AIM AND SCOPE
The aim of this policy is to foster an ethical research culture amongst young researchers. It applies to all submissions to Youth STEM Matters, and it is the responsibility of Youth STEM Matters authors to ensure their submission adheres to this policy. Youth STEM Matters team members are responsible for alerting the Editor in Chief to any article which they are concerned has breached this policy.
This is a best-practice policy, influenced by guidance from:

Transparency in authors' contributions and responsibilities to promote integrity in scientific publication

Recommendations | Defining the Role of Authors and Contributors

The European Code of Conduct for Research Integrity

Promoting integrity in scholarly research and its publication | Committee on Publication Ethics: COPE

AUTHORSHIP
It is expected of all authors:

- To have made substantial contribution to any aspect of the research (this may include but is not limited to: conception, design, acquisition, analysis, or interpretation of the work);
- To have drafted the work, or revised it critically;
- To have approved the submitted version;
- To have agreed to be accountable for any aspect of the study.

These criteria are not a means through which to disqualify persons from authorship. As such, persons that meet the first and/or second criteria should be given the opportunity to meet the rest. It is the (collective) responsibility of the author(s) to determine authorship based on the above criteria only, not that of any Youth STEM Matters team member or third-party.

Following a request of removal or addition of author(s) after manuscript submission or publication by author(s), an explanation will be requested from the author(s) as well as a signed statement of agreement from (all) listed author(s) and the author(s) to be removed or added.

A corresponding author should be elected by all authors in the case of a co-authorship. The corresponding author is primarily responsible for communication with Youth STEM Matters during paper submission, peer review, and publication process, and will ensure the journal's administrative requirements are completed. The corresponding author should also be available throughout the editorial process, to respond to editorial queries promptly, and after publication, in case any queries arise.

Any persons who have contributed but meet less than all 4 of these criteria should not be listed as authors, rather should be acknowledged. Contributors to the following of any study may be acknowledged individually or as a collective group under a single heading (e.g. "Clinical Investigators", "Participating Investigators"): acquisition of funding, general supervision of a research group, general administrative support, writing assistance, technical
editing, language editing, and proofreading. Their contributions should be specified as well, examples include: "served as scientific advisors," "critically reviewed the study proposal," "collected data," "provided and cared for study patients", "participated in writing or technical editing of the manuscript".

RESEARCH INTEGRITY
It is expected of the author(s) to ensure - to the best of their knowledge - that:
- The quality of research, reflected in the design, methodology, analysis and the use of resources, is reliable.
- The developing, undertaking, reviewing, reporting and communicating is honest without the misrepresentation of research findings and practical applicability so in a transparent, fair and unbiased way.
- Respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment, is maintained throughout the study.
- They are accountable for the research from the conception of the idea to publication, its management, organisation, training, supervision, mentoring, and for its wider impacts.

IMAGE INTEGRITY
Incorporation of any image must be with explicit permission from the artist(s)/photographer(s); the author may alternatively be licensed to use the image(s), or use image(s) of the public domain, or of Creative Commons -- references should be made appropriately.

BIOETHICS
Studies Involving Human Participants:
- At the most basic level, all studies must comply with the ten principles of the Nuremberg Code-- The Nuremberg Code (1947) / https://history.nih.gov/research/downloads/nuremberg.pdf
- All studies must comply to the principles of:
  - The Belmont Report (Read the Belmont Report)
  - The Common Rule (Subpart A of 45 CFR Part 46: Basic HHS Policy for Protection of Human Subjects)
  - All biomedical research must comply to the principles of The Declaration of Helsinki (WMA Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects – WMA)

Studies Involving Animal Experimentation:
- Must comply with the ARRIVE regulations (ARRIVE guidelines)
- Must abide by:
  - The U.K. Animals (Scientific Procedures) Act 1986 OR
  - EU Directive 2010/63/EU for animal experiments OR
UNACCEPTABLE PRACTICES

- Fabrication: making up results, findings, data and integrating them as if they were real.
- Falsification: manipulating research materials, equipment or processes or altering, omitting or withholding data or results without justification.
- Plagiarism: using other people’s work and ideas without giving credit due to the original source, thus violating the rights of the original author(s).
- Manipulating authorship or not crediting persons meeting criteria for authorship or contribution fairly (refer above).
- Violations of the principles of Research Integrity (refer above).
- Violations of Bioethical Standards (refer above)
- Self-plagiarism and re-publishing sections of substance from one’s own earlier publications, without citation.
- Duplicate submission: having had the work published in another journal prior to submission, submitting or intending to submit the work to one or more journals apart from Youth STEM Matters.

DEALING WITH MISCONDUCT

Youth STEM Matters will work closely with the author(s) to ensure a fair and transparent investigation into the matter. Youth STEM Matters follows the COPE guidelines (Promoting integrity in scholarly research and its publication | Committee on Publication Ethics: COPE) for dealing with misconduct. Consequences will be based on the misconduct itself so will vary on a case to case basis. As a result, utmost care and attention will be paid to each case.

- If there is enough clear evidence to prove any unacceptable practices in the work, the journal will issue a retraction of the work, and further consequences, such as author bans can be expected, depending on the severity of the misconduct.
- If there is enough clear evidence that only a small portion of an otherwise reliable piece of work proves to be violating the aforementioned ethical standards, for example, it being misleading, especially due to an honest error, the journal will issue an errata of the work.

The author(s) will also have the opportunity to give an explanation in all incidents and may be requested to provide information in regards to the creation of the work to investigate the originality and ethical standard of the work in greater depth.

For further reading as to how misconduct is dealt with, please refer to: https://publicationethics.org/guidance/Flowcharts
AMENDMENT
Amendment or addition to the Policy may be suggested by any member of the Youth STEM Matters team, author, or member of the public, which then is communicated to and agreed upon by the Youth STEM Matters Ethics Team members.