**The Importance of Peer Review**

When a researcher, or team of researchers, finishes a stage of work, they usually write a paper presenting their methods, findings and conclusions. They then send the paper to a scientific journal to be considered for publication. If the journal’s editor thinks it is suitable for their journal he/she will send the paper to other scientists, who research and publish in the same field and ask them to:

1. Comment on its validity – are the research results credible; is the design and methodology appropriate?
2. Judge the significance – is it an important finding?
3. Determine its originality – are the results new? Does the paper refer properly to work performed by others?
4. Give an opinion as to whether the paper should be published, improved or rejected (usually to be submitted elsewhere).

This process is called peer review, and it is incredibly important in making sure that only high-quality written work appears in *the literature*, but it also allows authors to improve their original work based on the feedback of others.

***Did you know?***

There are around 21,000 scholarly and scientific journals that use the peer-review system. A high proportion of these are scientific, technical or medical journals, which together publish over 1,000,000 research papers each year.

***By the way...***

Peer review is also used to assess scientists’ applications for research funds. Funding bodies, such as medical research charities, seek expert advice on a scientist’s proposal before agreeing to pay for it. Peer review in this instance is used to judge which applications have the best potential to help an organization achieve its objectives.

**Peer Review – Your Essay**

You are not reporting the results of experiments in a journal article or applying for funding, but are writing an essay about a current controversy in science that interests you.

The process of peer review that you will undertake is very similar, however; by hearing what your peers think about your work before you hand it in, you should gain a valuable insight into how they interpret it, and where they think it can be improved. If you make suggested improvements, it is very likely that it will receive a higher grade when you hand it to your instructors.

You already have some experience of the peer-review system, because you provided feedback on a partner’s two paragraphs in the last class, and had them provide you with feedback on your own writing.

**Activity 1**

For some further tips on how to give effective feedback, make sure you read the following guide before coming to class: ‘Giving and Receiving Effective Feedback’ and arrive ready to participate in a discussion about peer review and its importance.

**Activity 2**

Make sure you also bring a draft of your essay to class; you will be working with a partner to provide feedback on these essays.