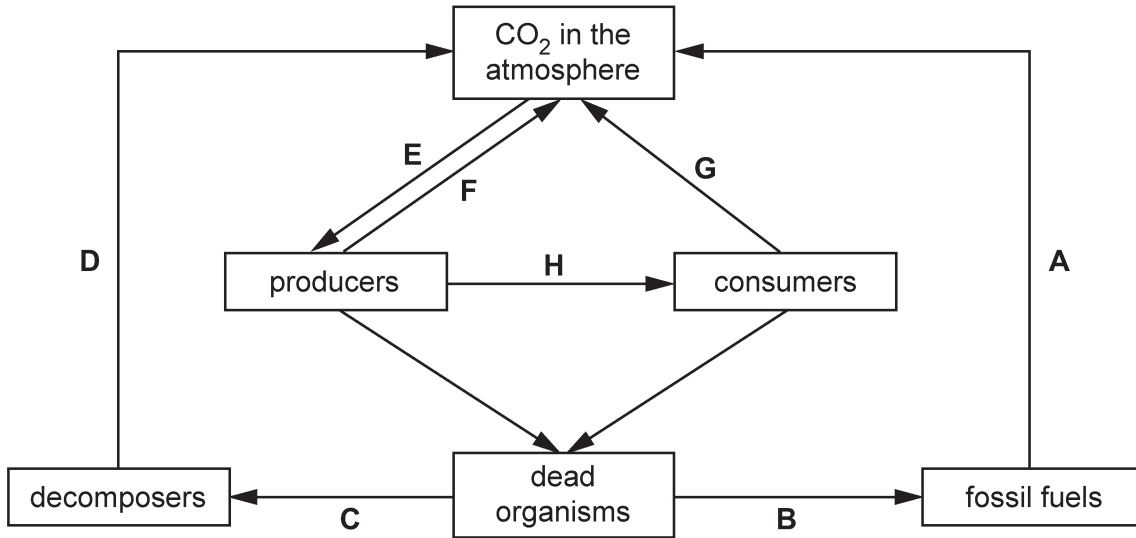


20 Carbon and nitrogen are elements that are recycled.

The flow chart shows the carbon cycle.



(a) (i) Identify the processes occurring at **A** and **F**.

A **F** [2]

(ii) The concentration of carbon dioxide (CO₂) in the atmosphere varies depending on the time of year.

Suggest why the concentration of CO₂ in the atmosphere increases during the winter months and decreases during the summer months.

.....
 [1]

(b) In plants the glucose produced by photosynthesis is changed into starch for storage. Glucose and starch are both carbohydrates.

(i) Complete the table below to show the main differences in structure between glucose and starch.

Glucose	Starch

[3]

(ii) Carbohydrates contain only the elements carbon, hydrogen and oxygen.

Polypeptides contain carbon, hydrogen, oxygen and nitrogen.

Name one **other** element present in polypeptides.

..... [1]

(c)* The nitrogen cycle shares many similarities with the carbon cycle.

Describe the similarities between the nitrogen cycle and the carbon cycle.

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..... [6]

Additional answer space if required.

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