## Classifying Animals動物分類趣

How are animals classified？
Scientists have grouped animals into classes to make it easier to study them．Animals can be divided into groups or＇classified＇by looking at the similarities and differences between them．Animals are divided into two main groups．Animals that have a backbone are called vertebrates．Animals that don＇t have a backbone are called invertebrates．Vertebrates and invertebrates are divided into smaller groups．Vertebrates，for example，are divided into fish， amphibians，reptiles，birds and mammals．And these are the groups that the students studied in this project．
Making the connection
This project explored the classification system used to identify animals．Most children are fascinated by animals and often have an animal that is a particular favorite，possibly even an animal the child has never seen before．Children also like to order and sort things，and this lesson cultivated both of these interests．The students observed different animals and identified the main characteristics required to separate them into their groups．They ended up understanding the connection with what makes animals different for example mammals and reptiles，and also what makes them the same．
Creating an animal hybrid
The activity was concluded by asking the students to plan and develop a hybrid animal； they relied on knowledge established during earlier stages of the project to come up with a unique animal comprised from three different animals．The students got very creative and enjoyed creating and improving their animals digitally prior to making a paper version，with the objective being to create a new species and classify it according to the principles of classification．如何分類動物？

科學家將動物分類以便於研究。透過觀察動物之間的相似及差異，可將動物分組或分類。動物主要被分成兩個類別，有脊樑的動物被稱爲脊椎動物，沒有脊樑的動物被稱爲無脊椎動物，脊椎動物和無脊椎動物又被分類成更小的群體。舉例來說，脊椎動物分成魚類，兩棲類，爬蟲類，鳥類以及哺乳類。以上這些即是學生於這個專題中學習的動物類別。動物間的關聯

此專題讓學生探究動物的分類系統。大多數學生對動物特別感興趣，他們通常對某種動物特別喜愛，甚至可能是從未見過的動物。這堂課讓學生學習排序及分類動物。他們觀察不同動物，並將動物依主要特徵分成不同的種類。最後，他們能夠理解動物之間的差異，例如：哺乳類和爬蝁類的差異以及相似之處。創造混種動物

此活動讓學生計畫和創造一隻混種動物，他們以學習到的知識，發想出由三種不同動物組成的獨特動物。學生先畫在紙上，再用平板創造並改進。他們極具創造力，以創造新物種為目的 並根據分類原則將其歸類。
ASK＋IMAGINE
（1）
提問＋創思

Sorting animals was tricky，especially reptiles and amphibians
分類動物不簡單，特別是爬蝁類及兩棲類。

（4）CREATE
We used our creativity to create our hybrid animals
我們用創造力去創造混種動物。


We shared ideas and worked together o create interesting hybrid animals．我們分享彼此意見，並共同創造有趣的混種動物。


$$
\text { (5) IMPROVE } \begin{gathered}
\text { 改進 }
\end{gathered}
$$

（8）
The best part was using technology to show and make improvements to our designs．
用電腦展現並改進我們的混種動物最有趣了。


