



Aseptic Technique



BRITISH MYCOLOGICAL SOCIETY FUNGAL EDUCATION & OUTREACH

SECONDARY RESOURCE

Only non-pathogenic cultures should be used in schools. CLEAPPS guidance for all mycology and microbiology techniques should be observed.

Sterile equipment and media is used in the transfer and culture of microorganisms. Aseptic technique is the process of transferring microorganisms from one container to another to avoid contamination of pure cultures and their surroundings.

In school we treat all cultures as potentially pathogenic because of the possibility that a culture may have been contaminated and mutations to disease-causing strains of species could occur (See image above of contaminated plates).

When carrying out a practical involving aseptic technique teachers and pupils should strive to meet the following conditions:

Keep windows and doors closed to reduce disruptive air current.

Disinfect the workbench with ethanol or an alternative approved disinfectant.

Ensure that all equipment is in easy reach.

Ensure that the Bunsen flame is kept on the safety flame in between operations and on the hot flame during microbe transfer.

Keep containers closed when not in use and partially covered (if possible) during transfer i.e. a small vial cannot be kept partially covered but a petri dish can. (See image overleaf from <http://minimicrokelsmon.blogspot.com/>)

When transferring microbes do so as close to a Bunsen burner flame as possible so that the air currents can be drawn upwards and away from you culture medium.

For test tubes and vials the neck must be held at a 45 degree angle and flamed before transfer and after transfer so that any movement of air is away from the container.

THIS ACTIVITY SUPPORTS THE FOLLOWING STATUTORY CURRICULUM REQUIREMENTS:

KS4 Curriculum Links

AQA Biology 8461 Cells SOW
4.1.1.1-4.1.1.6

Pearson Edexcel Level 1/Level 2
GCSE (9-1) in Biology 5.18

OCR GCSE (9-1) in Biology A
(Gateway Science) B6.3p

WJEC GCSE in BIOLOGY (From
2016) 2.7

Scottish FH2E 12, Pharmaceuticals:
Prepare Pharmaceutical Preparations
Aseptically (SCQF level 6)

Inoculation of media with microbes: Aseptic Technique (Image from <http://minimicrokelsmon.blogspot.com/>)

