## **BIO1300 The Human Animal Topic 2: Primate and Humans**

**Key Words** 

The human timescale

Precambrian Era

Paleozoic Era

Mesozoic Era

Caenozoic Era

Evolution of bacteria

Prokaryote Cvanobacteria

Photosynthesis

Atmospheric oxygen

Eukarvote

Multi-cellular life Cambrian explosion

Land plants Land animals

Terrestrial vertebrates

Amniotic egg

Pangea

Age of dinosaurs Asteroid impact Age of mammals Early humans Homonin lineage Geological timescale

Permian period

Triassic period **Jurassic** period Cretaceous period Tertiary period Quaternary period

Species

Biological definition

Viable and fertile offspring

Mule

Male donkey

Female horse Kingdom Animalia Phylum Chordata

Class Mammalia

Order Primate

Family Hominidae

Genus Homo

Species sapiens Primate ancestor

Arboreal

Pen-tailed shrew Primate evolution

Small bodied and brained

Prosimian

Large bodied and brained

Simian/anthropoid Old-world monkey New-world monkey

Hominids

Family Hominidae

**Great Apes** African apes Asian apes Homonins

**Sub-Family Homininae** 

Humans

Common ancestor

Brachiation

Dexterity of hands and arms

Primate hand Loss of claws **Evolution of nails** Opposable thumb Opposable big toe

Toilet claw

Primate characteristics

Reduced snout Decreased olfaction Increased visual acuity Number of teeth

Diversity of teeth Heterodonty **Incisors** Canines Pre-molars Molars

Primate vision Binocular vision Depth perception

3D vision

Occipital lobe of brain

Bipedalism

Thinning of African forests

Greater time on ground

Advantage of distance vision

Freeing of hands for tool use

Skeletal changes

Foramen magnum

Sagittal crest

Brow ridges

S-shaped spine

Shorter arms

Wide pelvic girdle

Humerus orientation

Delicate hand bones

Toe pointing forward

Human lineages

**Sub-Family Homininae** 

Sahelanthropus tchadensis

Bipedal

Small brain volume

Orrorin tugenensis

Bipedal vs. arboreal

Ardipithecus ramidus

Complete skeleton

Australopithecus afarensis

Fully bipedal

Lucy

Footprints in volcanic ash

Larger brain

*Paranthropus* sp.

Humid habitats

Tool use

Homo characteristics