



Evolution and Inheritance

Summer 1
Week 1 - 2



The day Darwin climbed Patagonia's Mount Tarn, Conrad Martens painted it from across the bay. (Cambridge University Library)



Lesson 1

L.O: To recorded initial ideas about evolution and inheritance

L.O: To be able to classify true and false statements.

S.C.

- to recognise that living things have changed over time
- to begin to identifying scientific evidence that has been used to support or refute ideas or arguments

Vocabulary

Evolve
Chronological
Evolution
Inheritance

Mild

Task 1: HOW do you think living things evolve? Why?

Create an initial brainstorm to respond to this question. make **INDIVIDUAL** notes (answering the main question) on this sheet.

Extension: move on to Spicy/Hot

Spicy / Hot

Task 1: HOW do you think living things evolve? Why?

Put the dinosaur-to-bird cards (On the next page) into a **CHRONOLOGICAL** order. Write a reason as to why you have put each picture in the position that you have.

Task 1:

Cut out the cards and put them in chronological order to show when you think they happened.



dinosaurs



the Big Bang



hard-shelled fossils



first plants



first bird



first homosapiens



Answers

True	False
<ul style="list-style-type: none">• Adaptations can happen as features are passed on over a long period of time.	<ul style="list-style-type: none">● Human life has existed since a thousand years ago.
<ul style="list-style-type: none">• Inheritance is the passing on of features from parents to offspring.	<ul style="list-style-type: none">• Evolution has stopped.
<ul style="list-style-type: none">• Charles Darwin created the theory of evolution.	<ul style="list-style-type: none">• All our features are passed on from our fathers.
<ul style="list-style-type: none">• Birds have evolved from dinosaurs.	<ul style="list-style-type: none">• Evolution shows how living things stay the same over time.

Lesson 2

L.O: To observe features that can demonstrate evolution.

L.O: To be able to classify true and false statements.

S.C.

- to recognise that living things have changed over time
- to begin to identifying scientific evidence that has been used to support or refute ideas or arguments

Vocabulary

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L.O: To observe features that can demonstrate evolution.

The Inklings of Darwin's Master Theory

Much of Darwin's adventure was spent studying the southern coast of what is today Argentina and Chile.

A collection of Glyptodons -- giant armadillo-like fossils -- are on display at the La Plata Museum in Argentina. On Darwin's voyage, he studied the glyptodon and other giant mammals.

By comparing the fossils of armadillos and sloths to the living creatures he observed around him, Darwin started to develop what was to become his master theory that species evolve over time.

But still, it took the whole journey -- through the Brazilian rain forest, up the Andes Mountains, across the South American Pampas and to the plains of Patagonia -- for Darwin's theory to actually crystallize.



Mild

Task 1: HOW do you think the Glyptogons evolved?

What animals do they remind you of?

Write a paragraph giving your suggestions and

Spicy / Hot

Task 1: HOW do you think Glytogons are similar / different to turtles? Why?

Create a Carroll diagram to show your initial comparison.

Write a short report (including an introduction and conclusion) specifying the similarities and differences in more detail.

Task 2

Why do dinosaurs no longer exist?

Research the question and make notes (answering the main question).

Extension - how could the world have been different, if the dinosaurs were **STILL** alive today?

Write down your theories. Remember to justify your statements!

Fossil mysteries

People have always wondered about how life began on Earth.

About 200 years ago, scientists began to ask questions about fossils. They wondered why fossils of giant sea creatures were found on the tops of mountains and why these giant creatures were not found alive anymore. Perhaps Earth had not always been the same. Perhaps Earth and the creatures living on it had changed over time. Perhaps these changes had been going on for a very long time.



A blast from the past!

We know now that Earth is very, very old; about 4.54 billion years old.



Did you know?

The earliest animal fossils are a mere 650 million years old. That's very young in geological time!

Find out

Find out how fossils are formed.

She Sells Sea Shells By The Sea Shore

*She sells sea shells by the sea shore,
The shells she sells are sea shells I'm sure.
For if she sells sea shells by the sea shore,
Then I'm sure she sells sea shore shells.*

This tongue twister is about Mary Anning (1799-1847). She was one of the first palaeontologists (a scientist who studies fossils).

Mary was only twelve when she discovered the first ichthyosaur fossil in the cliffs at Lyme Regis on the south coast of England. She wasn't trained in science and came from a poor family, but she became one of the greatest palaeontologists ever known.

