

7. Practise drawing various animals and plants. Ans: (1) Eliphant



(2) Camel



(3) Dog



(4) Rose



(5) Dahlia



(6) hibiscus



8. Describe one example of adaptive radiation. Ans: Darwin's finches of the Galapagos islands had common ancestors but now have different types of modified beaks according to their food habits.

- 9. Can we call human evolution as adaptive radiation? Ans: Yes, human evolution is an example of adaptive radiation as different species of human evolved across different areas of world as they diverged to different areas in following fashion.
- (i) Hominid introduction occured in Africa and Asia:
- (ii) Homo habilis lived in Africa 2 million years ago.
- (iv) Similarly Homo erectus was followed by Homo sapiens.
- (v) Primitive neanderthal man in Europe gave way to African cromagnon.

Homo sapiens sapiens (25,000 years, 1.5-1.8 M, 1300-1600 c.c.)
↑

> Homo sapiens fossils (34,000 years 1.8 M, 1650 c.c.)

Homo erectus (1.7 million years, 800-1100 c.c.)

Homo habilis

(2 million years, 735 c.c., First fossil man who used tools of chipped stones)

Australopithecus africanus (5 million years 1.5 m, 350-450 c.c.)

Ramapithecus
(14-15 million years, survived from
Late Miocene to pliocene)

Apes ← Dryopithecus africanus (20-25 million years)

## Fig. Schematic representation of Evolution of Man. Age, height and cranial capacity are also given

10. Using various resources such as your school library or the internet and discussions with your teacher, trace the evolutionary stages of any one animal say horse.

Ans: Evolutionary stages of horse:

Eohippus - Mesohippus - Merychippus - Pliohippus - Equus. Evolutionary trend:

- (i) Increase in body size.
- (ii) Elongation of neck.
- (iii) Lengthening of limbs.
- (iv) Enlargement of third digit.
- (v) Increase in structural complexity of teeth for feeding on grass.

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