The Cretaceous period (145 to 65 million years ago) was the age of the dinosaurs. This ancient world was dominated by these gigantic reptiles that had evolved to become super predators of the land and sea. On the Dorset coast, we see plenty of evidence of dinosaur activity through fossilised footprints. However, on the Isle of Wight there are dinosaur bones to be found! In this activity we explore four dinosaurs that were common to the area; Megalosaur and Baryonyx (carnivores) and Polacanthus and Iguanodon (herbivores). Children create their own dinosaur Top Trumps cards using the clues that have been provided and can then pitch each dinosaur against each other after giving each quality a star rating. The dinosaurs are rated on age, length, diet, intelligence, footprint size and deadliness.
**Teachers’ Materials**

To provide clues for the children to solve, you will need to resource and set up this activity in a large area like a school hall or playground. You will need to trace out the dinosaur footprints onto stiff card, so they are true to size. To establish intelligence, you will need to source some fruit which will give indication of brain size (Lime – Polcanthus, apple – Iguanodon, Jaffa orange – Baryonyx, grapefruit – Megalosaur). To prepare clues for diet, you will need to collect some pinecones, leaves and branches for the herbivore. Plastic dog toys such as fish, steaks and bones make excellent carnivorous clues and can be buried in a crate of Gelli Baff (red colouring looks very effective).

**Practicalities**

If you are using Gelli Baff then we recommend children wear aprons and have plenty of paper towels to clean themselves up with. The dinosaurs are quite long (about 12m) so you will need plenty of space to roll out a tape measure.

**Discussions**

Ask the children to look carefully at the dinosaur’s jaws and footprints. What are the characteristics that contribute towards a dinosaur eating meat or vegetation? Baryonyx is an intriguing dinosaur as it mostly fed on fish. This dinosaur has a long jaw, similar to a crocodile and very sharp pointed claws. How do the children think these features might have helped it to hunt for food? In comparison, Polacanthus is much smaller, shorter and its main features are heavy armour plates and spikes. What do the children think might be the advantage of these features in terms of feeding and survival?

**Extensions and Adaptations**

When the mass extinction occurred, the dinosaurs suffered heavily as they were unable to adapt to the rapidly changing environmental conditions. A key aspect of their extinction was the impact of on their diet. Since many of the carnivorous predators were dependant on fresh meat, as these sources began to die out, so did they. In addition, the changes in climate (less sunlight and warmer temperatures) would have challenged their ability to survive on as it did with the animals in the marine environment. Taking each dinosaur as an individual case study, ask the children to write a story or perhaps even a play about how might have happened when the meteorite hit the earth that triggered a mass extinction event.

**Links to Other Resources**

Dinosaur Top Trumps links well to the following resources:

- Fossil Detectives
- Jurassic Food Webs
- Survival of the Fittest