

Introduction to Physical Anthropology - Study Guide - Focus Topics

Chapter 1

Species: Recognize all definitions.
Evolution: Describe all processes.
Culture: Define and describe importance.
Biocultural: Define and describe inter-actions and importance.
Anthropology Sub-fields: Identify all.
Scientific Method: Describe theory, hypothesis, and hypothesis testing.

Chapter 2

Evolution: History of Development(All Authors, Theories and Publications).
Natural Selection: Understand and describe relationship between physical variation within Species and their relationship to the Environment.
Charles Darwin: Life, Travels, Observations.
Galapagos Islands: Describe all examples (types) of natural selection.
Selective pressures: Define and list.
Fitness: Describe relation to natural selection and how “fitness” is measured

Chapter 3

Types of Cells: Describe roles in physical variation and inheritance.
Chromosomes and cell structure: Describe most important relationships.
Mitosis and Meiosis: Describe how variation is produced and their relationship to chromosomes
Chromosomes: (Know Makeup and Types): Describe role in producing physical variation.
Mutation: Describe how and where they occur.
Types of Mutation.
Rates of Mutation.
Alleles: Define and Describe Importance. **Very Important!**
Human Genome Project: Describe Importance.
Sickle Cell Anemia: Describe role of genetics and natural selection in Sickle Cell Anemia.

Chapter 4

Gregor Mendel: Understand his Experiments and Principles.

Mendelian Traits: Define.

Phenotype: Define and use in a Mendelian problem (use Punnett square).

Genotype: Define and use in a Mendelian problem (use Punnett square).

Homozygous: Define and use in a Mendelian problem (use Punnett square).

Heterozygous: Define and use in a Mendelian problem (use Punnett square).

Dominant Traits: Define and use in a Mendelian problem (use Punnett square).

Recessive Traits: Define and use in a Mendelian problem (use Punnett square).

Mutation: Describe genetic conditions produced by mutations.

Co-Dominance: Describe examples. How many alleles? How many phenotypes?

ABO blood type system: Describe genotypes and phenotypes and co-dominance

Polygenic traits: Describe How They Work and Their Importance!

Gene Flow: Define and describe.

Genetic drift: Define and describe.

Natural Selection: Describe how it affects the genetic makeup of species.-

Description must include alleles and distribution of alleles.

Chapter 6

Describe: Characteristics that Define Primates

Define: The Order Primate

Define, Classify, Describe and list Types of: Anthropoids, Prosimians, New World Monkeys, Old World Monkeys, Hominoids, Pongids (Apes) and their geographical locations.

Sexual Dimorphism: Define and Understand Role.

Describe: The Social Organization of each type of Pongid (Ape)

Primate Social Organization: Know Importance of Relationships between infants, juveniles, and adults. Also Relationships between mother, father, brother, sister, and children.

Describe: Important Primate Adaptations and Evolutionary Trends

Be familiar with the important primate patterns of locomotion.

Chapter 7

Ecology: Describe role in non-human primate behavior
Natural Selection: Describe role in non-human primate behavior
Non-human Primate Social Groups: Describe types
Uganda's Kilbe Forest: Describe why this study is important
Types of Non-human Primate Communication: Describe roles and importance
Bonding: Describe role in social structure in non-human primates
"K" and "R" Selection: Describe how they are different
Parenting: Describe importance to non-human primate behavior
Linguistics and Communication: Describe importance to non-human primate behavior and types.
Bonds and Behaviors that are important to group cohesion, intragroup aggression, sexual selection, and reduction of conflict.
Reproductive Fitness: Know Strategies.
Dominance Hierarchies: Describe types.
Identify Types of Social Learning.

Chapter 8

Brain-growth: Describe general trends in development and the importance
Non-human communication behavior: (Language vs Communication)
Vervet Localizations: Describe.
Language in Apes: Describe.
Cultural behavior: Describe how the term "culture" applies to non-human Primates.
Tool Use in Non-human primates: Describe use and Importance to behavior.
Diffusion: Describe process.
Durability: Define.
Tradition: Define.
Altruistic: Define.
Home Range: Describe function.
Territorial Behavior: Describe role in non-human primate behavior.
Altruistic Behavior: Describe role in non-human primate behavior.
Biological Continuum: Define.

Chapter 9

List major characteristics of fossil primates for each geologic Epoch.
Review Importance of : Biretia, The Fayum, Proconsul and Kenyapithecus.
** Very Important to be able to recognize the age of each of the Epoch Periods.
**Must be able to tie Primate classification to Epochs ie Primates, Anthropoids, Prosimians, O.W. Monkeys, New World Monkeys, Hominoids, and Pongids are each tied to a specific Epoch.

Chapter 10

Paleoanthropology: Define.

Hominids: Know All Definitions.

Hominid Stone Tools: Earliest, Locations, Uses, and Significance.

Paleoecology: Describe the Importance and Define.

Early Hominid sites: Dates, investigators, locations, and finds.

Olduvai Gorge: Dating, Significance, Stratigraphy, and Finds.

Zinjanthropus: Discoverer, Modern Classification and Significance.

Dating Methods: Describe in detail (1) relative and (2) chronometric dating (radiometric).

Miocene: Beginning and End Dates, Important Hominids and Climate Change.

Bipedalism: Significance and Theories.

Chapter 11

Pliocene hominids: Describe.

Earliest hominids: Describe.

Leakeys: What are their contributions to hominid investigations.

Hominid radiation: Where, When, and How.

Oldest hominids: Discoverers, dating, location, and context.

Late Miocene hominids: Describe.

Australopithecus (A.) afarensis: Characteristics, locations, chronology, and Investigators.

A. africanus: Characteristics, locations, chronology, and investigators .

A. robustus: Characteristics, locations, chronology, and investigators.

Laetoli: Why important?

Hadar: Why important?

Brain size: Discuss evolutionary trends.

Early Homo: Characteristics, locations. Chronology, and investigators.

Raymond Dart: What are his contributions to hominid investigations .

Taung fossils: Importance and location.

South Africa: Describe importance and compare to East Africa.

East Africa: Describe importance and compare to South Africa.

Chapter 12

Sinanthropus: Classification, description, and location.

Pithecanthropus: Classification, description, and location.

Homo erectus brain size characteristics and distribution of Homo erectus sites.

Zhoukoudian: Significance, dating, and finds.

Eugene Dubois: What is his contribution to hominid investigations.

West Turkana: Significance.

Homo erectus: Describe all aspects of their culture and locate in time and space.

Stone tools and Use: Describe.

Chapter 13

AMH (anatomically modern humans): Define.

Pre-modern Homo sapiens: Describe characteristics and chronology.

African Homo sapiens: Describe characteristics and chronology.

European Homo sapiens: Describe characteristics and chronology.

Asian Homo sapiens: Describe characteristics and chronology.

Middle Pleistocene: Importance to hominid evolution.

Neandertals: Describe sites, lifestyles, and relationship to A.M.H.

Brain Size: Outline development.

Shanidar Rock Shelter: Why important? Describe Finds.

Genetics and molecular biology: How are they used in establishing evolutionary relationships.

Chapter 14

Complete Replacement Model: Describe.

Partial Replacement Model: Describe.

Regional Continuity Model: Describe.

Earliest AMH: Describe culture and sites.

French AMH: Describe culture and sites.

Asian AMH: Describe culture and sites.

Australian AMH: Describe culture and sites.

Upper Paleolithic: Describe environment and climate.

Upper Paleolithic Culture: Describe.

Glacial periods: Know chronology and significance.

Upper Paleolithic Technology: Describe artifacts and their locations.