

Resources for ages 7–11

From early 2018 to late 2020 the Natural History Museum's iconic *Diplodocus* cast, Dippy, is on a Natural History Adventure across the UK. We hope that Dippy will inspire you to go on your own adventure, exploring the incredible natural history collections and amazing biodiversity right on your doorstep!

These materials are a collection of lesson outlines and learning resources designed to accompany *Dippy on Tour: A Natural History Adventure*.

The adventure has eight episodes, one for each of Dippy's tour locations. Each episode is linked to that region's star specimen – a key natural history specimen on display – and provides learning opportunities in Natural History, Science, English and more.

Produced in collaboration with KIT Theatre.

www.KITtheatre.org

Dippy on Tour

A Natural History Adventure



In partnership with



Garfield Weston
FOUNDATION



Debbie Powell for NHM

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Dippy on Tour: A Natural History Adventure

Introduction for teachers

These materials are a collection of lesson outlines and learning resources designed to accompany *Dippy on Tour: A Natural History Adventure*.

Dippy on Tour: A Natural History Adventure is an exploration of the UK's natural history past, present and future. Dippy, the replica cast of a *Diplodocus* skeleton that was given to the Museum in 1905, is a catalyst for exploring different aspects of the natural world along the eight-stop tour to museums and cultural hubs.

These resources provide a natural history-themed adventure for children aged 7 – 11, whether or not they visit Dippy during his tour.

The adventure has eight episodes, one for each of Dippy's tour locations. Each episode is linked to that region's star specimen – a key natural history specimen on display – and provides learning opportunities in Natural History, Science, English and more.

Postcards from Dippy's team of experts introduce the children to the main challenge of each episode. These postcards are accompanied by lesson scripts that introduce each task. These are read to the class by teachers.

Hello teacher, both postcards and lesson scripts use italics like this to directly communicate with the teacher who is reading the text – a little like stage directions in a play.

The challenges require pupils to become Natural History Adventurers and are framed as training to develop the skills to graduate as Future Scientists. As they finish work on each challenge, children send an email to Dippy's team that triggers an automated response congratulating them on their work. At the end of their adventure the children will receive certificates to celebrate their achievements and confirm their graduation as Future Scientists.

Teachers can choose to use as many or as few episodes as they wish. The episodes are designed to stand alone as well as be part of a narrative.

Each lesson responds to learning objectives in two or more subject areas and uses creative, enquiry-based approaches such as role play, hypothesis, debate and research. Lessons emphasise paired or group work and build skills in social and emotional learning. While providing ideas for exciting and engaging lessons, the materials are designed for teachers to use as best fits their class and situation.

Activities could and should be broken up as is suitable for particular classes and over a period of time that works for the children.

The materials are designed to appeal to children aged 7–11. In a school context this covers a wide range of ability – some children may need more support than others and lesson ideas may need to be adapted for age or ability. The lessons, however, are designed to engage and appeal to children at their own level and are generally differentiated by outcome.

It is not supposed that all the activities will necessarily be used. Teachers should select those that seem most appropriate to their class.

Above all, we hope the adventure will provide a rich context for learning. The children will have the chance to build their understanding of the natural world as it was millions of years ago, as it is now and how it might be in the future. They will learn how animals and plants adapt to their changing environments and will engage with important issues such as the impact of technology or conservation on the natural world. Through having fun completing their activities they will learn how they can influence change for the better.





A note on maintaining the narrative of the adventure

In order to maximize pupils' engagement with the adventure, teachers are encouraged to sustain the narrative by referring back to pupils' core mission and emphasising the prestige of pupils graduating as Future Scientists.

The postcards and lesson scripts provided allow Dippy's team – rather than teachers – to introduce challenges. To this end, we recommend that teachers keep the final certificate and postcard hidden until they have completed all the episodes they require, meaning they can unveil the final message with a little fanfare at the adventure's end. The timing of this is entirely at teachers' discretion – there is no need to link it with the actual tour stops or end of the tour.

Similarly, while teachers will receive all episodes in advance, a sense of progression can be given by only revealing the postcards and challenges one at a time.

At the end of each episode in class, teachers are asked to email DippyOnTour@nhm.ac.uk to confirm completion. By including a specific subject line you will receive an episode-specific reply, congratulating pupils and providing some additional content. This is an automated email account. It's just an option to send through some documentary evidence of what happened in the episode. This will maintain the narrative, but is not required.

A note on glossaries

We have compiled a glossary for each episode. This can be used to support children's learning and to clarify the core scientific ideas in each episode.

Beginning the adventure

The adventure begins with teachers reading the introduction postcard from Lorraine, Head of Conservation at the Natural History Museum in London. She introduces children to Dippy's tour and their mission as Natural History Adventurers (we have provided an additional glossary for this introduction). Once the teacher has read this postcard they then read the postcard launching the episode number they wish to start with. After the introductory postcard has been read, episodes can be delivered in any order.

A note on visiting Dippy on Tour

If teachers do arrange for pupils to visit one of the tour stops, we suggest they take the postcard and star specimen introduction linked to that venue with them. This means that pupils can search for the star specimen on location and consolidate any learning they have done around the episode.

We hope that teachers and children alike enjoy their adventure!





Dippy on Tour: A Natural History Adventure – Episode summaries and curriculum links

Episode and page number	Core challenge	Curriculum links			
		English	Northern Irish	Scottish	Welsh
Episode 1: Jurassic forest Page 1	Pupils create a Jurassic forest in their classrooms.	Science – Living things and their habitats Science – Life cycle of plants Mathematics – Multiplication and Division Music – Improvising and composing Art and design	The world around us – Interdependence The world around us – Place The world around us – Change over time The Arts: Music The Arts: Art and design	Sciences: Planet Earth – Biodiversity and interdependence Biological Systems – Inheritance Number, money and measure: Number and number processes Music Art and design	Science: Skills – Enquiry Science: Range – Interdependence of organisms Maths: Using number skills – Use number facts and relationships Music: Skills – Composing Art and design
Episode 2: The big bird watch Page 20	Pupils go birdwatching in their school grounds and learn how some dinosaurs evolved into birds.	Science – Living things and their habitat Science – Evolution and inheritance English – Writing, composition	The world around us – Interdependence The world around us – Place Language and literacy – Talking and listening Language and literacy – Writing	Science: Planet Earth – Biodiversity and interdependence Literacy and English: Writing – Enjoyment and choice Literacy and English: Writing – Creating texts	Science: Range – Interdependence of organisms Science: Skills – Developing English – Strand: Writing Organising ideas and information English – Writing accurately
Episode 3: A game of snakes and antlers Page 35	Pupils play the animal survival board game <i>Snakes and Antlers</i> .	Science – Evolution and inheritance Science – Living things and their habitats PSHE – Taking turns, co-operating, winning and losing with good grace English – Reading non-fiction	The world around us – Interdependence The world around us – Place The world around us – Change over time	Science: Planet Earth – Biodiversity and interdependence	Science: Range – Interdependence of organisms PSE: Skills – Working with others PSE: Range – Sustainable development and global citizenship



Dippy on Tour: A Natural History Adventure – Episode summaries and curriculum links

Episode and page number	Core challenge	Curriculum links			
		English	Northern Irish	Scottish	Welsh
Episode 4: The beaver's back! Page 44	Pupils create pamphlets exploring the issue of beavers being reintroduced to Scotland.	English – Writing, composition Science – Working scientifically Geography – Human and physical geography	Language and literacy – Writing The world around us – Place	Literacy and English – Writing: Organising and using information Literacy and English – Writing: Creating texts Science: Planet Earth – Processes of the planet Science: Planet Earth – Biodiversity and interdependence	Science: Skills – Communication Science: Range – Interdependence of organisms English – Strand: Writing Organising ideas and information Geography: Skills – Understanding places, environments and processes Geography: Skills – Communicating
Episode 5: Future maps! Page 56	Pupils learn how places change over time – from swamps to cities! And create a future map of their own.	Geography: Locational knowledge History Science Year 4 – Human impact	The world around us – Interdependence The world around us – Place	Social studies: People, place and environment Numeracy and mathematics: Shape, position and movement Angle, symmetry and transformation Art and design	Geography: Skills – Locating places, environments and patterns Geography: Skills – Understanding places, environments and processes
Episode 6: The secrets of rocks Page 68	Pupils create their own fossil models for another group to excavate.	Year 3 Science: Rocks Art and design English: Writing – composition	The world around us – Place The Arts – Art and design	Sciences: Planet Earth Biodiversity and interdependence Art and design	Science: The sustainable Earth Art and design English Strand: Writing



Episode 7: The great school lichen hunt Page 96	Pupils learn how animals and plants survive in extreme environments and carry out a survey of lichen in their local area.	Science: Evolution and inheritance Work scientifically	The world around us: Interdependence The world around us – Place	Sciences: Planet Earth Biodiversity and interdependence	Science: Range Interdependence of organisms
Episode 8: Debating dilemmas Page 105	Pupils debate dilemmas that Future Scientists may face.	Science Year 4 English	The world around us – Place The world around us – Change over time The world around us – Interdependence Language and literacy – Talking and listening	Topical science	Personal and social education: Skills Developing thinking Developing communication Science: Developing communication Science: Range Interdependence of organisms

Dippy on Tour



Dippy on Tour: A Natural History Adventure 2018–2020

Hello there,

I'm Lorraine, Head of Conservation at the Natural History Museum in London, where I help care for all of the Museum's collections.

One of our national treasures is Dippy, the world's most famous *Diplodocus*. Dippy arrived at the Museum in 1905, but now he's begun an extraordinary journey across the UK. We're calling it *Dippy on Tour: A Natural History Adventure*.

Right now climate change, animal extinctions and other problems are threatening our planet. Scientists are doing all they can to fight back, but you can help us too by becoming Natural History Adventurers.

I'm working with a team of amazing natural history experts to create a training challenge for every stop on Dippy's great journey. Each challenge will build your skills to help tackle these problems and protect the natural world.

If you prove you have what it takes, you'll graduate as Future Scientists.

We can't wait to start our adventure with you.

Lorraine and Dippy's team



Natural History Adventurers
Dippy on Tour
Future Scientist Training
School
UK