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**Year 12 General Human Biology**

**Task 5: Investigation - Kitchen hygiene (25%)**

**Notes for teachers and laboratory technicians**

All microbiological samples should be regarded as potentially hazardous or infectious. Schools considering the use of bacteria or fungi in the science curriculum should conduct a risk assessment prior to conducting any activity. The risk assessment should identify all hazards and provide an outline of risk mitigation strategies.

The best method for culturing pathogens for safety and disposal is to use bread as the medium to grow mould. If using bread students should research the best growing conditions for bread mould and should incubate at temperatures higher than 30oC.

If using bread to grow pathogens, the should be placed into zip lock bags or Petri dishes sealled with sticky tape which should remain closed throughout the activity. Growth should only be viewed in the unopened containers/bags in which they were grown. Bread should remain in the closed bags or Petri dishes when the activity is complete, then double bagged and disposed of in the bin, as normal household waste.

If using agar plates to grow pathogens, then you will need to ensure they are kept closed once inoculated, and sealled with sticky tape. Disposable petri dishes are recommended. Agar plates should be incubated at room temperature or up to a maximum of 30°C. Do not incubate at 37°C as this provides ideal conditions for the growth of human pathogens. At the end of the activity agar plates must be correctly sterilised in an autoclave or pressure cooker at 121°C or 100kPa/15psi for 20 minutes.