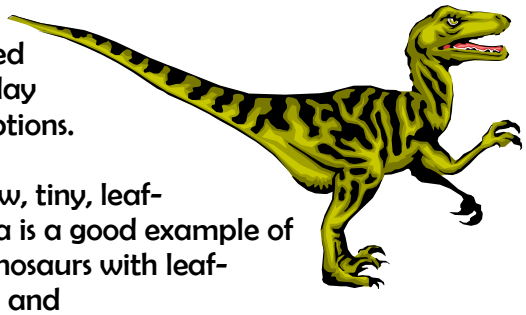
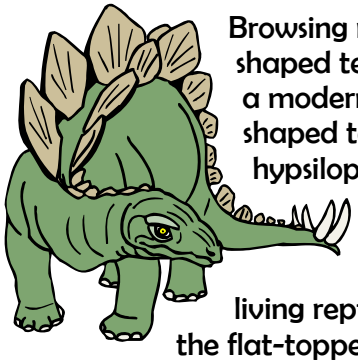
How can we tell what dinosaurs ate?



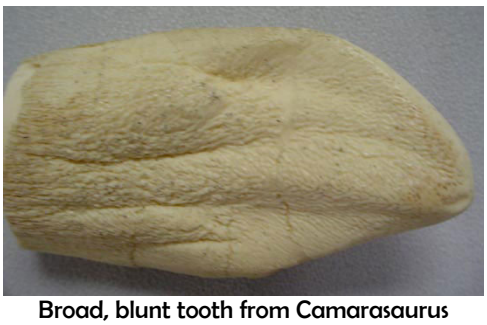
We look at the shape of their teeth. Allosaurus, for example, had long, sharp-edged teeth that tapered to a point and curved back toward the animal's throat. Every reptile in the world today that has teeth of this shape is a meat-eater. There are no exceptions.



Browsing reptiles, by contrast, tend to have low, tiny, leaf-shaped teeth for shredding plants. The iguana is a good example of a modern reptile with this shape of tooth. Dinosaurs with leaf-shaped teeth include stegosaurs, ankylosaurs and hypsilophodontids.

Grazing animals such as sheep and horses have flat-topped grinding teeth for mashing tough, fibrous, low-growing vegetation like grass. No living reptile has teeth of this type, but there was one family of dinosaurs that had the flat-topped teeth of a grazer – the hadrosaurs, or duck-billed dinosaurs. There was no grass during the age of dinosaurs, of course, but hadrosaurs could have fed on low-growing plants like sedges, cycads and broadleaf saplings.

It doesn't happen very often, but sometimes we can get a clue about dinosaur diets by looking at stomach contents. One hadrosaur skeleton had fossilized plant remains in its ribcage, right about where the stomach would have been. And one skeleton of Compsognathus contained the complete skeleton of a small lizard!



Broad, blunt tooth from Camarasaurus

Giganotosaurus tooth

Spinosaurus tooth

Tyrannosaurus rex tooth with close up of serrated edge