

## **Dinosaurs in the Public Eye**

In scientific terms a dinosaur is a terrestrial reptile with an upright stance and a perforate acetabula that existed from Late Triassic to Late Cretaceous [228-65 million years ago]. The name “dinosaur”, or more properly *Dinosauria*, the group coined by Sir Richard Owen in 1842, uses the superlative form of “*Deinos*”, a Greek term meaning

Dinosaur means “fearfully great lizard”.

This is commonly mistranslated as

### **Misconceptions About Dinosaurs**

Are the following statements true? Why or why not?

Dimetrodon was a dinosaur.

Pterodactyls and pteranodons were flying dinosaurs.

Ichthyosaurs, mosasaurs and pliosaurs were swimming dinosaurs.

Dinosaurs and humans and woolly mammoths were around at the same time.

Scientists can clone dinosaurs by extracting DNA from insects in amber.

Dinosaurs were slow, stupid and so huge they had to use water to hold themselves up.

### **What is a Dinosaur?**

A dinosaur was a terrestrial animal, with a largely upright rather than sprawling posture, and a hole through centre of the hip socket -

This feature is considered to be the “shared derived character” of all dinosaurs, and allows us to recognize the Dinosauria.

The main characters are:

1. 3 or more sacral (pelvic) vertebrae with strong attachment to spine or pelvis
2. rear-facing shoulder joint
3. asymmetric hand with 2 small (reduced) outer digits
4. open hip socket (perforate acetabula)
5. cnemial crest on the tibia (shin bone)

6. ascending process on the astragalus (ankle bone) where it inserts into the tibia
7. sigmoidal (S-shaped) third metatarsal

Scientific journals that are peer reviewed are the best source of real dinosaur facts. There are also some good museum websites and websites that show actual dino-digs going on that are listed on your class website. Check them out. The more you know about dinosaurs, the better prepared you are to sift through the “Hollywood” hype to find real scientific facts about new dinosaur finds.