 ROCK Igneous rock originates from the cooling and solidification of molten matter from the earth ’ s interior. Sedimentary rocks originate from the consolidation of sediments derived in part from living organisms but chiefly from older rocks of all classes (ultimately the mineral elements are derived from igneous rocks alone). Sedimentary rocks are commonly distinguished, according to their place of deposition, by a great variety of terms, such as continental, marine (i.e., oceanic), littoral (i.e., coastal), estuarine (i.e., in an estuary), lacustrine (i.e., lakes), and fluviatile, or fluvial (i.e., in a stream). Metamorphic rocks originate from the alteration of the texture and mineral constituents of igneous, sedimentary, and older metamorphic rocks under extreme heat and pressure deep within the earth (see metamorphism). Some (e.g., marble and quartzite) are massive in structure. others, and particularly those which have been subject to the more extreme forms of metamorphism, are characterized by foliation (i.e., the arrangement of their minerals in roughly parallel planes, giving them a banded appearance). A distinguishing characteristic of many metamorphic rocks is their slaty cleavage. CORIOLIS tendency for any moving body on or above the earth ’ s surface, e.g., an ocean current or an artillery round, to drift sideways from its course because of the earth ’ s rotation. Inthe Northern Hemisphere the deflection is to the right of the motion. in the

Southern Hemisphere it is to the left. The Coriolis deflection of a body moving toward the north or south results from the fact that the earth ’ s surface is rotating eastward at greater speed near the equator than near the poles, since a point on the equator traces out a larger circle per day than a point on another latitude nearer either pole. A body traveling toward the equator with the slower rotational speed of higher latitudes tends to fall behind or veer to the west relative to the more rapidly rotating earth below it at lower latitudes. Similarly, a body traveling toward either pole veers eastward because it retains the greater eastward rotational speed of the lower latitudes as it passes over the more slowly rotating earth closer to the pole. It is extremely important to account for the Coriolis effect when considering projectile trajectories, terrestrial wind systems, and ocean currents.