

1.h.

SCIENCE ACTIVITY:

The Crystal Palace Dinosaurs and Other Monuments - The Seven Deadly Agents of Destruction

*Thanks to Friends of Crystal Palace Dinosaurs
who helped write this worksheet.*

TIME NEEDED: 40 minutes

AGE: Year 4/5/6

LEARNING OUTCOMES

Knowledge: Crystal Palace Dinosaurs, introduction to Material Science.

Skills: research, drawing.

MATERIALS:

Enlarged printed images of the iguanodon outline below, one per pair; pencils.



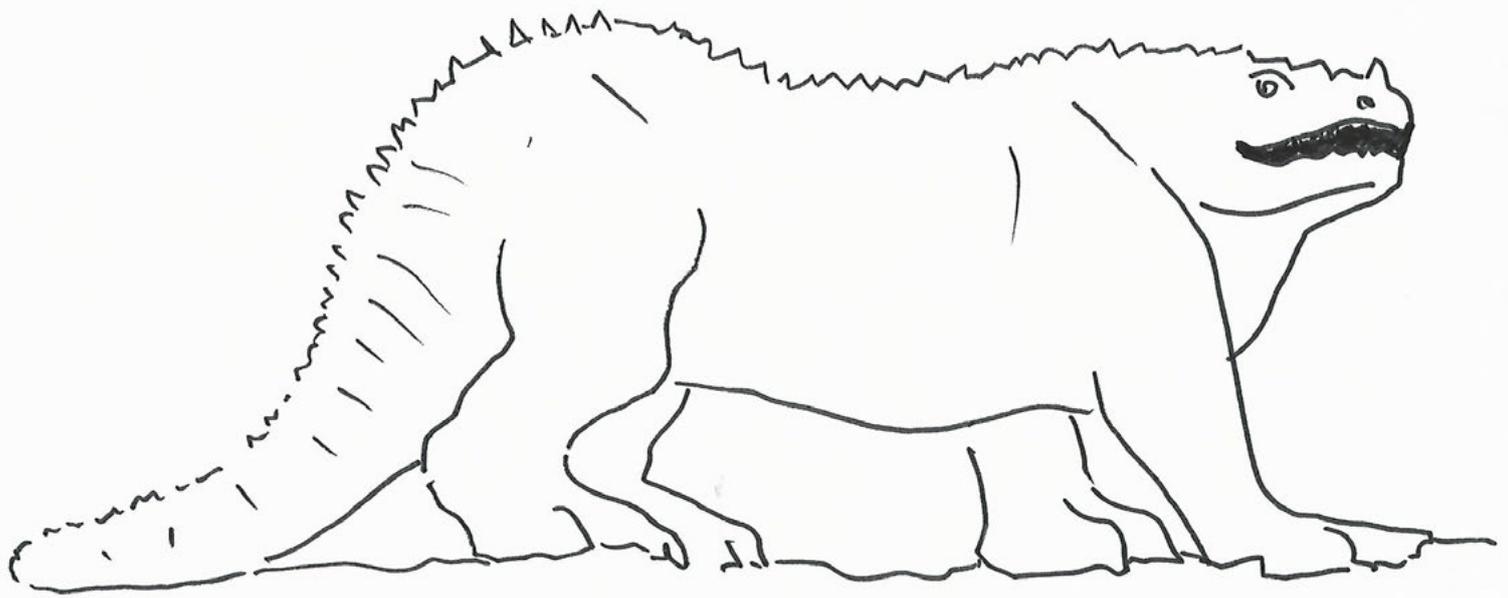
Iguanodon in Crystal Palace Park. Photos: Kevin Ireland

INTRODUCTION FOR TEACHERS:

Crystal Palace Park in south London is the site of the first ever dinosaur theme park in the world. The dinosaurs, along with other extinct creatures, are life-size concrete structures. Built in 1854 they were the work of artist Benjamin Waterhouse-Hawkins. They are useful to us because they show how scientists interpreted fossils 160 years ago. As listed monuments they need to be protected. This worksheet looks at risks to the dinosaurs' survival. The knowledge can be applied to other Victorian monuments and old buildings. Find out more [here](#).

INSTRUCTIONS FOR TEACHERS

- If they don't know the dinosaurs already, the children can discover them through watching a fun [5-minute film here](#).
- Discuss why the dinosaurs look different to the modern day interpretation of [iguanodon](#) and [megalosaurus](#).
- Put the class into pairs and give each a print out of the iguanodon overleaf.



- Each pair should discuss what they see as threats to the sculptures.
- Give out the iguanodon image above. Each pair can draw on to the iguanodon the eroding and corroding effects (water freezing causing cracks, plants growing in cracks, moss, lichen, bird poo, graffiti and other mistreatment by humans, radiation from the sun causing paint to crack). They can add their own notes.
- Feedback and discuss. Show the Iggy outline image on the whiteboard. Ask one person to imagine Iggy is chopped in half down the middle and ask them to draw in their idea of the internal structure. (Photos of Iggy's insides can be seen [here](#)).
- End the session by showing a fantastic animation film *'The Seven Deadly Agents of Destruction'*.



FOLLOW UP...

- Show the children how the sculptures were restored through a beautiful [6 minute film](#). Discuss the different skills used by restorers and what might need to be done to ensure the dinosaurs stay well-preserved into the future.
- Put the children into the weathered boots of Benjamin Waterhouse-Hawkins. What challenges would they face when building the dinosaurs? (The seven deadly agents, making the dinosaurs look realistic with scant evidence of their existence, making them robust, making them look alive when working with concrete, finding materials, working outside, team management, funding etc.)
- Ask the children to go around the school buildings and town seeking “agents of destruction”.
- Discuss what is ‘Material Science’? Who uses it in their jobs?