

Many academic texts contain references to processes. Processes may be entirely natural, man-made, or a mixture of both. A description of a process may form a complete text - this text informs the reader and explains the stages in the process - or a writer may include a description of a process as part of a longer text (e.g. an essay, article, or textbook chapter), in order to illustrate a point or provide evidence for an argument. In these cases the writer is likely to speculate on essential elements related to the process, such as classification or problems and solutions, and will probably include some evaluation.

This module covers:

- Analysing written descriptions of processes
- Writing a paragraph describing a process

TASK 1 Critical thinking - understanding types of process

- 1 Decide whether each process is *N* (a natural process), *M* (a man-made or artificial process), or *N/M* (natural or man-made, or a mixture of both). Give reasons.
 - 1 the eruption of a volcano
 - 2 the destruction of a building by an earthquake
 - 3 an avalanche
 - 4 the decline in fish stocks in the ocean
 - 5 a piece of research such as the search for a vaccine
 - 6 the development of muscle in a child's body
- 2 Select at least two of the processes. Identify the different factors involved and suggest some of the stages in the process.

TASK 2 Analysing descriptions of processes

- 1 Read the descriptions of processes in Texts 1-3. For each process, decide whether it is a natural, man-made, or mixed process. Give reasons.

Urbanization

TEXT 1

Urbanization is an important process which typically takes place as countries become industrialized. The term 'urbanization' refers to the movement of people from rural areas to urban areas or cities. There are a number of stages in the process of urbanization. The first stage is simply that people move from rural areas into cities, particularly into suburban areas or the edges of cities. Meanwhile, other city-dwellers may move from the city centre, where it can be crowded and expensive, to the suburbs. City-dwellers may even be relocated there as part of a redevelopment plan. The next stage is the growth of the suburbs. These can grow both geographically and in terms of population density. Thus the city becomes larger in extent or area, and in turn more crowded in particular areas. As the population in rural areas declines, urban areas grow, which accelerates the process.

Flooding

TEXT 2

Flooding occurs when a large amount of water enters a given space, such as a valley, and cannot flow away fast enough. The process normally begins when there is heavy rainfall. This means that large volumes of water flow into an area, directly from the rainfall itself as well as along rivers and down hillsides. Some of this water drains away naturally. However, when much of the land is covered in concrete as in the case of cities and roads, the outflow possibilities are restricted. As more water continues to flow in, there is limited opportunity for it to flow out again. Following this, water volumes reach unusually high levels whereby rivers burst their banks and the land, including fields and buildings, is flooded. Floods can last for a few hours or many days before the water levels go down. When the water does subside, there is likely to be a considerable amount of mud and debris left behind.

Making soy sauce

The traditional process for making soy sauce is still used for making sauce of high quality. In Japan it starts in April and continues for a whole year, making use of the changing temperatures in the different seasons. There are several stages, and fermentation is carried out by many different moulds, bacteria, and yeasts which successively predominate in the developing sauce as conditions change to suit them. In outline, the process is this. Defatted, steamed soya beans and roasted, crushed wheat are mashed together. The mixture is inoculated with *tane-koji*, a starter culture of the two necessary *Aspergillus* moulds, and is allowed to ferment, then mixed with a strong salt solution and inoculated with another starter containing several kinds of bacteria and yeasts for a further fermentation which lasts from 8 to 12 months. The reactions in this last period create a complex blend of substances contributing to the final flavour. The chief elements are salt, amino acids, organic acids (lactic and acetic), alcohols, sugars, and numerous volatile aromatic substances including vanillin, the flavour principle of vanilla. When fermentation is complete, the mixture is filtered or racked to extract the sauce; and this is commonly pasteurized to kill the remaining organisms and arrest fermentation. One ton each of defatted soya beans, wheat and salt produce 5,000 litres of soy sauce.



Soya beans



Wheat



Yeast



Fermentation

SOURCE: Davidson, A. (1999), pp.740. *The Oxford Companion to Food*. Oxford: Oxford University Press.

GLOSSARY

defatted (*adj*) with the fat removed

ferment (*v*) to change chemically due to the action of yeast (*n fermentation*)

inoculate (*v*) to inject

mould (*n*) a fine green, grey, or black substance like fur that grows on old food

pasteurize (*v*) to heat and cool rapidly in order to kill bacteria

2 Select the adjectives which best illustrate the purpose of Texts 1-3.

argumentative comparative descriptive evaluative
explanatory informative persuasive

3 Identify the main perspectives in each text. Select one or two for each text.

administrative biological chemical cultural ecological
environmental financial political social sociological

4 A written description of a process may include some or all of stages a-f below. Number the stages in the correct logical order, and then identify the stages in Texts 1-3.

- a Contextualize
- b Give a name to the process
- c Give a definition / explanation of the key term(s)
- d Describe the various stages in the process
- e Include examples as necessary
- f Evaluate / conclude / speculate

5 Identify the words / phrases in Texts 1-3 that you can use in a description of any process.

Example: *The term 'urbanization' refers to the movement of people from rural areas to urban areas or cities.*

INDEPENDENT STUDY

When you read a text, it is necessary to work out the overall purpose (e.g. to describe a process, to present an argument, etc.).

► When you next read an academic text, time how long it takes you to establish what the overall purpose of the text is.