



Fossils and Ancient Clues

A single lesson, cross-curriculum Curiosity Pack for Grade 5

At a Glance

Topic: Palaeontology

Age Level: Grade 5

Session Length: 45–60 minutes

Wonder Seekers will:

- investigate different types of fossils
- explore how fossils provide clues about prehistoric life
- compare fossil discoveries
- record observations and discoveries
- create a way to share what they learned

Lesson Overview

This Curiosity Pack introduces Wonder Seekers to the ways scientists investigate Earth's prehistoric past using fossils.

Learners explore different types of fossils and investigate the clues fossils can provide about ancient animals, plants, environments, and ecosystems. Through observation, comparison, and investigation, learners develop understanding about how scientists use evidence to build explanations about the past.

The lesson combines science, observation, inquiry, and creativity through hands-on investigation and flexible creative tasks.

This learning experience supports:

- observation and questioning
- comparing and classifying
- recording and organising information
- scientific thinking and investigation
- evidence-based reasoning
- creative communication
- explaining ideas in different ways



The lesson is designed using inclusive learning principles, supporting diverse learning needs through:

- self-paced learning
- visual supports
- flexible activity choices
- hands-on exploration
- multiple ways to show learning

Session Length

Total learning time: 45–60 minutes

Wonder Seekers may:

- ✓ complete the lesson in one session
- ✓ pause and return later
- ✓ spend longer on favourite activities
- ✓ simplify or extend the task

Learning Focus

This Curiosity Pack explores:

- fossils and fossil evidence
- prehistoric life
- scientific investigation
- observation and comparison

Learners will:

- ✓ investigate different fossil types
- ✓ identify clues fossils can provide
- ✓ compare fossil discoveries
- ✓ organise ideas visually
- ✓ communicate discoveries through drawing, building, writing, or discussion
- ✓ create a fossil investigation project

Success Looks Like

Success may look different for each Wonder Seeker.

Examples may include:

- ✓ identifying different types of fossils
- ✓ describing clues fossils provide



- ✓ comparing fossil discoveries
- ✓ creating a labelled diagram, chart, or fact page
- ✓ building a model or display
- ✓ designing a fossil investigation project
- ✓ sharing discoveries in a way that works for them

Exploring, noticing, comparing, and creating are all part of success.

Materials

You may want:

- paper or workbook
- pencils and coloured pencils
- pictures of fossils
- books or websites about fossils and prehistoric life
- scissors
- glue or tape
- cardboard or craft paper

Optional:

- modelling materials (clay, playdough, or similar)
- recycled materials
- craft materials
- tablet/computer
- printer
- fossil replicas or rock samples (if available)
- magnifying glass

Suggested Learning Resources

National Geographic Kids – Fossils

<https://kids.nationalgeographic.com>

Photographs, facts, and information about fossils, prehistoric life, and scientific discoveries.





Australian Museum – Fossils

<https://australian.museum>

Information about fossils, palaeontology, and prehistoric life.

Online Safety Reminder

When exploring online, remember:

-  Ask an adult first
-  Use trusted learning websites
-  Keep personal information private
-  Tell an adult if something feels wrong

Stay curious and stay safe.



DK Find Out! – Fossils

<https://www.dkfindout.com>

Pictures and simple explanations about fossils, rock layers, and ancient life.

SciShow Kids – Fossils

<https://www.youtube.com/@SciShowKids>

Short videos introducing fossils and prehistoric discoveries.



Universal Design for Learning Supports

This Curiosity Pack supports different ways of learning by providing flexible choices for engagement, learning, and expression.

Multiple ways to engage

Learners can:

- choose which fossil or prehistoric organism to investigate
- focus on fossil types, fossil clues, prehistoric animals, plants, or ancient environments
- move between investigating, observing, drawing, comparing, building, and discussing
- take movement or sensory breaks during the lesson
- work independently or with support
- use hands-on materials to explore fossils and evidence from the past
- spend more time on parts of the lesson that feel interesting

Multiple ways to learn

Learners can:

- read facts about fossils, prehistoric life, and palaeontology
- watch short videos about fossil discoveries and ancient life
- explore photographs, diagrams, maps, and museum collections
- compare different fossils and the clues they provide
- investigate scientific evidence using charts, images, and fact cards
- build, draw, or manipulate models of fossils and prehistoric organisms
- discuss ideas and discoveries with others

Multiple ways to show learning

Learners can:

- draw and label a fossil
- write notes, facts, observations, or explanations
- create a poster or fact page
- make a comparison chart
- build a fossil model or display



- explain discoveries verbally
- create a digital design or presentation
- record ideas using words, pictures, symbols, labels, or diagrams
- complete a Fossil Investigation Project in a way that suits their strengths and interests



FOR LEARNERS



Fossils and Ancient Clues

Wonder Guide






Welcome Wonder Seeker!

Fossils provide some of the most important clues scientists use to investigate Earth's prehistoric past. Many plants and animals that lived millions of years ago no longer exist, but evidence of their lives can sometimes be preserved in rock.

Scientists study fossils to learn about ancient animals, plants, environments, and ecosystems. Different fossils can provide different kinds of information. Some fossils show what a living thing looked like, while others provide clues about movement, behaviour, habitats, or environmental conditions.

In this Curiosity Pack, Wonder Seekers explore fossils through observation, comparison, and investigation. Looking closely at fossils can help Wonder Seekers understand how scientists learn about the past.

During the Wonder Journey, Wonder Seekers may:






-  explore different types of fossils
-  investigate clues from the past
-  record observations and discoveries
-  compare fossil evidence
-  create a fossil investigation project

The activities guide Wonder Seekers through different parts of the journey. Ideas are explored by observing fossils, noticing patterns, comparing discoveries, and creating something that shares discoveries from the investigation.

Ideas may be shown in many ways:

-  drawing



-  writing notes
-  building a model
-  making or crafting
-  creating digitally
-  explaining ideas aloud







Activities may be completed in order or Wonder Seekers may begin with the part that feels most interesting. Taking breaks, testing ideas, noticing changes, and making discoveries are all part of the Wonder Journey.

Wonder Investigation

Wonder Seekers sometimes begin by noticing that many plants and animals that lived long ago can no longer be observed directly. Looking closely at fossils can help Wonder Seekers understand how scientists investigate prehistoric life and build understanding about Earth's past.

Fossils can provide clues about ancient animals, plants, and environments. Different fossils may provide different kinds of information.

Different fossils may be noticed, such as:

-  dinosaur bones
-  footprints and tracks
-  fossil eggs
-  plant fossils
-  fossil shells
-  insects preserved in amber

or other fossil discoveries from Earth's past.

Some Wonder Seekers investigate a single fossil in detail, while others compare two or more fossils.

Fossil investigations are often supported by pictures, books, videos, fossil cards, diagrams, or museum collections.


Wonder Seekers sometimes investigate fossils by looking closely at the evidence they provide.

A fossil investigation often involves observing a fossil, noticing its features, and thinking about what those features might reveal about the living thing that once existed.

Some Wonder Seekers focus on one fossil and collect as many clues as they can. Others compare several fossils and look for similarities, differences, and patterns.

Looking carefully at fossil evidence can help Wonder Seekers build ideas about what an organism may have looked like, how it may have lived, and what its environment may have been like.



 As Wonder Seekers explore, they sometimes look closely at clues that may help scientists understand the past.


Things that may be noticed include:

- shape
- size
- texture
- location
- type of fossil
- evidence of movement
- evidence of diet
- evidence of habitat
- similarities and differences

Some Wonder Seekers notice:


- what the fossil may have belonged to
- where it may have lived
- what it may have eaten
- how it may have moved
- how fossils are similar or different
- what evidence supports these ideas

Wonder Seekers sometimes compare what they notice and look for patterns.

 Questions that may be explored include:

- What clues might this fossil provide?
- What might this organism have looked like?
- Where might it have lived?
- What might it have eaten?
- How is this fossil different from others?
- What questions might this fossil create?

Scientists often investigate many different pieces of evidence before developing explanations about the past. Fossils can provide clues about organisms, environments, behaviours, and ecosystems that existed long ago.

 When ideas are noticed, some Wonder Seekers like to keep track of their discoveries. Recording observations can make it easier to compare fossils, organise evidence, and remember interesting clues that were noticed during the investigation.

Some Wonder Seekers may be record their ideas by:

- drawing the fossil



- labelling important features
- writing short notes
- creating a comparison chart
- making a fossil fact page
- recording interesting discoveries
- creating a labelled diagram

Looking closely at fossils can help Wonder Seekers understand how scientists use evidence to investigate the past. Some Wonder Seekers notice that even a small fossil can provide many clues about ancient life.

Wonder Studio


Wonder Seekers sometimes create something to show what they have discovered about fossils and prehistoric life.

Creating a project can provide opportunities to organise discoveries, connect ideas, and share learning in different ways.

A project may focus on one fossil discovery or bring together observations from several parts of the Wonder Journey.

During the investigation, Wonder Seekers explored different fossils and the clues they can provide about ancient animals, plants, and environments. Looking back at these discoveries can help Wonder Seekers notice connections between evidence and Earth's prehistoric past.

Different ways of creating can help Wonder Seekers organise and share their discoveries about fossils and prehistoric life.

 Some Wonder Seekers create by:

- making a fact page
- designing a poster
- creating a fossil display
- drawing a labelled diagram
- building a model
- using digital tools

Different ideas may be included, such as:

- a fossil name
- the type of fossil
- evidence that was noticed
- habitat clues
- interesting discoveries
- labels and diagrams




- questions about the fossil
- observations from the investigation

Some Wonder Seekers focus on a single fossil discovery.

Some compare several fossils and the clues they provide.

Some projects focus on scientific evidence.

Some projects combine scientific discoveries with creativity and imagination.

 As Wonder Seekers create, they sometimes think about the discoveries that interested them most.

Ideas may be organised by:

- sketching a plan
- writing notes
- making labels
- drawing diagrams
- building step by step
- collecting pictures or information
- recording discoveries





One way to explore is to choose a fossil, discovery, or question from the investigation and create a project that shares what was noticed.

Some Wonder Seekers notice new ideas while creating. Exploring different ways to organise and present discoveries can sometimes lead to new questions and new understandings.

Different ways of creating are all part of the Wonder Journey, and each Wonder Seeker may choose a way that feels comfortable.

Reflection

How did this Curiosity Pack feel?

-  Loved it
-  Interesting
-  Okay
-  Challenging

Wonder Seekers may think about:

- Which fossil was most interesting?
- What clues did fossils provide?
- What surprised you?
- What would you like to investigate next?
- What did you discover about prehistoric life?



You may reflect by:

- talking
- drawing
- writing
- building
- recording a short explanation

