# Teacher Resource Wonderchicken Fossil

### **Q** Focus Questions

- 1. Before watching the BTN, story predict what you think it will be about.
- 2. Retell the BTN Wonderchicken Fossil story in your own words.
- 3. How old is the wonderchicken fossil?
- 4. What is Dr Daniel?
  - a. A paleontologist
  - b. A botanist
  - c. A geologist
- 5. What physical features does the wonderchicken fossil have in common with modern-day chickens?
- 6. What family of dinosaurs do scientists believe birds evolved from?
- 7. Theropods were reptiles. True or false?
- 8. Complete the following sentence. Scientists believe the wonderchicken is a direct \_\_\_\_\_\_ of the modern-day chicken.
- 9. What wiped out 80% of life on Earth around 66 million years ago?
- 10. Illustrate an aspect of the story.

### **Activity**

### **Pre-viewing questions**

Before watching the BTN *Wonderchicken Fossil* story, students will discuss the following and record their responses on an A3 piece of paper.

- What do you think the BTN story will be about?
- Have you ever seen a fossil? Where did you see it and what did it look like?
- Do you know where fossils come from? Describe.
- What else do you know about fossils?

### After watching the BTN story

After watching the BTN *Wonderchicken Fossil* story students will respond to the following:

- What do you THINK about what you saw in the *Wonderchicken Fossil* story?
- What does this video make you WONDER?
- Think of three questions you have about the BTN *Wonderchicken Fossil* story. Remember that good questions are open-ended (have no right or wrong answer and can't be answered with a 'yes' or 'no').
- What do you now know about fossils that you didn't know before watching the BTN story? Leave your comment on the BTN *Wonderchicken Fossil* story page.

Episode 9 31<sup>st</sup> March 2020



Students will develop a deeper knowledge of fossils and how scientists use them to understand extinct animals.

### Curriculum

#### Science - Year 4 Earth's surface changes over time as a result of natural processes and human activity.

#### Science - Year 5

Living things have structural features and adaptations that help them to survive in their environment.

#### Science - Years 5 & 6

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions.

Scientific knowledge is used to solve problems and inform personal and community decisions.

#### Science - Year 6

Sudden geological changes and extreme weather events can affect Earth's surface.

**Science - Year 7** Classification helps organise the diverse group of organisms.

Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available.



### Glossary

Students will brainstorm a list of key words that relate to the BTN *Wonderchicken Fossil* story. Students may want to use pictures and diagrams to illustrate the meaning and create their own glossary. Here are some words to get your students started.

Ancestor	Fossil	Evolved
Fossil evidence	Paleontology	Extinct

### **Activity**

### **Profile**

Students will imagine they are paleontologists and study the wonderchicken (aka Asteriornis maastrichtensis) in as much detail as possible. Students will investigate the wonderchicken using the following questions to guide their research and then present their findings in an interesting way.

- What was its scientific name? What does its name mean?
- Was it known by any other names?
- What did it look like?
- How big was it?
- What was its habitat? Describe the environment that it lived in.
- What did it eat?
- How long ago did it live?
- When did it become extinct? What were some of the causes of its extinction?

# **Activity**

### KWLH

Hold a discussion after watching the BTN *Wonderchicken Fossil* story. What questions were raised in the discussion (what are the gaps in their knowledge)? The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

What do l	What do l <u>w</u> ant	What have I	<u>H</u> ow will I find
<u>k</u> now?	to know?	<u>l</u> earnt?	out?

### **Research questions for inquiry**

Students will determine a focus for their inquiry and develop a key question to guide their inquiry (below are some examples). Students will collect and record information from a wide variety of sources (internet, books, newspaper and magazines).

- What physical features are shared by modern-day birds and dinosaurs? Make a list and show the similarities using illustrations.
- How does finding fossils help scientists learn about the past?
- What is the role of a paleontologist? What are the different parts to the job of a paleontologist and what skills do they need to have? Present your information in a creative way.
- What are the four stages of fossilisation? Use illustrations to help describe the process.





### **Research project**

In this activity, students will investigate how to set up a chicken coop at home and how to care for chickens once a chicken coop is set up. Students will respond to the following questions to build their knowledge:

- What do you need to set up a chicken coop?
- How much space do chickens need?
- How will you keep your chickens safe (from predators or extreme weather)?
- Where will the chicken coop be setup?
- Where will the materials for the chicken coop come from? This includes recycled materials, found materials and materials you need to buy.
- How much will a chicken coop cost to set up?
- What breed of chickens will you need?
- Who is responsible for the chicken coop?
- What tasks will you need to do daily, monthly and every 6 months?
- What do chickens need to survive?
- How will the seasons affect your chickens?
- What scraps can you feed the chickens?
- What food shouldn't be fed to chickens?
- How will you collect the scraps for the chickens?
- How often do you need to feed the chickens?

Students will choose one of the following projects to work on and then present their findings in an interesting way.

### Guide

Write a guide with information on what you need to know before you set up a chicken coop at home. Consider using illustrations or photos to demonstrate steps in your guide. **Persuasive writing** Write a persuasive piece of writing explaining the benefits of starting a chicken coop at home. Research the environmental benefits of keeping chickens at home and include these points in your persuasive writing.

#### Design

Design and draw your own chicken coop. Calculate how much space you will need to create your chicken coop. Include a detailed floor plan of your chicken coop with dimensions.

### Make a fossil

Create your own fossil of a chicken bone using modelling clay, Plaster of Paris and other objects. Display your fossil or imprint.



# **O Useful Websites**

Fossil `wonderchicken' could be earliest known fowl – BBC News https://www.bbc.com/news/science-environment-51925335

Fossils – ABC Education https://education.abc.net.au/home?sf179982019=1#!/topic/495182/fossils

Bird-like Dinosaurs – Australian Museum https://australianmuseum.net.au/learn/dinosaurs/bird-like-dinosaurs/

Fossils – Australian Museum https://australianmuseum.net.au/learn/australia-over-time/fossils/

Why are birds the only surviving dinosaurs? – Natural History Museum <a href="https://www.nhm.ac.uk/discover/why-are-birds-the-only-surviving-dinosaurs.html">https://www.nhm.ac.uk/discover/why-are-birds-the-only-surviving-dinosaurs.html</a>

