

Subject Spotlight Lesson Plan

Title of Session	Subject Spotlight: Palaeontology – The History of Life
Description:	<p>This workshop aims to address some common misconceptions about dinosaurs using a variety of tasks. The main activity involves ‘designing’ a dinosaur, before improving the design with new knowledge. Learning comes from watching a video and a group task studying some real fossils, introducing the idea that birds are the modern descendants of dinosaurs.</p> <p>A worksheet is provided to be used in conjunction with the lesson, as well as a ‘read me’ file for use in lesson planning. The workshop is designed to specifically link with the ‘Inheritance, chromosomes, DNA and genes’ section of the KS3 curriculum.</p>

Duration of session:	45/50 mins	Target Audience:	Y7/8/9
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Regional Progression Framework - Learning Outcomes:
LO1 - Awareness of HE and the different opportunities available. Be able to challenge any myths relating to HE.
LO2 - Identify the link between GCSE attainment and progression opportunities and how these can support life or career goals
LO5 - Learner knows how to research different routes into HE and how to make an application
Gatsby Benchmarks:
7. Encounters with Further and Higher Education - All students should understand the full range of learning opportunities that are available to them. This includes both academic and vocational routes and learning in schools, colleges, universities and in the workplace.

Timings:	Activity/Task/Information:	Instructions for teacher:	Resources needed:
BEFORE VIDEO STARTS	<p>Starter Task:</p> <ul style="list-style-type: none"> Look at the Starter Task worksheet. Can you name the animals from the past? 	Before playing the video, ask students to complete the Starter task. Give 2/3 mins for this task.	Starter Task worksheet – this can be printed and put on tables to share, do individually or students can access online
0.00 – 7.33	<p>Introduction</p> <ul style="list-style-type: none"> Learning objectives About Me Answers to Starter Task What do I do? How do I do it? 	Play video.	
7.33 – 9.20	<p>Task 1:</p> <ul style="list-style-type: none"> Add to the outline of the Velociraptor to show what you think it looked like. 	Pause video at 8.35. Give students 5 mins to complete the task. Prompt questions - What colour do you think it was? What do you think its skin would have looked like? Would it have the same parts on its face as we have?	Worksheet
9.20 – 12.37	<p>Task 2:</p> <ul style="list-style-type: none"> Watch the YouTube video and answer the questions on the worksheet. 	Pause video at 9.35. Play the YouTube video and ask students to fill in the questions on their worksheet. Play video when finished to hear answers.	https://youtu.be/0-7iXyYS0uw Worksheet
12.37 – 19.36	<p>Task 3:</p> <ul style="list-style-type: none"> Discuss what features you can see on these fossils. 	Pause video at 14.57. Give students 5 mins to look at the Fossil pictures and list any features that stand out on their worksheet.	Task 3 Fossil pictures – these can be printed or accessed online Worksheet
19.36 – 22.20	<p>Task 4:</p> <ul style="list-style-type: none"> Where do you think these dinosaurs should go on this tree? 	Pause video at 21.00. Give students 5 mins to discuss where the dinosaurs should go on the tree on the worksheet.	Worksheet
22.20 – 25.22	<p>Task 5:</p> <ul style="list-style-type: none"> Improve your Velociraptor drawing to make it more realistic - think about the 	Pause video at 22.48 and give 5 mins for students to improve their drawing to make it more realistic. Prompts: scales, feathers, colours?	Worksheet

	features you've seen from the other dinosaurs.		
25.22 - end	Plenary activity: <ul style="list-style-type: none"> Answer the final questions on the worksheet. 	Pause video at 26.03 and give 2 mins for students to answer the questions.	Worksheet

Overview of all resources:	
Start Activity worksheet	
Worksheet	
Fossil images	
Youtube video	https://youtu.be/0-7iXyYS0uw
Resources to share with students:	Studying Zoology: https://www.ucas.com/explore/subjects/zoology How to Become a Palaeontologist: https://www.ucas.com/ucas/after-gcses/find-career-ideas/explore-jobs/job-profile/palaeontologist Zoology at University of Manchester: https://www.manchester.ac.uk/study/undergraduate/courses/2021/00663/bsc-zoology/

KS3 curriculum links with this workshop: Inheritance, chromosomes, DNA and genes section

- Differences between species
- Variation between species means some organisms compete more successfully, which can drive natural selection
- Changes in the environment may leave some entire species less well adapted to compete successfully and reproduce, which in turn may lead to extinction