SCI – DETRITUS FEEDERS AND DECOMPOSERS

Detritus is largely cellulose because it consists mostly of dead leaves, the woody parts of plants, and animal faecal wastes. Nevertheless, it is still organic and high in potential energy for those organisms that can digest it—decomposers. Beyond having the ability to digest cellulose, decomposers act as any other consumer, using the cellulose as a source of both energy and nutrients. Termites and some other detritus feeders can digest woody material because they maintain decomposer microorganisms in their guts in a mutualistic symbiotic relationship. The termite provides a cozy home of the microbes and takes in the cellulose, which the microbes digest for both their own and the termite's benefit.

Most decomposers use oxygen for cell respiration, which breaks the detritus down into carbon dioxide, water and mineral nutrients. Also, there is a release of waste heat.