Activity 1: Dinosaur timeline

Make an arm-span timeline to help visualise time.

Learning outcomes

Children will:
- learn a strategy for thinking about very long periods of time that can be applied to other aspects of history
- understand that non-avian dinosaurs lived long before humans – they did not live together
- understand that Earth is more ancient than dinosaurs
- understand that humans have lived for a very short time compared to the age of the planet

Resources required

Provided in the Natural History Museum package:
- illustrated instructions

Provided by school:
- printing
- string
- parcel tags

Background

When did dinosaurs live?

Dinosaurs lived in the Mesozoic Era, during the Triassic, Jurassic and Cretaceous periods.

<table>
<thead>
<tr>
<th>Dinosaur</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diplodocus</td>
<td>155–145 million years ago</td>
</tr>
<tr>
<td>Iguanodon</td>
<td>129–120 million years ago</td>
</tr>
<tr>
<td>Hypsilophodon</td>
<td>129–125 million years ago</td>
</tr>
<tr>
<td>Tyrannosaurus rex</td>
<td>68–66 million years ago</td>
</tr>
<tr>
<td>Albertosaurus</td>
<td>70–66 million years ago</td>
</tr>
<tr>
<td>Velociraptor</td>
<td>75–72 million years ago</td>
</tr>
</tbody>
</table>

Looking at these dates, we know that Diplodocus would never have been hunted by a T. rex!

Earth is 4.55 billion years old and the earliest fossils are about 3.6 billion years old. This means that dinosaurs lived quite recently compared to trilobites and the early ancestors of fish.

The very first hominins (human ancestors) evolved around seven million years ago, and modern humans have only existed for 200,000 years. Animals like us have been on the planet for less time than T. rex existed!

Humans and non-avian dinosaurs have never been alive at the same time.
Activity 1: Dinosaur timeline

4.55 billion years
Earth formed

4.28 billion years
Age of the oldest fossils ever found

230 million years
Non-avian dinosaurs evolve

66 million years
Non-avian dinosaurs go extinct

200,000 years
Early humans evolve
Activity 1: Teacher notes

Children could work in pairs and do this themselves, or you could model this with one child or yourself.

Stretch out your arms to represent the whole age of Earth, from right-hand fingertip to left-hand fingertip. First life starts at your right armpit – this is the age of the oldest fossils ever found. Dinosaurs start at the crease of your left wrist and end where your middle finger starts. The earliest humans evolve just below the tip of your middle finger of your left hand.

- you could choose one child to demonstrate this to the class and stretch a string or length of fabric across the arm span and use clothes pegs or glue to add pictures
- you could research other events in Earth’s history from books and make a number line for the history of Earth
- you could apply this timeline technique to other historical events to help children visualise the time differences between other events in local, national or international history

English curriculum links (Key Stage 1)

Maths

Measurement

Pupils should be taught to:

- compare, describe and solve practical problems for:
  time (for example, quicker, slower, earlier, later)
- measure and begin to record the following:
  sequence events in chronological order using language
  (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)
- recognise and use language relating to dates, including days of the week, weeks, months and years

Northern Irish curriculum links

(Foundation Phase and Key Stage 1)

Foundation: Mathematics and numeracy

Measures

Pupils should be enabled to:

- sequence two or three familiar events
- compare two intervals of time talk about their observations in terms of took longer/shorter time
- explore time patterns
- choose and use, with guidance, non-standard units to measure time and talk about their work

Scottish curriculum links (Early and First)

Numeracy: Experiences and outcomes

Number money and measure:
Number and number process

I have explored numbers, understanding that they represent quantities, and I can use them to count, create sequences and describe order. MNU 0-02a

Information handling: Data analysis

I can collect objects and ask questions to gather information, organising and displaying my findings in different ways. MNU 0–20a

I can match objects, and sort using my own and others’ criteria, sharing my ideas with others. MNU 0–20b

I have explored a variety of ways in which data is presented and can ask and answer questions about the information it contains. MNU 1–20a

I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others’ criteria. MNU1–20b

Welsh curriculum links (Foundation Phase)

Mathematical development

Using measuring skills – time.