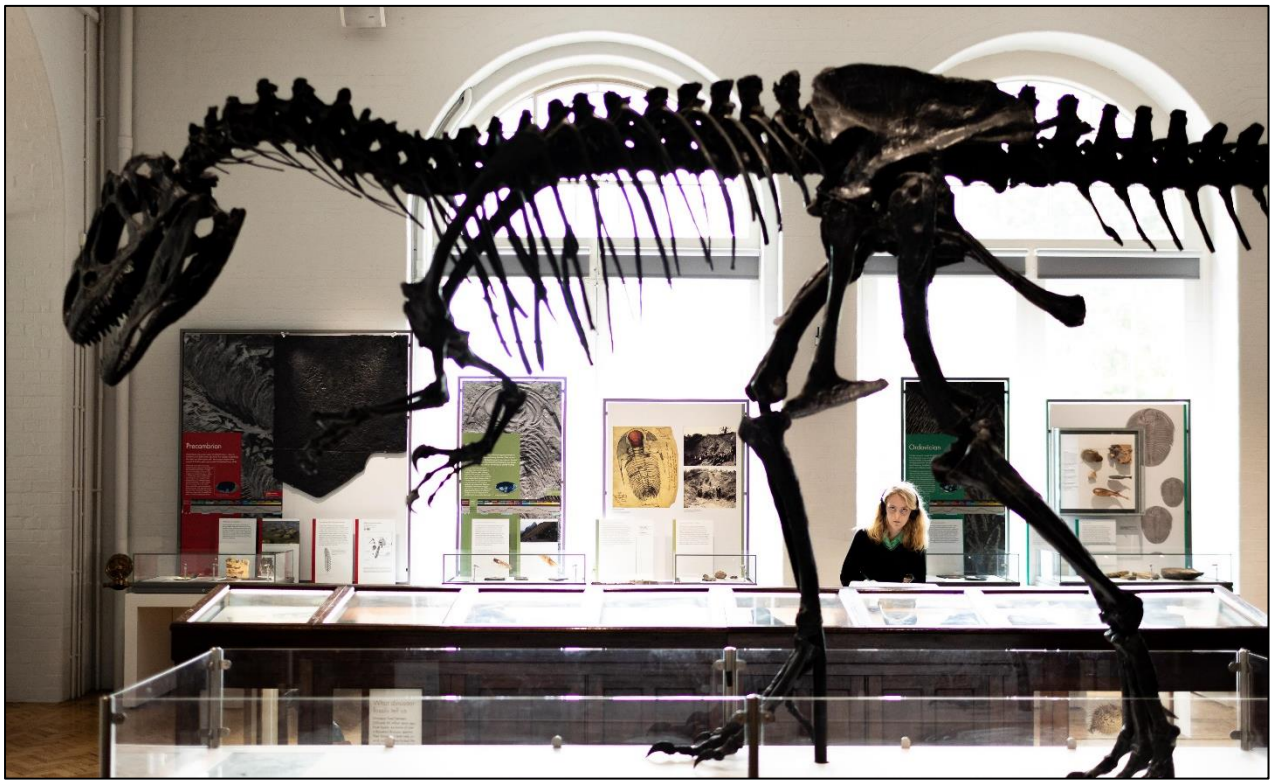
# LAPWORTH MUSEUM TRAIL

**Key Stage 5**

**Name: _____**



LAPWORTH MUSEUM OF GEOLOGY

UNIVERSITY OF BIRMINGHAM

HERITAGE FUND

ARTS COUNCIL ENGLAND

Supported using public funding by ARTS COUNCIL ENGLAND

# Geological Time and the Evolution of Life Gallery

1. How old is the Earth?

2. Where was the West Midlands located in the **Precambrian** time period? Describe the environment.

3. Charles Lapworth named the **Ordovician** time period. What did he use fossilised **graptolites** for?

4. Describe the environment of the West Midlands during the **Silurian** time period. What important rock type formed at this point in time? What is the evidence for this (*Look in the black Victorian cabinets behind you*)?

5. What type of animal is the **Dudley Bug?** Why do you think there were so many species of this animal during the Silurian and Devonian?

6. During the Carboniferous the West Midlands was covered by tropical forests and swamps. What evidence is there for this?

   What **rock** type eventually formed from these forests?

7. What type of **animals** walked across the West Midlands during the **Late Carboniferous**?

   What **traces** did it leave behind?

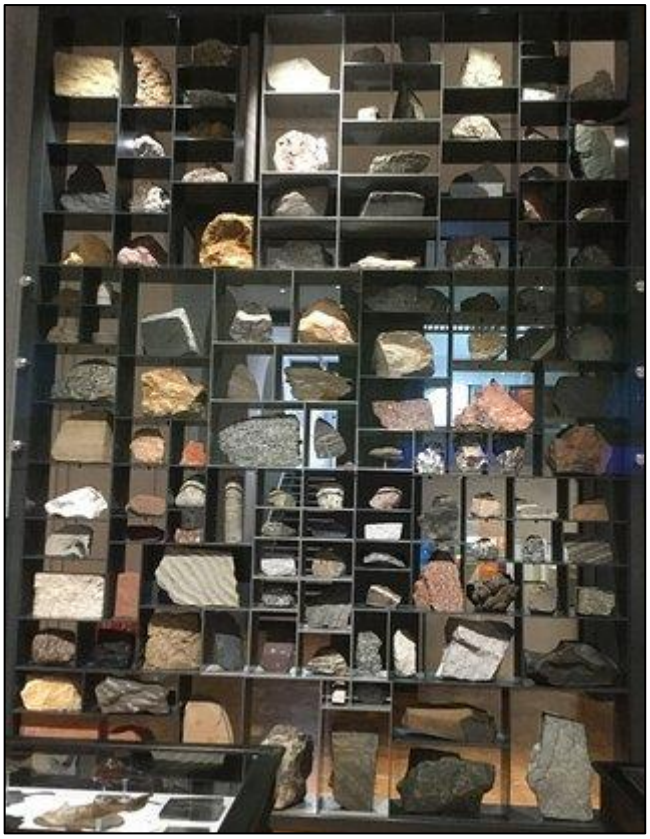
8. Why was '**archaeopteryx**' an important fossil discovery? (*It is on display in the 'Jurassic' case*)

9. What disastrous event happened at the end of the **Cretaceous** period? Explain what caused it?

10. After looking through the Evolution of Life Gallery, briefly describe the movement of the West Midlands throughout Earth's History:

    Explain the processes behind this movement:

# The Rock Wall



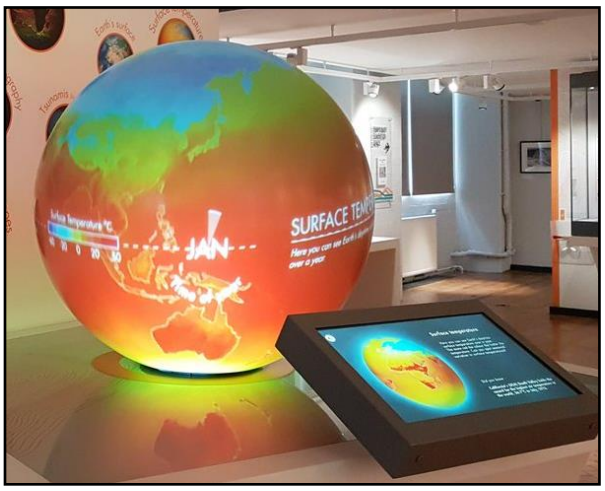
11. Rocks can be classified into three groups based on how they form. Name the three **rock groups** and **explain** how each group are formed and how they are linked via the rock cycle**:**

12. Find the **sandstone** with **ripples** on the rock wall. Describe how the ripples were formed. What environment(s) would you see ripples forming in today?

13. Examine the rocks on the Rock Wall. Name **two** rocks that would produce a **discordant coastline** and **why**:

## Active Earth Gallery

14. Watch the Earth's **tectonic plates** clip and the **earthquakes and volcanoes** clip on the Active Earth Globe.




Describe what controls the distribution of volcanoes and earthquakes:

15. Watch the 2011 **Japan Tsunami** clip on the Active Earth Globe. Suggest a hazard management strategy countries could have used to decrease the hazard risk:

16. What **machine** is used to measure Earthquakes?

17. Describe four different volcanic hazards:

18. Describe the type of volcanic eruption that would have ejected volcanic bombs and ash:

19. Examine at the **microfossils** under the microscope. What can studying microfossils tell us?

20. Why did Professor G. R. Coope study beetles, and what did he prove with his research?

## Mineral Wealth Gallery

21. What is the difference between a **rock** and a **mineral**?

22. Read the information about mining in the Midlands. Lead mines have been worked in Shropshire since the Romans. What is the primary **ore** (*mineral*) of lead? What shape does this mineral grow in?

23. Investigate the different physical properties that can be used to identify minerals. Try the mineral **density test.**

Describe FIVE other properties you would use to help you identify a mineral: