CONCEPT MAP

HUMAN EVOLUTION

Human evolution, or anthropogenesis, is the part of biological evolution concerning the emergence of Homo sapiens sapiens as a distinct species from other hominids, great apes and placental mammals.



Common ancestor of man and apes

Dryopithecus

Period: 20 million years ago

Location : Miocene rocks of Africa and

Europe

Brain size: Large (size not known)

Adaptations: Arboreal and ate soft fruits and

leaves, semi-erect posture.

Characteristics: Arms and legs of same length, feet with heels, without brow ridges, hairy, knuckle

walker. They were more ape-like.



Ramapithecus

Period: 14-15 million years ago

Location: Pliocene rocks of Shivalik Hills of India.

Brain size: Unknown

Adaptations: Walked like gorilla on ground and lived on tree

tops.

Characteristics: Small canines and large molars like humans. Ate hard nuts and seeds. They were more man-like.



Common ancestor of man and apes

Australopithecus africanus

Period: 2 million years ago

Location: Pliocene rocks near Tuang in Eastern

Afric

Brain size: 500 cc.

Adaptations: Bipedal locomotion, omnivorous but mostly vegetarian feeding on fruits, vegetables, nuts, seeds and eggs. Erect posture but climbed trees too.

Characteristics: Fully human shaped jaw and human like pelvis. Brow ridges projecting over eyes. Absence of chin.

Lumbar curve in vertebral column.



Homo sapiens neanderthalensis

(Neanderthal man)

Period: 100,000-40,000 years ago. (Late Pleistocene) **Location:** Neander valley in Germany.

Brain size: 1,400cc

Adaptations: Walked upright with bipedal movement,

cannibals

Characteristics: Slightly prognathous face, low brows, receding jaws and high domed heads. Diet include significant amount of meat supplemented with vegetation. Skilled hunters with simple tools as heavy spears or knives to kill prey. First to use skin hides as clothing so as to protect from harsh environment. Legendary cave dwellers, illuminated and heated them with fire. First hominids to bury dead and may had religion.



Homo erectus

(Erect man)

Period: 1.5 million years ago Location: Java, Africa Brain size: 900cc.

Adaptations: Erect posture, omnivorous and first to eat animal meat and take care of old.

Characteristics: 1.5-1.8 metres tall. Skull flatter and cranium dome shaped to accommodate large brain. Protruding jaws, projecting brow ridges. Small canines and large molar teeth. Increase in intellect, memory and speech usage. Ability to run on two legs and less body hair which allowed sweating. Males were larger than females. Made elaborate tools of stones and bones, hunted for meat. Use of fire probably for cooking and protection. Group living forming hunter-gatherer society.



Longest lived species

Homo habilis

Period: 1.5-2 million years ago

Location: Pleistocene rocks to Olduvai Gorge in East

Africa.

Brain size: 650-800 cc, with an expansion of frontal lobe.

Adaptations: Bipedal locomotion, omnivorous

Characteristics: 1.2-1.5 metres tall, had a nose and elevated forehead. Thumbs broader, teeth like modern man. Tool maker (as found with heaps of tools made from chipped stones). Community life, lived in caves. Nurtured young ones. Successful due to change in directors.

in climate.



Able or skillful man



(Cro-Magnon man)

Period: 75,000-10,000 years ago **Location:** Cro-Magnon rocks in France.

Brain size: 1650 cc

Adaptations: Walk and run faster, omnivorous, direct ancestor of living modern

mar

Characteristics: Well built body and about 1.8 m tall. Face orthognathous with an elevated nose, broad and arched forehead and moderate brow ridges. Strong jaws with teeth close together and a well developed chin. Lived with families in caves. Made excellent tools as spears, bows and arrows as well as ornaments from stones, bones and elephant tusks. Had art and culture, obvious from carvings and paintings in caves. Became extinct about 10,000-11,000 yrs ago.







Homo sapiens sapiens

Period: 25,000 years ago

Location: First appeared around Caspean and Mediterranean sea, from where it migrated and changed into present day Caucasoid, Mongloid and

Negroid races.

Brain size: Approx 1450 cc

Adaptations: Reduction in cranial capacity and cultural evolution rather than that of anatomy.

Characteristics: Slightly raised skull cap, thinning of skull bones, forehead rising sharply. Four curves in vertebral column. Prominent chin, thin skeleton and nonexistent brow ridges.

Reduction in tooth and facial bone size.

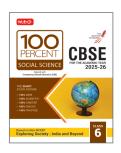






Strictly Updated as per the CBSE Syllabus Released on 28th March 2025

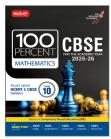




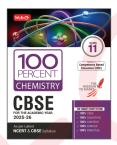
















Science, Mathematics, English & Social Science

Physics, Chemistry, Mathematics, Biology & English Core

THE SMART STUDY SYSTEM



MTG's 100 Percent Series is based on the most current CBSE guidelines and curriculum



MTG's editorial team knows what it takes to score more in exams - it keeps a close watch on changing examination patterns and has been able to put all ingredients critical to success together in a package aptly titled 100 Percent



Be it easy-to-comprehend text, graphics, illustrations or concept maps that complement, understanding theory and concepts is so straightforward with 100 Percent



After each topic, in every chapter, 100 Percent presents students with a variety of Q&A, including "Try Yourself", "NCERT Focus" & "CBSE Focus"



100 Percent goes all out to ensure students are prepared for a diverse set of future challenges through a variety like Competition Focus, Exam Drills and Practice Papers, even Viva Voce Q&A for lab-based experiments





All types of objective and subjective questions including case based and competency focused are covered.



Available at all leading booksellers. To buy online, Scan QR code Or e-mail at info@mtg.in now. For more information, call 0124-6601200 (Lines open Monday to Friday, 9:00 am to 6:00 pm).