A shell peculiarly characteristic of the Kimeridge Clay is a large oyster, Ostrea deltoidea, Fig. 40. Shells of the genera Rhynchonella (Rh. inconstans) and Terebratula, Discina (D. Humphresiana, &c.), Lingula ovalis, Pinna, Astarte, Pecten, Trigonia (T. incurva), and other bivalves, and Ammonites and Belemnites, are also common, the Belemnites sometimes almost paving the ledges of the seashore in Kimeridge Bay. Fishes of the Oolitic genera already named, with others, are found, and many remains of reptiles, among others Turtles, Crocodiles of the genera Goniopholis, Teleosaurus and Steneosaurus, 5 species of Ichthyosaurus, 8 of Plesiosaurus, and 5 of Pleiosaurus, some of the last of great size. Cetiosaurus longus and Megalosaurus Bucklandi also occur. Fragments of wood are not uncommon.

The Portland Limestone and Sand lie above the Kimeridge Clay. The best sections of these rocks occur in the Isle of Portland, as shown in fig. 39, p. 187. The sand which forms the base of the formation, is there 150 feet thick, and the limestone about 70. Of this, about 20 feet forms marketable stone in three horizons, from the best part of which the celebrated Portland stone is derived, used in many public buildings, of which St. Paul's may be cited as an example. The limestone, like those of most other Oolite formations, is cream-coloured, and generally fossiliferous. Among the most common forms found in it are Trigonia gibbosa and T. incurva, Pecten lamellosus, Ostrea expansa, Cardium dissimile, Terebra Portlandica, and various Ammonites, some of them of large size. The lowest beds are full of layers of flint and chert. The sand is fossiliferous, containing Oysters, Cardiums, &c. The Portland stone also occurs