NATURAL SELECTION vs ARTIFICIAL SELECTION

Favourable traits and desirable traits: what is the difference?

A **favourable** trait is one that is most suited (fittest) to the _____ conditions (Natural Selection).

A **desirable** trait is one that is selected by a _____ according to what the person desires or wants (Artificial selection).

E.g. growing/breeding of seedless grapes, bigger fruit, cows producing more milk, sheep with shorter leg, etc.

Differences between Natural Selection and Artificial Selection	
Natural selection	**Artificial Selection**
The …… or…… is the selective force	…… represent the selective force
Selection is in response to …… to the ……	Selection is in response to …… needs
Occurs …… a species	May involve…… or…… species (eg. cross-breeding)

Briefly describe FIVE Reproductive Isolation mechanisms which prevents different animal/plant species form cross breeding.

(i)……

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(ii)……

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(iii)……

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(iv)……

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(v)……

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SPECIATION:……

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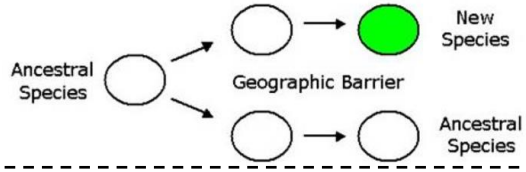
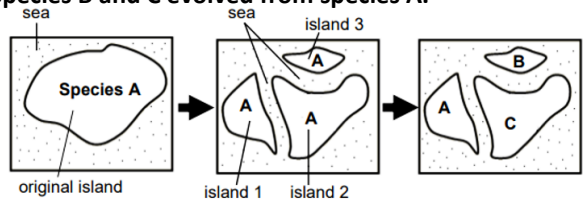
See Mind the Gap, pg. 71



Species B and C evolved from species A.



Describe how species B and C evolved from species A. **(6)**

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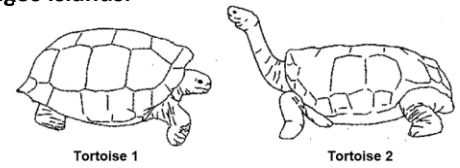
Darwin noticed different species of tortoises on the Galapagos Islands.



Explain how tortoises 1 and 2 might have developed from a common ancestor. **(6)**

- ***POPULATION*** *(not species) of tortoises becomes separated by a geographical barrier, the ocean / sea.*
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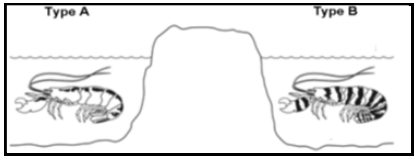
Shrimps A and B lives on opposite sides of a strip of land. In an investigation, scientists placed the shrimps in a fish tank. It was noticed that shrimps A did not mate with shrimps B. The investigation was repeated several times and obtained the same result each time.



(i) Give ONE conclusion the scientists came to after the investigation. ……

……

(ii) Explain your answer to QUESTION (i).

……

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(iii)Why did the scientists repeat the investigation?

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Define the following terms:

Species:……

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Population:……

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Biogeography……

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Extinction:……

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Explain briefly how speciation and extinction affect biodiversity.

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