



Planetary Health Report Card:

Physiotherapy

Keele University



2023-24 Contributing Team:

- Students: *Alysha Creaghan, Obi Davies, Paul Hodder, Katie Evans, Niall O'Connor, & Deborah Nwobike*
- Faculty Mentors: *Fran Quinn-Thomas**
- *Primary Contact: *Fran Quinn-Thomas, f.quinn-thomas@keele.ac.uk*

With special thanks to Keele School of Medicine & School of Pharmacy PHRC teams

Summary of Findings

Overall	B -
<u>Planetary Health Curriculum</u>	C -
<p>There are some examples of good practice within both the curricula that relate to planetary health. Recommendations: there needs to be a greater breadth of topics covered, such as to include the impact of extreme weather and plant-based diets, as well as more depth in most topics.</p>	
<u>Interdisciplinary Research</u>	B
<p>We have strong support for planetary health research through institutional level groups. Some staff are research active in sustainability matters, but this is not their primary research area. Recommendations: Development of in-school support and increase research activity.</p>	
<u>Community Outreach and Advocacy</u>	B -
<p>We have good support networks with our key hospitals in regard to sustainability and planetary health. The university provides communication to staff and student relating to sustainability through its email correspondence as well as webpages. Our key trusts have good patient-facing resources. Recommendations: The school should consider hosting events related to planetary health.</p>	
<u>Support for Student-Led Initiatives</u>	B -
<p>Students are able to participate in research related to sustainability in healthcare and planetary health, but this is student led. The university offers a wide range of learning opportunities and grants to enable the students to partake in initiatives. Recommendations: to promote the student voice in sustainability and planetary health.</p>	
<u>Campus Sustainability</u>	A
<p>The university as a whole has a realistic and well-planned strategy to achieve Carbon Neutrality by 2030 and has recently committed to helping the county of Staffordshire achieve that same goal. They have also fully divested from fossil fuels and reinvested the money in sustainable energy as well as ensuring that only a minimal amount of waste ends up in landfill, with the majority being recycled, turned into compost or donated (e.g. clothes, appliances...).</p> <p>The School of Allied Health Professions (which contains physiotherapy) maintains mostly paperless teaching. It has an extensive number of recycling bins and paper recycling is strongly encouraged.</p>	

There is an ethos to use as minimal consumable materials as possible related to teaching – such as reusing suction catheters, not using plinth roll and PPE (where safe to do so).

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as “a field focused on characterising the human health impacts of human-caused disruptions of Earth's natural systems.” 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,” the writers could find few examples of integration of planetary health into physiotherapy school’s institutional priorities to 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. Physiotherapists in particular should be adept in considering the environment through which our patients move as the efficacy of physiotherapy treatment is tied to surrounding ecology, including air, water and land. This preparation is in the hands of the institutions providing our physiotherapy training. It is imperative that we hold our institutions accountable for educating physiotherapy 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 physiotherapy schools, we have created a Planetary Health Report Card that physiotherapy students in Canada can use to grade and compare their home institutions on an annual basis. This student-driven initiative could be adapted to compare physiotherapy schools nationally and internationally. The current ratings are made on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) University support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) physiotherapy 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 physiotherapy school 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.

● **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 physiotherapist to protect and promote health is shaped by the dependence of human health on the local and global environment.

● **Physiotherapy School vs. Institution:** When “physiotherapy school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (for example, undergraduate departments (USA), other related departments eg Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly.

Any resource reasonably accessible by physiotherapy students, no matter where in the institution the resource comes from or if it is specifically targeted for physiotherapy students, can meet this metric.

- **Environmental history (Metric 19 in curriculum section):** This is a series of questions 3 providers are taught to ask during physiotherapy 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 life course, 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.

- **Elective:** The word "elective" refers to an optional course or lecture series that a physiotherapy 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.

- **Clinical placement:** This is a term used in Canada to refer to placements in clinical settings that physiotherapy students go on e.g. Acute Care, Inpatient Rehab, Paediatric Clinic.

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

Planetary Health Curriculum

Section Overview: *This section evaluates the integration of relevant planetary health topics into the physiotherapy school curriculum. Today's physiotherapy students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that physiotherapy 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 physiotherapy school's core curriculum.*

Curriculum: General

1. Did your physiotherapy school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the physiotherapy school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the physiotherapy school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The physiotherapy 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.
0	No, the physiotherapy school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation: Within the physiotherapy school, there is a free-standing elective module “Health and the Environment” (PTY-20020, 15 credits) which covers how the home, work or immediate environment may affect a person's health. The module has the following learning outcomes:</i></p> <ol style="list-style-type: none"> <i>1. demonstrate knowledge, understanding and the ability to critically evaluate the effects differing environmental factors can have on human mental and physical health</i> <i>2. understand the effect the changing environment may have on human mental and physical health and to demonstrate knowledge and the ability to critically evaluate these changes</i> <p><i>There is key content around the impact of the environment on respiratory conditions, disease transmission but also how it can impact exercise tolerance – a fundamental area of Physiotherapy practice.</i></p>	

There is an additional elective module “Global Healthcare Matters” (PTY-30037, 15 credits) which introduces students to different aspects of health and social care with an international lens.

There are seven learning outcomes in total, which cover elements such as appraising different healthcare structures, justifying measures of global health and their application to a population, global healthcare challenges, priorities and initiatives and health inequalities.

Although these modules are not electives within the two Physiotherapy programmes – students could register to complete as a stand-alone module(s) and it is housed within the School of Allied Health Professions (which includes Physiotherapy).

2. Does your physiotherapy school curriculum address the relationship between extreme heat, health risks, and climate change?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: This topic was covered in elective coursework. The aforementioned module “Health and the Environment” explores the impact of extreme heat on respiratory conditions (asthma). In addition, there was a session titled “How the environmental temperature may influence physical activity”.

3. Does your physiotherapy school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: This topic was not covered within the school’s curricula.

4. Does your physiotherapy school curriculum address the impact of climate change on the changing patterns of infectious diseases?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: Within the elective “Health in the Environment” there was a session titled “Environmental change – spread of disease”. This session is taught by a senior lecturer in infectious diseases.

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

3	These topics are explored in depth by the core curriculum.
2	These topics are briefly covered in the core curriculum.
1	These topics are covered in elective coursework.
0	These topics are not covered.

Score explanation: Within the MSci Physiotherapy programme there is a core module entitled “Physiotherapy Practice: Cardiovascular and Respiratory” (PTY-20053, 15 credits). This module covers a range of respiratory conditions such as asthma, COPD, bronchiectasis etc. Students were required to complete work packages which cover the pathophysiology and potential exacerbators of such conditions and the impact of pollution is discussed.

Within the MSc Physiotherapy programme there is a core module entitled “Foundations of Physiotherapy Management” (PTY-40070, 15 credits). This module also includes the pathophysiology and potential exacerbators of common respiratory conditions.

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

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: This is not currently covered by the curriculum.

7. Does your physiotherapy school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: Mental health, wellbeing and behaviour change are regularly visited throughout both the core curricula and in elective modules. For example, there are modules called “Health and Wellbeing” and “Health Behaviour Change”, as well as modules such as “Principles of Rehabilitation” and “Practice in Specific Populations” which introduce mental health conditions such as anxiety and depression. Within all of the above modules, psychological wellbeing is discussed, and the impact on changes of the environment may come up within case scenarios and class discussions.

Within the elective module “Health and the Environment”, there was a session entitled “How can the environment affect mental health”.

8. Does your physiotherapy school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

3	This topic is explored in depth by the core curriculum.
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2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Score explanation: This topic is not included within the curricula.</i>	

9. Does your physiotherapy school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Score explanation: This topic is not covered.</i>	

10. Does your physiotherapy school curriculum address the unequal regional health impacts of climate change globally?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: This topic was covered in the elective module “Global Health Matters”. There is a large emphasis on the disparities of different health systems as well as key healthcare matters such as climate change.</i>	

11. Does your physiotherapy school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic was not covered.

Score explanation: Although industry related toxins are discussed within the curricula (which is highly relevant considering Keele University's location around numerous old coal mines and pottery factories) this connection is not made to reproductive health.

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

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Score explanation: Keele University sits in the heart of an industrial community. There are a significant number of human-made environmental threats within the region from its mining history, pottery industry and the Walleys Quarry landfill which is nearby. Students are educated both within the core curriculum at the school and with local placement providers of the importance of this as there is a high rate of work-related illness and disability in the region.

13. To what extent does your physiotherapy school emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

3	This topic is explored in depth by the core curriculum.
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2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Score explanation: The Physiotherapy curriculum does not cover such detail.</i>	

14. Does your physiotherapy school curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Score explanation: As aforementioned, Keele University is located within an industrial area. Furthermore, it's nearest city (Stoke-on-Trent) is the 25th most income-deprived area in England (as per the Office for National Statistics, 2021). As such, the combination of the two is heavily intertwined in case scenario learning across multiple modules.</i>	

15. Does your physiotherapy school curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered
<i>Score explanation: The Physiotherapy curriculum does not cover such detail.</i>	

16. Does your physiotherapy school curriculum address the carbon footprint of healthcare systems?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<p><i>Score explanation: Within the placement modules of both the MSci and MSc Physiotherapy programmes students are required to complete an online module available through the NHS e-learning for health called “carbon literacy for healthcare”.</i></p>	

17. Does your physiotherapy school curriculum cover these components of sustainable clinical practice in the core curriculum? (1 point for each)	
1	Waste production within the healthcare system and strategies for reducing waste in clinical activities, such as in the operating room
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally anaesthetic gas options with reduced greenhouse gas emissions
1	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.
1	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 for obesity. This is commonly known as social prescribing in the UK.
1	The health and environmental co-benefits of avoiding over-investigation and/or over-treatment

Score explanation: The above topics are covered within the e-learning for healthcare module. In addition, social prescribing is a key component of the MSc core module “Health, Wellbeing and Behaviour Change” (PTY-40072, 15 credits) and “the MSci core module “Health Behaviour Change” (PTY-30062, 15 credits). The sister modules discuss in depth public health and health promotion. They also include a key lecture entitled “Psychological, socioeconomic and environmental factors that impact on health, wellbeing, and health behaviour change” as well as workshops to discuss how to apply different strategies for health promotion in specific populations.

18. In training for patient encounters, does your physiotherapy school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?

2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework
0	No, there are not strategies introduced for having conversations with patients about climate change

Score explanation: This is not currently taught as part of the curriculum.

19. In training for patient encounters, does your physiotherapy school’s curriculum introduce strategies for taking an environmental history or exposure history?

2	Yes, the core curriculum includes strategies for taking an environmental history
1	Only elective coursework includes strategies for taking an environmental history
0	No, the curriculum does not include strategies for taking an environmental history.

Score explanation: Due to the local population and the multiple potential environmental/work-based hazards, students are well versed in exploring patients’ risk of exposure through work/recreation/location whilst conducting a subjective assessment.

20. Is your physiotherapy school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH) / planetary health education?	
4	Yes, the physiotherapy school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the physiotherapy school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<p><i>Score explanation: Due to the courses being recently revalidated, there is minimal scope to have major changes in curricula. However, staff have actively sought student views through questionnaires and there is a research project ongoing (with staff and students) to explore how we can make positive changes to our curricula to reflect ESH/planetary health education.</i></p>	

21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?	
6	Planetary health/ESH topics are well integrated into the core physiotherapy school curriculum
4	Some planetary health/ESH topics are appropriately integrated into the core physiotherapy student curriculum
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.
<p><i>Score explanation: Overall, the school addresses “1. Describe how the environment and human health interact at different levels” most effectively across the three specified learning outcomes. It is felt that there are suggestions within the curricula that promote Physiotherapists role in planetary health and how to be sustainable in practice, however these need more attention and depth.</i></p>	

22. Does your physiotherapy 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?

1	Yes, the physiotherapy school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No, the physiotherapy school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Score explanation: No-one in the physiotherapy programme staff group is appointed to this position.

Section Total (28 out of 69)

41%

Interdisciplinary Research

Section Overview: This section evaluates the quality and quantity of interdisciplinary planetary health research at the physiotherapy school and 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, physiotherapy schools 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.

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your physiotherapy school?	
3	Yes, there are faculty members at the School of Physiotherapy who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the School of Physiotherapy who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the physiotherapy school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or pharmacy school at this time.
<i>Score explanation: There are two staff, Fran Quinn-Thomas and Dr Anirban Banerjee who have received Seedcorn funding to investigate the carbon footprint of the physiotherapy programmes. In addition, Prof. John Buckley completed some research on people-power for a theatre which can be viewed here.</i>	

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

3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	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.
1	There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.

Score explanation: There is an [Institute for Sustainable Futures \(ISF\)](#), which connects different departments within the university and companies together to work towards common goals. They have six challenge themes – with “[creating healthy societies](#)” being most relevant to physiotherapy practice.

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 physiotherapy school?

3	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.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate and environmental research agenda.
1	No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.

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 ISF partners with different local organisations (see bottom of this [webpage](#)) and focuses on providing sustainable governance and community living. However, there is not a process within this institute where community members have influence over the research agenda.

4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?

3	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.
2	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.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

Score explanation: Our university has a main [sustainability page](#). This is a comprehensive website which includes research, education, business support, news, student and staff sustainability, information about the campus and such like. Our student union also has a dedicated [page](#) aimed towards student sustainability projects and sustainable volunteering opportunities.

5. Has your institution recently hosted a conference or symposium on topics related to planetary health?

4	Yes, the physiotherapy school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

Score explanation: Keele University runs a Great Challenges lecture series where planetary health topics are frequently featured such as:

[-Soundscape Interfaces: Toward a transdisciplinary ecoacoustics for people and planet- Dr Alice Eldridge Dec 2022](#)

[-The role of multilateral development organisations in promoting sustainable and inclusive rural transformation with specific reference to the work of the International Fund for Agricultural Development \(IFAD\) and its contribution to meeting the Sustainable Development Goals \(SDGs\) Ashwani Muthoo April 2022](#)

[- Can meaningful hope spring from revealing the depth of our climate failure?- Professor Kevin Anderson](#)

[-‘Is the UK food secure? Does it Matter?’- Professor Tim Lang](#)

[- Tackling Human Infections in the 21 st Century’- Professor Janet Hemingway](#)

To date, the Physiotherapy school has not hosted such an event.

6. Is your physiotherapy school a member of a national or international planetary health or ESH organisation?

1	Yes, the physiotherapy school is a member of a national or international planetary health or ESH organisation
0	No, the physiotherapy school is not a member of such an organisation

Score explanation: The school is not currently a member of a planetary health or ESH organisation.

Section Total (12 out of 17)

71%

Community Outreach and Advocacy

Section Overview: This section evaluates physiotherapy school 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.

1. Does your physiotherapy school partner with community organisations to promote planetary and environmental health?	
3	Yes, the physiotherapy school meaningfully partners with multiple community organisations to promote planetary and environmental health.
2	Yes, the physiotherapy school meaningfully partners with one community organisation to promote planetary and environmental health
1	The institution partners with community organisations, but the physiotherapy school is not part of that partnership.
0	No, there is no such meaningful community partnership.

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. The university's [KRISP scheme](#) was Green Gown nominated and provides specific support for local businesses for research and innovation for environmental and social sustainability.

2. Does your physiotherapy school offer community-facing courses or events regarding planetary health?

3	The physiotherapy school offers community-facing courses or events at least once every year.
2	The physiotherapy school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the physiotherapy school was not involved in planning those courses or events.
0	The physiotherapy school has not offered such community-facing courses or events.

Score explanation: The physiotherapy school has not hosted community-facing events. However, as an institution, Keele University hosts a variety of community-facing events each year, such as:

- [*A collaborative project between Keele Students' Union and Keele University held a Sustainability and Climate Change Photo Exhibition from December 2023 to February 2024.*](#)
- [*Arts Keele events*](#) often have an environmental theme, which are open to the public, e.g. "Drawing From Nature"
- *Inaugural lecture series lectures often have an environmental theme and cover planetary health.*
- *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.*
- *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.*

3. Does your physiotherapy school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.

0	Students do not regularly receive communications about planetary health or sustainable healthcare.
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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. An example is an article outlining some research carried out by University academics into Vertical Farming and Pest and Disease Management 23 and its role in food security. Our sustainability staff utilise social media for most of their communications, including the Life at Keele Facebook page, Student Union pages and Green Keele accounts to advertise sustainable events, green festival 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.

4. Does the institution or any 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?

2	Yes, the institution or any 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.
1	Yes, the institution or any affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers

Score explanation: The University Hospital of North Midlands (UHNM) is a Keele University Teaching Trust which has strong connections with the physiotherapy school. It requires all professionals to complete e-learning modules on sustainable healthcare as part of their induction training.

5. Does your physiotherapy school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated physiotherapy centres have accessible educational materials for patients.

Score explanation: UHNM has several patient information leaflets regarding air pollution and respiratory health, accessible in paper format from the respiratory outpatient's department and via the staff intranet. There are also a few web articles referencing environmental health exposures, relevant to specific diseases, e.g. explaining daily air quality index via [Asthma Triggers](#).

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.

Our other University Trust – Midlands Partnership University NHS Foundation Trust (MPFT) has no resources that could be found.

6. Does your physiotherapy school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?

2	Yes, all affiliated hospitals have accessible educational materials for patients
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.

Score explanation: University Hospitals of North Midlands (UHNM), [Midlands Partnership University NHS Foundation Trust \(MPFT\)](#) and [Shrewsbury and Telford Hospital \(SATH\)](#) trusts provide patient information regarding climate change.

The [Sustainable Development Management Plan](#) published by UHNM outlines the importance of sustainability in healthcare and its impact on climate change. In addition, the SATH trust website contains a sustainability section, which highlights their efforts to reduce their carbon dioxide emissions to have a positive impact on climate change. The MPFT site includes their Green Plan and Green Strategy.

Section Total (9 out of 14)	64%
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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.*

1. Does your institution offer support for physiotherapy students interested in enacting a sustainability initiative/QI project?	
2	Yes, the institution either offers grants for students to enact sustainability initiatives/QI projects or sustainability QI projects are part of the core curriculum.
1	The physiotherapy school encourages sustainability QI projects (to fulfil clinical placement hours 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.
0	No, the institution does not offer opportunities or support for sustainability initiatives or QI projects.

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 [‘Weigh to Go’](#) shop and 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.

2. Does your institution offer opportunities for physiotherapy students to do research related to planetary health and/or sustainable healthcare?

2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

Score explanation: All students must complete a research project to complete their programme. At present, the research topics are negotiated between the student and the supervisor and therefore could include planetary health and/or sustainable healthcare but these are not routine. Students may also undertake other activities in their own time.

3. Does the physiotherapy school have a webpage where physiotherapy students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the physiotherapy school? For example, projects achieved, current initiatives underway at the physiotherapy school and/or contact of information of potential mentors.

2	The physiotherapy school has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a physiotherapy school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is no physiotherapy school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: There is currently no school specific website for planetary health and/or sustainable healthcare.

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

2	Yes, there is a student organisation with faculty support at my physiotherapy school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organisation at my physiotherapy school dedicated to planetary health or sustainability in healthcare but it lacks faculty support.
0	No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation: There is currently no student group dedicated to planetary health.

5. Is there a student liaison representing sustainability interests who serves on a physiotherapy school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?

1	Yes, there is a student representative that serves on a physiotherapy school or institutional decision-making council/committee.
0	No, there is no such student representative.

Score explanation: Although there are staff/student committees, sustainability is currently not included on these.

6. In the past year, has the institution had one or more extra-curricular planetary health programs or initiatives in the following categories? (1 point each)

1	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)

Score explanation:

- 1) Keele runs a '[Student Eats](#)' initiative in collaboration with 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.
- 3) The students' union hosted a Veganuary Market which enabled students to meet local producers promoting a more eco-friendly and vegan lifestyle.
- 4) At Keele, we have [Green Week](#) 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.
- 5) 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.
- 6) Keele students' union has several societies that organise outings for students, such as climbing, hiking, sailing, skydiving etc.

Section Total (9 out of 15)

60%

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the pharmacy school and/or 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 pharmacy schools and institutions must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

1. Does your physiotherapy school and/or institution have an Office of Sustainability?	
3	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 physiotherapy school.
2	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 physiotherapy.
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<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.</i></p>	

2. How ambitious is your physiotherapy school/institution's plan to reduce its own carbon footprint?	
4	The institution/physiotherapy school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/physiotherapy school has a written and approved plan to achieve carbon neutrality by 2040

1	The institution/physiotherapy school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/physiotherapy school does not meet any of the requirements listed above
<p><i>Score explanation: Keele University has a written and approved goal of becoming carbon neutral by 2030. The plan to reach carbon neutrality is well set out with clear information being stated about this target on the website linked. This will be achieved through changes within each school and the use of on site wind turbines and solar panel farms. The physiotherapy school is keen to support this, and is currently undertaking baseline carbon footprint measurements to reduce their carbon footprint.</i></p>	

3. Do buildings/infrastructure used by the physiotherapy school for teaching (not including the hospital) utilise renewable energy?	
3	Yes physiotherapy school buildings are 100% powered by renewable energy
2	Physiotherapy school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Physiotherapy school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Physiotherapy school buildings source <20% of energy needs from off-site and/or on-site renewable energy.
<p><i>Score explanation: Keele University has a certificate to prove that any electricity they currently purchase from the national grid is from a renewable source. Keele University has been granted planning permission to generate up to 80% of its own electricity through solar and wind power. The sustainability scheme will see up to 26,000 solar photo-voltaic (PV) panels installed 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. This became operational in 2021. 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.</i></p> <p><i>Keele University is also actively making investments to reduce reliance on gas heating with heat pumps and biomass technology.</i></p>	

4. Are sustainable building practices utilised for new and old buildings on the physiotherapy school campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

3	Yes, sustainable building practices are utilised for new buildings on the physiotherapy school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	Sustainable building practices are utilised for new buildings on the physiotherapy school campus, but most old buildings have not been retrofitted.
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

Score explanation: The estates team have developed a Sustainable Building Plan, which requires all new buildings to adhere to a certain standard. For all new buildings, habitats and ecological surveys have been considered. There is a budget to retrofit the pre-existing buildings, aiming to make the building more energy efficient, for example by replacing inefficient lab equipment and replacing light bulbs with LEDs.

5. Has the physiotherapy school implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

2	Yes, the physiotherapy school 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.
1	The physiotherapy school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised
0	The physiotherapy school has not implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation: The campus and physiotherapy school have several strategies to make environmentally friendly transport accessible for students:

- 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 discount on travel cards.

- 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.

- The introduction of an electric scooter rental system has provided another environmentally friendly transportation option.

- The physiotherapy 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.

- The physiotherapy school ensures that all placements within the community should be easily reachable via public transport.

- Most recently the university has expanded on the previous electric car charging ports it developed 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.

6. Does your physiotherapy school have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

2	Yes, the physiotherapy school has both compost and recycling programs accessible to students and faculty.
1	The physiotherapy school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the physiotherapy school.

Score explanation: The physiotherapy school has both compost and a conventional recycling program that can be accessed by students and faculty. Keele University introduced a full waste and recycling scheme in 2010 and since then has seen the recycling rate rise from under 10% to now over 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.

7. Does the physiotherapy school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

3	Yes, the physiotherapy school 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
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The physiotherapy school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The physiotherapy school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.

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.

8. Does the physiotherapy school or associated institution apply sustainability criteria when making decisions about supply procurement?

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

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, with support from staff across the University, have achieved Level 4 of the Government's 'Flexible Framework'. This framework allows organisations to assess, measure and evaluate process and performance against a number of set sustainability criteria.

9. Are there sustainability requirements or guidelines for events hosted at the physiotherapy school?

2	Every event hosted at the physiotherapy school must abide by sustainability criteria.
1	The physiotherapy school strongly recommends or incentivizes sustainability measures, but they are not required.
0	There are no sustainability guidelines for physiotherapy school events.

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. Despite this, there is no requirement for student-run events within the physiotherapy school to meet the same sustainability requirements. There is strong guidance and incentives from the SU, however it is not a necessity

10. Does your physiotherapy school have programs and initiatives to assist with making lab spaces more environmentally sustainable?

2	Yes, the physiotherapy school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the physiotherapy school to make lab spaces more sustainable.

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.

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

4	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.
3	No, the institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest, but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organised advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

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 as they have never had investments with fossil-fuel companies and have stated that they will never do so.

Section Total (27 out of 31)

87%

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 Keele University School of Physiotherapy

The following table presents the individual section grades and overall institutional grade for the Keele University School of Allied Health Professions Physiotherapy on this physiotherapy-school-specific Planetary Health Report Card.

Section	Raw Score	Letter Grade
Planetary Health Curriculum (30%)	$(28 / 69) \times 100 = 40.6 \%$	C -
Interdisciplinary Research (17.5%)	$(12 / 17) \times 100 = 70.6\%$	B
Community Outreach and Advocacy (17.5%)	$(9 / 14) \times 100 = 64.3 \%$	B -
Support for Student-led Planetary Health Initiatives (17.5%)	$(9 / 15) \times 100 = 60.0 \%$	B -
Campus Sustainability (17.5%)	$(27 / 31) \times 100 = 87.1 \%$	A
Institutional Grade	61.6 %	B -

