

Use of Human Subjects

Participation of Humans in Research - Low Risk

All human participants in scientific research must give Informed Consent, which comprises consent, confidentiality and the right to withdraw. Class surveys of attitudes, beliefs or skill tests, such as “Do my classmates remember better if they read while listening to jazz or hip hop?” may be termed Low Risk, as defined in the Participation of Humans in Research - Low Risk policy.

For Low Risk projects, completion of the simple Participation of Humans - Low Risk (Form 4.1A) is required. Approval by the student’s adult supervisor is usually sufficient to ensure that the appropriate ethical issues have been addressed. Be aware, however, that not all such surveys are low risk. For example, a survey to measure the Body Mass Index of class members could affect participants’ self-esteem and would therefore be classified as Significant Risk.

Participation of Humans in Research - Significant Risk

The Participation of Humans in Research - Significant Risk policy establishes what constitutes a drug and specifies that drugs and invasive procedures may only be used in a science project experiment under the direction of a qualified Scientific Supervisor.

Effective October, 2010, sensory food projects (i.e., those designed only to assess the sensory characteristics of a food or drink), within certain restrictions (e.g., not involving “energy drinks”), are the only ingestion projects considered to be low risk. Significant risk ingestion projects are only allowed at the CWSF if carried out under professional supervision at a laboratory with its own internal Ethics Review Committee, such as a university or hospital laboratory. Projects in which human participants,

including the student researcher, are required to consume a substance or apply a substance to the skin must be carefully reviewed for compliance with the indicated Humans in Research policies before any testing begins.

All projects involving human participants in ways other than surveys and skill tests are considered Significant Risk. For Significant Risk projects, the more detailed Participation of Humans - Significant Risk Approval (Form 4.1B) must be completed, and the indicated approval procedures must be followed.

Use of Animals (Vertebrate and Invertebrate)

All experimental care and use of animals in Canada is subject to the requirements of the Canadian Council on Animal Care (CCAC), a national, peer-review organization founded in Ottawa in 1968. CCAC documentation states: “Youth Science Canada, amongst its responsibilities, regulates animal experimentation in science fairs.”

Research using vertebrate animals for science fair projects may only be carried out in one of four ways:

Observations

- Behavioural studies with positive rewards, without any stress involved**
- Any project carried out in a university, medical or industrial laboratory and approved by the appropriate Scientific Review Board**
- Experiments on embryos - These experiments are subject to the same rules that apply to the animal producing the embryos. Studies of mammalian embryos are restricted to observation without intervention with drugs or other chemicals.**
- Research involving cephalopods (cuttlefish, nautilus, octopus, squid, etc.) must follow the same rules as for vertebrates above. Research on all other invertebrate animals is presently unrestricted, except that the project must have some scientific or educational merit and be judged to be ethical.**

The Use of Animals in Research policy establishes what constitutes a drug and specifies that drugs may only be used in a science project experiment under the direction of a qualified Scientific Supervisor.

Form 4.1C Animals - Approval is used to ensure that the appropriate review of projects involving animals has taken place.