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## 8 Glossary

<b>Alluvial</b>	Environments, actions and products of rivers or streams
<b>Anhydrite</b>	Anhydrous calcium sulphate, $\text{CaSO}_4$ . A white, sometimes greyish, bluish or purple mineral. When exposed to water, anhydrite readily transforms to the more commonly occurring gypsum, $(\text{CaSO}_4 \cdot 2\text{H}_2\text{O})$ by the absorption of water. Anhydrite is commonly associated with calcite, halite, and sulphides such as galena, chalcopyrite, molybdenite, and pyrite in vein deposits.
<b>Armorican</b>	The Gaulish name for the area that includes the Brittany peninsula and the territory between the Seine and Loire rivers, extending inland to an indeterminate point and down the Atlantic coast
<b>Anticline</b>	An arch-shaped fold in rock in which the rock layers are upwardly convex. The oldest rock layers form the core of the fold, and outward from the core progressively younger rocks occur.
<b>Argillaceous</b>	Detrital sedimentary rocks composed of very fine grain silt or clay-sized particles ( $<0.0625 \text{ mm}$ ), usually with a high content of clay minerals
<b>Bedding</b>	A feature of sedimentary rocks, in which planar or near-planar surfaces known as bedding planes indicate successive depositional surfaces formed as the sediments were laid down.
<b>Bedrock</b>	A term used to describe unweathered rock below soil or superficial deposits. Can also be exposed at the surface.
<b>Bivalve</b>	class of molluscs with paired oval or elongated shell valves joined by a hinge.
<b>Brachiopod</b>	A phylum of solitary marine shelled invertebrates
<b>Breccia</b>	Coarse-grained clastic sedimentary rock consisting of angular fragments of pre-existing rocks
<b>Brickclay</b>	Mudstone used in the manufacture of structural clay products such as bricks, pavers, roofing tiles and clay pipes.
<b>Calcite</b>	Calcium Carbonate $[\text{CaCO}_3]$ a widely distributed mineral and a common constituent of sedimentary rocks, limestone in particular. Also occurs as stalactites and stalagmites and is often the primary constituent of marine shells.
<b>Carboniferous</b>	A geological period [359–299 Ma] preceded by the Devonian and followed by the Permian.
<b>Conglomerate</b>	A sedimentary rock, a significant proportion of which is composed of rounded pebbles and boulders, greater than 2mm in diameter, set in a finer-grained groundmass.
<b>Clast</b>	Particle of broken down rock, eroded and deposited in a new setting.
<b>Clastic</b>	Applies to the texture of rocks which are comprised of fragments of pre-existing rocks which have been weathered or eroded.
<b>Cross-bedding</b>	Cross-stratification formed by the migration of dunes and sand waves on a sediment surface.

<b>Cross-lamination</b>	Cross-stratification formed by the migration of ripples on a sediment surface. Foresets less than 10 mm thick.
<b>Cross- stratification</b>	A general term for the internal bedding structure produced in sand by moving wind or water. If the individual inclined layers (foresets) are thicker than 10 mm the cross-stratification may be referred to as cross-bedding. Thinner inclined layering is called cross-lamination. Cross-stratification forms beneath ripples and dunes. The layering is inclined at an angle to the horizontal, dipping downward in the downcurrent direction.
<b>Cuesta</b>	Asymmetric landform with one face (dip slope) long and gentle and conforming with the dip of the resistant bed or beds that form it, and the opposite face (scarp slope) steep or even cliff like and formed by the outcrop of the resistant rocks. Formed by the differential erosion of gently inclined strata.
<b>Desiccation breccia</b>	A layer of mudstone completely broken by subaerial cracking as it dries out in a terrestrial environment.
<b>Devensian</b>	The last glacial stage in Britain, lasting from around 70 000 BP (Before Present) to about 10,000 BP.
<b>Dinoflagellate</b>	The dinoflagella are a large group of flagellate organisms. Most are marine plankton, but they are also common in fresh water habitats. Their populations are distributed depending on temperature, salinity, or depth. Dinoflagellate cysts are commonly preserved in the fossil record and are useful for stratigraphic correlation and palaeoenvironmental analysis.
<b>Discontinuity</b>	A break in sedimentation.
<b>Dolomite</b>	Calcium magnesium carbonate, A sedimentary rock-forming mineral $[\text{CaMg}(\text{CO}_3)_2]$ .
<b>Dolostone</b>	A sedimentary rock usually formed by the dolomitization of limestones.
<b>Dolomitization</b>	Diagenetic conversion of calcium carbonate (limestone) to calcium magnesium carbonate (dolomite)
<b>Eustatic</b>	World-wide changes in sea-level caused either by tectonic movement or growth or melting of glacial ice-sheets (glacioeustatic)
<b>Evaporite</b>	Sedimentary rock formed by the precipitation of salts from natural brines.
<b>Facies</b>	The characteristic features of a Rock unit, including rock type, mineralogy, texture and structure, which together reflect a particular sedimentary, igneous or metamorphic environment and/or process.
<b>Fault</b>	A fracture in the Earth's crust across which the rocks have been displaced relative to each other.
<b>Fireclay</b>	Sedimentary mudstones that occur as seatearths underlying almost all coal seams. They represent fossil soils on which the coal-forming vegetation grew. The term was originally derived from their ability to resist heat. They are mainly used in the manufacture of high-quality facing bricks.
<b>Fluvial</b>	Referring to a river environment.

<b>Foraminifera</b>	The Foraminifera, or forams for short, are a large group of amoeboid organisms. They typically produce a shell, or test, which can have either one or multiple chambers. About 275,000 species are recognized, both living and fossil. They are usually less than 1 mm in size and are commonly preserved in the fossil record. Useful for stratigraphic correlation and palaeoenvironmental analysis.
<b>Foreset</b>	The inclined surface within a cross set produced by the forward movement of the slip-face of a ripple or dune.
<b>Glaciofluvial</b>	Refers to sediments deposited by flowing glacial meltwater
<b>Graben</b>	A graben is a structural feature consisting of a depressed block of land bordered by parallel normal faults.
<b>Holocene</b>	The youngest epoch of the Quaternary Period. Covers the last 10 000 years.
<b>Lacustrine</b>	Refers to a lake environment.
<b>Lamellibranchs</b>	Any of the bivalve mollusks of the class Lamellibranchia, including the clams, scallops, and oysters. Also called pelecypod
<b>Lithology</b>	The character of a rock expressed in terms of its mineral composition, structure, grain size and arrangement of its constituents.
<b>Meltwater</b>	Water produced by melting of snow or ice.
<b>Monocline</b>	A linear of fold in which strata dip in one direction between horizontal or uniformly dipping layers on each side
<b>Ooid</b>	Sub-spherical, sand-sized carbonate particle that has concentric rings of calcium carbonate surrounded a nucleus of another particle. Ooids usually form on the sea floor, most commonly in shallow tropical seas
<b>Periglacial</b>	Conditions, processes and landforms associated with cold, nonglacial environments.
<b>Permian</b>	A geological period [299–251 Ma] preceded by the Carboniferous and followed by the Triassic.
<b>Pisoids</b>	A variety of calcite consisting of aggregated globular concretions about the size of a pea. Pisolites form by the precipitation of calcium carbonate around nuclei trapped in sediment within the vadose zone of soils or marine tidal flats
<b>Pyrolusite</b>	Pyrolusite is a mineral consisting essentially of manganese dioxide (MnO <sub>2</sub> ) and is important as an ore of manganese. It is a soft, black, amorphous appearing mineral, often with a granular, fibrous or columnar structure, sometimes forming reniform crusts.
<b>Reef</b>	A rigid, wave-resistant organosedimentary build-up constructed by carbonate organisms. Reefs are held up by a macroscopic skeletal framework.
<b>Rhomb</b>	Equilateral oblique-angled parallelogram shaped mineral grains.
<b>Rip-up clasts</b>	In a fluvial setting, semi-lithified mudstone or siltstone overbank deposits ripped up during times of flooding and re-deposited in the channel.
<b>Saccharoidal</b>	A mineral Composed of tiny, equidimensional crystals that resemble grains of sugar.

**Seatearth**

A bed of rock underlying a coal seam, representing a fossil soil that supported the vegetation from which the coal was formed.

**Sedimentology**

The study of sedimentary rocks and of the processes by which they were formed; the description, classification, origin, and interpretation of sediments.

**Sedimentary rock**

A rock formed in one of three main ways: by the deposition of the weathered remains of other rocks (clastic sedimentary rock); by the deposition of the results of biogenic activity; and by precipitation from solution. Four basic processes are involved in the formation of a clastic sedimentary rock: weathering (erosion), transportation, deposition and compaction.

**Solifluction**

Solifluction is a slow downslope flow of water-saturated fragmental material or soil. It is promoted by the existence of permafrost which traps snow and ice melt within the surface layer making it more fluid.

**Stylolites**

Stylolites are irregular surfaces that commonly appear as dark, jagged lines on exposed surfaces of carbonate rock (and rarely on other sedimentary rock types). Their origin is usually attributed to solution that occurs after the host rock was formed. The dark layers are insoluble residues.

**Strata**

Rocks that form layers or beds.

**Stratigraphy**

The definition and description of the stratified rocks of the Earth's crust.

**Subaerial**

Located or occurring on or near the surface of the earth.

**Syncline**

A basin- or trough-shaped fold in rock in which rock layers are downwardly concave. The youngest rock layers form the core of the fold and outward from the core progressively older rocks occur.

**Triassic**

A geological period [251–200 Ma] preceded by the Permian and followed by the Jurassic.

**Unconformable**

A term generally applied to applied to younger strata that do not conform in position or that do not have the same dip and strike as those of the immediately underlying rocks. Also applies to the contact between unconformable rocks.

**Unconformity**

A surface of contact between two groups of unconformable strata. Represents a break in the geological record where a combination of erosion and lack of deposition was taking place.

**Vug**

Vugs are small cavities inside rock that are formed when crystals form inside a rock matrix and are later removed through erosive processes, leaving behind voids. A common cause of vugs is minerals precipitating from solution in water, and then later being dissolved again by less saturated water. The inner surfaces of vugs are often coated with some of the mineral matter that formed them. Fine crystals are often found in vugs where the open space allows the free development of external crystal form.