

Unit 10: Organizing texts (2) Structuring texts  
Task: 9  
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What makes it possible for koalas to digest eucalyptus leaves?

The main diet of koalas consists of the leaves of eucalyptus trees. The problem with this particular type of food is that it contains a large amount of indigestible material. Materials like fibre and lignin cannot be digested and therefore the koala has to eat a lot of leaves before a sufficient quantity of metabolic energy is browsed together.

The digestive system of the koala has three solutions for this difficult (but for koalas obviously tasteful) food. Firstly, the koala has a so called 'discerning digestive system': big, coarse and unwanted chunks are expelled while solutes and smaller, digestible particles retain in the region of the caecum and colon.

Secondly, the koala, in contrast to most other similar sized marsupials, has a low overall requirement of metabolic energy. This saves the koala from having to spend every single minute of his life stuffing leaves in his mouth. (leah!)

A third reason why koalas can exploit<sup>t</sup> the leaves of the eucalyptus tree is that these leaves are rich in digestible energy in the form of carbohydrates, such as sugar and starch. In fact, these compounds make the leaves worth eating: they provide the main source of metabolic energy.

It seems that the koala has chosen the leaves of the eucalyptus tree because they provide a rich source of energy and that its digestive system has adapted to this type of food to process the largest possible amount of useful material.