PLYMOUTH CITY MUSEUM AND ART GALLERY

DARWIN'S VOYAGE OF DISCOVERY

24 January —— 18 April

VARIATION WITHIN SPECIES

For self-guided visits to the exhibition

When compiling his ideas for the book '***On the Origin of Species by Means of Natural Selection***', an area that Charles Darwin studied in detail was the variation that occurs within individuals of the same species.

When two individuals from the same species reproduce, the offspring is always different in appearance from the two parent individuals. Not even 'identical' twins are exactly alike. Whilst travelling on the Beagle, Darwin was able to study this idea by looking very closely at beak shapes of finches from the Galapagos Islands. He found that through choosing birds with distinctive beak sizes and breeding them with one another, he was able to create offspring that showed even greater distinct variations. He called this 'artificial selection'.

Using the display of moths on display in the gallery, we are going to look at natural selection and variation within a species. Before visiting the exhibition, print enough copies of the moth templates on page 2 for your pupils.

Ask your pupils to create detailed scientific drawings of the patterned wings of the moths on display. It is really important that pupils do actually observe the moths close up, as sometimes the variations can be very subtle.

Use these these outlines to make detailed scientific drawings of the patterned wings of the moths on display. Pay close attention to the subtle variations of pattern on each moth. What differences are there between individuals?