Adaptation, natural selection and speciation homework 2

1. Complete the following sentences:

Natural selection is the process by which members of a population ______ adapted to the environment ______, reproduce and pass their ______ onto the next generation.

An example of natural selection is the increase in the number of antibiotic resistant bacteria:

(i) Bacteria are exposed to an_______.

(ii) A few bacteria may be ______ due to a mutation.

(iii) These bacteria ______ and reproduce.

(iv) The population of bacteria are now resistant to the _________.

(v) The ________ pressure was the antibiotic.

2. The diagrams below give some information about three species of Darwin's Finches which live on the Galapagos Islands.

![Darwin's Finches](diagram.png)

Feeds on insects  Feeds on seeds  Feeds on seeds

a) Using evidence from the diagrams, explain why these three finch species occupy different niches.

__________________________________________________________________________

b) Some areas on the islands have a thin layer of soil and low rainfall.

Describe two adaptations which plants growing in these areas will have to help them survive.

1. __________________________________________________________

2. __________________________________________________________
3. Complete the diagram below which illustrates speciation.