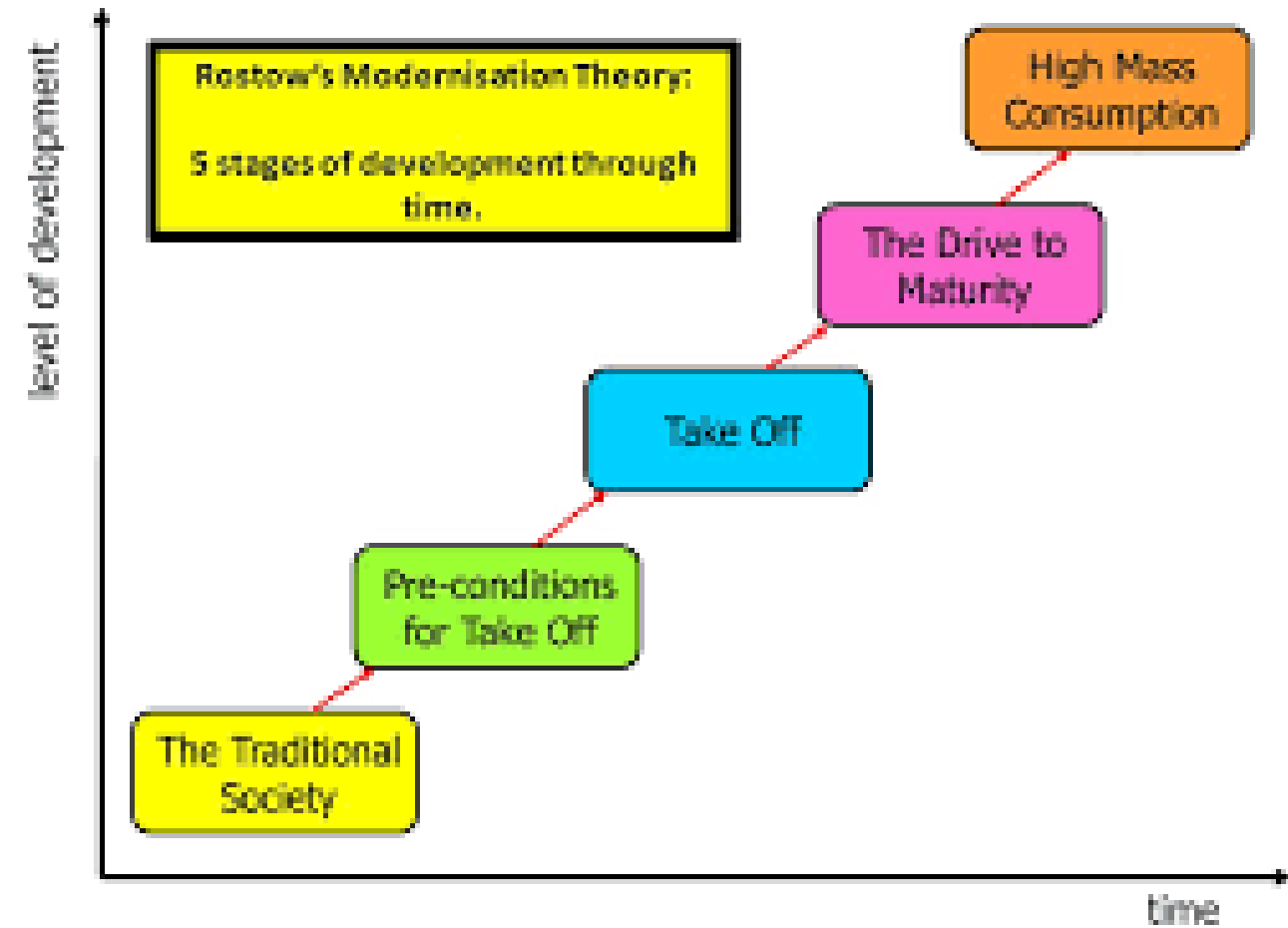
Elite narratives displaced the problem onto local deficiencies, while obscuring its causes in Green Revolution.



'Development' as a neocolonial agenda

- Neocolonial processes continue today.
- GM seeds: further means to subordinate farmers to expert knowledge and supply chains, while devaluing their traditional knowledge.
- Imperative to modernise backward societies through more efficient techniques for controlling or unlocking resources, so that economies can become more globally competitive.
- Dominant narrative (Walt Rostow): the developed countries must assist lower-income countries to develop their economies.
- 'Development' narrative inverts historical reality:
British imperial rule de-industrialised India (textiles, shipbuilding, and steel) and impoverished the country;
Europe How Underdeveloped Africa (Walter Rodney)

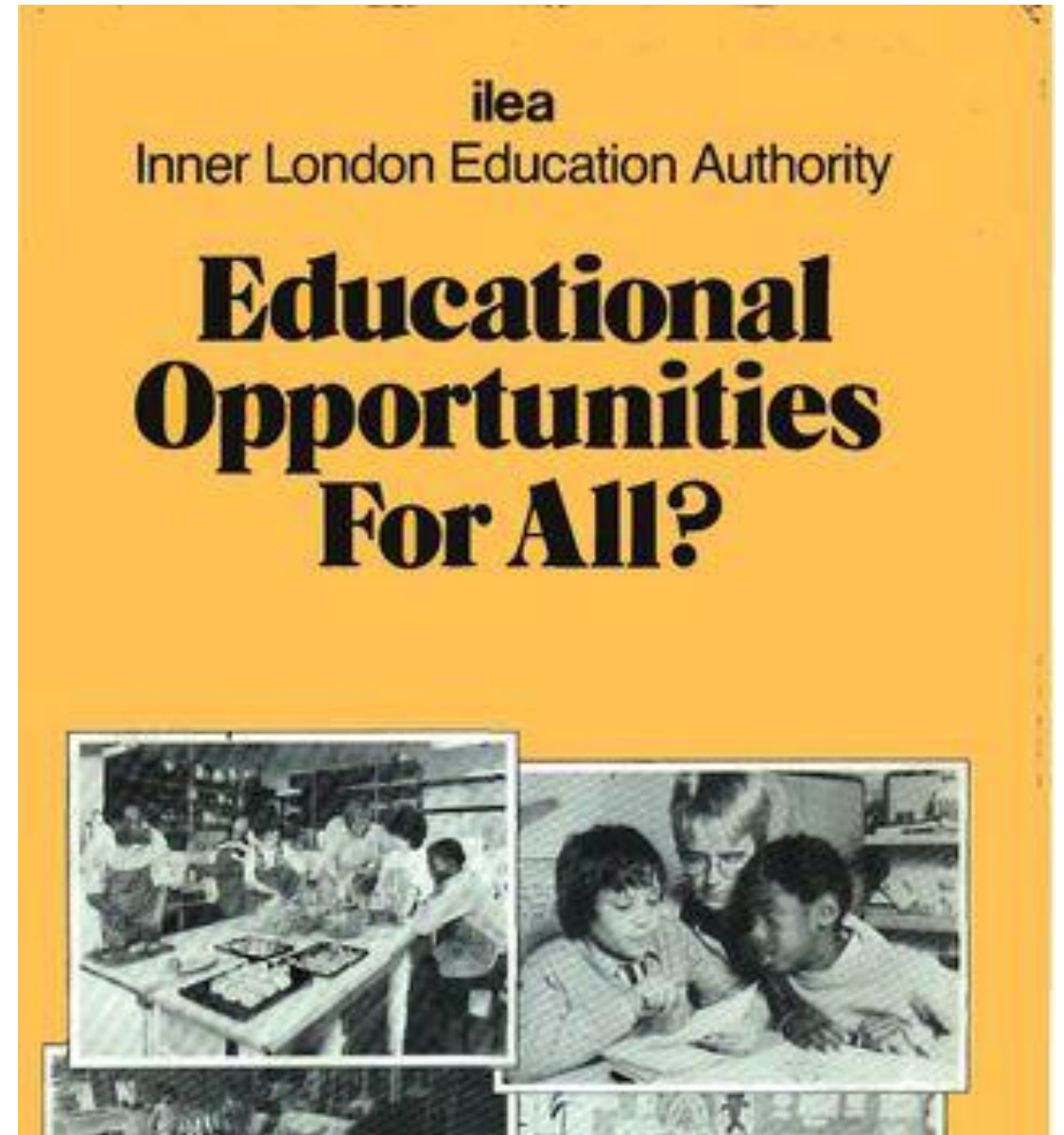
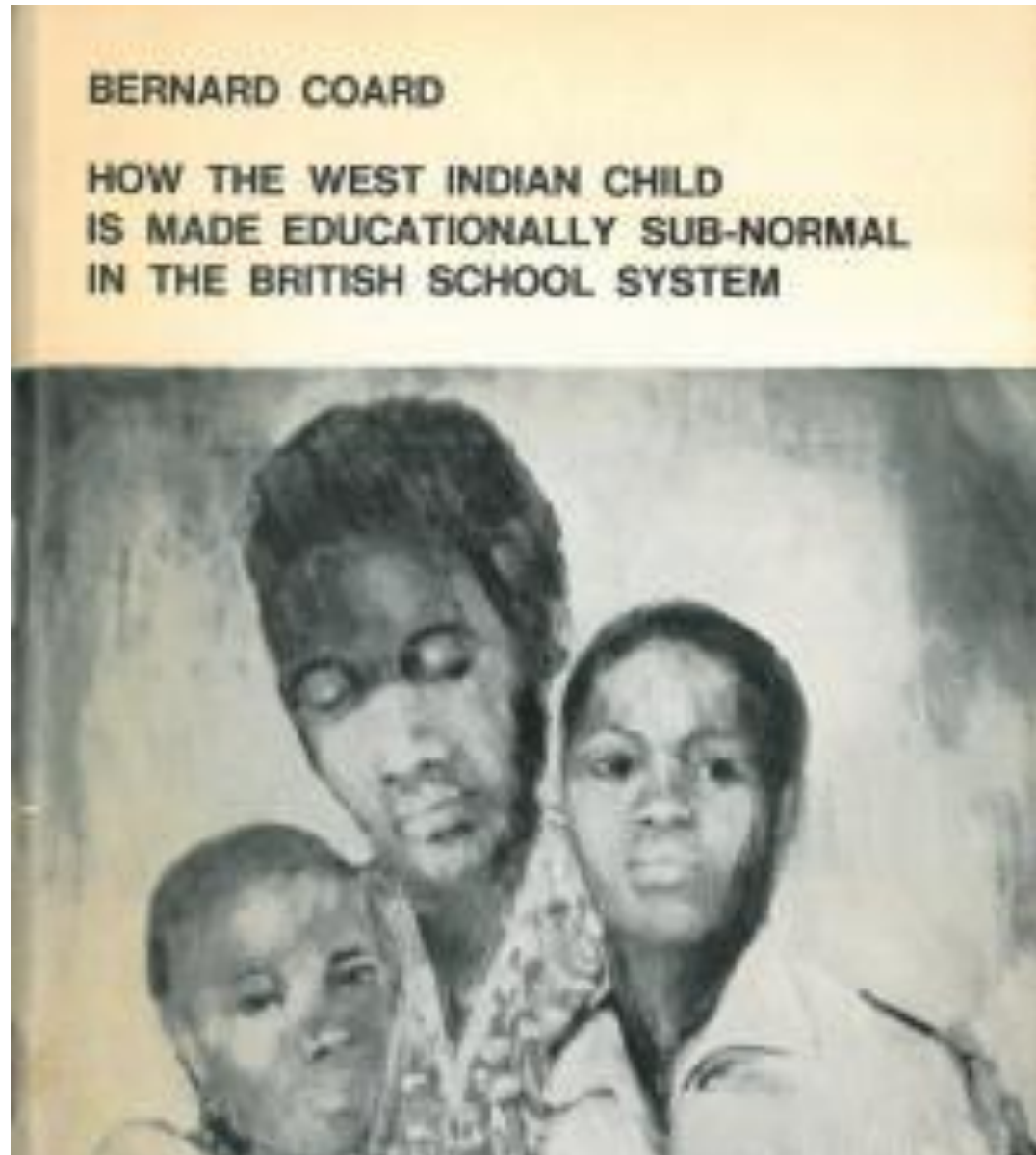
Rostow versus Rodney



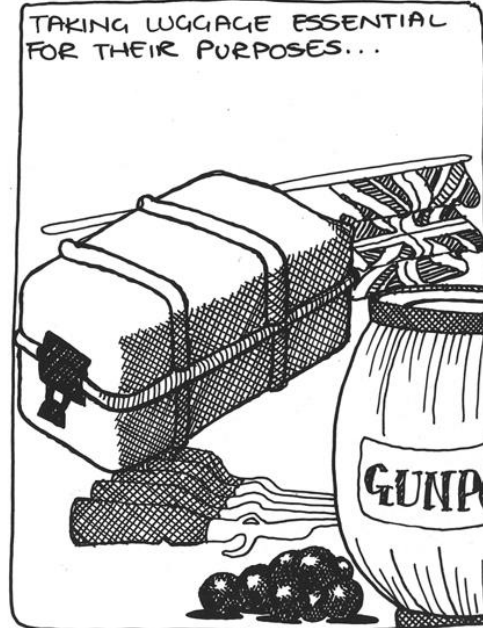
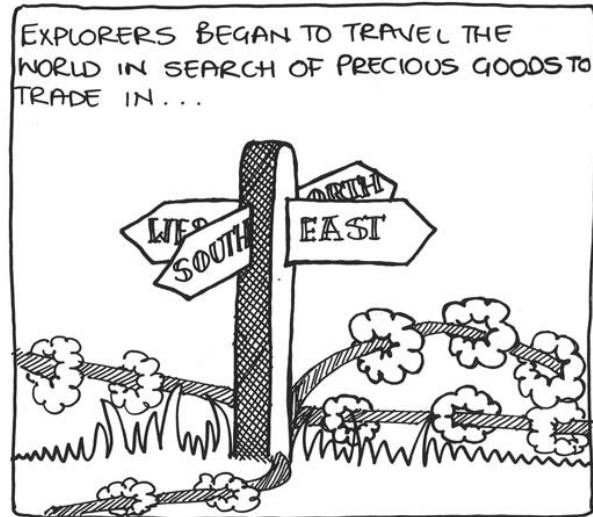
Institutional change: 1980s London

- 1981 GLC election brought a Left-wing Labour Group to power
- Shifted ILEA away from racist policies such as ESN schools, towards anti-racist policies, promoted such materials to schools.

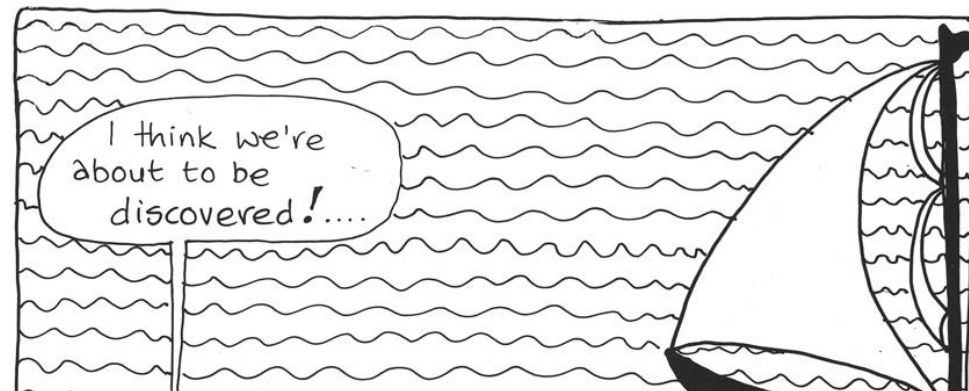
ILEA: 1983 shift to anti-racist education



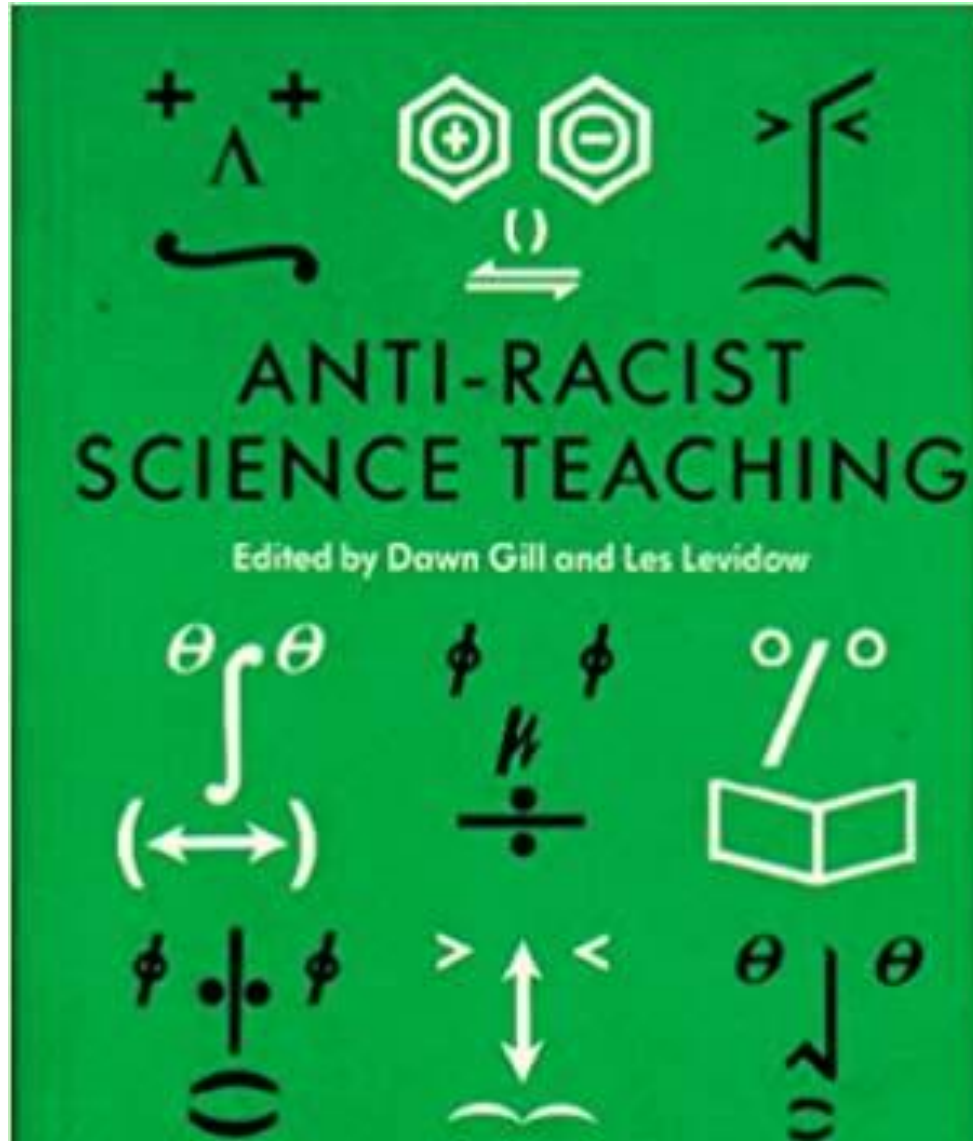
ILEA promoted anti-racist materials from Institute of Race Relations (IRR)



IN FOURTEEN HUNDRED AND NINETY TWO COLUMBUS SAILED THE OCEAN BLUE...



1980s project of anti-racist science teaching



Anti-racist education was extended to science

- Problem: Technoscience has helped to frame problems as ‘under-development’ and thus racist neocolonial agendas.
- Some anti-racist teachers attributed contemporary inequalities instead to racist forms of science and to their roots in colonial domination.
- These inequalities underlay both the content and process of science education.
- Some science teachers started changing the curriculum towards issue-based topics.
- Brought together science, technology and social science to address the topic.
- All students became intrigued by alternative viewpoints and so more involved in group discussions.
- But the late 1980s ‘Baker reforms’ imposed a national curriculum with standard tests, pushing the curriculum towards ‘teaching to the test’.
Squeezed out the space for alternative approaches, especially on science topics.

Decolonise the science curriculum = ?

Science education still reproduces and obscures racist neocolonial frameworks of knowledge.

- Privileges students willing & able to fragment reality (separating technology/society) and to compete individualistically.
- Hence education perpetuates various inequalities

To decolonise the science curriculum means:

- identifying and contesting all technoscientific forms of neo-colonial domination;
- shifting education towards groups collectively investigating how technoscience frames societal problems in neocolonial ways, and thus
- identifying how some knowledges can provide liberatory alternatives that empower subaltern groups

Question: How to find or create spaces for such critical approaches?

Resources for anti-racist & decolonial education

- Institute of Race Relations (IRR), <https://irr.org.uk/resources/materials-on-racism-for-teachers/>
- 1980s source pack, <https://sesc.hist.cam.ac.uk/wp-content/uploads/2019/11/Anti-racist-education-workshop-source-pack.pdf>
- 1980s retrospect from today's anti-racist agendas, <https://sesc.hist.cam.ac.uk/2020/07/31/talks-and-resources-for-anti-racist-education-history-theory-practice/>
- **Technoscience**
- Decolonising the science curriculum, [https://www.sheffield.ac.uk/polopoly_fs/1.894561!/file/Decolonise Handbook.pdf](https://www.sheffield.ac.uk/polopoly_fs/1.894561!/file/Decolonise%20Handbook.pdf)
- Cambridge University, HPS Dept, <https://www.varsity.co.uk/science/18820>
- Bringing decolonial science and technology studies to secondary education, <https://bera-journals.onlinelibrary.wiley.com/doi/abs/10.1002/curj.97>