Planetary Health Report Card (Dentistry) 2026:

University of Manchester

2025-2026 Contributing Team:

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Summary of Findings

Overall Grade	B+

Curriculum	C+

- The University of Manchester Dental School demonstrates clear progress in integrating sustainability and planetary health into the curriculum. Sustainability is taught across multiple years, with particular emphasis on prevention, antimicrobial stewardship, sustainable oral healthcare principles, and the environmental impact of dental materials. The introduction of the 'Eco-dentistry: Sustainable Practices for Tomorrow' module represents a significant development and has contributed to the improved grade this year.
- **Recommendations:** Further in-depth teaching is required within the core curriculum, particularly regarding topics such as the impacts of climate change, oral health links, and the disproportionate impacts on vulnerable populations. Additionally, the existing sustainability teaching could be strengthened by making it compulsory across all years to ensure consistency.

Interdisciplinary Research	A

- The University of Manchester demonstrates strong institutional leadership in planetary health research, with interdisciplinary research collaboration across multiple faculties and platforms such as Sustainable Futures. Several researchers are actively involved in healthcare sustainability, sustainable materials, and antimicrobial stewardship. The University hosts planetary health conferences and symposia, and is a member of the Planetary Health Alliance.
- **Recommendations:** While there are public engagement initiatives at the University, communities disproportionately affected by climate change should be involved in decision-making in planetary health research. Additionally, there is scope to strengthen links between dental research and planetary health by encouraging further sustainability-focused research within the Division of Dentistry.

Community Outreach and Advocacy	B+

- The University of Manchester demonstrates strong community engagement and advocacy in relation to planetary health. It continues to have multiple partnerships with community organisations and hosts regular sustainability events.
- **Recommendations:** A section on planetary health and sustainable healthcare should be embedded within the University-wide and Dental School communications. Additionally, clear and accessible patient educational materials on environmental health exposures and the health impacts of climate change should be made available, in collaboration with MFT.

Support for Student-Led Initiatives	A-

- The University of Manchester, Students' Union and Division of Dentistry provide meaningful support for student-led planetary health initiatives. Students can access funding for sustainability projects, participate in quality improvement and audit work, and engage in wider schemes such as the Living Lab and Sustainable Futures platforms.
- **Recommendations:** There is a need to develop further dentistry-specific initiatives and a dedicated student planetary health or sustainable dentistry group within the Division.

Campus Sustainability	A-

- The University of Manchester prides itself on being a strong leader in campus sustainability. It has a well-established Environmental Sustainability team, a detailed Carbon Action Plan, and uses renewable energy. The University has also implemented wide-ranging initiatives across sustainable travel, food procurement, waste management and laboratory sustainability.
- **Recommendations:** Despite its strength, there is a need to accelerate and formalise full divestment from fossil fuel investments. Additionally, within the Division of Dentistry, sustainability initiatives should be further expanded into clinical settings, particularly to address high plastic use in the clinical skills lab.

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as "a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth's natural systems on human health and all life on Earth." This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change "the greatest threat to global health in the 21st century," many health professional school's institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients' health. This preparation is in the hands of the institutions providing our health professional training. It is imperative that we hold our institutions accountable for educating health professional students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) school campus sustainability.

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises the use of healthcare services.

- **Sustainable Oral Healthcare:** As adopted at the FDI World Dental Federation, in its Sustainability in Dentistry Statement (2017), sustainable oral healthcare is the provision of equitable, ethical, high-quality, inclusive and safe care with appropriate, effective and efficient use of resources. Through this, the healthcare opportunities of current and future generations are respected and protected by actively minimising negative environmental impacts. *(Martin, N., Mulligan, S., Shellard, I.J. and Hatton, P.V., 2022. Consensus on Environmentally Sustainable Oral Healthcare: A Joint Stakeholder Statement. Pp. 7–10. York: White Rose University Press. DOI: https://doi.org/10.22599/OralHealth.c. CC BY 4.0)*

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Environmental Sustainability in Dentistry (ESD).** Learning outcomes for Environmental

Sustainability in Dentistry (ESD) have been proposed by Joury et al. (2021) based on a review of the literature and adaptation of current learning outcomes in medical education:

1. Describe concepts and definitions of climate change, carbon footprint and sustainability
2. Discuss the importance of environmental sustainability for the health of patients
3. Discuss the carbon hotspots of dentistry and how these can be modified
4. Evaluate the overall environmental impact of clinical dentistry and how this can be improved through innovation.
5. Appraise how future healthcare professionals can help shape a sustainable healthcare system, and the knowledge and skills (such as leadership), change management and co-production that they will require.
6. Evaluate current literature and participate in research on sustainability in dentistry.

- **Dentistry School/Department vs. Institution:** When "Dentistry School" is specified in the report card, this only refers to curriculum and resources offered by the School/Department of Dentistry and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by Dental students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.

- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.

- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).

- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.

- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.

- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

Other considerations:

- If there are more than one "tracks" at your institution with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples). Where possible please indicate the proportion of students that are on each track.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available here.

Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the dental school curriculum.*** *Today's health professional students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.*

Curriculum: General

1.1. Did your dental school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare (ESH) / Environmental Sustainability in Dentistry (ESD) or Planetary Health in the last year?	
Yes, the dental school has offered **more than one** elective whose primary focus is ESH/ESD/planetary health in the past year. (3 points)	
Yes, the dental school has offered **one** elective whose primary focus is ESH/ESD/planetary health in the past year. (2 points)	
The dental school does **not** have any electives whose primary focus is ESH/ESD/planetary health, but there is one or more electives that include a **lecture** on planetary health. (1 point)	
No, the dental school has **not** offered any electives on planetary health or electives that include ESH/ESD/planetary health topics in the past year. (0 points)	
Score Assigned:	2

Score explanation:

This year, an online module called 'Eco-dentistry: Sustainable Practices for Tomorrow' has been introduced for BDS 3-5 students. The module is compulsory for BDS 5 students, and currently optional for BDS 3 and BDS 4.

It has the following headings:

- *Why Sustainability Belongs in Dental Education*
- *The Principles of Sustainable Oral Healthcare and Sustainable Dentistry*
- *Prevention First: A Smarter, Greener Future for Dentistry*
- *Sustainable Procurement*
- *Waste Segregation*
- *Reducing Travel Emissions*
- *Examples of Eco-Friendly Dental Clinics*
- *Caution! Avoid Greenwashing*

Within these sections, there is information about ESH and ESD, and how to reduce the environmental impact of dentistry.

Curriculum: Environmental Threats to the Planet

1.2. Does your dental school address the concept of climate change, its causes and its impacts on humankind and biodiversity?

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', which was introduced this year, briefly covers climate change. A description of what climate change is, the main gases that cause it, the impacts on the environment, and the contribution of the NHS to greenhouse gas emissions is included in the module.

However, this module is not yet part of the core curriculum for all year groups.

1.3. Does your dental school address the concept of pollution, its causes and its impacts on humankind and biodiversity?

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', which was introduced this year, briefly covers pollution.

This includes:

- *Water and soil pollution caused by mercury from amalgam and fixer solutions used for dental X-rays, containing chemicals like sodium thiosulfate and other surfactants.*
- *Air pollution caused by toxic gases released in cases of improper incineration of waste.*
- *Ecosystem harm occurring when biomedical and chemical waste leaches into soil and water, affecting wildlife and habitats - for example, X-ray films contain silver, which is a heavy metal and toxic to aquatic life.*

However, this module is not yet part of the core curriculum for all year groups.

1.4. Does your dental school curriculum address environmental citizenship, the impact of human choices and current and emerging environmental actions?

This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)
This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', discusses how the responsibility to use dental materials responsibly and ensure correct waste segregation and disposal lies with the dental team. The section titled 'Waste Segregation' explains the importance of sustainable waste management in dentistry and why it matters. Links to the legal regulatory framework are included, for example, the Environmental Protection Act 1990 and Health Technical Memorandum 07-01: Safe and sustainable management of healthcare waste.

The module also explains how a significant proportion of dentistry's carbon footprint comes from patient and staff travel, which contributes to greenhouse gas emissions and air pollution. The factors that cause increased travel are outlined, and ways to address them are suggested, such as increasing appointment lengths to reduce their frequency.

Additionally, BDS 2 students receive four lectures on the following topics, which address environmental citizenship and the responsibility that dentists have to ensure their actions do not impact the environment:

- *Prevention*
- *Sustainable travel*
- *Procurement*
- *Waste disposal*

Curriculum: Health Effects of Climate Change

1.5. Does your dental school curriculum address the impacts of climate change, air pollution and extreme weather events (extreme heat) on individuals' general health?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

There is limited reference to the impact of climate change, air pollution and extreme weather events on individuals' general health within the dental school curriculum. For example, air pollution has been mentioned as a contributor to respiratory airway disease; however, there is minimal discussion of air pollution beyond this.

Within the core curriculum for BDS 1 and BSc 1 students (cohorts that started in September 2025), there is a discussion about the main ways climate change intersects with oral health, for example:

- *Excessive heat and the need for effective temperature control in dental clinics*
- *How poor air quality contributes to higher rates of asthma/respiratory diseases, which are closely linked to oral health outcomes, e.g. salivary pH and gingival inflammation*

However, BDS 2-5 (cohorts that started prior to September 2025) did not have this teaching included as part of their core curriculum.

1.6. Does your dental school curriculum explore potential links or associations between oral health outcomes and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

Within the core curriculum for BDS 1 and BSc 1 students (cohorts that started in September 2025), there is a brief discussion about the main ways climate change intersects with oral health/dentistry, for example:

- *Heat stress*
- *Poor air quality*
- *Increases in vector-borne illnesses*
- *Social and mental health impact*

However, BDS 2-5 (cohorts that started prior to September 2025) did not have this teaching included as part of their core curriculum.

1.7. Does your dental school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

The dental school curriculum does not address the impact of climate change on the changing patterns of infectious diseases.

Within the core BDS 1 and BSc 1 sessions (2026 enrolment), there is a brief discussion about the main ways climate change intersects with oral health/dentistry, for examples increases in vector-borne illnesses, such as imported malaria and Lyme disease, which can cause oral symptoms such as dry mouth and orofacial pain. However, cohorts that started in the previous years, did not have this as part of their core sessions.

1.8. Does your dental school curriculum address the impact of anthropogenic and/or industry-related environmental toxins on human health?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation:

The dental school curriculum extensively addresses the impact of anthropogenic and industry-related environmental toxins on human health, particularly regarding mercury found in dental amalgam.

The teaching highlights that there is limited evidence to suggest bound mercury used in amalgam restorations has a harmful impact on health, however it notes that there may be potential exposure to free mercury during placement and removal of amalgam restorations, to both the dentist and patient. Students are taught methods to minimise the amount of free mercury being released into the air, particularly during removal, for example by using high-volume suction.

The BDS 2 lecture titled 'Dental Amalgam: A Controversial Material?' addresses the large-scale mercury poisoning that occurred after the Minamata Bay incident and the Minamata Convention on Mercury that followed. The lecture includes information about the international views and guidelines about the use of dental amalgam provided by organisations such as UNEP, IADR, FDI World Dental Federation, the International Dental Manufacturers, and the WHO Oral Health Programme. The latest guidelines in relation to the use of dental amalgam are also included, such as mandatory use of amalgam separators in sinks, use of pre-dosed encapsulated amalgam and age limits for its use. Additionally, the 'Eco-dentistry: Sustainable Practices for Tomorrow' online module has a section on Dental Amalgam and up-to-date guidelines regarding its use.

Within oral medicine teaching in BDS 3, there are images showing examples of heavy metal poisoning of the gums. This highlights the negative impacts of chronic exposure to lead, bismuth and other heavy metals in the living or working environment. It also ensures that dental students are aware of how heavy metal poisoning may present in the mouth, so they are able to correctly diagnose it.

1.9. Does your dental school curriculum address the outsized impact of climate change, pollution & anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

Within the BDS & BSc 2 session on 'Prevention' (part of Sustainability in Dentistry), there is a brief discussion about some recent figures for vulnerable groups such as children and pregnant women. The focus of the discussion is on the fact that despite their entitlement to free NHS dental care, they fail to access treatment, and there is also low oral health literacy. Thus, in deprived communities, the decay rates amongst children are high and there is increased risk of pregnancy-related gingivitis.

Within the core BDS & BSc 2 'Prevention in Practice' teaching session (part of Public Health), recent data relating to these vulnerable groups is also briefly discussed. In addition, BDS & BSc 2 students have the opportunity to explore issues such as low oral health literacy among vulnerable populations in greater depth through their poster assessment, as part of the Sustainability in Dentistry and Public Health modules.

Curriculum: Sustainability

1.10. Does your <u>dental school</u> curriculum address the concept of environmental sustainability?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

The concept of environmental sustainability is first introduced in BDS 1. Students are introduced to key concepts and terminology related to sustainability in dentistry via a lecture entitled 'Humanising Dentistry'. This provides a 'helicopter view' of dentistry as an industry, including:

- *Environmental footprint*
- *Prevention*
- *Social responsibility as a dentist*
- *Viewing patients holistically rather than purely clinically*

Students are made aware that dentistry should be more sustainable and that dentists should have a sense of responsibility for environmental sustainability, as well as understand its importance.

In BDS 2, students are given four interactive sessions that highlight the following core areas of sustainable dentistry:

- *Prevention*
- *Sustainable travel*
- *Procurement*
- *Waste disposal*

The structure of these sessions is based on work commissioned by health authorities to guide sustainability teaching across healthcare professions, and is then tailored by each discipline. After these sessions, students are signposted to key resources, some of which are available on Canvas (the University's online learning platform).

In BDS 3, students' knowledge is deepened with critical evaluation of what kinds of sustainability measures are feasible in practice, as well as aspirational and realistic implementations. The final two years include online modules on sustainability. Additionally, Canvas provides various resources and links to articles regarding environmental sustainability. Dental students also complete online

induction modules and in-person clinic training that cover appropriate waste disposal practices; this ensures they understand how to separate different types of waste correctly, helping to improve waste management efficiency and reduce the amount sent to landfill.

1.11. Does your dental school curriculum address the concept & importance of sustainable healthcare?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation:

On the University's learning platform, Canvas, there is a folder dedicated to environmental sustainability, which contains links to the following:

- *Environmentally sustainable dentistry: a brief introduction to sustainable concepts within the dental practice - Duane et al. BDJ (2019)*
- *Clinical guidelines for environmental sustainability in dentistry - developed by Trinity College Dublin (Republic of Ireland), NHS England and the Chief Dental Officer for England*
- *Environmental sustainability - What the BDA is doing to help?*

The institution also highlights antimicrobial stewardship to reduce the development of antimicrobial resistance. This is introduced in BDS 1 through an EBL case titled 'Mary's Swollen Face', which focuses on the appropriate use of antibiotics in dentistry. Additionally, a lecture entitled 'Antimicrobial Stewardship (Micro-organisms, Impact on Human Body in Health and Disease, and Antimicrobial Agents)' is delivered to BDS 3 students, which highlights the uses and misuses of antibiotics in healthcare settings. Furthermore, an antibiotic stewardship module is promoted to BDS 3 students as part of their training on sustainable use of antibiotics.

1.12. Does your dental school curriculum address the carbon footprint of healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', briefly addresses the carbon footprint of dentistry. This resource includes statistics on

the carbon footprint in NHS dentistry, such as "64.5% of carbon emissions in dentistry come from travel".

Additionally, the BDS 2 page of the Canvas learning platform contains a link to an article entitled 'Dental Practices - understanding their carbon footprint and ways to improve it', emphasising the significance of the carbon footprint within healthcare systems. Within the core BDS & BSc 2 session on 'Travel' (part of Sustainability in Dentistry), there is a brief discussion about how travel by both patients and dental teams contributes to the carbon footprint of dental clinics and what small steps can be taken to make a difference.

1.13. Does your dental school curriculum address the concept & importance of sustainable oral healthcare?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation:

On the University's learning platform, Canvas, there is a folder dedicated to environmental sustainability, which contains links to the following:

- *Environmentally sustainable dentistry: a brief introduction to sustainable concepts within the dental practice - Duane et al. BDJ (2019)*
- *Clinical guidelines for environmental sustainability in dentistry - developed by Trinity College Dublin (Republic of Ireland), NHS England and the Chief Dental Officer for England*
- *Environmental sustainability - What the BDA is doing to help?*

The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', has a section entitled 'The Principles of Sustainable Oral Healthcare and Sustainable Dentistry' which includes the four principles of sustainable oral health:

- *Prevention*
- *Patient empowerment / self-care*
- *Lean service delivery*
- *Low-carbon alternatives*

Additionally, in BDS 1, students receive introductory teaching via the lecture 'Humanising Dentistry'. This covers sustainability in dentistry, including the environmental footprint of oral healthcare and the broader social responsibility of the dental profession. Prevention is also highlighted as a key aspect of dentistry from the start of BDS 1, with oral hygiene advice being taught throughout the 'Fundamentals of Dentistry' course.

Throughout the degree, students receive lectures on antimicrobial stewardship, including the correct use of antibiotics and ways to avoid resistance.

1.14. Does your dental school curriculum address the environmental impact of oral healthcare systems and interventions?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

The dental school emphasises the impact of mercury in amalgam restorations on human health and the environment through BDS 2 lectures about dental restorative materials. The large-scale mercury poisoning from the Minamata Bay incident and the convention that followed to encourage the phasing-out of mercury dental products in several countries were mentioned. Additionally, a lecture about composite restorations discusses the adverse effects of nanocomposites on the environment.

Dental students are also made aware that nitrous oxide pollution from inhalation sedation has a negative impact on the environment. This topic is also referenced in the article by Duane et al. (2019), Environmentally sustainable dentistry: a brief introduction to sustainable concepts within the dental practice, which is linked on the learning platform, Canvas.

In the 2025-26 academic year, BDS & BSc 2 students will have in-person symposia that provide a structured overview of the environmental impacts of oral healthcare systems and practical / impactful interventions for Sustainable Improvement, e.g.:

- *Prevention and health promotion (reducing restorative burden)*
- *Sustainable procurement*
- *Reduced travel*
- *Energy-efficient clinic design*
- *Waste segregation to reduce air pollution from incineration of dental clinical waste*

Summative assessment at the end of BDS & BSc 2 includes a short answer paper (SAP), which is structured as a case scenario with follow-up questions. These questions will be focused on the specific environmental impacts of oral healthcare systems and exploration of practical interventions to support sustainable improvement.

The online module, which is mandatory for BDS & BSc 3 provides a further structured recap of the environmental impacts associated with oral healthcare systems and practical interventions for sustainable improvement.

1.15. Does your dental school curriculum address the importance of measuring the environmental impact of oral healthcare to identify & reduce contributing factors?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)
This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)	
Score Assigned:	1
Score explanation: *The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', contains various statistics about the carbon footprint associated with NHS dentistry, indirectly highlighting the importance of measuring the environmental impacts of oral healthcare to reduce contributing factors.* *Currently, all BDS 5 students undertake an audit before graduating, and the Dental School has plans to introduce 'green audits', directly linking measurement of environmental impact to quality improvement in practice. These audits will focus on prevention, green procurement, infection control, and sustainable materials.*	

Curriculum: Sustainability through Good Oral Healthcare

1.16. Does your dental school curriculum address the importance of promoting good oral health and preventive care in the delivery of sustainable oral healthcare?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *The University of Manchester places significant emphasis on preventative dentistry to reduce the burden of oral disease throughout BDS 1-5. This is supported by evidence-based approaches, particularly through the use of the Delivering Better Oral Health toolkit developed by NHS England. In BDS 1, the 'Fundamentals of Dentistry' course introduces key concepts such as dental caries and periodontal disease, within which the importance of prevention is strongly promoted. Throughout all years of the Dentistry programme, numerous lectures further reinforce the significance of prevention in managing dental disease.* *The institution also presents the 'Restorative Cycle', a model that illustrates the lifelong cycle of treatment experienced by patients with dental caries, highlighting why prevention is crucial in the first place. By prioritising preventative care in its curriculum, the University of Manchester enables dental students to understand its central role in delivering sustainable oral healthcare.*	

1.17. Does your dental school curriculum address the environmental significance of the delivery of high-quality (operative care) oral healthcare?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)
This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:

While the dental school places a strong emphasis on the delivery of high-quality, evidence-based operative care, the environmental significance of this approach is not explicitly addressed within the curriculum.

Clinical teaching is grounded in evidence-based dentistry, with students encouraged to rely on high-quality research such as systematic reviews and meta-analyses, including work from Cochrane, a group with strong links to the University of Manchester. Principles of sound treatment planning are also reinforced throughout the curriculum, including through enquiry-based learning (EBL) cases and clinical teaching, which aim to minimise overtreatment and inappropriate interventions. These approaches indirectly contribute to environmental sustainability by reducing repeated procedures, material use, and resource consumption.

From 2026, sustainability is embedded as a core clinical competency (as per the latest GDC's framework). Learning outcomes are mapped progressively across three years (BDS & BSc 1, BDS & BSc 2, and BDS & BSc 3) using a spiral curriculum approach. Content delivered through the in-person BDS & BSc 2 symposia and the mandatory online module for BDS & BSc 3 is aligned with high-quality care principles.

1.18. Does your dental school curriculum address the environmental significance of 'integrated oral care'?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

From the early years of the programme, students are taught to consider patients within their wider medical, dental, and social contexts rather than focusing solely on presenting complaints. For example, in BDS 1 'Fundamentals of Dentistry' teaching, students receive information about dietary advice and behaviour change strategies, including positive reinforcement, and techniques to encourage sustainable behaviour change in patients. These principles are reinforced throughout clinical teaching and promote preventative, patient-centred care and long-term oral health maintenance.

By encouraging prevention, behaviour change, and tailored care, integrated oral care can reduce the need for repeated interventions and unnecessary treatment, thereby implicitly lowering resource use and environmental burden. However, this link between oral health care and environmental sustainability is not explicitly acknowledged or taught within the curriculum. Therefore, while the principles of integrated oral care are well established within the curriculum, their environmental significance is not directly addressed.

1.19. Does your dental school curriculum address the importance, environmental & oral health outcomes of individual & dental team's ownership of care?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective coursework** or **other learning experiences** (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	1

Score explanation:

The dental school partially addresses the importance of individual and dental team ownership of care, particularly in relation to antibiotic stewardship and clinical governance.

Antimicrobial stewardship is a key area where students are made aware of their professional responsibility for treatment decisions and their impact on patient outcomes. Several lectures highlight the role of dental professionals in responsible antibiotic prescribing, emphasising the risks of unnecessary prescribing for oral health, antimicrobial resistance, and wider public and environmental health.

Additionally, BDS 5 students are required to undertake an annual clinical audit as part of the curriculum. This process encourages reflection on clinical practice, accountability, and continuous quality improvement, reinforcing the responsibility of the dental team to monitor and improve standards of care. These principles indirectly support sustainability by promoting effective, evidence-based care and reducing inappropriate or inefficient treatment.

While these components demonstrate some recognition of professional ownership of care and its links to oral health and environmental outcomes, the curriculum does not provide comprehensive or explicit teaching on the environmental implications of dental team decision-making across all areas of care.

1.20. In training for patient encounters, does your dental school's curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)	
No, there are **no** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0

Score explanation:

The dental school curriculum does not introduce strategies to have conversations with patients about the health effects of climate change.

Curriculum: Administrative Support for Planetary Health

1.21. Is your dental school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/Environmental Sustainability in Dentistry (ESD)/Planetary Health education?	
Yes, the dental school is currently in the process of making **major** improvements to ESH/ESD/planetary health education. (4 points)	
Yes, the dental school is currently in the process of making **minor** improvements to ESH/ESD/planetary health education. (2 points)	
No, there are **no** improvements to Planetary Health education in progress. (0 points)	
Score Assigned:	2
Score explanation: *The dental school is in the process of making minor improvements to Education for Sustainable Healthcare (ESH) / Environmental Sustainability in Dentistry (ESD) / Planetary Health Education. The online module for BDS 3-5 students, called 'Eco-dentistry: Sustainable Practices for Tomorrow', was newly introduced this year following recommendations from last year's report and new lectures were introduced for BDS 1-3 students.* *Developments continue to be made in this area, with a 'Sustainability in Healthcare' Conference planned to take place later this year, which will be open to all Faculty of Biology, Medicine & Health students. Additionally, 'green audits' will be introduced from next year for BDS 5 to carry out, to encourage students to consider prevention, green procurement, infection control and use of eco-friendly materials.*	

1.22. How well are the aforementioned planetary health/Education for Sustainable Healthcare/Environmental Sustainability in Dentistry (ESD) topics integrated longitudinally into the core curriculum?	
Planetary health/ESH/ESD topics are **well integrated** into the core dental school curriculum. (6 points)	
Some planetary health/ESH/ESD topics are appropriately integrated into the core dental student curriculum. (4 points)	
Planetary health/ESH/ESD is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)	
There is **minimal/no** education for sustainable healthcare. (0 points)	
Score Assigned:	4
Score explanation: *Planetary health and sustainability topics are integrated longitudinally throughout the dental curriculum, with a progression from early awareness to more applied and critical engagement in later years. In BDS 1, students are introduced to key sustainability concepts and terminology, with a Semester 2 lecture on 'Humanising Dentistry' providing a broad overview of dentistry's environmental footprint, prevention, and social responsibility.* *In BDS 2, sustainability teaching is more structured and interactive, with four sessions focusing on prevention, sustainable travel, procurement, and waste disposal. Environmental impacts of dental materials are also addressed, including lectures on amalgam, composites, and single-use plastics.*	

Practical engagement is encouraged through behaviour change teaching and poster presentations, helping students apply sustainability principles in a clinical and public health context.

In BDS 3-5, sustainability teaching progresses to critical evaluation through the online module 'Eco-dentistry: Sustainable Practices for Tomorrow', which explores feasible sustainability measures in dental practice, waste management, prevention, and greenwashing.

Overall, sustainability education is delivered across multiple years; however, as the online module is not currently compulsory for BDS 3 and BDS 4 students, there is limited teaching about Planetary Health / Education for Sustainable Healthcare / Environmental Sustainability in Dentistry (ESD) topics in these years.

1.23. Does your dental school appoint a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes, the **dental school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the **dental school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: *At the University of Manchester, Dr Vitalia Kinakh (vitalia.kinakh@manchester.ac.uk) has been appointed as the lead for environmental sustainability of the dental school and is responsible for overseeing curricular integration of planetary health and sustainable healthcare.*	

Section Total (40 out of 70)	**57.14%**

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Interdisciplinary Research

Section Overview: ***This section evaluates the quality and quantity of interdisciplinary planetary health research at the broader institution.*** *Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. As leading health institutions with talented researchers and research resources, institutions should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.*

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	3

Score explanation:

Several researchers at the institution conduct research on planetary health and healthcare sustainability. For example, there are researchers working on environmentally sustainable polymers with applications in healthcare at the Sustainable Materials Innovation Hub (SMIH), based at the University of Manchester. Other members of the SMIH are collaborating with Bupa to develop sustainable systems for single-use items in dental and medical practices.

Within the Faculty of Biology, Medicine and Health, there are researchers from many different Divisions who are involved with planetary health. Researchers from multiple divisions, including the Division of Immunology, Immunity to Infection and Respiratory Medicine, and the Division of Cell Matrix Biology & Regenerative Medicine, are currently developing tools to measure the impact of microplastics and nanoplastics on human health (PLASTICHEAL). Additionally, there are faculty members within the Division of Dentistry conducting research relevant to healthcare sustainability, such as sustainability awareness in dentistry, promoting antimicrobial stewardship, and digital dentistry and dental materials.

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)
There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)
There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)
There is **no** dedicated department or institute. (0 points)

Score Assigned:	3

Score explanation:

The University of Manchester has a research platform called Sustainable Futures, which encompasses a range of themes, including Resilience, Materials, Energy, Nature, Equity, and Skills. This institution-wide platform aims to encourage interdisciplinary research on sustainability challenges and facilitates collaborations with several organisations, including the Climate and Justice Group, the Tyndall Manchester Centre for Climate Change Research, the Manchester Environmental Research Institute (MERI), and the Sustainable Consumption Institute (SCI).

Tyndall Manchester brings together researchers from many different backgrounds, including natural scientists, engineers, social scientists and economists to 'produce socially impactful and policy-relevant interdisciplinary research on climate action and sustainability'. The MERI also carries out similar work, aiming to foster multi- and interdisciplinary research on topics such as health inequalities, water resources, and energy systems. The theme for the 2024-2029 agenda for the SCI is 'Understanding Sustainability in a Turbulent World' and focuses on placing consumption in the foreground of research in order to create more sustainable societies by understanding human needs and practices.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)
There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:	2

Score explanation:

The University of Manchester places a key focus on Social Responsibility, with public and civic engagement being a large part of this. As part of the public engagement framework, the University

involves members of the public in research activities and is committed to embedding public engagement into all aspects, including 'research, teaching, and places'.

Within the Faculty of Biology, Medicine and Health, there is a Patient and Public Involvement and Engagement (PPIE) scheme which promotes partnership between research or teaching staff and patients or members of the public. Initiatives such as the PPIE forum and engagement events allow discussion between the public and researchers, and ensure patients or members of the public can receive updates from staff and understand upcoming plans.

While these initiatives support meaningful public engagement, there is no evidence suggesting that communities disproportionately impacted by climate change and environmental injustice are involved in decision-making processes or have a formal role in shaping research priorities.

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)	
There is **no** website. (0 points)	
Score Assigned:	3
Score explanation: *The University has a website called Sustainable Futures that provides a central hub for research, events, and collaborations related to sustainability. It provides information on funding opportunities. It also includes sections on case studies, Institutes and Centres, news, events and key focal points when addressing planetary health such as net zero.*	

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?
Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)
The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	4
Score explanation: *The University of Manchester has held various conferences or symposia on topics related to planetary health in the last year.* *These include:* ● *The Planetary Futures Conference (December 2025)* ● *SEED Symposium: 'Getting serious about sustainability: Research, education and advocacy' (May 2025)*	

2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 point)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
Score explanation: *The School of Health Sciences, University of Manchester, is currently a member of the Planetary Health Alliance (PHA), and has been since October 2024.*	

Section Total (16 out of 17)	**94.12%**

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Community Outreach and Advocacy

Section Overview: ***This section evaluates a school's engagement in community outreach and advocacy efforts associated with planetary health.*** *Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

3.1. Does your institution partner with community organisations to promote planetary and environmental health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	3

Score explanation:

The institution collaborates with a variety of organisations with the goal of promoting planetary health. These include:

- *Partnerships through Ardwick Climate Action since 2022 during student volunteering for biodiversity and environmental improvements.*
- *The institution hosts and collaborates through the Tyndall Manchester Centre for Climate Change Research, which works closely with policymakers, local authorities, and civil society to translate climate research into action.*
- *Sustainable Futures, a University of Manchester led platform that connects researchers with communities, industry, and the NHS.*
- *Manchester Climate Change Agency, which supports climate strategy (e.g. Manchester Climate Change Framework) and evidence-based local climate action.*
- *The Greater Manchester Combined Authority, an administrative partnership that has many goals, including achieving a carbon-neutral city-region by 2038 through a Five-Year Environment Plan.*
- *Being part of the Nature Positive Student Ambassadors Scheme, which allows students to take action for biodiversity on campus.*
- *Bee Circular, an initiative that focuses on reducing food waste and fostering sustainability within the University of Manchester and its surrounding community through strategic partnerships and volunteer engagement.*
- *Working Well Scheme: Roots to Dental programme, which works with underserved communities in Greater Manchester, addressing access to oral healthcare, health inequalities, and social inclusion/wellbeing.*
- *Manchester Environmental Education Network, which is an independent charity focused on promoting education about the environment and sustainability through running projects and hosting events.*

- *City of Trees, an independent charity focused on planting, taking care of, and promoting a culture of trees across the Greater Manchester region.*

The institution also partners with numerous NGOs through research collaboration, student volunteering, public engagement, and community projects.
Examples of such NGOs are:

- *WWF*
- *Repair Café movement*
- *Transition Towns Network*
- *Open Kitchen Manchester - Manchester's leading sustainable catering company for meetings, celebrations and events*
- *The Kindling Trust*
- *Friends of the Earth*
- *The Women's Environmental Network*

The institution hosts events that connect researchers with community partners, such as the Creative Health Research Symposium 2025, which collaborates with Cartwheel Arts and other community organisations.

Within the official University of Manchester website, there is a page that lists the diverse range of organisations that are partnered with the Sustainable Consumption Institute (SCI) and the University of Manchester. The University of Manchester's Volunteer Hub provides a range of volunteering opportunities with community organisations, related to planetary health and climate change, are advertised for students to apply for if interested.

Within the Faculty of Biology, Medicine and Health, students have the opportunity to be involved with sustainability projects by applying to be a LEAF champion, joining the faculty's green champions network, and partaking in the campus project on iNaturalist. Within the Division of Dentistry, a 3-year partnership with Bupa was launched through the University's 'Sustainable Futures' platform and 'Unit M'. This is a partnership with dental care providers to reduce environmental impacts of practice.

3.2. Does your institution offer community-facing courses or events regarding planetary health?	
The **institution** offers community-facing courses or events at least once every year. (3 points)	
The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The **institution** has not offered such community-facing courses or events. (0 points)	
Score Assigned:	3

Score explanation:

The University of Manchester has announced that they will host their first student-led conference on sustainable futures in healthcare in March 2026, which aims to explore the climate challenges that can be faced in healthcare, and how the health systems can adapt around this.

The Faculty of Biology, Medicine and Health hosts an annual Environmental Sustainability Showcase, focusing on a range of environmental sustainability initiatives and themes. Several other

events and discussions surrounding the topic of environmental sustainability are hosted throughout the year by this institution and can be easily accessed through the official University of Manchester website under the subsection 'Social Responsibility'.

Institutes within the Faculty of Biology, Medicine and Health regularly run online seminars open to non-University attendees. These seminars cover environmental determinants of health, how health inequalities link to climate, and systems-level public health challenges. The University of Manchester also runs an online multi-day programme of free talks that feature climate experts. The resources and academic contacts from each talk are also readily available on the official webpage, including various links to guide people to read up on various planetary topics.

The University's 'Sustainable Futures' platform maintains an events hub that provides a collection of sustainability-related events (some of which are open beyond the institution). This provides a consistent mechanism for public engagement on environmental sustainability topics that align with planetary health. Previous events are also able to be viewed within the same webpage. Sustainable Futures has also hosted a guest lecture series entitled 'The Albatross Lectures' which was open to both members of the public, as well as University staff and students - this guest lecturer will annually deliver an engaging presentation on a specific topic within environmental sustainability.

The institution's biggest sustainability event of the year, Sustainability Action Month, is held annually for University staff, students and external community members to partake in various activities, workshops and talks across four weeks.

Within the Division of Dentistry, this institution has published a case-study document that describes the integration of climate change through service learning in the dental education programme. Though this mentions community outreach clinics and climate-related initiatives, it is not directly relevant and is not considered strong evidence showing community-facing courses/events regarding planetary health.

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)	
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	1

Score explanation:

The official University of Manchester website contains an environmental events page that functions as a recurring update hub, showing ongoing news around environmental sustainability and climate themes. The University of Manchester's online magazine sometimes covers health and sustainability topics.

The FBMH introduced an Environmental Sustainability Good Newsletter, a quarterly email featuring environmental sustainability news stories, events, funding, and involvement opportunities. It also summarises the University's plans and achievements related to environmental sustainability

and climate change. Students must opt-in/sign up for these newsletters in order to receive them. Additionally, the FBMH Social Responsibility blog is an ongoing stream that updates staff, students, and members of the wider public on Social Responsibility activities, including sustainability showcases, NHS sustainability posts etc.

The 'Sustainable Futures' page of the University of Manchester's website has a subsection dedicated to the latest news about climate change and sustainability that is open for anyone to access and view. The University of Manchester Faculty also maintains a sustainability page known as the StaffNet sustainability hub that includes updates on initiatives and opportunities. Several StaffNet items show sustainable healthcare content in internal update channels.

A weekly e-newsletter is sent out to students at the institution; however, regular coverage of issues related to planetary health is not provided. Within the Division of Dentistry, a weekly e-newsletter is sent out to dental undergraduates, however, regular coverage of issues related to planetary health and/or sustainable healthcare is not provided.

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	2

Score explanation:

The Faculty of Biology, Medicine and Health advertises various CPD courses designed to fortify the knowledge of post-graduate students and keep professionals up to date with research developments. This includes the CPD course 'Climate Change and Health'. Faculty sustainability pages point to training opportunities (e.g. sustainability in labs).

The University of Manchester is heavily involved in the NHS Greater Manchester Green Plan 2025–2028, which states that trusts should offer sustainable healthcare training options and aims for more staff undertaking sustainability training.

The MFT's 'Code Green' plan includes staff-focused sustainable healthcare e-learning modules, which is directly relevant to post-graduation workforce education.

Via the NHS Learning Hub, Manchester NHS Foundation trust (MFT) staff members have access to a programme entitled 'Environmentally Sustainable Healthcare'. This is designed to support qualified healthcare professionals ongoing professional development in sustainability and climate-informed healthcare practice. The programme includes three core modules: (1) Building a Net Zero NHS, (2) Environmental Sustainability in Quality Improvement, (3) Environmental Sustainability in Dentistry.

The MFT supports access to the 'Carbon Literacy for Healthcare' programme, which is designed for current healthcare professionals to build climate-relevant competencies in their practice. The programme is hosted on the NHS e-Learning Hub and on completion of the programme, you may attain the title of 'Carbon Literate'.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated medical centres have accessible educational materials for patients. (0 points)	
Score Assigned:	1

Score explanation:

Manchester Royal Infirmary (MRI) continues to offer information to patients regarding inhaler use to reduce improper use and waste. They also urge patients to bring their own medications from home to try to reduce medication waste in the hospital and in the community. All NHS hospitals have signage asking patients, visitors and staff not to smoke on the premises.

Recommendation: The University could work with students and teaching hospitals to create patient-facing information related to environmental health exposures and suggestions on ways to reduce risk.

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	1

Score explanation:

Some patient-facing sustainability information is available across partner NHS trusts, particularly in relation to sustainable travel and wider hospital environmental initiatives; however, dedicated educational materials specifically addressing the health impacts of climate change for patients were not identified.

All NHS trusts are required to develop a Green Plan, which partner trusts have in place. However, this requirement applies to all trusts across England and Wales and is not specifically designed as patient education on the health impacts of climate change.

Trusts do encourage patients to travel to hospital appointments using public transport where possible. Both Wythenshawe Hospital and North Manchester General Hospital outline

sustainability aims that include promoting the use of public transport, increasing green spaces, and providing patients with more information about sustainable alternatives. While these initiatives provide some sustainability-related information to patients, they do not specifically focus on educating patients about the health impacts of climate change.

Section Total (11 out of 14)	**78.57%**

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Support for Student-Led Planetary Health Initiatives

Section Overview: ***This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups.*** *Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.*

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)	
No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	2

Score explanation:

The University of Manchester offers several avenues of support for students interested in developing sustainability-focused initiatives, both within the Division of Dentistry and at a university-wide level.

At a university-wide level, students can access funding for environmental initiatives through the Students' Union and institutional schemes. Student-led sustainability projects may receive financial support through Students' Union funding streams, including the Steve Biko Sustainability Fund, which will be allocating up to £37,000 in the 2025-2026 academic year to projects aligned with environmental Sustainable Development Goals (SDGs), with individual projects eligible for up to £1,000. Additionally, the University's Social Responsibility Funding Call previously supported sustainability-focused dental education projects, although this funding stream is currently on hiatus and now operates on a more ad hoc basis.

Within the Division of Dentistry specifically, student-led sustainability projects have received institutional support. For example, the Manchester Paediatric Dentistry Student Society (MPDSS) established SCRUB: Super Cool Recycling of Uniforms into Bags, an environmental sustainability initiative in which unused and unusable scrubs are upcycled into toothbrush bags. These bags are distributed during community outreach programmes organised by MPDSS, such as Dentists in Primary Schools (DiPS) and Helping Infants and Parents to Protect their Oral Health (HIPPOH). This project received a £500 grant secured by the Division's Social Responsibility Lead, Dr Vitalia Kinakh, from the Associate Dean for Environmental Sustainability, Dr Maggy Fostier, in 2025.

Students may also integrate sustainability themes into existing academic and extracurricular frameworks. The Stellify Award allows students to focus on social responsibility themes, including environmental sustainability, if they choose.

Overall, while sustainability-focused initiatives are supported through funding opportunities, student societies, audit projects, and flexible academic pathways, engagement with sustainability remains largely optional rather than embedded as a core requirement.

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek them out and carry them out in their spare time. (1 point)	
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1

Score explanation:

The University of Manchester provides opportunities for students to engage in research aligned with planetary health and sustainability through initiatives such as the University Living Lab. This scheme enables students to work with external organisations on research projects linked to the United Nations' Sustainable Development Goals (SDGs). Projects are co-produced with partner organisations and supervised by academic staff, allowing students to develop research proposals, collect and analyse data, and contribute practical solutions. Dental students could apply this framework to sustainability-related topics within oral healthcare, such as waste reduction, procurement practices, prevention-focused service delivery, or carbon footprint analysis in dental settings.

Students are also eligible to engage with sustainability research through the Tyndall Centre for Climate Change Research, which conducts interdisciplinary research on climate change and environmental policy. While these opportunities are not dentistry-specific and are not directly advertised to dental students, they remain open to applicants from across the University, including those within the Division of Dentistry who have an interest in planetary health or sustainable healthcare systems.

At postgraduate level, the University offers funded research opportunities such as the Leverhulme Trust Early Career Fellowship, hosted within the School of Environment, Education and Development. Although not dentistry-specific, this pathway could support research exploring the intersection between environmental sustainability and healthcare systems, including sustainable models of oral healthcare delivery. Overall, while research opportunities in sustainability are available institution-wide, dedicated dentistry-focused planetary health research pathways remain limited.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact information of potential mentors.
The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	2

Score explanation:

The University of Manchester provides several web-based resources where students can access information relating to planetary health and sustainable healthcare activities.

At an institutional level, the Sustainable Futures webpage outlines the University's strategy for addressing environmental and societal challenges. It highlights research institutes, interdisciplinary collaborations, ongoing sustainability initiatives, case studies, and events. The website also provides contact details for research leads and potential academic mentors involved in sustainability-related work. In addition, the University's Social Responsibility webpages signpost students to volunteering and community engagement opportunities, some of which relate to environmental sustainability.

Within the Faculty of Biology, Medicine and Health (FBMH), there is a dedicated sustainability webpage outlining faculty goals and initiatives related to environmental sustainability. This page provides contact details for Sustainability Leads within each School, including those relevant to dentistry and healthcare disciplines. The Faculty also publishes an annual sustainability newsletter summarising achievements, ongoing projects, and research developments. While there is no dentistry-specific planetary health webpage, these central and faculty-level platforms provide students with accessible information about sustainability initiatives and potential mentors across the institution.

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2

Score explanation:

The University of Manchester has several registered student groups and initiatives that promote planetary health engagement and sustainability across campus.

At a wider University level, the Global Health Society is a student-led organisation that explores global health issues, including environmental sustainability and the evolving global agenda on planetary health. The society hosts discussions and speaker events, with support from faculty members and the wider University. In addition, several medical and health-related societies have hosted talks and events addressing sustainability and global environmental priorities in healthcare.

Within the Division of Dentistry, the Manchester Paediatric Dentistry Student Society (MPDSS) runs the SCRUB project (Super Cool Recycling of Uniforms into Bags), an environmental sustainability initiative that upcycles unusable clinical scrubs into toothbrush bags for use in

community outreach programmes. This project received faculty support and secured funding through the Division's Social Responsibility Lead. However, MPDSS is not exclusively a sustainability-focused society.

Through the Students' Union, there are multiple registered student groups dedicated to environmental sustainability, including initiatives such as a zero-waste shop, clothing swap and upcycling societies, sustainable travel schemes (e.g. bicycle hire), urban food-growing projects, and renewable energy engineering projects. While these groups are not healthcare-specific, they contribute to fostering a broader culture of environmental engagement and advocacy across the institution. Some groups have reported receiving encouragement and, in certain cases, faculty support for their initiatives.

Overall, while there is no dentistry-specific student society solely dedicated to planetary health, the institution supports a range of student-led sustainability initiatives, some of which receive faculty engagement and funding support.

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1

Score explanation:

The team behind the University of Manchester PHRC functions as a collaborative faculty-student body in which current sustainability initiatives and projects are discussed. Outcomes from these discussions inform wider faculty meetings and contribute to the development of new initiatives. This has particularly supported outreach efforts aimed at young people from lower socioeconomic backgrounds across Greater Manchester, alongside broader sustainability-focused improvements.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**Score**
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0

Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	0

Score explanation:

The University of Manchester offers many ways for students to engage directly with environmental and health issues, combining academic learning with real world practice. In addition to events like the Environment and Health Symposium, students can take part in formal academic programmes such as the BSc Environmental Management and MEnvSci Environmental Science with Research Placement which include practical fieldwork, ecological surveys, and placement opportunities with external organisations that help develop skills in sustainable land use, biodiversity and natural resource management. There are also optional field courses such as the Urban Biodiversity field course, where students work on freshwater sampling and ecosystem assessment around Manchester, gaining hands-on experience in conservation, species monitoring and habitat evaluation.

Beyond degree programmes, there are active sustainability volunteering opportunities and student-led projects. For example, Incredible Edible is a sustainability project that involves weekly gardening sessions to grow fruit, vegetables and herbs in the city, teaching students about soil health, food production and biodiversity while also benefiting local communities. The Sustainability Champions Programme allows students to lead and deliver events on topics like sustainable food, travel, energy and biodiversity, building practical skills in organisation and community engagement. There are also roles in zero-waste initiatives like the Want Not Waste Shop, and societies such as People and Planet and Fossil Free UoM which campaign on environmental issues, as well as create workshops and organise activities that connect sustainability with broader social and health goals.

The University's Volunteer Hub connects students with local environmental projects including tree planting and community green space improvement, allowing hands-on engagement with sustainable practice and ecological stewardship, while contributing to the city's natural environment. These opportunities help students learn directly about agriculture, biodiversity, ecosystem health and sustainability, linking environment and health in practical and community contexts.

Section Total (12 out of 15)	**80.00%**

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Campus Sustainability

Section Overview: ***This section evaluates the support and engagement in sustainability initiatives by the institution.*** *The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our institutions, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

5.1. Does your institution have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
Score explanation: *The environmental sustainability team includes staff from many different disciplines and backgrounds. The sustainability targets and plans are overseen by the following groups:* ● *Environmental Sustainability Committee* ● *Carbon Action Group* ● *Material Resources Management Group* ● *Nature Action Group* *Further information on the environmental sustainability team at the University of Manchester can be found here.*	

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?	
The institution has a **written and approved plan** to achieve carbon neutrality by **2030** (5 points)	
The institution has a **written and approved plan** to achieve carbon neutrality by **2040** (3 points)	
The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)	
The institution does **not** meet any of the requirements listed above (0 points)	
Score Assigned:	3

Score explanation:

The University of Manchester's Our Sustainable Future plan aims to 'reduce our carbon footprint, promote sustainability in our teaching and learning, research and innovation, and reduce our negative environmental operational impact.' The plan has a target of zero direct carbon emissions by 2038, and net zero by 2050 with indirect emissions. The Carbon Action Plan also outlines the University's target for carbon neutrality by 2038.

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?	
Yes, institution buildings are **100%** powered by renewable energy. (3 points)	
Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)	
Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)	
Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)	
Score Assigned:	1

Score explanation:

The University of Manchester entered into the Renewable Energy Guarantees of Origin (REGO) scheme, which had a target of reaching '100% renewable energy use within the endowment investment property portfolio by 2027'. According to the Environmental Sustainability Strategy, the University has purchased 100% renewable electricity since 2021, backed by REGO certification, achieving this target ahead of the 2027 deadline.

More recently, the University has strengthened its renewable electricity supply through a corporate Power Purchase Agreement (cPPA) solar farm, which supplies approximately 60-65% of the University's electricity demand. This further supports its transition to low-carbon energy sources.

However, while electricity sources are fully renewable, the University continues to rely heavily on natural gas for heating buildings. The 2024/25 Environmental Sustainability Annual Performance Review reports total energy consumption of 250 GWh across electricity, gas and oil. Heat networks alone account for approximately 70% of natural gas usage, indicating that fossil fuels continue to be a significant component of overall energy demand. Although the University has committed that 'No gas boilers will be fitted other than in exceptional circumstances and must be approved through the zero carbon governance process' and that it will 'Explore the potential for renewable energy generation on and/or around our buildings and campus', it has not yet fully transitioned away from gas-based heating systems.

As renewable electricity does not yet account for more than 80% of total energy consumption when gas and oil use are included, it can be evidenced that the University sources more than 20%, but not more than 80%, of its total energy needs from renewable sources.

5.4. Are sustainable building practices utilised for new and old buildings on the institution's

campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?	
Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)	
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)	
Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)	
Sustainability is **not considered** in the construction of new buildings. (0 points)	
Score Assigned:	3
Score explanation: *There is a plan in place to ensure sustainable building practices are utilised for new buildings on the institution's campus. Contractors must take environmental sustainability into account at every phase of construction. This approach aims to maximise resource efficiency in design and operations, while minimising adverse environmental effects. Additionally, any project valued at over £100,000, or associated with environmental considerations, is required to complete the environmental sustainability project tracker.* *It involves three phases:* ● *Phase 1 - Booth St East and Dalton Ellis buildings, which have been completed.* ● *Phase 2 - Four buildings which have been planned, including Zochonis Building and Humanities Bridgeford Street.* ● *Phase 3 - Buildings which are yet to be agreed.* *Zero carbon targets for these projects involve the provision of air source heat pumps, photovoltaic panels, new roofing systems, glazing and internal insulation systems. A 2023 audit of the new buildings showed 97% waste recycling and 40% carbon reduction in Year 1 after completion.*	

5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)	
The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)	
The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	2
Score explanation:	

The University of Manchester actively encourages sustainable travel through its Travel Plan 2025-2030. This plan includes extending the free route on the No. 147 bus to Piccadilly Station and trialling free bus travel from Victoria Station to campus. For existing car park users, free trial tram and train passes will be offered to encourage the use of public transport. Walking, wheeling, and cycling to work are also promoted through this plan. Initiatives include organising active travel breakfasts, increasing the Cycle to Work scheme limit to £5,000, and offering free Starling hire bike minutes.

More information on the Travel Plan 2025-2030 can be found here. Sustainable travel initiatives are also discussed as part of the University's environmental sustainability strategy.

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution. (0 points)	
Score Assigned:	2

Score explanation:

In line with the Environment Act 2021, the University aims for 100% of campus buildings to contain a food waste bin. The University has been expanding food waste collections across campus buildings, beginning with staff kitchens. Collections have now been rolled out to staff kitchens across all academic buildings on the Main Campus. As of March 2025, food waste collections are also due to commence at the Jodrell Bank Observatory / Discovery Centre and the Dalton Cumbria Facility. More information can be found here.

Recycling bins are also located throughout the campus. The 'Bin to Bin' scheme has been implemented to maximise the amount of waste recycled by staff by removing individual office waste bins. Waste from these bins is collected by various contractors for recycling. More information can be found here.

5.7. Does the institution apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?
Yes, the institution has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (3 points)
There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)
There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)
There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:	3

Score explanation:

The University strives to provide 'healthy sustainable catering that is produced, processed and traded in ways that provide social benefits, enhance animal welfare, avoid damaging our planet and contribute to the local economies as well as sustainable livelihoods'.

Sustainable food initiatives include sourcing sustainable seafood, purchasing high welfare meat, and implementing dairy- and meat-free Mondays. Further information can be found here and here.

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)
There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:	3

Score explanation:

The University of Manchester has a central procurement office that ensures the majority of the University's food suppliers are appointed under The University Caterers Organisation (TUCO) framework. This framework requires sustainability considerations to be included in all procurement documentation, including contracts.

Contracted suppliers are also expected to sign up to the NET Positive Supplier Development Tool, which supports and develops the supply chain as part of the University's commitment to ensuring sustainability within the procurement process.

Further information can be found here.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)
There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:	2

Score explanation:

The University's dedicated Environmental Sustainability Team develops policies and supports organisers in implementing sustainable practices for events. These include guidelines for giveaways distributed on campus during Welcome Week, where plastic items must be reusable, contain a high percentage of recycled content, and meet sustainably sourced accreditation standards for food items.

The University has also implemented the Conferences and Venues Sustainability Action Plan, which has been in effect since 2016. This plan outlines three main priorities and objectives for business operations: technological improvements, behavioural change, and smart investment. These principles continue to guide sustainability practices when events are hosted at the University.

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)	
There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	2

Score explanation:

As part of the University's Environmental Sustainability Strategy, several initiatives are in place to improve the environmental sustainability of laboratory spaces. These include requiring all laboratories to achieve a Bronze LEAF (Laboratory Efficiency Assessment Framework) award by 2025, with 25% of laboratories aiming to achieve a Silver LEAF award to improve the efficiency of research and teaching lab spaces. In addition, all laboratories are expected to adopt the 6R Responsible Plastics Protocol.

As of early 2025, 78% of principal investigators (PIs) within the Faculty of Biology, Medicine and Health (FBMH) have a LEAF champion within their team, and 50% of PIs have achieved a LEAF award (16% Bronze, 67% Silver, and 43% Gold), with the aim of reaching 100% by the end of 2025.

All three of the Faculty's Geography, Archaeology, and Architecture laboratories have now been accredited through LEAF. The archaeology laboratory previously received a Silver award, the geography laboratory has achieved a Gold award, and most recently the architecture laboratory received a Bronze award.

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)
The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)	
The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)	
Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)	
Score Assigned:	3
Score explanation: *The University of Manchester confirmed in its 2021 Responsible Investment Report that it had ended investments in coal, oil and gas, and states that it fully divested from fossil fuels in 2022. Its updated Policy for Responsible Investment (2022; revised 2024) formalises this position and embeds climate considerations within its investment governance framework.* *In addition to full divestment, the University has committed to prioritising responsible and sustainable investments, including renewable energy initiatives such as its corporate Power Purchase Agreement (cPPA) solar project. These measures demonstrate both complete divestment from fossil fuel companies and an active commitment to reinvestment in renewable energy and low-carbon assets.*	

Section Total (27 out of 32)	**84.38%**

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Grading

Section Overview
This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade*	Percentage
A	80% - 100%
B	60% - 79%
C	40% - 59%
D	20% - 39%
F	0% - 19%

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the University of Manchester School of Dentistry
The following table presents the individual section grades and overall institutional grade for the University of Manchester School of Dentistry on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(40/70) x 100 = 57.14%	C+
Interdisciplinary Research (17.5%)	(16/17) x 100 = 94.12%	A
Community Outreach and Advocacy (17.5%)	(11/14) x 100 = 78.57%	B+
Support for Student-led Planetary Health Initiatives (17.5%)	(12/15) x 100 = 80.00%	A-
Campus Sustainability (17.5%)	(27/32) x 100 = 84.38%	A-
Institutional Grade	**(57.14x0.3 + 94.12x0.175 + 78.57x0.175 + 80.00x0.175 + 84.38x0.175) = 76.13%**	**B+**

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which the University of Manchester Dental School has participated in the Planetary Health Report Card initiative.