2. Recording growth

10x10 mins per day

The work continues with regular observation and recording of the progress of the mould growth.

OBJECTIVES

- To know that the effects of micro-organisms can be observed over a period of time
- To appreciate the time required for growth
- To observe and record results at consistent, regular intervals

APPROXIMATE DURATION:

10 minutes per daily recording session.

RESOURCES

(Per group of 4)

- Recording sheets/grids as chosen by each group
- Activity sheet 6

INTRODUCING THE ACTIVITY (5 minutes)

Remind the children of the overall task, to find the best conditions for mould growth to assist the industry. Check that they have remembered their chosen method for recording their results. Remind them not to open the bags or Petri dishes to check the contents, for the safety reason given below.

DAILY OBSERVATIONAL RECORDING

The children record the mould growth on their slices of bread or on the surface of the yogurt. These sessions should be carried out daily, or possibly every other day, and preferably at roughly the same time each day.

The clue cards provided on Activity sheet 3 suggest three methods for recording results (i) pictorial recording, (ii) numerical scale (representing *no mould*, to *completely covered in mould*) or (iii) a grid (to be printed on acetate) to ascertain the area of mould coverage (by counting the number of squares containing some mould). More able children could calculate the coverage as a fraction or percentage of the piece of bread. Use of a numerical scale will allow the results to be plotted on a graph. Least able children could draw the pieces of bread each day resulting in a visual representation of the mould growth.

Apparent changes will not be seen for about a week, which will reinforce the notion that living things take time to grow. However, the teacher can use these observations to show that some living things, like humans, grow very slowly over several years, but others like moulds can grow relatively quickly: in days.

The observations will probably spread over some 14-21 days, so some ideas will have to be developed as to recording changes over the weekend, when the children will not be able to observe their bread. For example, the most able children can leave a space in the recording sheets for Saturday and Sunday, the results plotted graphically, and the missing results *interpolated* into the graph (that is, the missing results of coverage can be estimated and placed on the graph perhaps in a different colour to show that they are not measured, but merely estimated).

Safety note

Mouldy foods should be kept in sealed plastic bags and the lids of Petri dishes should be taped down.