



Teacher Resource

Dinosaur Extinction

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. How long ago did dinosaurs live?
2. What caused the Chicxulub crater?
3. Where is the Chicxulub crater? Find on a map.
4. How did dust contribute to the extinction of the dinosaurs?
5. What percentage of life went extinct when the dinosaurs died?

Activity: Class Discussion

Discuss the BTN Dinosaur Extinction story as a class and record the main points on a mind map with DINOSAURS in the centre. Students will respond to the following:

- What do you know about what caused the extinction of dinosaurs?
- When did the extinction happen?
- What did you learn from this story?
- What does this story make you wonder?
- Think of three questions you would like to ask about the story.
- Make a list of words related to this story. Use this list of words to help form a class glossary.

Activity: Q&A

Are you curious about dinosaurs? Students will make a list of questions they have about the BTN story and the extinction of dinosaurs.

Students will use the internet to find answers to their questions and share their findings with the class.

How did dinosaurs become extinct?

Why do we study dinosaurs?

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KEY LEARNING

Students will learn more about the causes of dinosaur extinction.

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.

Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Dinosaur Extinction story. Here are some words to get them started.

PALAEONTOLOGIST	FOSSIL	PREHISTORIC
CRETACEOUS PERIOD	EXTINCTION	DINOSAUR

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition.

Further activities for students:

- Students will add to their glossary by downloading the transcript for the BTN Dinosaur Extinction story and highlight all the words that relate to the topic.

Activity: KWLH

Discuss the information raised in the BTN Dinosaur Extinction story. What questions were raised in the discussion and what are the gaps in students' knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic.

What do I <u>know</u> ?	What do I <u>want</u> to know?	What have I <u>learnt</u> ?	<u>How</u> will I find out?

Students will develop their own question/s to research or choose one or more of the questions below. Encourage students to collect and record information from a wide variety of sources and present the information they find in an interesting way.

- When did dinosaurs live? Choose one dinosaur from each of the following geological periods: Triassic, Jurassic, Cretaceous and Cenozoic. Record your findings on a timeline.
- How does finding fossils help scientists learn about the past?
- What evidence have scientists found to help understand how dinosaurs became extinct?
- What is the role of a palaeontologist? What are the different parts to the job of a palaeontologist and what skills do they need to have? Present your information in a creative way.

Activity: Dinosaur Profile

Students will imagine they are palaeontologists and study a type of dinosaur in as much detail as possible. Students will investigate the dinosaur using the following questions to guide their research and then present their findings in an interesting way. Students can use the animal profile worksheet at the end of this activity to record their findings. Encourage students to use a range of sources to find their information.

Research

Students will research and create a profile of a dinosaur. Students can use the Animal Profile at the end of this activity to record their findings.

- What is its scientific name? What does its name mean?
- Is it known by any other names?
- What did it look like? Describe.
- How big was it? Length, height, and weight.
- What did it eat?
- Where did it live? Where have its fossils been found?
- How long ago did it live?
- When did it become extinct?
- What was the cause/s of its extinction?



Further Investigation

Students will respond to one or more of the following questions.

- How long did dinosaurs live on Earth? Investigate when the Tyrannosaurus rex lived compared to when the Stegosaurus lived. In what geological periods did they live?
- Modern birds are a kind of dinosaur. True or false? Explain your answer.
- How did dinosaurs get their names? Use these words in your answer: genus, scientific name, the specific epithet, Greek or Latin.
- Are we drinking the same water as the dinosaurs? Explain your answer.
- Where have the most dinosaur fossils been found? Highlight these places on a map.
- How often are palaeontologists uncovering new dinosaurs? Find a news report with the latest discovery.

Activity: How do Dinosaurs get their names?

During this activity students will become palaeontologists and create a new dinosaur species! Students will imagine they have discovered a new species of dinosaur which has never been discovered before and give it a scientific name.

Class Discussion

Find a range of pictures of dinosaurs and ask your students if they can name any of them and write some examples of dinosaur names on the whiteboard.

Introduce the concept of scientific naming, which is used to name all living organisms. Dinosaur names are often made up of combinations of Greek or Latin words that describe the dinosaur's appearance, characteristics, or behaviours of the animal. For example, "Tyrannosaurus" means "tyrant lizard" and "Triceratops" means "three-horned face". Some dinosaurs are named after the people who discovered them, and others are named after the place where they were discovered. Explain that the Genus name (the first word) is capitalised, and the species name (the second word) is in lowercase.

Below are some Greek and Latin words which have been used in dinosaur names.

Word (Greek or Latin)	Meaning
<i>tyranno</i>	<i>tyrant</i>
<i>rex</i>	<i>king</i>
<i>raptor</i>	<i>robber</i>
<i>tri</i>	<i>three</i>
<i>stego</i>	<i>roof</i>
<i>compo</i>	<i>pretty</i>
<i>bronto</i>	<i>thunder</i>

Group Activity

In small groups students will use their imagination and come up with a list of scientific names for new dinosaurs. Students will follow the structure (Genus species) and consider the dinosaur's appearance or behaviour. Student will share their scientific names and explains their meanings.

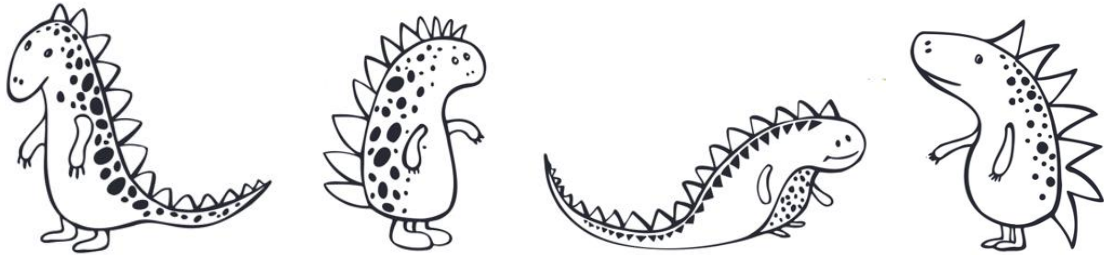
Individual Activity

Students will choose one name from their list and then respond to the following questions:

- What have you named your dinosaur? Explain the origins of the name. Is it named after a person or a place? Is the name something that describes its characteristics or behaviour?
- What did your dinosaur look like? Describe any interesting or unusual features.
- How big was it? What was its height and length?
- What did it eat?
- Where did it live?
- When did it live? When did it become extinct?

Further Activities

- Draw a picture of the new dinosaur species using only a black felt-tip pen on a piece of A4 art paper – include as much detail as you can. You may want to draw a scientific illustration or draw the animal in its natural habitat. Label important features.
- Create a 3D model of your new species using upcycled materials.
- How possible do you think it is that your new species exists? Explain your answer.
- Present your dinosaur to the class. Present using [Prezi](#) or [Canva](#).



Useful Websites

- [Giant Aussie Dinosaur](#) – BTN
- [Dinosaur-killing asteroid in Yucatan Peninsula unleashed 2,000 gigatonnes of dust into the atmosphere, new research suggests](#) – ABC News
- [Extinction](#) – National Geographic Education
- [Mass Extinctions](#) – National Geographic Education
- [The Dino Directory](#) – Natural History museum
- [Dinosaurs](#) – BTN
- [What are fossils?](#) – Australia Museum
- [Dinosaurs: Collection](#) – National Geographic Education
- [Fossil](#) – National Geographic Education

ANIMAL PROFILE

Scientific
Name

APPEARANCE

Common Name

ADAPTATIONS

Unique Features
or Interesting Facts

HABITAT

THREATS