Teacher Support Pack

# Past and Present Primates

## Human Biological Science: Unit 4 (ATAR)

**Overview –** In this experience students examine why humans are classified as 'primates' and the evolutionary trends within this order. Comparative anatomy, physiology and behaviour are used to identify the similarities and differences between the Hominidae (Great Ape) family and the traits of early Hominins are explored.

**Lesson Logistics –** Students take part in an interactive presentation, incorporating audio visual elements and biological artefacts. This session takes place in one of our indoor education experience areas.

Groups are encouraged to use our Student Activity Sheets during their Past and Present Primates session to complete the relevant questions/notes. Additional questions are designed to be answered through investigation by visiting specific zoo exhibits before or after the facilitated session.

**Duration –** 60 minutes

**Conservation Message –** As the 'smartest' primate, it's up to us to protect and prevent the extinction of non-human primates.

**Specific content relevant to Human Biological Science: Unit 4 – Human variation and evolution**

| Science Understanding | Zoo Example/Discussion |
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| Classification of primates and humans as 'Great Apes' | Classification of zoo primates using observable features |
| Identification of the similarities and differences between 'Great Ape' family including:<br>• size of cerebral cortex and learning<br>• mobility of digits<br>• skeletal differences to allow for bipedalism<br>• prognathism and dentition<br>• reproductive physiology | Case study of Sumatran Orangutan for comparison between non-human apes and humans. Other great apes are also discussed and a collection of skulls and various other biological artefacts are used for comparison |
| Role of DNA in observed similarities and differences between the 'Great Ape' family | Discussion based around disease in Great Apes and brain growth |
| Understanding a primate phylogenetic tree | Students interpret a sample phylogenetic tree and discuss findings |
| Fossil evidence for the evolutionary pathways of hominins | Key traits found in fossils are identified and discussed to illustrate the theory of hominin evolution |