

# Systematic Classification of Contemporary Humans

## Galactic development

**Cosmic**  
Spacetime  
Energy  
Matter

**Chemical**  
Stars  
Heavy elements  
Chemical diversity

## Origin of Life on Earth

**Terrestrial**  
Earth  
Atmosphere  
Oceans

**Organic**  
Carbon-based molecules  
Complex structures  
Amino acids  
Sugars  
Nucleotides  
Hydrothermal vent mediation  
Polymerization  
RNA  
Peptides  
Lipid membranes

**Prebiota**  
Ribozymes  
Self-replication  
Evolution by natural selection  
Proteins  
Enzymes  
Metabolic pathways  
Protocells

## Single-celled life

**Biota (Life)**  
Self-maintenance  
DNA  
Self-reproduction  
Cellular structure  
Last Universal Common Ancestor (LUCA)

**Domain Eukaryota**  
Membrane-bound organelles  
Cell nucleus  
Linear DNA  
Sexual reproduction  
Complex cytoskeleton

**Amorphea**  
Amoeboid locomotion  
Heterotrophy

**Obazoa**  
Feeding groove  
Flagellar structures  
Signaling and regulatory pathways

**Opisthokonta**  
Single posterior flagellum

**Holozoa**  
Food ingestion  
Internal digestion  
Cell differentiation

**Filozoa**  
Filose tentacles for  
Sensory perception,  
Feeding,  
Locomotion and  
Adherence

## Multicellularity

**Choanozoa**  
Intercellular communication  
Intercellular cooperation

**Kingdom Metazoa (Animals)**  
Multicellularity  
Specialized tissues  
Internal digestive system  
Locomotion  
Diplontic lifecycle  
Embryonic development

## Soft-bodied animals

**Eumetazoa (True animals)**  
Truly differentiated tissues  
Symmetry  
Mouth  
Anus

**ParaHoxozoa**  
Anterior-posterior patterning  
Distinct body regions

**Planulozoa**  
Larval stage  
Gastrulation via Invagination

**Bilateria**  
Bilateral symmetry  
Head  
Three germ layers  
Nervous system  
Muscles  
Digestive tract  
Light-sensitive cells  
Structured sleep patterns

**Nephrozoa**  
Coelom  
Excretory organ system

## Cambrian explosion

**Deuterostomia**  
Grows from anus to mouth  
Mineralized body parts

**Phylum Chordata**  
Pharyngeal arches  
Notochord  
Dorsal hollow nerve cord  
Post-anal tail  
Thyroid  
Eyespots  
Cardiac structures

## Vertebrates emerge

**Olfactores**  
Olfactory system

**Vertebrata**  
Vertebral column  
Skull  
Nostrils  
Paired eyes  
Circulatory system  
Muscular heart

**Gnathostomata (Jawed vertebrates)**  
Jaws  
Teeth  
Paired limbs  
Lens-equipped eyes

**Osteichthyes (Bony fish)**  
Bony endoskeleton  
Lungs or swim bladder  
Shoulders

**Sarcopterygii (Lobe-finned fish)**  
Lobed fins  
Divided atrium

**Rhipidistia**  
Limbs supported by bones

## Conquering land

**Tetrapodomorpha**  
Weight supporting limbs  
Pelvic girdle

**Choanata**  
Air-breathing lungs  
Internal nostrils  
Nasal passage

**Elpistostegalia**  
Shoulder girdle  
Neck  
Loss of dorsal and anal fins

**Stegocephalia**  
Strong vertebral column  
Complex teeth structures

**Tetrapoda**  
Four fully functional limbs  
Digits  
Terrestrial locomotion  
Complex respiratory system

**Reptiliomorpha**  
Keratinized skin and claws  
Internal fertilization

**Amniota**  
Amniotic egg  
Land-based

## Mammalian characteristics

**Synapsida**  
Singular temporal fenestra  
Thermal regulation

**Eupelycosauria**  
Differentiated teeth  
Primitive canines

**Sphenacodontia**  
Articulated jaw  
Canines

**Therapsida**  
Warm-blooded  
Vertical limb posture

**Theriodontia**  
Flexible spine  
Mammalian locomotion  
Seven neck vertebrae

**Cynodontia**  
Secondary palate  
Proto-hair  
Single lower jawbone  
Middle ear bones  
Heel  
Diaphragm

**Probainognathia**  
Incisors  
High metabolic rate  
Mammalian gait

**Prozostrodonia**  
Upright running  
Mammalian jaw

**Mammaliaformes**  
Molars  
Hair

**Class Mammalia**  
No teeth at birth  
Mammary glands  
Fur  
Three inner ear bones

## Placenta & Pregnancy

**Theriiformes**  
Separate anus and urogenital tract  
External ear

**Trechnotheria**  
Radial articulation of limbs  
Ankle  
Two sets of teeth

**Cladotheria**  
Sensory capabilities  
Hearing, smell, touch

**Zatheria**  
Nipples

**Tribosphenida**  
Tribosphenic molars  
Modern ear

**Theria**  
Live birth

**Eutheria (Placental mammals)**  
Placenta

## Mammalian diversity

**Placentalia**  
Extended gestation

**Boreoeutheria**  
External scrotum

**Euarchontoglires**  
Omnivory  
Diverse ecological niches

**Euarchonta**  
Hand-eye coordination  
Symbiosis with seeds and berries

**Primateomorpha**  
Forward-facing eyes  
Binocular depth perception  
Grasping hands and feet

## Humanoid form

**Order Primata (Monkeys)**  
Opposable thumbs  
Nails instead of claws  
Larger brain-to-body ratio  
Flexible shoulders  
Extended parental care  
Complex social structures

**Haplorhini (Dry-nosed monkeys)**  
Dry nose  
Reduced olfactory capabilities  
Vision as primary sense  
Group behavior

**Simiiformes (Simians)**  
Loss of sensory whiskers  
Two pectoral nipples  
Naked penulous penis  
Vocalizations

**Catarrhini (Old world monkeys)**  
Trichromatic vision  
Reduced tail  
Downward-facing nostrils  
2.1.2.3 dental formula  
Flattened nails

## Cognition & Awareness

**Family Hominoidea (Apes)**  
Advanced problem-solving  
Prolonged maternal care  
Learning by observation  
Tendency toward bipedalism  
Flexible shoulder joints

**Hominidae (Great apes)**  
Human-like teeth and ears  
Primitive tool use  
Recognizes their own reflection  
Self-awareness  
Empathy  
Deliberate deception  
Mourning  
Fingerprints

**Homininae**  
Family structure  
Facial expressions  
Emotions

**Homonini**  
Loss of penile bone  
Inter-group conflicts  
Primitive tool use  
Culture

**Australopithecines**  
Bipedal locomotion  
Human-like limb proportions  
Flexible fingers  
Thicker enamel

**Australopithecus**  
Efficient walking  
Smaller canines  
Reduced prognathism  
Varied diet  
Diverse habitats

**Genus Homo (Human)**  
Stone tool making  
Meat consumption  
Social complexity  
Division of labor

**Homo erectus**  
Loss of body hair  
Complex cognition  
Passing on knowledge  
Technological development  
Hunter-gatherer  
Food processing  
Controlled fire  
Roasting, Grilling, Smoking

**Homo heidelbergensis**  
Spear  
Shelter construction  
Complex communication

## Humanity

**Species Homo sapiens (Modern human)**  
Perennially enlarged breasts  
Advanced language  
Social learning  
Clothing  
Human migration  
Behavioral modernity  
Spiritualism  
Art  
Fishing  
Trade  
Weaving  
Ceramics  
Bow and Arrow  
Bread

**Civilized**  
Settlements  
Agriculture  
Grindstones  
Pottery  
Domestication of animals  
Fermentation  
Metalworking  
Wheel

**Historic**  
Writing  
Calendar  
Formal education  
Law  
Governance  
Literature  
Sail  
Architecture  
Mathematics  
Alphabet  
Medicine  
Philosophy  
Currency  
Engineering  
Compass  
Gunpowder  
Printing press  
Scientific revolution

**Modern**  
Enlightenment  
Industrialization

**Contemporary (You are here)**  
Space exploration  
Globalization  
Digitization  
Anthropogenic climate change

Compiled by Anthony Liekens, January 2025  
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