



Planetary Health Report Card (Medicine) 2026: Keele University



2025-2026 Contributing Team:

- Students: Aghna Wasim*, Zelke Tutagiel, Olivia Benny, Cordelia Hassan Wadi, Marijoh Rodriguez Humber, Safa Khan, Tom Smith, Ananya Shearman
- Faculty Mentors: Dr Szu Shen Wong

*Primary Contact: x7y19@students.keele.ac.uk

With thanks to contributions from the Keele School of Pharmacy & Physiotherapy PHRC Teams (see their submissions for names).

Summary of Findings

Overall Grade	A
Curriculum	A
<ul style="list-style-type: none"> The Keele Curriculum strongly emphasises the effects of pollution, extreme weather and the effect on the pattern of infectious disease, as well as health inequalities, with these sessions being delivered in a variety of ways. The importance of planetary health is revisited every year allowing students to build on their learning and to introduce them to new planetary health concepts. Recommendations: The curriculum currently lacks a focus on teaching students how to incorporate discussions about planetary health into patient interactions. This could be addressed through clinical skills training or early years GP teaching. Emphasising the importance of indigenous knowledge and value systems as integral components of planetary health solutions would also enhance the curriculum. 	
Interdisciplinary Research	A+
<ul style="list-style-type: none"> Keele University has a strong research focus on sustainability and factors that affect planetary health with several researchers in the school exploring topics that promote sustainability. The Institute of Sustainable Futures is the basis of most of the sustainability research at Keele and provides the opportunity for a variety of multidisciplinary research. Recommendations: Interested students should be encouraged to pursue research in planetary health alongside their studies via increased promotion of opportunities through in-class or online learning portal announcements and inclusion of additional projects and mentors in the research database that specifically lists projects open for student involvement. 	
Community Outreach and Advocacy	A+
<ul style="list-style-type: none"> Keele University has meaningful links with several community organisations that advocate for sustainability and planetary health, providing educational community placements for students within the local community. In addition, there are also Student Union events such as the Green Festival, focusing on the university community. Since the last report card, Keele University has provided more opportunities for students to learn more about global challenges. Recommendations: The medical, physiotherapy, and pharmacy schools could run a community facing event regarding planetary health which would be a great addition to their research focused events. Although the university itself runs community facing events regarding sustainability and planetary health, these health schools are not involved in their planning, organization, or execution.. 	
Support for Student-Led Initiatives	A+
<ul style="list-style-type: none"> Keele University provides funding for student projects across campus which students are eligible to apply for. The institution also has a webpage dedicated to sustainability and planetary health. Recommendations: A student-led planetary health group should be formed with faculty support. 	
Campus Sustainability	B+
<ul style="list-style-type: none"> At Keele University, sustainability is very important and this is evident throughout the current projects and initiatives on our main university campus. Transport has been considered, with clinical placements accessible by public transport. Recommendations: There is a need for a written and approved carbon neutrality plan by at least 2040. Greater energy should be generated from on- and off-site renewable sources. The medical school runs a 	

system where they try to group students with a car with those without a car so that they can car-share to shared placements. This same system can be implemented across the other disciplines (such as pharmacy and physiotherapy).

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, 4) community outreach centred on environmental health impacts, and 5) school campus sustainability.

Definitions & Other Considerations

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 use of healthcare services.
- **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.
- **Medical School/Department vs. Institution:** When “Medical school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine 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 medical 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 the 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 medical 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 medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. (1 points)	
No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Keele University offers many opportunities for students to engage in Education for Sustainable Health and Planetary Health. This is done through many avenues within the Medical School Curriculum, especially through elective opportunities. In Year 1, students must complete an Academic Mini Review where they review research from a wide range of topics provided. Examples of such topics are: ‘Developing Sustainable approaches to 21st century healthcare challenges’; ‘Global Healthcare Access and Vaccination, can access really be equitable’; ‘How do we reduce the number of animals used in biomedical research’; ‘The global burden, spread and barriers to eradication of TB’; ‘The effects of air pollution on human health’; ‘Repurposing old drug - potential of heparin derivatives as a treatment of SARS’, ‘Antimicrobial Stewardship’, ‘What does the emergence of autochthonous dengue in France tell us about the risk to the UK from arboviral infections’.</i></p> <p><i>Moreover, Year 2 medical students are provided the opportunity to review sustainability and planetary health within the community through their “community partnership placements” (CPP) which are longitudinal placements throughout the year, with placements at B-Arts (aim to engage with people from different backgrounds to create sustainable art to strengthen cultural infrastructure and improve mental health) and Green Doctor CIO (aims to encourage people to overcome isolation by taking part in activities and workshops to promote healthier lifestyles using Staffordshire’s green spaces).</i></p> <p><i>In the latter 3 years of the degree, medical students at Keele can choose electives that have a sustainability focus such as ‘Health and healthcare around the world’ or can conduct qualitative research on any topic of interest.</i></p>	

This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, 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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: Keele Medical School provides a mandatory interprofessional education day for each year group. This session discusses how to utilise resources in various situations such as flooding and the effect this has on healthcare, highlighting the relevance of climate change to clinical practice. In phase 1 (pre-clinical years of the undergraduate medicine course), there are several lectures that address climate change and health risks. In the 'health promotion lecture' the rates of mortality related to climate change are discussed. Furthermore, the rural health lecture and environmental lectures discuss how climate affects rural populations, access to healthcare and the effect of extreme temperature in the UK on mortality, which heavily discussed how the main cause of deaths in elderly in the summer was due to extreme heat conditions. Discussions within problem-based learning (PBL) sessions covered possible preventive methods and red flag signs of negative effects of extreme heat upon the elderly, such as delirium and blackouts. This link is also further emphasised in the Year 3 session Sustainable Healthcare workshop and lecture.

In Year 1, students must complete an Academic Mini Review where they review research from a wide range of topics provided. The topic 'The effects of air pollution on human health' probes students to acknowledge this relationship between extreme heat, health risks and climate change, whilst also providing a list of resources which touch on this subject too. Due to this being an elective component, students were free to explore these topics to great depth.

Additionally, the Interprofessional Education Day (IPE) hosted yearly to unite students across the various healthcare degrees at Keele University, includes discussions on how to plan care through extreme conditions such as floods and disasters. This is particularly useful when medical students discuss with paramedic students on how to deal with climate change, health risks and extreme heat, with patients of different demographics and comorbidities, and the relationship there is between this and health.

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on 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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: In the first phase of medical school, Keele promotes discussions about extreme weather and healthcare through the lectures on rural health, environmental disease and health promotion. Here, lectures discuss the effect of drought on agriculture and rural populations and the effect of extreme weather on healthcare systems. This was in the lecture: rural health.</i></p> <p><i>During the annual interprofessional day (IPE day), students work with other healthcare disciplines to prioritise and resume healthcare delivery in a flooded town.</i></p> <p><i>In Year 3, students attend a sustainability health care workshop which focuses on the global burden of disease attributable to the environment and what changes can be made to improve healthcare system outcomes. Case studies of extreme weather events and the impact on healthcare delivery is discussed and potential improvements are also discussed. Keele University School of Medicine now incorporates the NHS England's Climate Change Adaptation Framework (2024) into workshop discussion.</i></p>	

1.4. Does your medical 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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: In Years 1 and 3, students have lectures on communicable diseases and infectious disease respectfully. These lectures discuss climate change and geology as factors that contribute to a disease prevalence. This is also covered in the academic mini-reviews undertaken by Year 1 students. In the student selected components, those who select to do the 'Health and Healthcare around the World' component, explore the burden of climate change on patterns of disease. Additionally, this topic is touched upon in the Year 1 Microbiology lab sessions where climate change is discussed in relation to the spread of infectious diseases. Students are also encouraged to discuss and think about future patterns of infectious diseases and changes that may come about due to climate change. Furthermore, pre-clinical teaching has newly incorporated UKHSA 2024 Climate Health Alerts, in particular regarding dengue, West Nile and Nile Disease.</i></p> <p><i>In clinical years, students have the opportunity to go on infectious disease wards and have infectious diseases teaching where they discuss the implications of climate on disease patterns.</i></p> <p><i>This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?

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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: In Phase One of medical school, the environmental disease lecture as well as the rural health lecture addresses the effects of air pollution on respiratory health. This lecture discusses the different sources of air pollution and the long term, as well as short term, effects on respiratory health. In the genes and environment lecture, students discuss modifiable environmental causes of cancers.

The Environmental Pathology lecture in Year 1 looks at how pollution affects communities and how human caused pollution is correlated with asthma and COPD in larger industrial cities such as Stoke on Trent, where the potteries are a large employer and workers are exposed to large amounts of dust and dangerous chemicals in the workplace. Additionally there are added references to the Walleys Quarry landfill, which has been included in recent teaching on local air quality concerns. This is also mentioned again in year 2 lectures on asthma and COPD.

In Year 3, students have another opportunity to review the effects of pollution on health in the 'Sustainable healthcare workshop'. Students also get the opportunity to further address the respiratory health effects through writing an academic mini review on the health effects of air pollution. This is the same as last year. Year 4 CIL Respiratory Block now includes inhaler decarbonisation pathways which is in line with [NHS Net Zero Inhaler guidance \(2024\)](#).

1.6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?

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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: In Phase One of medical school, the environmental diseases lecture addresses the effects of air pollution on cardiovascular health. It looks at the contributing factors to pollution and the mechanism by which there is a long-term effect on cardiovascular disease such as increased mortality and hospital admission. The academic mini review on the effects of air pollution allows patients to address epidemiology, aetiology and pathophysiology of pollution-related cardiovascular disease.

In Year 2, we also have a lecture called ‘Psychosocial aspects of heart disease’, which briefly touches on the impact of the environment on cardiovascular health.

In Year 3, students are prompted to discuss cardiovascular health in the ‘Sustainable healthcare workshop’ by working in teams to address the proposed scenario, identify challenges that impact the NHS and work on solutions to these issues. This workshop now incorporates [heatwave-related cardiovascular mortality examples from Public Health England 2024 data](#).

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation 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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score Explanation: Keele University’s medical curriculum addresses the relationship between health, food security, ecosystem health, and climate change through both core and selected teaching. University documentation states that the medical school integrates sustainability topics into problem-based learning and Years 1-3 teaching, and that Year 3 students receive a lecture and workshop on sustainability issues in the NHS, including food waste, prescription drug wastage, and energy and carbon demands through travel, with students asked to identify problems and propose solutions. In Keele’s Year 3 sustainability workshop, students also work with the [UN Sustainable Development Goals](#) and explore healthcare sustainability challenges such as food waste, homelessness, and air pollution, considering causes, affected groups, and interventions. In the Health and Healthcare Around the World student-selected component, students analyse how socio-economic factors including food and water security influence healthcare systems, refugee health, and disease patterns in a chosen country. Further discussion of the links between health, ecosystems, and climate change occurs in the Year 3 incident management public health workshop, while the longitudinal Population Health strand now includes teaching on UK food insecurity and environmental stressors. Together, these components show that Keele teaches important connections between individual patient needs, ecological systems, and climate-related determinants of health, although explicit compulsory teaching on water security for all students is less clearly evidenced than the other domains.

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, 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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:	3
<p><i>Score explanation: In the Year 3 sustainability workshop, students aim to understand the United Nations Sustainable Development Goals. They are asked to select a healthcare sustainability challenge such as food waste, homelessness or air pollution and identify what contributes to this issue, who it affects and how this can be addressed. This is part of the core curriculum of the medical school. Additionally, during the ‘health and healthcare around the world’ student selected component, students are encouraged to choose a country of their choice and analyse how socio-economic factors, including water and food security, impact healthcare systems, refugees and disease patterns within the country. Medical students further discuss the intersection between health, the ecosystem, and climate change as a part of the ‘incident management’ public health workshop in Year 3. Moreover, the population health strand, a longitudinal theme within the curriculum that integrates public health teaching across multiple years, in 2025 now includes teaching on UK food insecurity and environmental stressors.</i></p>	

<p>1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?</p>	
<p>This topic was explored in depth by the core curriculum. (3 points)</p>	
<p>This topic was briefly covered in the core curriculum. (2 points)</p>	
<p>This topic was covered in elective coursework. (1 point)</p>	
<p>This topic was not covered. (0 points)</p>	
Score Assigned:	3
<p><i>Score explanation: There are at least 3 PBL cases and sessions in Year 1 and Year 2 that emphasise the effects of socio-economic status, for example on exposure to pollution, in the context of asthma and living situation. In second year, students receive a lecture on poverty and healthcare (now renamed “Health Inequalities: Social Determinants in 2025”) which emphasises how environmental damage disproportionately affects poorer communities. The ‘effects of pollution on health’ Workshops in Year 3 look into the health of refugees and how healthcare professionals and charities can further support them with water insecurity due to droughts and climate change. In first year, students have the choice of undertaking an academic mini review of the topic ‘The health gap - are women being let down by the healthcare system?’ This provides a wide scope for students to investigate the impact of climate on the health gap between genders. Another topic offered looks at ‘decolonizing medicine’ which students could use to explore the effect of climate on the healthcare received by these populations relative to other members of the population. There is a very core element of ‘Decolonising the Curriculum’ integrated within the preclinical years curriculum. We have many lectures and workshops such as ‘Decolonising Biomedical Language’, highlighting the importance in understanding the struggles and negativity that has been associated with medicine in history. In addition, Keele medical school provides lectures on rural health which highlight how climate change makes it increasingly difficult for patients to access healthcare relative to urban societies. In Year 2, we have a compulsory component where we have to research and present our findings to our PBL groups, based on the effects of colonisation in medicine. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Keele University's medical curriculum includes teaching that enables students to explore global health inequalities, with some opportunities to consider how climate change disproportionately affects different regions of the world. The strongest evidence is the Year 3 Health and Healthcare Around the World student-selected component, in which students choose a country and analyse how socio-economic and structural factors influence healthcare systems, refugee health, and disease patterns. This can include consideration of climate-related pressures such as displacement, food and water insecurity, and variable health-system resilience across regions. In Year 3 global health/public health teaching, students also examine poverty, refugees, and health inequalities across multiple lectures, workshops, and tutorials, including regional variation of the impact of climate change. The curriculum now references the Climate Vulnerability Index, supporting discussion of how climate-related health risks are distributed unequally between countries and regions according to vulnerability and resilience, which is now integrated across public health teaching in years 1 to 3 of the curriculum.</i></p> <p><i>In addition, compulsory Academic Mini Review in year 1 includes topics such as "Global healthcare access and vaccination - can access really be equitable," "Decolonizing the curriculum," and "Developing sustainable approaches to 21st century healthcare challenges" provide further opportunities for students to explore the unequal effects of global structural and environmental challenges on marginalised populations.</i></p> <p><i>Supporting evidence for the presence of core and student-selected public health/global health learning in the MBChB curriculum is available through Keele's programme documentation.</i></p>	

Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	2

Score explanation: In Phase 1, there are two lectures (Genes and Disease I and Genes and Disease II), that covers the effect of air pollution exposure on the foetus and early development. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?

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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: The Environmental Pathology lecture in Year 1 looks at how pollution affects communities and how human caused pollution is correlated with asthma and COPD in larger industrial cities such as Stoke on Trent, where the potteries are a large employer and workers are exposed to large amounts of dust and dangerous chemicals in the workplace. Additionally there are added references to the Walleys Quarry landfill, which has been included in recent teaching on local air quality concerns. This is also mentioned again in year 2 lectures on asthma and COPD.

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: This topic was mentioned in the lecture reproduction and global health. Here it was highlighted that implementing global programmes may devalue their local ways and practise. Cultural Competence/Decolonising sessions in Phase 1 also briefly reference Indigenous knowledge systems.

1.14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous 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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: The 'effects of pollution on health' workshops in Year 3 look into the health of refugees and how healthcare professionals and charities can further support them with respect to water pollution and insecurity as well as air pollution.</i></p> <p><i>In Year 1, the Environmental Pathology lecture covers the increased exposure to air pollution of low-income communities in urban environments.</i></p> <p><i>The impact of environmental toxins on homeless populations was covered as part of the Sustainability in Healthcare workshop where students were encouraged to think about how we can improve the health of homeless people and linking this to Sustainable Development Goals.</i></p> <p><i>In Year 2, the poverty and health lecture highlights how people living in lower socio-economic environments are more likely to have to work in hazardous conditions.</i></p> <p><i>This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

Curriculum: Sustainability

1.15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?	
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. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	2
<p><i>Score explanation: This topic was covered in a Nutrition workshop, which took place within Phase 1 of the curriculum, covered in the case of a plant-based body builder. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

1.16. Does your medical 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. (1 point)	

This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Keele University School of Medicine addresses the carbon footprint of healthcare systems through core teaching on sustainability in the National Health Service (NHS) and environmentally sustainable clinical practice. Keele University states that Year 3 medical students receive a lecture and workshop on sustainability issues in the NHS, including food waste, recycling surgical materials, prescription drug wastage, and energy and carbon demands through travel, with students asked to identify problems and propose solutions based on clinical experience.</i></p> <p><i>This provides direct curricular evidence that students are taught how healthcare systems contribute to carbon emissions and resource use. The programme specification for the Bachelor of Medicine, Bachelor of Surgery (MBChB) further confirms that graduates must be able to apply knowledge of population health and sustainable healthcare to medical practice, indicating that sustainable healthcare is an intended learning outcome of the course.</i></p> <p><i>Additional teaching described within the curriculum includes the NHS net zero ambition, the United Nations Sustainable Development Goals (SDGs), pre-work on Green Anaesthesia guidance, and teaching based on National Institute for Health and Care Excellence (NICE) guidance on greener inhaler choice and inhaler technique, all of which are relevant to reducing the environmental impact of healthcare delivery. Student-selected academic review and global health opportunities may provide further exploration of healthcare system emissions, though the strongest evidence for this metric is the compulsory Year 3 sustainability teaching.</i></p>	

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	2
The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	1
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	1
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	1
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1

Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1
<p><i>Score explanation: Through Phase 2 Case-Based Learning (CBL) and Case Integrated Learning (CIL), students are taught to recognise the risks of over-investigation and over-medication, supporting more judicious use of healthcare resources. Deprescribing is also addressed in the Year 4 Primary Care Cluster and in Phase 1 Problem-Based Learning (PBL), encouraging students to reduce inappropriate medication burden and unnecessary medicines use. Teaching on social prescribing is included through Year 2 Community Based Medical Education (CBME), where students encounter initiatives such as Growthpoint and consider community-based alternatives to medicalised care. Keele University also has a Year 3 medical students receive a lecture and workshop on sustainability issues in the National Health Service (NHS), including recycling surgical materials, prescription drug wastage, and energy and carbon demands through travel, with students working in groups to identify solutions. Additional core teaching reportedly covers the environmental impact of anaesthetics, the contribution of surgical care to healthcare emissions and waste, and the differing environmental impact of metered-dose inhalers (MDIs) compared with alternative inhaler options. This is supported at programme level by Keele's Bachelor of Medicine, Bachelor of Surgery (MBChB) curriculum outcomes, which require graduates to apply knowledge of sustainable healthcare to medical practice and to discuss mitigation of ecological and environmental hazards. Together, these examples demonstrate that Keele's core curriculum addresses important elements of sustainable clinical practice.</i></p> <p><i>New 2024-2026 content added to the medical curriculum include: a) UKHSA climate-infectious disease alerts, b) Walley's Quarry as a local environmental case, c) National Institute for Health and Care Excellence (NICE) 2024 Greener Inhaler Prescribing update, and d) NHS England Climate Adaptation Framework 2024.</i></p>	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical 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 points)	
No, there are not strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
<i>Score explanation: This is not covered in the core curriculum.</i>	

1.19. In training for patient encounters, does your medical school's curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the core curriculum includes strategies for taking an environmental history. (2 points)	

Only elective coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does not include strategies for taking an environmental history. (0 points)	
Score Assigned:	2
<p><i>Score explanation: All clinical skills sessions relating to history emphasise the importance of gaining a comprehensive social history which includes what the environment of the patient is like. This includes a patient's occupation, diet, exercise, smoking, accommodation (city), who they live with and their job etc. The emphasis on environmental and exposure histories are included within communication skills sessions from Year 1 to Year 5. For example, students are expected to ask for occupation and to look out for occupations linked to diseases such as lung and cardiovascular disease. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

Curriculum: Administrative Support for Planetary Health

1.20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education. (4 points)	
Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education. (2 points)	
No, there are no improvements to planetary health education in progress. (0 points)	
Score Assigned:	2
<p><i>Score explanation: Since the 2024-25 Planetary Health Report Card cycle, Keele University School of Medicine's Medical School Sustainability Working Group has remained receptive to student feedback on Education for Sustainable Healthcare and planetary health teaching. Some suggestions from the previous cycle have reportedly been acted upon. The curriculum now includes teaching on the contribution of surgical care to healthcare emissions and waste and the environmental impact of anaesthetics, most notably as part of the sustainability workshop in year 3, which also encourages students to come up with solutions to mitigate the harm. Additional teaching is now provided on local care quality, for example in reference to the Walleys Quarry landfill, further exploring the impact of human-caused environmental threats on the health of the surrounding community. The interrelationship between health, food and water security, and climate change are being discussed in greater depth through the refugee health and incident management workshops. Moreover, the population health strand, a longitudinal theme within the curriculum that integrates public health teaching across multiple years, in 2025 now includes teaching on UK food insecurity and environmental stressors. Further changes to existing teaching are in progress, indicating that the school is engaged in an ongoing process of reviewing and improving its sustainability curriculum.</i></p>	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?

Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH 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:

6

Score explanation: Keele University School of Medicine integrates planetary health and Education for Sustainable Healthcare topics across multiple years of the curriculum. In Years 1 and 2, students encounter relevant material through lectures, Problem-Based Learning (PBL), workshops, and community-based teaching, including reported teaching on the effects of pollution on cardiovascular and respiratory health, sustainable kidney care, and health inequalities, as well as PBL cases that prompt reflection on environmental exposures and their health consequences.

Keele University also states publicly that sustainability is embedded into the medical curriculum through problem-based learning, with Year 1 and Year 2 lectures on environmental and sustainability topics, and Year 1 independent literature review topics on sustainability. Examples of relevant topics in the Year 1 literature review include: 'Developing Sustainable approaches to 21st century healthcare challenges'; 'Global Healthcare Access and Vaccination, can access really be equitable'; 'How do we reduce the number of animals used in biomedical research'; 'The global burden, spread and barriers to eradication of TB'; 'The effects of air pollution on human health'; 'Repurposing old drug - potential of heparin derivatives as a treatment of SARS', 'Antimicrobial Stewardship', 'What does the emergence of autochthonous dengue in France tell us about the risk to the UK from arboviral infections'.

Moreover, Year 2 medical students are provided the opportunity to review sustainability and planetary health within the community through their "community partnership placements" (CPP) which are longitudinal placements throughout the year, with placements at B-Arts (aim to engage with people from different backgrounds to create sustainable art to strengthen cultural infrastructure and improve mental health) and Green Doctor CIO (aims to encourage people to overcome isolation by taking part in activities and workshops to promote healthier lifestyles using Staffordshire's green spaces).

In Year 3, the teaching becomes more explicit and applied, with a lecture and workshop on sustainability issues in the National Health Service (NHS) covering food waste, recycling surgical materials, prescription drug wastage, and energy and carbon demands through travel, alongside reported Environmental Health lectures, public health workshops, and a Health of Refugees workshop.

Furthermore, in the latter 3 years of the degree, medical students at Keele can choose student-selected components (SSC) and/or electives that have a sustainability focus such as 'Health and healthcare around the world' or can conduct qualitative research on any topic of interest.

Programme-level learning outcomes in the MBChB course information document further require students to apply knowledge of sustainable healthcare and to discuss mitigation of ecological and environmental hazards in ill-health, indicating that these themes are embedded across the course rather than limited to a single module.

1.22. Does your medical school employ 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 medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

No, the medical 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: There is the institutional lead of sustainability who oversees the inclusion of sustainable healthcare within the curriculum, as well as another member of staff who does this alongside being a year lead.

This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of 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. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: Although Keele University School of Medicine does not provide a dedicated core module on civic engagement or health advocacy, the importance of civic equity and advocacy are embedded throughout the curriculum and reinforced explicitly during multiple sessions throughout the course. This is typically explored as a part of mandatory, longitudinal public health teaching on environmental and structural determinants of health.

In the pre-clinical years, problem-based learning (PBL) incorporates intended learning outcomes (ILO) requiring students to address public health concepts, sustainability, and structural determinants of health. There is usually at least one per case that encourages application of the concept, helping medical students explore their role in advocacy and as changemakers.

These themes are further explored during the first three years of the course through public health workshops and lectures, which addresses health inequalities and population health challenges, encouraging students to consider how structural factors influence health outcomes. Examples of these workshops include Sustainability Matters in the National Health Service (NHS), Refugee Health, and Service Improvement, all of which cover civic engagement and advocacy regarding environmental and structural determinants of health.

During the third year of the course, there are a number of mandatory lectures, workshops, and tutorials focused specifically on leadership. These sessions are centered on the multiple facets of

leadership within healthcare, including civic engagement and advocacy, and teach medical students, through a combination of didactic lessons and interactive activities, how they can develop and utilize these skills in their current and future careers. Environment and structural determinants of health constitute a key area of focus during these sessions, especially during worked examples or scenarios that students must develop solutions for.

Additionally, civic engagement and community involvement are incorporated into the medical curriculum via community and third-sector placements. These placements start as early as the first year of the course with all students completing at least four days of third-sector placements, each day being spent at a different community organization. These placements typically begin with an orientation session, followed by witnessing the organization's work first-hand, with the emphasis on how these services and their volunteers advocate for the needs of the local community, and the importance of civic engagement. During second year, there are longitudinal community partnership placements (CPP) and associated assessment activities that students must complete for progression. As a part of this course component, students are placed with a single community organization for the school year, where they must partake in the delivery of their services, placing them at the center of civic engagement, in the context of structural and environmental determinants of health. Following the completion of the placement, students are required to produce a poster, as a part of their mandatory assessments, aimed to encourage volunteering, donations, and activism in relation to the organization at which they were placed. Students are then required to create and present a pitch for this purpose to the rest of the cohort, teaching them how to become effective advocates for a cause. Finally, students must write a reflective essay about their experience, in which they are required to discuss among other things the importance of advocacy and civic engagement, the impact of their placement on their perspectives regarding these concepts, how the experience shaped them to become better advocates, and the ways in which they will be implementing these lessons as medical students and future clinicians.

Section Total (70 out of 75)

93.33%

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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 <u>institution</u>?	
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
<p><i>Score explanation:</i></p> <p><i>There are several research projects being undertaken at the moment relating to sustainability. For example, the gap study focuses on barriers to sustainable prescribing in primary care, and the PROMPTT study (Proactive clinical Review of patients taking Opioid Medicines for persistent Pain led by clinical Pharmacists in primary care Teams) focuses on polypharmacy and reducing the over prescribing of opioids. There are also several studies looking into social prescribing measures and their health benefits.</i></p> <p><i>The Institute for Sustainable Futures transcends across different schools and collaborates with researchers attached to the medical school. There is a Sustainable Pharmacy interdisciplinary group at Keele, which includes staff across different courses, with a focus on improving the sustainable healthcare and pharmacy issues highlighted by the Government Steering group on the Improving the use of Medicines (for better outcomes and reduced waste). Within this group, there are several researchers whose primary research theme is Sustainable Pharmacy.</i></p> <p><i>Associated with our university, there are staff members whose research is also strongly linked to Planetary Health, such as Dean Professor Christian Mallen (planetary health and primary care), Lydia Martens (social science and food security), Toby Bruce (food security) and members of the SEND project (Smart Energy Network Demonstrator) (energy management).</i></p> <p><i>Faculty lead, Dr. Szu Shen Wong, is principle investigator on a QR (quality-related) Policy Support Grant looking at encouraging evidence-based policy making in the area of One Health. This work</i></p>	

is done alongside public health researchers, media and storytelling researchers, vets and parasitologists.

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: There is [an Institute for Sustainable Futures](#), where one of their key aims is building a healthy society, clean energy and water and food security. There is a dedicated Occupational Health research team. This area now includes [dedicated areas focussed on environmental health](#), with focus on methods to monitor soil health being a new addition. There have been close relations with the university's [Institute for Global health and well being](#) and the [Harper Keele Vet school](#).

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:

3

Score explanation: There is evidence of patient and public engagement within the [Primary Care Research Centre](#) and that community members have influence over this research agenda. [The Institute for Sustainable Futures](#) partners with different local organisations and focuses on providing sustainable governance and community living. These community organizations, through a collaborative discussion and engagement process, provide input on the current challenges with

respect to climate and sustainability issues faced by the local community, and in turn, influence research priorities, agendas, and the project themselves.

The university is also involved in the IPCC's (Intergovernmental Panel on Climate Change) Sixth Assessment Report [Chapter 8: Poverty, Livelihoods and Sustainable Development | Climate Change 2022: Impacts, Adaptation and Vulnerability](#) process, which is a United Nations (UN) body which produces reports and assesses the science behind climate change. This report then develops research for elective lectures, national, and international policies. These policies are formed by researchers and the local community, with the majority of the community involved coming from disproportionately impacted backgrounds to support their understanding of how to implement it effectively in the community. The current implications of this report are still being measured annually to assess the effectiveness of decisions formed by researchers, including Keele university students, and communities disproportionately impacted by climate change injustices.

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: Our university has a [main sustainability page](#) which covers the university as a whole as well as having a main page for [student and staff sustainability](#). Our SU also has a dedicated page aimed towards student sustainability projects and [sustainable volunteering opportunities](#). This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

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:

Keele University is scheduled to hold eight strategic conversations as part of engaging colleagues across the institution in key thematic areas in developing the university. The first strategic conversation was on '[Keeles future leadership role in sustainability](#)'. It was held by Raphael Hirschi, Zoe Robinson, Ben Anderson, Laura Rhodes and Tansnim Munshi.

Keele University runs an ongoing [Great Challenges lecture series](#) where planetary health topics are frequently discussed.

In the last year, the following events have been run:

- *Heading South: Patterns in International Student Mobility - whither Keele and the UK? [March 2025]*
- *Weaving Solutions: Addressing Fibre and Dye Challenges through Nature and Innovation [February 2025]*

In the last three years the following events have run:

- *Building and Maintaining Trust in Politics and Parliament [November 2024]*
- *Global Challenges facing healthcare delivery in 15BC (Beyond Covid) [February 2024]*
- *The Food System Transition – how we can feed ourselves without destroying the planet or our health [October 2023]*
- *Ironbridge, Innovation, and Imagination: Industrial Memory as Global Challenge [July 2023]*
- *Public Health and the Nanny State [June 2023]*
- *Migration in the Maghreb, an interdisciplinary approach: MADAR's motley [May 2023]*

In the last three years, the medical school has also arranged events targeted towards medical and healthcare students, however, they are open to all students as reflected by:

- *The Institute for Sustainable Futures and the Faculty of Medicine & Health Sciences at Keele co-hosted the '[Keele Deal Health & Sustainability Forum](#)' in June 2024.*
- *There was a medical student-led event by the Keele Obstetrics And Gynaecology Society called the 'Sustainable Period' in January 2022.*

In March 2022, Keele opened the [advanced HE's Sustainability symposium](#), with a focus on three key ways higher education institutions could push for a more sustainable future.

Since 2022, the university has been organizing a [Symposium on Material Sustainability](#), the most recent one in July 2025. The programme brings together students and experts to share recent advances and opportunities in the field, and discuss the challenges in the development of sustainable materials.

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:

Keele University is a [member of the Nature Positive Universities Alliance](#), a global network of universities prioritising nature restoration. Launched by the United Nations Environment Programme.

Although Keele Medical School is a member of the [Planetary Health Alliance](#), other healthcare professional schools do not hold this membership.

Section Total (17 out of 17)

100.00%

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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 <u>institution</u> partner with community organisations to promote planetary and 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
<p><i>Score explanation: As an institution, Keele has multiple partnerships through CASIC (Community Animation and Social Innovation Centre), which the university co-founded, there is a focus on community engagement and community-focused solutions for local and global issues, which often cover sustainability issues and issues affecting planetary health.</i></p> <p><i>In addition, Keele partners with multiple organizations, including Staffordshire County Council, Staffordshire Wildlife Trust, Staffordshire Chambers of Commerce, National Farmers Union, the Globe Foundation, Staffordshire Community Energy, Staffordshire Business Environment Network, and Support Staffordshire among others to promote planetary health and sustainability in Staffordshire and Shropshire.</i></p> <p><i>Keele also works collaboratively with community partners such as West Midlands Combined Authority, Sustainable Housing Action Partnership, and New Vic Theatre on projects headed by the Institute of Sustainable Futures, with the goal to promote planetary health and sustainability.</i></p>	

3.2. Does your <u>institution</u> 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: As an institution, Keele University hosts a variety of community-facing events each year:

- *The annual [Green Festival](#) consists of events scheduled across 1 or 2 weeks, which are largely focused on sustainability and planetary health. These events are open to students as well as the general public. This year the event is involving city council and will be hosted in 'Keele-in-Town' to further engage the public.*
- *The [Community Animation and Social Innovation Centre \(CASIC\)](#), co-founded by Keele University, is primarily focused on community engagement in solutions to local and global environmental issues; the events organised by CASIC are entirely community-focused. These events happen once every few years, not all events focus on planetary health.*
- *The university hosts an annual environmental film festival [Earth Stories - Keele University](#). This focuses on bringing together and awarding filmmakers across the globe who are under 25 with films they've created and produced addressing our current climate crisis and sustainable practices.*

This is largely the same as last year (2024/25).

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:

2

Score explanation: Within the [sustainability section on the university website](#), there is a [News And Events](#) page which contains communications on sustainability achievements across the university and frequently highlights advancements in sustainable healthcare achievements. Our sustainability staff utilise social media for most of their communications, including the Life at Keele Facebook page [Life at Keele | Keele | Facebook](#), Student Union pages [Sustainability & Environmental Responsibility](#) and Green Keele [Our green campus - Keele University](#) accounts to advertise sustainable events, green festivals and volunteering opportunities. The Sustainability Bungalow pages provide practical advice for students to live more eco-friendly.

In terms of email newsletter, sustainable issues often feature on the SU newsletter, KPA newsletter and the central university communications from the Vice Principal. In addition to this, the SU Activities of icer does frequent blog posts and podcasts on tips for sustainable living.

This is largely the same as last year (2024-25).

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 University Hospital of North Midlands (UHNM) is the main affiliated hospital trust to Keele University, which requires all professionals to complete e-learning modules on sustainable healthcare as part of their statutory training. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

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:

2

Score explanation: University Hospital of North Midlands (UHNM) has several patient information leaflets regarding air pollution and respiratory health, accessible in paper format from the respiratory outpatients department and via the staff intranet. There are also a few web articles referencing different environmental health exposures, relevant to specific diseases, e.g. explaining daily air quality index via [Asthma Triggers](#), as well as highlighting their [own role in mitigating environmental health exposures](#).

Shrewsbury And Telford Hospital (SATH) trust does provide accessible online patient information leaflets regarding the [impact of smoking & exposure to the sun](#), in an easy read format as well as a [webpage format](#), as well as printed leaflets in outpatient departments.

This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

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:	2
<p><i>Score explanation: University Hospital of North Midlands (UHNM) has several patient information leaflets regarding air pollution and respiratory health, accessible in paper format from the respiratory outpatients department and via the staff intranet. There are also a few web articles referencing different environmental health exposures, relevant to specific diseases, e.g. explaining daily air quality index via Asthma Triggers, as well as highlighting their own role in mitigating environmental health exposures. The same document also discusses climate change, its impact on health and the healthcare system, and strategies being put in place by University Hospital of North Midlands (UHNM) to mitigate these effects. Moreover, University Hospital of North Midlands (UHNM) and University Hospital of North Midlands (UHNM) charity release articles outlining ongoing initiatives and campaigns to combat climate change.</i></p> <p><i>Shrewsbury And Telford Hospital (SATH) trust does provide accessible online patient information leaflets regarding the impact of smoking & exposure to the sun, in an easy read format as well as a webpage format, as well as printed leaflets in outpatient departments. SATH has a webpage dedicated to sustainability.</i></p> <p><i>This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

Section Total (14 out of 14)	100.00%
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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 [Sustainability Fund](#) has been established to support sustainability projects in Schools/Directorates and promote innovation in sustainability throughout the Keele community. Funding through the Sustainability Fund is available both for implementing new projects and developing existing initiatives.
- Additionally, there is a [Sustainability Microgrant](#) where students and student-run groups can get a small contribution to run sustainability events or activities. The Students Union uses some of the profits made from the [‘Great Donate’](#) to put back into sustainability projects via these applications.
- The Students Union also has a [Student Sustainability Award](#) to recognize a Keele University student or student group who has made a significant contribution on campus for sustainability by generating awareness, implementing projects and/or creating new initiatives.
- [The Key Fund](#) is another way students can apply for funding to contribute to their innovations/projects. Sustainability projects are eligible, such as the polytunnel in the student garden, weigh to go shop and planting a tree for every student who voted in the SU election.

This metric is largely the same as last year (2024-25).

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:	2
<p><i>Score explanation:</i></p> <ul style="list-style-type: none"> • The ASPIRE scheme offers funding for summer studentships to Year 1-3 pupils, of grants up to £1,250 for summer projects, where projects in sustainability and planetary health are eligible. This is carried out in the student's time and would require student's initiative. There are discussions around including SUSQI (Sustainability in Quality Improvements) projects into the curriculum, however this is not yet the case. • Through the Living Laboratories approach to embedding sustainability, undergraduate and masters students can also explore sustainability challenges linking their disciplines to campus operations through their dissertations and research projects. • The university offers a masters program in human geography and sustainability research, which focuses on areas such as climate change, interactions between humans and the environment, sustainability and human well-being, protecting the planet, and renewable energy. • Keele also offers a sustainability internship, allowing students to work with the Education for Sustainability team to develop and implement sustainability projects across the institution. These projects are tailored to the intern's program of education and may be research-focused. 	

4.3. Does the <u>institution</u> 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 of 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
<p><i>Score explanation:</i></p> <p>Students can access information regarding planetary health and sustainable healthcare activities within the university on the Institute for Sustainable Futures website, which divides these into five key sections, including challenge themes, discussion papers, list of partners, news and events, and contact information for the leadership team.</p>	

The [challenges themes](#) on this website refer to key areas of work within the institution. These reflect the research expertise of staff and the breadth of challenges in sustainability as indicated by the Sustainable Development Goals. Clicking each of the challenge themes takes the reader to a subsequent page on the website with a description of what the theme entails, a list of research projects, and a selection of published work. For example, the specific webpage for challenge theme 1 - [providing clean energy & reducing carbon emissions](#) - outlines its focus on finding sustainable and environmentally friendly ways to fuel society and highlights research projects within this target area, including HyDeploy, a green energy trial investigating the use of zero carbon hydrogen to reduce carbon emissions from heating; POLKA (Pollution Know-how and Abatement), a series of experiments and numerical simulations to develop technological solutions to replacing fossil fuel with low-carbon energy; Zero Carbon Rugeley, a project on designing a zero carbon smart energy system; SIMULATE (Simulation- Driven Design), a study focusing on the extension of smart infrastructure to beyond smart highway networks to local roads; and SEND (Smart Energy Network Demonstrator), with the goal of creating innovating methods for better energy management. Clicking the name of the studies conveniently directs the reader to a subsequent webpage with more detailed information on the project. These pages at the very least mention names of key staff (potential mentors) and stakeholders with [some](#) providing a short biography and their contact information.

The university also has [dedicated webpages](#) with a list of staff and mentors, including those working within the planetary health and sustainability. These webpages include an overview of the mentor's position or role in the university, their department or field of expertise, and their contact information. Students can click the embedded hyperlinks to be directed to a more detailed profile for the mentor, which typically includes their biography, research and scholarship, teaching, and publications.

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 school has [student voice representatives](#) with one of these students dedicated to bringing up sustainability issues and solutions.

The institution as a whole has the sustainability community and network Teams group, and we also contribute to the [Keele Campus Garden project](#) (edible and allotment). These are all done with faculty support and there are opportunities to become carbon literacy facilitators and teach this content to other students with the help of faculty.

This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> 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
<i>Score explanation:</i> <i>The university has an elected 'Development and Democracy Officer' that students are able to talk to regarding sustainability practices on campus. This student is able to advocate for curriculum and sustainability best practices within the institution.</i>	

4.6. In the past year, has the <u>institution</u> 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.	1
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)	1

Score explanation:

- 1) Keele runs a '[Student Eats](#)' initiative in collaboration with National Union of Students (NUS) that encourages residents on campus to grow their own food in student allotments. This is to raise awareness of the ethical and environmental impacts of their food decisions. There is also a [sustainability bungalow initiative](#) where a group of students each year live as sustainably as possible and provide educational benefits to others around them, as well as providing food to those on campus from their organic garden.
- 2) Many events run throughout the year, such as the [Grand Challenges lecture](#) series that offers lectures to all students; this includes lectures focussing on climate change issues. Additionally, MSci Physiotherapy student Hollie Sheehan has led elective lectures for students in years 1-3, such as Physiotherapy students, regarding the PHRC (Planetary Health Report Card) to promote planetary health

initiatives. Other lectures on planetary health happen regularly, but unfortunately were not part of the 2025 programme.

- 3) Since 2022, the university has been organizing a [Symposium on Material Sustainability](#), the most recent one in July 2025. The programme brings together students and experts to share recent advances and opportunities in the field, and discuss the challenges in the development of sustainable materials. The event features panels of experts, workshops, talks from invited speakers, and poster presentations. The intended audience of this event are students. Student speakers, such as MSCi Physiotherapy student Hollie Sheehan, led elective lectures that focussed on planetary health and promoted student engagement in sustainable practices and research in relation to the PHRC (Planetary Health Report Card).
- 4) The Student Union runs a [Warmer Winter](#) campaign to equip students with the tools to live an environmentally sustainable university life while saving on costs. The campaign comprised of two components: 1) The Greenovation station set up as a part of fresher's week to provide students resources with a low carbon footprint, increased energy efficiency, and reduced billing expenses and 2) The Green House, an event focused on educating students about practical steps to decrease their energy consumption using an interactive energy-saving house and multiple stalls from council members and landlords.
- 5) At Keele, we have the [Green Festival](#) where all across campus, there are art installations, activities and quizzes for the student population based on sustainability, pollution and how this affects our health. This involves collaboration and participation of organizations working in the sphere of environmental justice such as the Extinction Rebellion and Staffordshire Wildlife Trust. We also host [Earth Stories - Keele University](#), which is an environmental film festival where national and international students from the university and abroad have the opportunity to produce and win awards through short films on the climate crisis and sustainable practices.
- 6) There are volunteer opportunities through the student union to volunteer as part of the [Campus Green Team](#) with litter picks, student-led gardening and other sustainable projects on campus.
- 7) Keele students' union has several societies that organise outings for students, such as climbing, hiking, sailing, skydiving etc.

Section Total (15 out of 15)

100.00%

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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 <u>institution</u> 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
<p><i>Score explanation: Keele has multiple full-time staff members dedicated to campus sustainability alongside student interns who are dedicated to developing sustainable projects for the students. There are sustainability student representatives as part of our Students Union who help to identify where sustainability is embedded within their course. At the hospital campus, there are also dedicated sustainability staff.</i></p>	

5.2. How ambitious is your <u>institution's</u> 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:	1

Score explanation: It is acknowledged that the approved plan to achieve [2030 carbon neutrality](#) has not been officially reengaged. However it still remains as the official stance to [sustainability](#) Keele university is taking. A new net zero plan for 2040 has been made but it is not yet approved. This [BBC article](#) highlights how the university has invested in significant on-site renewable energy infrastructure and cutting-edge low-carbon technologies. The Low Carbon Energy Generation Park on campus generates around 50% of the electricity needed to run the university and often runs with surplus energy, making a [green hydrogen hub](#) that produces renewable hydrogen from excess electricity.

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: Keele University has been seeking to generate up to 80% of its own electricity through solar and wind power. The sustainability scheme meant that since 2021, the installation of 26,000 solar photo-voltaic (PV) panels has begun at ground level in fields on the edge of the campus, and two wind turbines, which will power Keele’s halls of residence, the chapel, teaching facilities, and Keele Hall. Currently the installation of 12,500 solar PV panels was completed in September 2021 and is now generating energy, and two wind turbines have finished being installed as of [April 2022](#). Combined, they generate up to [50% of the University’s campus electricity](#) requirements from renewable sources, saving around 1,500 tonnes of carbon emissions each year.

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
<p><i>Score explanation: The estates team have developed a Sustainable Building Plan, which requires all new buildings to adhere to a certain standard. All new buildings are built following sustainable practices and the majority of old buildings have been retrofitted. For example by replacing inefficient lab equipment and replacing light bulbs with LEDs. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

<p>5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?</p>	
<p>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)</p>	
<p>The institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised. (1 point)</p>	
<p>The institution has not implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)</p>	
Score Assigned:	2
<p><i>Score explanation: There are several strategies in place across the university to make environmentally-friendly transport accessible for students:</i></p> <ul style="list-style-type: none"> • <i>The main university campus and hospital campus is easily accessible via reliable bus connections and is the most utilised option by students. To incentivize the use of this system, Keele university has partnered with the transport provider to provide student discounts on travel cards.</i> • <i>The university campus has a very good biking infrastructure with dedicated cycling lanes spread all over the campus. Lockable bike stores are available for all students who live on campus.</i> • <i>The introduction of an electric scooter rental system has provided another environmentally-friendly transportation option.</i> • <i>Placement teams Student Opportunities in Sustainability across all disciplines ensure that all placements within the community should be easily reachable via public transport and give placements that are hard to access through public transport to students who have stated they have access to vehicles.</i> • <i>Most recently the university has expanded on the previous electric car charging ports it developed in the medical school parking lot by adding more ports to the student union parking lot. They are free to students and thus encourage the use of cars that are much more environmentally friendly.</i> <p><i>This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

<p>5.6. Does your <u>institution</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?</p>
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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: There are both compost and conventional recycling facilities available throughout the university for both students and staff. There has been a full waste and recycling scheme since 2010 and has seen the [recycling rate increase to 50%](#). The university also has onsite composting and gives students staying on campus accommodation the option to opt-in to having their food waste recycled. This is largely the same as last year (2024-25).

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 **adequate** sustainability 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 [Sustainable Food Policy](#) at Keele covers all outlets and food, including food served within the medical school, served by the University and managed by Catering and Retail Services, Commercial and Facilities Management Directorate. This includes the inclusion of more plant-based options, the use of local produce, seasonal vegetables and reduction of water and energy usage. This policy provides a framework for continual improvement in providing sustainable food for customers. Tender specification documents for [University food suppliers](#) include a requirement to comply with the University's sustainable food policy and with the targets committed to through the food for life catering mark certification. Multiple plant-based and vegan options are available at every food vendor on campus every day of the week for every meal. The University has been working with the Soil Association to implement the Food For Life Catering Mark at our main Refectory and at the Nursery. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

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
<p><i>Score explanation: Keele's sustainable procurement goal is to procure goods and services in ways that maximise efficiency and effectiveness while minimising social, environmental and other risks. Keele University's Procurement team Responsible procurement - Keele University, with support from staff across the University, have achieved Level 4 of the Government's 'Flexible Framework', this means that Keele have 'reasonable' audit maturity and are on track to meet the level 5 targets.</i></p> <p><i>That is reflected by responsible procurement strategies such as 4.1, which covers ten areas of focus that support the university in attaining their goals. Some of the focus areas included revolve around "resource and skills" and "sustainability" Responsible Procurement Strategy. This is showcased by leading smart and green energy trials such as the LCEG (Low Carbon Energy Generation) project in partnership with Equans Renewable energy park - Keele University to combine renewable energy generation and storage across the university.</i></p> <p><i>Additionally, this framework allows organisations to assess, measure and evaluate process and performance against a number of set sustainability criteria. This is seen by schemes such as Warp It Welcome to Warp It- the resource redistribution network. This is the same as last year (2024-25) with no changes found upon review for 2025-2026.</i></p>	

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
<p><i>Score explanation: Keele University has a Green Conferencing and Event guidelines and the events team has certification using the ISO20121 system. ISO 20121 offers guidance and best practice to help manage our events and control their social, economic and environmental impact. The university also has its own system. for ensuring that events held are as sustainable as possible. This includes things such as making sure the menus for events held on site utilise local produce and farming/fishing. There is also encouragement for visitors to events to have sustainable practices, e.g bringing a refillable water bottle. This applies for all external events and events run by staff. There is also the option of green delegate packages Green Day Delegate Rate - Keele University - Sustainable conferencing. This is the provision of ethically sourced resources and equipment, alongside renewable energy powered electronics and lighting from renewable energy produced on campus for all staff and students who run events or conferences. As well as strong guidance and incentives from the SU Sustainability Action Plan.</i></p>	

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: Keele University runs a system where the labs are continuously updated to make them more and more sustainable. This includes innovations such as updating equipment and taps to make them more water saving, reducing the amount of single use plastics, utilising batch orders to create a need for less packaging, educational signs to promote saving electricity when it is not needed, replacing old energy inefficient equipment and replacing light bulbs to be LED [Keele University | Salix Finance](#). This is the same as last year (2024-25) with no changes found upon review for 2025-2026.

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:

2

Score explanation: Keele University is ensuring that financial investments are ethical and reflect the mission and values of the University. To support this commitment an Ethical Investment Code of Practice has been in place and reviewed annually for a number of years. Keele University has made a commitment to increasingly focus its investments in companies with a positive environmental and/or societal impact, in particular in areas of clean energy and technology. The University's investments will be in line with its strategic aims and its environmental, social and ethical values. The university has made a commitment to [divest from fossil fuel extraction companies](#).

Section Total (24 out of 32)

75.00%

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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 Keele School of Medicine.

The following table presents the individual section grades and overall institutional grade for the Keele School of Medicine on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(70/75) \times 100 = 93.33\%$	A
Interdisciplinary Research (17.5%)	$(17/17) \times 100 = 100.00\%$	A+
Community Outreach and Advocacy (17.5%)	$(14/14) \times 100 = 100.00\%$	A+
Support for Student-led Planetary Health Initiatives (17.5%)	$(15/15) \times 100 = 100.00\%$	A+
Campus Sustainability (17.5%)	$(24/32) \times 100 = 75.00\%$	B+
Institutional Grade	$(0.9067 \times 0.3 + 1 \times 0.175 + 1 \times 0.175 + 1 \times 0.175 + 0.75 \times 0.175) \times 100 = 93.63\%$	A

Report Card Trends

Section Overview

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

