

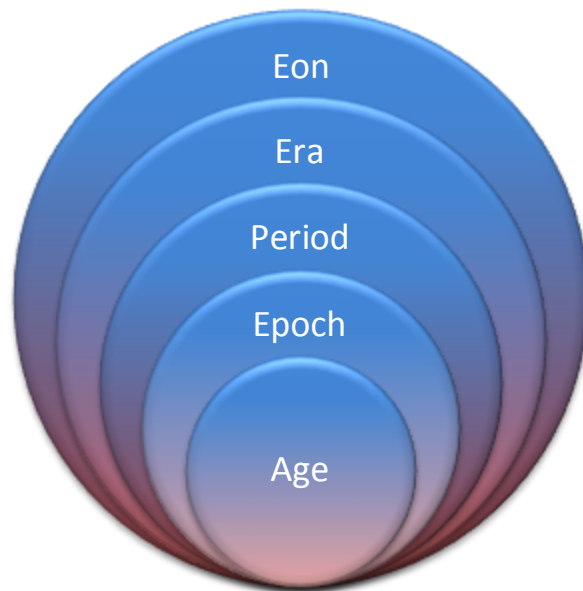
Quadrant II – Transcript and Related Materials

Programme : Bachelor of Science (Second Year)
Subject : Geology
Paper Code : (DSC) GEC – 104
Paper Title : Principles of Stratigraphy and Paleontology
Unit : 01
Module Name : Geological Time Units: - Eon, Era, Period, Epoch, Age, Phase.
Module No : 08
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GEOCHRONOLOGIC UNITS

Geochronologic units are divisions of time traditionally distinguished on the basis of the rock record as expressed by chronostratigraphic units. A geochronologic unit is not a stratigraphic unit (i.e. it is not a material unit), but corresponds to the time span of an established chronostratigraphic unit, and its beginning and ending corresponds to the base and top of the referent.

Ranks and Nomenclature of Geochronologic Units



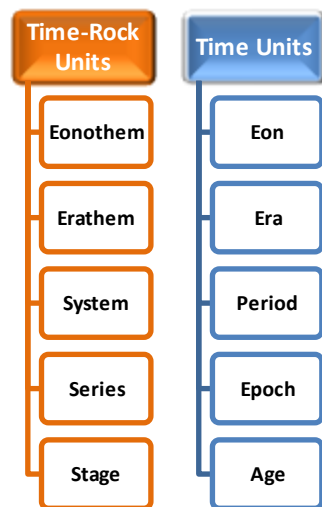
Hierarchy – The hierarchy of geochronologic units in order of decreasing rank is ***eon, era, period, epoch, and age***.

Chron is a non-hierarchical, but commonly brief, geochronologic unit.

Ages in sum do not necessarily equals epochs and need not form a continuum.

An eon is the time represented by the rocks constituting an eonothem; era by an erathem; period by a system; epoch by a series; age by a stage; and chron by a chronozone.

Correlation of Terms Used for Geologic Time and Time-Rock Units



Geochronologic Nomenclature

A study of the literature leads to the conclusion that few authors – and apparently far too few editors – are aware of the differences between chronostratigraphic and geochronological nomenclature. Whereas the first deals with rock units (formed within a specific time), the second deals with time (during which specific rocks were formed).

The way the geological timescale is subdivided forms the basis for chronostratigraphic subdivision. This implies that each chronostratigraphic term has a geochronological equivalent from which it was derived. It also implies that the hierarchical ranking of chronostratigraphy has a geochronological counterpart. The geochronological hierarchy is as follows (with the chronostratigraphic counterpart in parentheses): eon (eonothem), era (erathem), period (system), epoch (series), age (stage), and subage (substage). Periods, epochs, and ages can be extended (the prefixes 'super' and 'sub' can be used, as in chronostratigraphy).

Names for periods and units of lower rank are identical with those of the corresponding chronostratigraphic units; the names of some eras and eons are independently formed. Rules of

capitalization for chronostratigraphic units apply to geochronologic units. The adjectives Early, Middle, and Late are used for the geochronologic epochs equivalent to the corresponding chronostratigraphic Lower, Middle, and Upper series, where these formally established.